UNIVERSITY OF SOUTHERN QUEENSLAND AUSTRALIA

EXPLORING TALENT MANAGEMENT AND ITS RELATIONSHIP WITH EMPLOYEES' PERFORMANCE IN THE JORDANIAN TELECOMMUNICATION ORGANISATIONS

A Thesis submitted by

Dergam Amin Etoom

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Abstract

Talent management has received considerable attention in the last two decades. Academics and practitioners attempt to investigate the practices, output and the relationship of talent management. The talented employee's importance stems from the fact that they are scarce and organisations realise that they are the main source of competitive advantage, in particular, with ongoing shifts in the economy from product-based to Knowledge-based. However, in Middle Eastern countries, talent management is underexplored or even unexplored. This study will address the gap in the literature regarding talent management in the Jordanian telecommunication industry and the influence of talent management practices on employees performance. Therefore, the study objectives were to investigate talent management in the Jordanian telecommunication industry. Also, to measure the impact of talent management on employees' performance in the context of this study.

To achieve this study objective a sequential exploratory mixed method design adopted to fulfil these two objectives. In the first stage, a qualitative study conducted followed by a quantitative study in the second stage. Thus, the first objective met through conducting individual interviews with employees responsible of talent management in their organisations. The second objective fulfilled by conducting survey questionnaire to collect the quantitative data and then analyse it. The target population consists of employees' working in the Jordanian telecommunication industry. In the qualitative phase non-probability, purposive sampling deployed to select 15 respondents from three organisations (Zain, Umniah and Orange). The semi-structured interview was the instrument to collect qualitative data. Thematic analysis used to analyse the qualitative data through manual analysis and with NVivo software. in the quantitative phase, 350 participants were selected via simple random sampling technique. Based on the result of the qualitative data analysis and previuose literature a questionnaire with a five-point Likert scale developed to collect the quantitative data. The descriptive statistics deployed to analyse the quantitative data; correlation and regression by SPSS and the structural equation modelling (SEM) via (AMOS) used to test the study hypotheses.

The main findings of the qualitaive study were talent management is applied in the context of this study. However, talent management is still seen through human resource

management lens rather than stratigical lens. Therfore, talent management in the Jordanian telecomunication organisation in its infancy stage. The quantiative study result emphasise the postive impact of talent management practices(talent acquistion, talent learining and development and talent retention) on employees perfomance dimensions (task performance and contextual performance). However, a negative impact of talent management practiices oncounterproductive performance.

The current study project have theortical, practical, methodological and policy contributions. The theoretical contributions relied on enhancing the understanding of talent management in particular in emerging economies as Jordan and the impact of talent management practices on employees performance. The practical contribution based on the research recommendations which based on the study results regarding talent management practices, how to apply these talent management practices while the methodological contributions rely on enhancing the adoption of a mixed-methods design in talent management research. Finally, the policy contribution is that the Jordanian government will be able to transfer the results and recommendations of this study to another public sector.

CERTIFICATION OF THESIS

This Thesis is the work of **Dergam Amin Etoom** except where otherwise acknowledged, with the majority of the authorship of the papers presented as a Thesis by Publication undertaken by the Student. The work is original and has not previously been submitted for any other award, except where acknowledged.

Principal Supervisor: Professor Raj Gururajan

Associate Supervisor: Professor Patrick Danaher

Student and supervisors' signatures of endorsement are held at the University.

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"In the name of Allah, the beneficent, the merciful"

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Dedication

I dedicate this study project to

Almighty God for responding to my prayers to finish this research

…..My beloved country, Jordan

……..My wonderful parents

………My beloved brothers and sisters

………..My beloved wife and sons

…………My friends

List of Publications

Published research

- Atoom, A 2018, "The Impact of Talent Management on Resident Doctor Performance at Jordanian Ministry of Health Educational Hospitals", *International Journal of Business Administration*, vol.9, no.4, pp.33-44.

Accepted research

Etoom, D 2020, "The influence of individualistic and collectivistic cultural values on talent management practices", international journal of cross-cultural management.

Research under review

Talent management in emerging economies: evidence from the Jordanian telecommunication industry. The International Journal of Human Resource Management.

The relationship between talent management and employees' performance. Journal of Performance and Productivity.

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List of abbreviattions

AGFI	Adjusted Goodness-of-Fit statistic
AMOS	Analysis of Moment Structures
AVE	Average Variance Extracted
CB-SEM	Covariance Based-Structural Equation Modeling
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
Chisq	Chi-square
Chisq/df	Chi-Square/ Degree of Freedom
CR	Composite Reliability
ECV	Exploratory Construct Validity
EFA	Exploratory Factor Analysis
GFI	Goodness of Fit Index
HTMT	Heterotrait-Monotrait Ratio

HREC	Human Research Ethics Committee
ICC	Interclass Correlation Coefficient
IFI	Incremental Index of Fit
IT	Information Technology
KMO	Kaiser-Meyer-Olkin Measure
PCA	Principal Component Analysis
PLS-SEM	Partial Least Squares-Structural Equation Modeling
RMR	Root Mean square Residual
RMSEA	Root Mean Square Error of Approximation
SEM	Structural Equation Modeling
SPSS	The Statistical Package for the Social Science
SMC	Sequared Multiple Correlation
TA	Talent Attraction
TlD	Talent Development
TLI	Tucker Lewis Index
TR	Talent Retention
USQ	University of Southern Queensland

CHAPTER One: Introduction

1.1 Chapter overview

This chapter provides an introduction to the topic of the thesis. The chapter is structured into Nine sections. The first section provides an overview of the chapter. Section 1.2 presents the research topic, followed by the motivation and justification for the study in Section 1.3. The subsequent section discusses the setting and audience of the research. The study problem statement is addressed in Section 1.5. Section 1.6 covers the scope of the study. The following section provides an operational definition of the constructs investigated in this study. The research objectives and research questions are introduced in Section 1.8. Finally, an overview of all the thesis chapters is presented in Section 1.9. Figure 1.1 shows the graphical layout of the introduction chapter.

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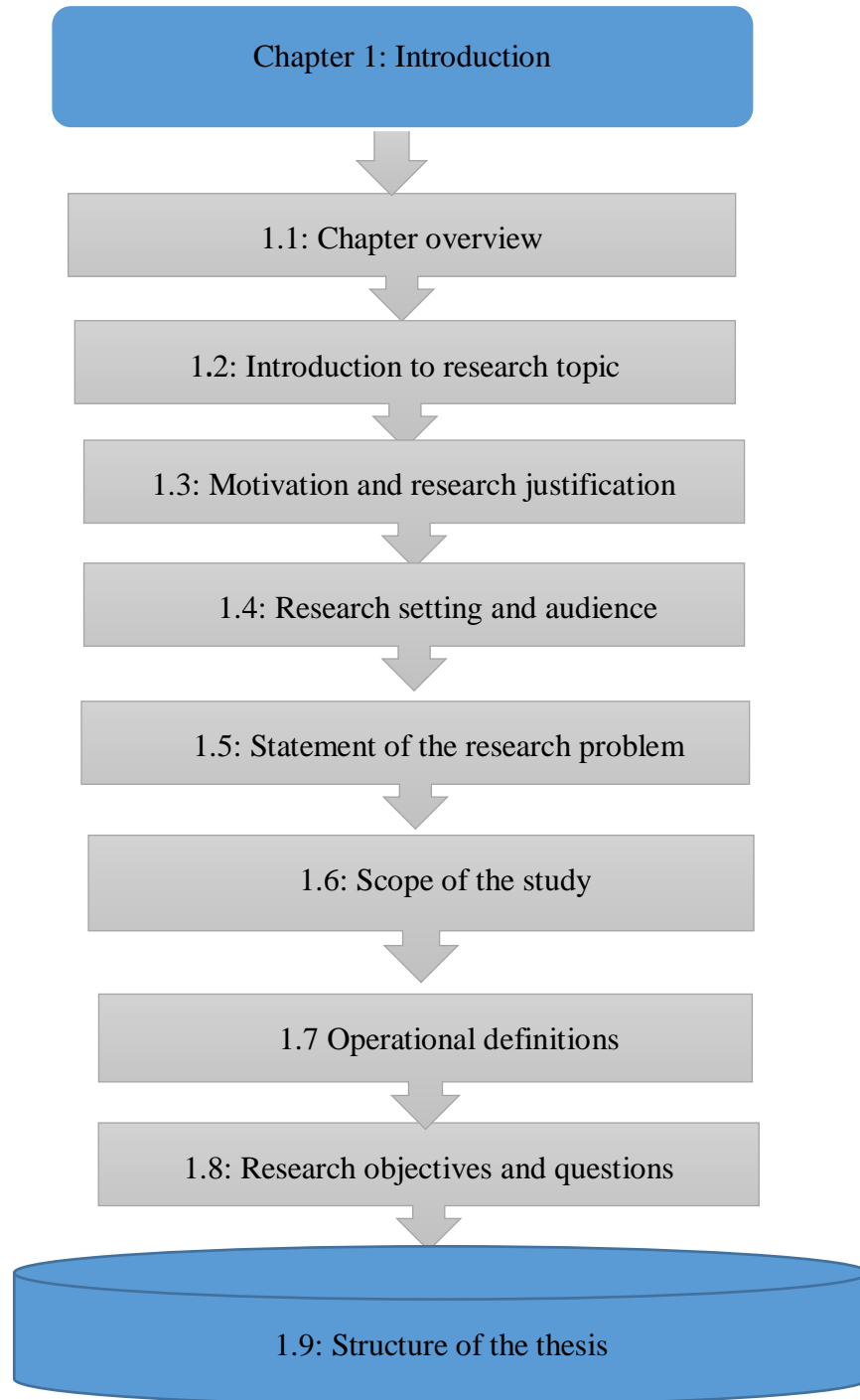
Figure 1.1: A graphical layout for Chapter One

Source: created by the researcher

1.2 Introduction to the research topic

Since McKinsey and consultants (2001) coined the phrase "the war for talent" (Michaels et al. 2001, p. 4) two decades ago, talent management has received considerable attention simultaneously from practitioners and academics (Hoglund 2012). From the practitioners' point of view, organisations have attempted to confront the expected shortage of talented employees during the current decade (Thunnissen, Boselie & Fruytier 2013). This shortage is due to demographic changes, globalisation and employees' free movement around the world (Meyers & Woerkom 2014; Tarique & Schuller 2010). Meanwhile, academics have focused on defining talent management and on exploring practices of talent management (Gaalrdo-Gallardo & Thunnissen 2016). The significant attention paid to talent management stems from those talented employees who are the source of competitive advantage, and hence of the survival and growth of organisations (Tatoglu, Glaister & Demirbag 2016; Thunnissen, Boselie & Fruytier 2013).

Talent definition, talent management definition, and the outcomes of talent management are three main topics discussed in the talent management literature (Bolander, Werr & Asplund 2017; Gallardo-Gallardo & Thunnissen 2016). The definition of "talent" is crucial to the research papers concerned with talent management and is considered a starting point for talent management programs (Adamsen 2014; CIPD 2012; Lumme-Tuomala 2019; Thunnissen, Boselie & Fruytier 2013; Tansley 2011). Talent definition specifically refers to the conceptualisation of talent. As such, it influences the understanding of talent management and is considered a crucial issue in talent management processes (Gallardo-Gallardo et al. 2013; Thunnissen & Arensbergen 2015; Wiblen 2016). Talent management definition is one of the most commonly discussed topics in talent management studies (Gallardo-Gallardo & Thunnissen, 2016) because its definition encompasses in-depth aims and the processes of talent management (Bolander, Werr & Asplund 2017). However, despite its importance, there is no consensus among practitioners and academics regarding the definition of talent management (Al-risis et al. 2014; Capelli & Keller 2014; Gallardo-Gallardo & Thunnissen 2016; Jarvi & Khoreva 2020). Talent management practices have received major attention from academics and practitioners alike (Bolander, Werr & Asplund 2017; Meyers et al. 2019; Praise & Kah 2020). However, despite this attention,

the talent management literature and organisations have to a wide range of talent management practices. This lack of consensus about talent management practice refers to a lack of agreement on the definitions of talent and talent management (Bolander, Werr & Asplund 2017; Lumme-Tuomala 2019; Thunnissen, Boselie & Fruytier 2013). Generally, talent acquisition, talent learning and development, and talent retention are considered to be the dominant practices studied in talent management research and adopted in organisations (Ewerlin & Sub 2016; Gallardo–Gallardo & Thunnissen 2016; Thunnissen, Boselie & Fruytier 2013).

Employee performance has received considerable attention from researchers and experts from many fields, including management, organisational psychology and occupational health (Evans 2004; Garg & Dhar 2017; Hakim & Fernandes 2017; Harms 2015; Koopmans et al. 2011; Learner & Mosher 2008; Pham-Thai et al. 2018) because the success of the organisations is measured by employees' contributions (Mathew 2012; Mensah, Bawole & Wedchayanon 2016). There is no consensus on the definition of employees' performance (Atatsi, Stoffers & Kil 2019; Cancelliere et al. 2011; Griffin, Neal & Parker 2007). This lack of consensus due to the changes that have occurred in how employees' performance is being viewed; for example, for a number of researchers, the main focus has been on defining employees' performance as task performance proficiency only (Griffin, Neal & Parker 2007; Koopmans et al. 2012). Other researchers have defined employees' performance beyond task performance proficiency (Dalal 2005; Rotundo & Sackett 2002). Another reason for the lack of consensus on an employees' performance definition is that little attention has been paid to clarifying it, or it has been taken for granted, and it is thus defined by different researchers in disparate ways (Lebas & Euske 2002; Sonnentag & Frese 2002).

The literature regarding talent management indicates a significant relationship between talent management and employees' performance (Luna-Arocas & Morley 2015; Mensah 2015). Although the relationship between talent management and employees' performance is commonly mentioned, only a limited number of empirical studies have investigated this relationship and the way that talent management practices affect different dimensions of employees' performance (Colling & Mellahi 2009; Dang, Nguyen & Ha 2020; Mensah

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2015; Mensah, Bawole & Wedchayanon 2016). Additionally, even this limited research has added shortcomings. For example, a study by Mensah (2015) was a conceptual paper, while Luna-Arocas and Morley (2015) focused on only one dimension of employee performance. Furthermore, Mensah, Bawole and Wedchayanon (2016) did not measure talent management through talent management practices. Thus, the results of these previous studies did not link clearly to other contexts. Therefore, the paucity of research examining this relationship, particularly in Jordan, presented a motivation to conduct more research in this area.

1.3 The motivation for and justification of this research

Talent management and employee performance are crucial for organisational competitive advantage and growth (Farndale, Scullion & Sparrow 2010; Iles et al. 2010). Talented employees are critical if an organisation wishes to overcome economic challenges such as intense global competition between organisations and ongoing shifts to knowledge-based economies (Ewerlin & Sub 2016; Schuler et al. 2011; Sparrow & Makram 2015; Tlaiss et al. 2017). Talent management practices need further investigation and talent management is an underexplored area, particularly in developing countries (Bolander, Werr & Asplund 2017; Cooke, Saini & Wang 2014; Raheem 2016). As Jordan was the context for this study, it should be noted that Jordan's service organisations - in particular, its telecommunication organisations - rely on human capital and play a vital role in the Jordanian economy, generating $1.523 billion in revenues in 2014, representing 14.3% (Oxford Business Group 2015; Qutaishat & Al-manasra 2016). Therefore, the information above was deemed as a motivation to conduct this study to explore talent management and measure its impacts on employee performance in Jordanian telecommunication organisations.

The talent management literature suffers from a lack of theoretical foundation because it is based largely on empirical evidence (Thunnissen 2016). In addition, talent management in developing countries such as Middle Eastern countries needs further investigation, in particular because talent management is contextualised based on the culture, industry and size of the organisation (Gallardo-Gallardo et al. 2015; Gallardo-Gallardo, Thunnissen & Scullion 2020; Myloni, Harzing & Mirza 2004; Thunnissen, Boselie & Fruytier 2013). Moreover, because the talent management literature has grown in a haphazard way, the

majority of empirical research is criticised for its lack of quality and its methodological inconsistencies (Farndale, Morley & Valverde 2019; Khoreva et al. 2017; Thunnissen & Gallardo-Gallardo 2019). Although the relationship between talent management and employee performance is commonly mentioned, further studies are needed to investigate the influence of talent management practices on different dimensions of employees' performance in an underexplored context such as Middle Eastern countries (Mensah, Bawole & Wedchayanon 2016; Mensah 2015; Raheem 2016). Therefore, these absences in the talent management literature comprise the justification to conduct this study.

1.4 The research setting and audience

This research investigated two constructs: talent management from the human resource field; and employee performance from the management field. Regarding to talent management construct, this research investigate talent definition, talent management defintion, talent management practices and how these practieces applied in the context of this study. Additionally, four dimensions of employees performance were investigated. These dimensions are task performance, adaptive performance, contextual performance and counterproductive performance. Moreover, Current study project investigat the relationship between talent management practices on employees performance dimensions. As was mentioned in the previous section, talent management and employees' performance are crucial for organisational competitive advantage and growth (Farndale, Scullion & Sparrow 2010; Iles et al. 2010; Koopmans et al. 2012). Thus, investigating these two constructs will have widespread benefits for a number of areas: the Jordanian telecommunication industry, practitioners, talented employees, researchers into both talent management and employees' performance, and researchers intersted in telecommunication organisations.

1.5 Statement of the research problem

The statement of the research problem is considered to be a starting point for research (Cooper & Schindler 2011; Creswell 2014). A great quantity of research relating to talent management and employees' performance has been published in the last two decades (Sparrow & Makram 2015; Thunnissen & Gallardo-Gallardo 2019). However, very few researchers have explored talent management in Middle Eastern countries (Gallardo-Gallardo & Thunnissen 2016; Raheem 2016). Jordan, the focus of this study, is a country

that has suffered from limited natural resources, and that has relied on human capital resources to progress the Jordanian economy (Irtiameh & Al-Azzam 2016). Importantly, the telecommunications industry has played a fundamental role in Jordanian social and economic life, and it generated US$1.523 billion in revenues in 2014 (Qutaishat and Al-Manasra 2016). This sector has employed Jordanian citizens, attracted foreign investment and provided high quality services (Al-Alak 2013). However, this sector faces many challenges in terms of extremely demanding environments and intense competition (Weshah, Al-mansrah & Al-qatawneh 2019), which is manifested by the Jordanian telecommunication industry occupying the second most competitive industry in the Arab world (Alnsour, Abu-tayb & Alzyadat 2014). Thus, the implementation of talent management is seen to be a solution to overcome these challenges (Abazeed 2018; Al-Khateeb & Al-Louzi 2020). These issues indicate that the Jordanian telecommunication industry context needs further attention from researchers.

Furthermore, the relationship between talent and employees' performance needs further investigation (Colling & Mellahi 2009; Dang, Nguyen & Ha 2020), focusing in particular on how talent management practices influence all dimensions of employee performance (Mensah 2015; Mensah, Bawole & Wedchayanon 2016). Additionally, talent management practices are considered to be one of three important topics needing further investigation, particularly in developing countries (Bolander, Werr & Asplund 2017; Cooke 2017). Therefore, there is a need to explore talent management and its practices and to investigate the relationship between talent management and employees' performance.

1.6 The scope of the study

The scope of this research is the Jordanian telecommunication sector, which comprises three organisations: Orange, Zain and Umniah. There are five reasons for selecting this sector. Firstly, Jordan's service organisations - in particular, telecommunication organisations - rely on human capital and play a vital role in the Jordanian economy, generating US$1.523 billion in revenues in 2014, and representing 4.3% of the Jordanian economy (Oxford Business Group 2014; Qutaishat & Al-manasra 2016). Secondly, the Jordanian telecommunication industry faces salient challenges in terms of extremely demanding environments (Weshah, Al-mansrah & Al-qatawneh 2019), strengthened by the Jordanian telecommunication industry's competitiveness occupied the second place in the

Arab world industry (Alnsour, Abu-tayb & Alzyadat 2014). Thirdly, the telecommunication sector is deemed to be one of the most dynamic sectors where the product's life cycle is measured in months and faces a shortage of talented employees (Omae, Ndungu & Kibet 2013; Rukunga & Nzulwa 2018). Fourthly, all Jordanian telecommunication organisations have adopted a talent management program. Thus, it is crucial to investigate to what extent these talent programs are effective. Finally, Jordan is a country that has suffered from limited natural resources, and that has relied on human capital resources to progress the Jordanian economy (Irtiameh & Al-Azzam 2016).

1.7 Operational definitions

research should define the constructs and variables that will be investigated in order to be understood fully by the individuals who are outside the field (Cooper & Schindler 2011; Creswell 2014). An operational definition is a set of clarifications that the researcher provides for theoretical variables and constructs in the study (Walliman 2011). The operational definitions of variables and constructs for this study are as follows, and all these constructs and variables are further discussed in Chapter Two.

Talent: the sum of individual abilities (Michaele et al. 2001), skills, motivations and competencies (Ulrich & Smallwood 2012), including those that are inherited and acquired (Gallardo-Gallardo, Dries & González-Cruz. 2013), that exist in all employees, allowing them to contribute to organisational goals, and that are based on organisational contexts.

Talent management: includes all organisational activities to attract, select, develop and retain employees at all organisational levels in order to contribute to organisational goals by utilising talent values (Meyers 2016; Scullion et al. 2010; Sparrow & Makram 2015).

Talent management practices: are a complicated, systematic set of processes that start with the identification of a talent management strategy and that align it with an organisational strategy (Collings & Mellah 2009; Vural et al. 2012).

Talent acquisition: an activity designed to hire talented applicants by adopting appropriate tools to appoint the most talented applicants (Festing et al. 2013; Meyers 2013; Vural et al. 2012).

Talent learning and development: focuses on organisational activities that aim to nurture talent and to enhance their abilities, experience and knowledge (Bolander, Werr & Asplund

2017; Garvan, Carbery & Rock 2011) to work effectively in business environments that are challenging to employees (Mensah 2015; Noe et al. 2012).

Talent retention: an organisational activity designed to prevent talent from turnover (Bolander Werr & Asplund 2017; Ott, Tolentio & Michailova 2018; Tarique & Shuller 2012).

Employees' performance: a multi-dimensional concept that comprises employee behaviour and positive results that aim to fulfil organisational goals.

Task performance: refers to the behaviours that are related to the job's core activities in organisations (Becton et al. 2017; Scotter et al. 2000). These behaviours cover the requirements of a specific job and may differ from one job to another (Mensah 2015).

Contextual performance: refers to employees' behaviours enhancing the organisational social and psychological environment (Sonnentage & Frese 2002).

Adaptive performance: focuses on employees' ability to adjust to a job assignment, particularly in dynamic work situations, in which the techniques and tools rapidly change (Hunage et al. 2014) at the individual and organisation levels (Baard, Rench & Kozlowski 2014).

Counterproductive performance: refers to the harmful results of employees' undesired behaviours for both individuals and organisations (Rotundo & Sackett 2002; Whelpley & McDaniel 2016).

1.8 The research objectives and the research questions

The first stage of a research project is to identify the research objectives, which clarify the purpose of the study (Cooper & Schindler 2011; Kothari 2004; Zikmund et al. 2013). Given the focus on the objectives of this research project, organisations around the world realise the importance of managing talent in order to maintain a competitive advantage, face economic challenges and maintain sustainability (Dirani et al. 2018; Ewerlin & Sub 2016; Raheem 2016; Schuler et al. 2011). Organisations operating in Middle Eastern countries face unique challenges in constructing talent management systems (Dirani et al. 2018; Sidani & AL-Arisis 2014), for example the availability of talent (Mercer 2010) and the talent management field still being in its infancy stage (Raheem 2016). Thus, talent management in the Middle Eastern countries, particularly in Jordan, might be different from those in the Anglo-Saxon countries or in other parts of the world (Khdour 2016;

Raheem 2016). Despite these expected differences, talent management research conducted in Middle Eastern countries is extremely limited (Gallardo-Gallardo & Thunnisenn 2016; Raheem 2016). Additionally, talent management has a positive impact on employees' performance (Colling & Mellahi 2009; Mensah, Bawole & Wedayanon 2016). This impact has been evidenced through previous literature investigating the relationship between talent management and employees' performance (Bibi 2018; Dang, Nguyen & Ha 2020; Kaleem 2019). However, the relationship between talent management and employees' performance needs further investigation (Mensah 2015; Mensah, Bawole & Wedchayanon 2016) as the previous research focused on the relationship between talent management and employees' performance has exhibited a lack of generalisations and some limitations (e.g., Luna-Arocas & Morley 2015; Mensah, Bawole & Wedchayanon 2016). Therefore, this study aimed to explore talent management and the influence of its practices on employee performance in the Jordanian telecommunication industry.

The key objectives of this study were as follows:

1- To explore the talent management system in the Jordanian telecommunication industry.

2- To measure the influence of talent management practices (acquisition, learning and development and retention) on employees' performance (task, contextual, adaptive and counterproductive performance) in the Jordanian telecommunication industry.

The research questions were considered as expressing the research problem that was addressed in the study (Tharenou et al. 2007; Zikmund et al. 2013). Formulating research questions is deemed to be a difficult process, particularly in mixed methods research, because it may need to cover the qualitative and quantitative aspects of the study (Lowenthal & Leech 2009). It is evident that talent management needs further exploration in Middle Eastern countries. In addition, there is still a black box in the relationship between talent management and employees' performance that needs to be opened. Therefore, the following research questions were formulated to address these issues and to fulfil the research objectives:

1- How are talent management systems carried out in the Jordanian telecommunication industry?

In order to address the first research question, the following subquestions were formulated:

a- How are talent and talent management defined in Jordanian telecommunication organisations?

b- What are the talent management practices currently in place in the Jordanian telecommunication industry?

c- How are talent management practices applied in the Jordanian telecommunication industry?

d- What are the challenges that face Jordanian telecommunication organisations in applying talent management as they branch of multinational organisations?

2- To what extent do talent management practices influence employees' performance in Jordanian telecommunication organisations?

The first research question represented the main qualitative aspect, and the sub-questions answer what and how talent management was applied within the chosen context. Thus, the first research question addressed the first objective of this study in terms of exploring talent management in Jordanian telecommunication organisations. The second research question addressed the second objective of this study by measuring to what extent talent management practices influenced employees' performance in the Jordanian telecommunication industry.

1.9 The structure of the thesis

This thesis is structured into Twelve chapters that are outlined in Figure 1.2. The referencing style adopted in this thesis is Harvard AGPS6 version 2, and the format of the thesis is based on the guidelines for a higher degree by research thesis at the University of Southern Queensland (2015).

Exploring talent management and its relationship with employees' performance in the Jordanian telecommunication organisations

Chapter 1: Introduction

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Figure 1.2: The structure of the thesis

Chapter One: Introduction

This chapter has provided introductory information about the study. It was divided into nine sections. The first section provided an overview of the chapter. The chapter

introduction was addressed in Section 1.2. The following section covered the motivation for and the justification of the research. The research setting and audience were presented in Section 1.4. The subsequent section discussed the problem statement of the study, while Section 1.6 covered the scope of the study. Section 1.7 provided details about the operational definitions in the study, while the research objectives and research questions were presented in Section 1.8. Finally, the structure of the thesis was covered in Section 1.9.

Chapter Two: Literature review

This chapter provides a critical literature review about the constructs and variables of the study. The literature review chapter is structured as follows. Section 2.1 covers the chapter overview, followed by a mapping of the talent management field in Section 2.2. The next section, 2.3, explains the talent management literature, which is divided into five subsections: talent definition, talent management definition, talent management practices, talent management challenges and talent management perspectives. The subsequent section, 2.4, discusses employees' performance and it has two subsections: employee performance definition; and employee performance dimensions. The relationship between talent management and employee performance is covered in Section 2.5. The gap in the literature is discussed in Section 2.6. The final section, 2.7, provides a summary of the literature review chapter.

Chapter Three: Measurement and theoretical underpinnings

This chapter discusses the measurement and theoretical underpinnings of the study in relation to talent management and its impact on employees' performance. This chapter is structured into three sections. The first section presents an overview of the chapter. Section 3.2 discussed the talent management construct measurement while employees' performance measurement presented in section 3.3. Theoretical underpinning covered in section 3.4. Finally, chapter summary provided in section 3.5.

Chapter Four: Research methodology

This chapter covers the methodological approach adopted in the current study. The research methodology chapter is structured into 10 sections. The first section, 4.1, provides a general overview of this chapter. A general explanation about the research philosophy adhered by the researcher in this study is discussed in Section 4.2. Section 4.3 addresses the research

approach, which includes the deductive, inductive and abductive approaches. The subsequent section, 4.4, explains the mixed methods research design adopted in this study. It includes the qualitative (individual interview) and quantitative (survey questionnaire) methods. The following section, 4.5, investigates the qualitative method, while the quantitative method is discussed in Section 4.6. The sources of study data in terms of primary and secondary data are illustrated in Section 4.7. Study population and participant sampling are clarified in Section 4.8. Section 4.9 addresses the ethical considerations that were deployed in this study in terms of benefit, risk, participant rights and informed consent. In the final section, 4.10, all the chapter sections are summarised.

Chapter Five: Qualitative data collection

This chapter outlines the qualitative data collection process. It has been structured into eight sections. The chapter overview is in Section 5.1. The introduction to the individual semi-structured interviews is in Section 5.2. The next section, 5.3, discusses the formulation of the interview questions. The fourth section, 5.4, explains the qualitative pilot study. The subsequent section, 5.5, elaborates on the administration of the qualitative data collection. The process of conducting individual interviews is outlined in Section 5.6. The challenges of using qualitative techniques and the strategies to overcome these issues are discussed in Section 5.7, and the final section of the chapter, 5.8, summarises the preceding sections in this chapter.

Chapter Six: Qualitative data analysis

This chapter presents the qualitative data analysis and its results. The qualitative data analysis chapter is structured into seven sections. Section 6.1 provides an overview of the chapter. Section 6.2 covers the introduction to qualitative data analysis. The reliability and validity of the qualitative data are discussed in Section 6.3. Section 6.4 addresses the qualitative pilot study. Section 6.5 discusses the actual qualitative data study analysis to develop the survey quantitative questionnaire items. This section is divided into eight subsections, each of which analyses the raw data of each interview question. Section 6.6 discusses the trustworthiness of the thematic analysis. Finally, the summary of this chapter is provided in Section 6.7.

Chapter Seven: Conceptual model development

This chapter discusses the development of the conceptual model of this study, starting with an overview of the initial conceptual model, then developing qualitative data results based on the initial model developed. This chapter is structured into six sections. The first section, 7.1, provides an overview of this chapter. Section 7.2 covers the introduction of this chapter, and the following section, 7.3, discusses the refinement of the research model in detail. The next section, 7.4, illustrates the definition of factors used in the initial conceptual model. The research hypotheses are outlined in Section 7.5. The final section, 7.6, summarises all the sections of this chapter.

Chapter Eight: Quantitative data collection

This chapter covers the quantitative data collection process. The quantitative data collection chapter is divided into nine sections. Section One, 8.1, provides an overview of the chapter. Section 8.2 presents an introduction to the chapter. The next section, 8.3, discusses the justification to adopt the quantitative methodology. The following section, 8.4, covers the development of the quantitative data collection instrument. The quantitative pilot study is explained in Section 8.5. Administering the quantitative data collection instrument is introduced in Section 8.6, while the methods adopted to analyse the quantitative data are outlined in 8.7. The subsequent section, 8.8, examines the difficulties and challenges accompanied by the quantitative method and the strategies followed to overcome or minimise these difficulties and challenges. The final section, 8.9, summarises all the sections of this chapter.

Chapter Nine: Quantitative data analysis part A

This chapter presents a quantitative data analysis of the study's descriptive and inferential statistics. Chapter Nine is structured into seven sections. The first section, 9.1, provides an overview of the chapter. The subsequent section, 9.2, presents the introduction to the chapter. Validity and reliability are discussed in Section 9.3, which is followed by an outline of the analysis of descriptive statistics in Section 9.4. In Section 9.5, exploratory factor analysis is presented. Section 9.6 explains the regression analysis used to test the research hypotheses. Finally, the chapter summary is provided in Section 9.7.

Chapter 10: Quantitative data analysis part B

This chapter outlines the structural equational modelling analysis of the quantitative data. The quantitative data analysis part B chapter is structured into six sections. The first section, 10.1, is an overview of the chapter. The introduction of the chapter is presented in Section 10.2. The subsequent section provides a justification for utilising SEM analysis. Section 10.3 covers the multivariate data analysis; the measurement model analysis; and the four stages of confirmatory factor analysis, while the multivariate analysis in the structural model is discussed in 10.5 section. Finally, in Section 10.6, a summary of the chapter is presented.

Chapter 11: Discussion

This chapter discusses the results of qualitative and quantitative results in light of existing literature and theory. The structure of the discussion chapter is as follows. Section 11.1 provides an overview of the chapter. The next section discusses the qualitative results obtained from the semi-structured interviews. The subsequent section, 11.3, discusses the quantitative results of Chapters Nine (quantitative results part A) and chapter Ten (quantitative results part B). A summary of Chapter Eleven is provided in Section 11.4.

Chapter 12: Conclusions and recommendations

This chapter highlights the conclusions and recommendations based on the study results. This chapter is structured into four sections. The first section covers the overview of the chapter. The subsequent section presents practical and theoretical conclusions. This is followed by the limitations of the study in Section 12.3. Finally, the study recommendations are presented in Section 12.4.

Chapter Two: literature review

2.1. Chapter overview

The previous chapter covered the introduction of the research topic. This chapter reviews the literature of talent management and employee performance. The literature review is a process of analysing, synthesizing, and summarising previous literature on a specific topic (Bloomberg & Volpe 2018; Creswell 2014; Tharenou, Donohue & Cooper 2007).

The literature review chapter is structured as follows; section 2.1 covers the chapter overview, followed by mapping the talent management field in section 2.2. The next section 2.3 explains talent management literature and it is divided into five subsections; talent definition, talent management definition, talent management practices, talent management challenges, and talent management perspectives. The subsequent section 2.4 discusses employees' performance, and it has two subsections: employee performance definition and employee performance dimensions. The relationship between talent management and employee performance is covered in section 2.5. The gap in the literature is discussed in section 2.6. The final section, 2.7, provides a summary of the literature review chapter. This chapter's Seven sections are presented in figure 2.1.

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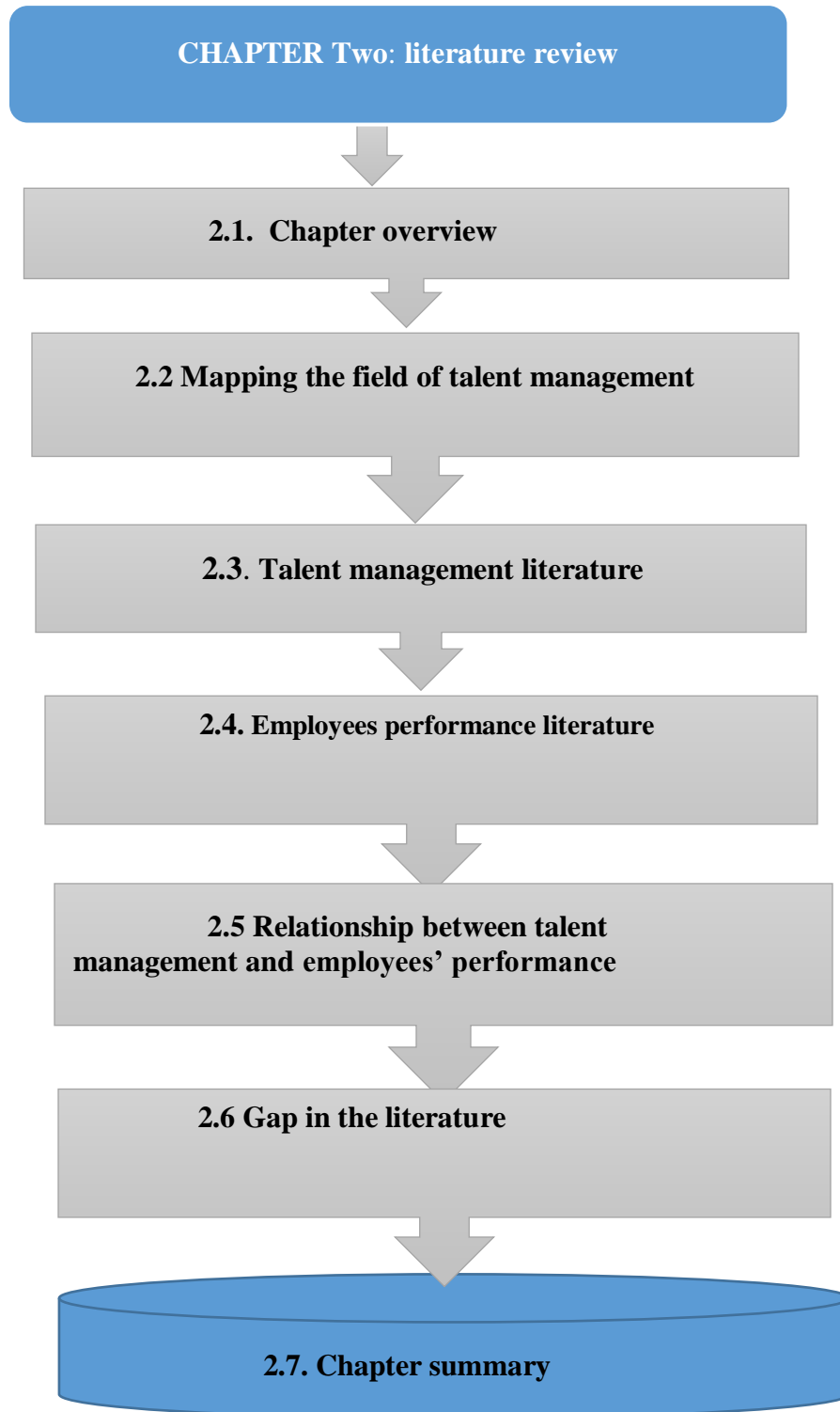
Figure 2.1: A graphical layout of Chapter Two

Source: Prepared by the researcher

2.2 Mapping the field of talent management

Talent management has received major attention since the seminal work of Mickensy and company in 1999 and coined the phrase 'the war for talent' (Hoglund 2012; Michaels, Handfield-Jones & Axelord 2001). Despite this attention, the talent management literature has been growing haphazardly and suffers from a low number of high-quality studies (Capelli & Keller 2014; Thunissen & Gallardo-Gallardo 2019). Moreover, talent management studies are scattered over different journals, which makes it vague and fragmented (Gallardo-Gallardo and Thunnissen, 2016; Sparrow 2019). Additionally, there is a lack of consensus on talent and talent management conceptualisation (Collings & Mellahi 2009; Farndale, Morley & Valverde 2019; Thunnissen, Boselie & Fruytier 2013). Thus, the talent management researcher community has not made significant advancements in the talent management debate despite a great quantity of articles published about talent management (Thunissen & Gallardo-Gallardo 2019). In the same vein, there is a gap between practitioners and researchers where human resource practitioners ignore the evidence-based results about the establishment and implementation of talent management programs (Claus 2019). On the other hand, researchers have not paid attention to how to establish and implement talent management in the world of organisations (Claus 2019). Thus, these black boxes need more understanding and attention from talent management scholars.

The talent management field faces many challenges. Firstly, there is a paucity of empirical studies, with most talent management studies being conceptual (Arisis et al. 2014; Son et al. 2018). Thus, in order to advance talent management theory, it is essential to draw theoretical assumptions based on the results of empirical studies so that they can be validated, and accordingly mistaken beliefs can be eliminated from talent management theory (Gallardo-Gallardo & Thunnissen 2016). Secondly, most talent management studies originate from Anglo-Saxon countries; this raises a question of whether the results and recommendations from those studies can be applied in other contexts in other counties (Beamond et al. 2016; Dries et al. 2014; Thunnissent et al. 2013). Thirdly, conducting studies that collect data from employees and managers responsible for talent management by using only one method may lead to bias in data collection methodologies (Krishnan & Scullion 2017; Luna –Arocas & Morley 2015). Finally, how context influences talent

management needs further attention (Gallardo-Gallardo & Thunnissen 2016; Wiblen & McDonnell 2020). Therefore, overcoming these challenges requires rigorous evidence from talent management studies conducted in a context outside Anglo-Saxon countries.

2.3 Talent management literature

2.3.1 The Definition of Talent

Talent is defined in our daily life as individuals with innate abilities that enable them to succeed as leaders, entrepreneurs, athletes and musicians (Adamsen 2014). The definition of "talent" is crucial to the research papers concerned with talent management, and is considered as a starting point for talent management programs (Adamsen 2014; CIPD 2012; Lumme-Tuomala 2019; Tansley 2011; Thunnissen, Boselie & Fruytier 2013). This specifically refers to the conceptualisation of talent as influencing the understanding of talent management and is considered a crucial issue in the talent management processes (Gallardo-Gallardo et al. 2013; Thunnissen & Arensbergen 2015; Wiblen 2016). In addition, the definition of talent is deemed to be an important base for measuring talent and talent management practices in the world of the organisations (Collings & Melahi 2013; Gallardo-Gallardo et al. 2013; Meyers et al. 2013; Meyers and Woerkom 2014; Nijs et al. 2014). For example, organisations' definitions of talent form an innate focus on talent acquisition practices. On the other hand, organisations' definitions of talent as an acquired view lead to focus on learning and development in talent management practice. Thus, for this reason, various scholars have investigated the meaning of talent in talent management (e.g. Adamsen 2014; Holden & Tansely 2008; Tansley 2011). Despite the significance of the definition of talent, it is rarely clarified, often presented ambiguously, or described without adopting a specific viewpoint that is consistent with talent management (Ansar & Baloch 2018; Collings & Mellahi 2013; Gallardo- Gallardo & Theunissen 2016, Mcdonnell et al. 2017; Tansley 2011; Thunnissen & Arensbergen 2015). Additionally, the definition of talent has been taken for granted and has not been identified explicitly in terms of who has talent, how talent is identified, and why it is important to define talent (Gallardo-Gallard, Dries & Gonzales-Cruz 2013). Hence, this ambiguity of the definition of talent has emerged as a problem for the talent management field in terms of leading to a difficulty of identifying and measuring it rigorously (Adamson 2014), thus hindering the

establishment of talent management theory. Therefore, defining talent is considered as a starting point to explore talent management in a specific context.

Some organisations have not paid attention to defining talent and have focused on managing this by themselves (Economist 2006) or in some case define it based on what the organisation wants the talent definition to be (Gallardo-Gallard, Dries & Gonzales-Cruz 2013; Iles, Chuai & Preece 2010; Tansley et al. 2007). Thus, many organisations have their own specific definitions based on their industry type, context, and size of organisation (Li et al. 201; Lumme-Tuomala 2019; Mayo 2018; Son et al. 2018;Tansley 2011). In a practical sense, the term talent inside organisations ranges across three categories: no use of the term talent, limited usage, or the term being commonly used in the talent management strategy (Tansley 2011). Additionally, some organisations have a diverse talent definition across their departments due to every department defining talent based on its own needs (Iles 2013; Tansley 2011; Wiblen & McDonnell 2020). Academically, talent management scholars define talent based on their idea about what type of talent is covered or not (Ulrich 2011). Accordingly, several scholars highlight the importance of the fit approach in defining talent, more than the universalistic approach, by emphasizing contextual factors (Cooke 2017; Krishnan & Scullion 2017; Lumme-Tuomala 2019; Thunnissen, Boselie & Fruytier 2013). The fit approach is deemed to be an essential base to define talent because it emphasises the importance of context and deals with talent definition as relative, rather than absolute (Ansar & Baloch 2018; Bjorkman et al. 2013; Gallardo-Gallard, Dries & Gonzales-Cruz 2013; Gelens et al. 2013; Gonzalez-Cruz, Martinez-Fuentes & Pardo-del-Val 2009; Iles 2013; Li et al. 2018; Lumme-Tuomala 2019; Ross 2013; Zhang & Bright 2012; Wiblen & Mcdonnell 2020). An example of this relativity in defining talent lies in the fact that organisations in egalitarian cultures or SMEs prefer an inclusive view of talent definition (Krishnan & Scullion 2017), and thus adopt their talent definition based on their context, mission, and culture (Garrow & Hirsh 2008).

Theoretically, King and Viaman (2019) have opened the door to adopting a contingency theory (Van De Ven & Drazin 1985) to discuss the fit approach in the talent definition process. However, contingency theory has not yet been adopted in talent management research as indicated by the critical review conducted by Gallardo-Gallardo and Thunissen

(2016). Many factors play a vital role in defining talent inside organisations such as leadership style, industry type, organisational culture, and the team that talented employees work with (Coulson-Thomas 2012; Iles 2008). The fit approach in defining talent shows explicitly to what extent the organisation wants to focus on talent in talent management (Gallardo-Gallardo, Dries & Gonzales-Cruz 2013), for example, make or buy talent (Meyers et al., 2013). Therefore, in the world of organisations, talent is defined differently based on the extent to which this definition fits with the organisation's context.

The literature shows many views of talent definitions (Festing, Schafer & Scullion 2013; Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013; Mensah 2016). These views are crucial to determine who the talent is, and how to manage such talent inside organisations. In this way, the manager can make an appropriate decision about the talent management process in particular talent management practices (Meyers, Woerkom & Dries 2013). Generally, talent management scholars have defined talent from multiple perspectives. For example, some scholars have defined talent based on a multidisciplinary approach by investigating talent definitions from different fields, for example giftedness literature and positive psychology (e.g. Nijs et al. 2014). Other scholars have defined talent in the world of work to explain how to operationalise and measure talent in the organisation (e.g. Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013). Finally, some scholars define talent based on empirical studies to identity what stakeholders mean when they use the term talent (e.g. Wiblen & Mcdonnel 2020). In this regard, an organisation with an exclusive view will focus its resources on a segment of employees, while in an inclusive view there is no differentiation in distributed organisational resources. In another example, organisations that favour the innate view focus on talent acquisition while organisations that favour the acquired view focus on talents' learning and development practice and their previous learning programs. Therefore, every talent definition view has specific implications inside the organisation regarding the talent management program adopted in such organisations. The following paragraphs introduce, analyse, synthesise, and summarise the literature related to the four talent definition dichotomies.

1. The inclusive or exclusive view: the inclusive view considers that all employees have talents, but believes that talent exists differently and relies on the assumption that every

employee can contribute to organisational performance in some way (Ashton & Morton 2005; Dries 2013; Mensah 2015). The inclusive view of talent is based theoretically on the strengths-based approach of positive psychology (Gallardo-Gallardo et al. 2015; Myeres 2016). The advocates of the inclusive view ascertain that the organisations cannot succeed until they utilise their whole workforce and they are therefore the determinant of organisational performance (Crain 2009). In the world of organisations, several empirical studies exploring talent views have posted that 40% - 50% of organisations have adopted the inclusive view (CIPD 2012; Leigh 2009). Additionally, the inclusive view is predominant in services in organisations that build their business model around employees. Thus, it considers the entire workforce as talent (Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013). For example, in luxury industries, backline employees have equal importance as frontline employees in delivering services (Boudrea & Ramstad 2005). Moreover, researchers have suggested that SMEs adopt a more inclusive view in defining talent (Festing et al. 2013; Krishan & Scullion 2017). The inclusive view has several advantages, for instance, a pleasant environment inside organisations, which is called the "mark effect" and relates to treating all employees as equal, which consequently leads to a more pleasant and motivating environment in the organisation (Bothner, Podolny &Smith 2011). Secondly, it distributes all organisational resources to all employees and maintains the morale inside the organisation, thus avoiding the governmental and professional union legislation break (Groysberg, Nanda & Nohria 2004; Meyer 2016). Finally, it could be a risky strategy to rely only on a few employees to fulfill the organisation's objectives (Yost & Chang 2009). The main criticism of this view is the difficulty in differentiating between talent management and human resource management (Gallardo- Gallardo et al. 2013). In this respect, talent management will be a collection of human resource management pracices such as acquisition, learning and development, and retention (Iles, Chuai 2010; Silzer & Dowell 2010). Furthermore, there is an extra cost involved in implementing talent management practices for all employees in organisations (Minbaeva & Collings 2013).

On the other hand, the exclusive view of talent concentrates on a segment of employees as they are talents, describing them as high potential and high performance (Collings & Mellahi 2009; Lewis & Heckman 2006; Schuler et al. 2011), and this is based theoretically on a resource-based view and social exchange theory (Gallardo-Gallardo et al. 2015; Meyers 2016). The crux of the exclusive view is based on the focus on a specific segment of employees in an organisation called talent, and it is impossible to treat everyone inside the organisation as talent, while talented employees are fundamentally different from other employees in term of their past performance, competency and potential (Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013; Swailes 2013). Some scholars have further pointed to the percentage of talented employees of the workforce inside an organisation. For example, Ulrich and Smallwood (2011) and Berger (2004) have a percentage of talented employees inside the organisation is 10% in this respect, while Larson and Richburg (2004) indicated that the percentage is 10-20%. The exclusive view of talent definition is the predominant in MNEs (Cappelli & Keller 2014; Ready, Conger & Hill 2010). Critics of the exclusive view point to the neglect of, and the expected negative reaction from, the rest of the employees who are not identified as belonging to this upper echelon of talented employees (Meyer 2016). Additionally, it could destruct the teamwork inside the organisation and increase a fear of failure among employees who are marked as talents (Kotlyar & Karakowsky 2014). Furthermore, determining who is a talent could be a subjective decision, so a focus on talented employees will waste the organisation's resources (Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013; Sparrow et al. 2014). Therefore, many researchers have indicated that a hybrid approach between inclusive and exclusive views might work well in talent management practices within the same organisation (Meyers 2016; Stahel et al. 2012).

2. The innate or acquired view: the innate view considers talent to include personality, characteristics, motivations (Boyatzis 2008; Buckingham &Vosburgh 2001; Silzer & Church 2009) and as being in large part in-born (Meyers & Woerkom 2014; Tsay & Banaji 2011). The central premise in the innate view is that people rarely change, which correlates with entity theory (Dweck 2012). Talent management scholars have focused on the innate view in defining talent (Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013). For example,

Buckingham &Vosburgh (2001) defined talent as strength; Boyatzis (2008) defines talent, similar to Silzer and Church (2009), as competency; Silzer and Church (2009) and Michaels Handfield-Jones and Axelord (2001) view talent as the best and brightest, while Bradford (2005) and Robertson and Abbey (2003) see talent as A player. Thus, talent management scholars have defined talent as laymen define it, without any further understanding related to the business world (Meyers et al. 2013). Accordingly, some scholars ask a critical question "do we know what the meaning of talent is?" (Hoden & Tansely 2008; Tansely 2011 p.1). The innate view is based on giftedness literature and the resource based-view (Dweck 2012; Meyers et al. 2013). This view is predominant in many western countries where talent is perceived as being mostly innate (Tansley 2011). Hence, organisations that adopt an innate view focus on identification and selection in talent management practices (Dries 2013).

On the other hand, the acquired view defines talent as the ability, skill and knowledge that evolve throughout life (Meyres et al. 2013), which is based on incremental theory (Meyers & Woerkom 2014). Organisations that adopt an acquired view focus on learning and development practices in talent management (Meyres et al. 2013; Tansley 2011). The proponents of this view argue that everyone could become a "prodigy" (Meyers et al. 2013, p. 311). The basic foundation of this view is that no individual can be a talent unless they engage in deliberate practices (Ericsson, Nandagopal & Roring 2009; Nijs et al. 2014). There are some of the conditions for these deliberate practices, for example receiving feedback, being directed to performance improvement, and being provided with an opportunity to correct mistakes (DeBruin et al. 2008). Another basic foundation in the acquired view is that talent evolves from early experiences (Meyers, Woerkom & Dries 2013). This evidence through the study by Arvery et al. (2006) concluded that 70% of the variance in a leadership role relates to factors acquired from the environment. The acquired view is usually found in contexts or cultures that highlight teamwork and collectivism, such as Japan (Tansley 2011)

It is worth mentioning that several scholars have argued that talent is nature-nurture (Walker, Nordin-Bates & Redding 2010; Vural et al. 2012). Thus, the talent definition based on these scholarly views is at the midway point of a scale that starts from completely

innate and ends with completely acquired (Mensah 2016; Meyers, Woerkom &Dries 2013). In the workplace, talent depends on innate factors and evolving factors that are acquired through talent life inside the organisation (Silzer & Church 2010). Scholars who adopt this view have built their arguments on several points. Firstly, natural talent is required, but it is not enough for full achievement (Meyers, Woerkom & Dries 2013). Thus, talent is formed through enhancing the innate talent through learning and development (Gagne 2004). Secondly, talent is attached to the context and the environment where they play a significant role in either wasting or developing the talent (Biswas-Diener, Kashdan, & Minhas 2011; Meyers, Woerkom & Dries 2013).

3. The subjective or objective view: the subjective view defines talent as relating to people who are valuable, rare, unique, and difficult to replace. It is a view that is based, theoretically, on human capital theory (Dries 2013; Mensah 2015). Gallardo-Gallardo, Dries, Gonzalez-Cruz (2013) have grouped the inclusive view, the exclusive view, high potential, and high performance under the subject view and named this the subjective approach. The justification for this grouping was that all these talent definition views are similar in terms of how they identify talent as people rather than characteristics of people. On the other hand, the objective view defines talent as characteristics of people's abilities, skills, and knowledge (Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013) and is based, theoretically, on a performance equation that includes the function of ability, motivation, and opportunity (Boxall & Purcell 2011; Mensah 2015). The acquired view and talent as mastery have been grouped under the objective view as they focus on the characteristics of people (Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013). It is difficult to identify the difference between subjective and objective views as they are correlated to each other and cannot separate people from their characteristics (Dries 2013). Organisations generally adopt the objective view more than the subjective view because employees' abilities and motivation to perform lead them to be scarce and difficult to replace (Mensah 2015). The subjective and objective views are deemed to be a foundation to define talent in the world of organisations (Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013).

4. The input or output views: this dichotomy focuses on whether talent relies on abilities or motivation (Dries 2013). The input view assesses talent in terms of motivation, ambition,

and effort (Mensah 2015), and stems theoretically from industrial and organisational psychology; this view focuses on a passion for and love of one's job (Kelloway et al. 2010). On the other hand, the output view assesses talent in terms of achievement and past performance (Mensah 2015). Most organisations adopt the output view in their talent assessment (Silzer & Church 2010). In this respect, these organisations define talent based on their performance (output) rather than their motivation and ambition.

Many scholars have attempted to introduce a holistic conceptual framework to define talent from a multidisciplinary viewpoint (Gallardo-Gallardo et al. 2013; Nijs et al. 2014) or to mix more than one view in the talent definition (Meyers & Woerkom 2014). The purpose of considering multiple views in defining talent is to deal with complex environments in organisations and to provide organisations with multiple approaches to operationalising and measuring talent in different contexts (Thunnissen & Arensbergen 2015). Therefore, this study defines talent in the world of organisations from a holistic viewpoint and considers the importance of the talent context which based on the current study results. From this perspective, talent is organisation-specific, which is seen as the sum of individual abilities (Michaele, Handfield-Jones & Axelord 2001), skills, motivations, and competencies (Ulrich & Smallwood 2012), including those that are inherited and acquired (Gallardo-Gallardo, Dries & González-Cruz. 2013), which exist in all employees and allow them to contribute to organisational goals.

2.4 The definition of talent management

The talent management definition is one of the most commonly discussed topics in talent management studies (Gallardo-Gallardo & Thunnissen, 2016) because its definition encompasses in-depth aims and the processes of talent management (Bolander, Werr & Asplund 2017). Despite its importance, there is no consensus among practitioners and academics regarding the definition of talent management (Al-risis et al.2014; Capelli & Keller 2014; Gallardo-Gallardo & Thunnissen 2016; Jarvi & Khoreva 2020). In addition, interestingly, much of the talent management research does not define talent management or just describes talent management without adopting a specific talent management definition (Gallardo-Gallardo & Thunnissen 2016; Thunnissen, Boselli & Fruytier, 2013). This hinders the progression of the field of talent management theory. Gallardo-Gallardo and Thunssine (2016) argue that definitions of talent management fall between two main

branches: global talent management (Scullion, Collings & Caligiuri 2010) and strategic talent management, with most of the definitions, fitting the latter (Collings & Mellahi 2009). Colling and Mellahi's (2009) and Scullion Collings and Caligiuri's (2010) definitions of talent management consider the most dominant definition adopted in the talent management literature (Gallardo-Gallardo et al. 2015). Thus, providing a distinct talent management definition plays a significant role in advancing the talent management field.

Talent management definitions could be grouped into many perspectives (Mcdonnell, Collings & Burgess 2012): the pool perspective, practice perspective, people perspective, and strategic perspective. The pool perspective is based on defining talent management as the management of talent flow in an organisation (Iles, Preece & Chuai 2010; Lewis & Hekman 2006; Li et al. 2018). Within this perspective, organisations build their talent pool to maintain the continuity of talent flow at all organisational levels at present and in the future (Bhattacharyya 2014; Jooss, Burbach & Ruel 2019). Talent pool refers to the virtual pool that contains talent with specific characteristics identified by the organisation (Tansley & Tietze 2013). Organisations adopt a pool perspective to secure the future needs of talent through conducting a needs assessment and talent gap analysis (Nilson & Ellstrom 2012). Thus, this perspective is correlated with human resource planning and succession planning (Rothwell 2010) and its focus on internal or external acquisition (Zhang & Bright 2012). This perspective has been criticized for failing to take into account the uncertainties of the labor market (Cappelli 2008) and for replicating human resource planning and succession planning (Li et al. 2018).

The practice perspective refers to talent management as a set or a collection of human resource management practices (Sparro, Scullion & Tarique 2014). This definition of talent management is similar to the definition of human resource management (Nilson & Ellstrom 2012). The premise of this perspective is based on talent as synonymous with human capital, so talent management is similar to human resources (Thunnissen, Boselli & Fruytier, 2013). Thus, in order to manage employees, a specific practice is required to take place (Sparro, Scullion & Tarique 2014). There is a debate in the talent management literature about what these practices are (Bolander, Werr & Asplund 2017; Gallardo-Gallardo &Theunissen 2016). However, despite this disagreement, these practices

generally revolve around identifying and acquiring talent, attracting talented employees to the organisation, minimizing talented employee turnover, learning and development, managing talent flow, and delivering performance (Sparro, Scullion & Tarique 2014). These practices need to be different from typical human resource practices, in terms of having a broader system and being driven by business strategy (Silzer and Dowell 2010). This perspective has been criticized because it has limited innovation and it is similar to human resource management practice (Zhang & Bright 2012).

The people perspective of talent management definition refers to a focus on people rather than practice (Sparro, Scullion & Tarique 2014). Thus, talent management aims to identify talented employees or potential talented employees (Sparro, Scullion & Tarique 2014). The people perspective has two branches: the exclusive people perspective and the inclusive people perspective. In terms of the exclusive people perspective, organisations identify talented employees through predefined criteria and then manage them through focused practice. Thus, they focus on a small proportion of employees who demonstrate their upper average performance, skills and abilities. The exclusive people perspective was highlighted in the book The war for talent (Michaels, Handfield-Jones & Axelrod 2001) by focusing on an exclusive segment of employees, namely the elite portion of employees who are deemed to make a significant contribution to the organisation currently and in the future (Ashton & Morton 2005). However, another scholar has pointed to the concept of inclusivity of all employees in the organisation (Iles, Chuai & Preece 2010; Meyers 2016). In this regard, the people perspective focuses on all employees inside the organisation and considers all of them as they all have a significant contribution to the organisation's performance (Bjorkman 2013; Wiblen & McDonnell 2020). The people perspective has received some criticism. For example, Sparrow, Scullion, and Tanique (2014) have criticised the nature and underlying assumptions of the people's perspective. In addition, an inclusive or exclusive people's perspective could be adopted, depending on researcher preferences. Another important point is that the people perspective contains many contrasted talent management philosophies where the focus is on all employees (inclusive) or a segment of employees (exclusive) (Scullion & Collings 2011; Shuler, Jackson & Tarique 2011).

Finally, the strategic perspective of talent management definitions is based on systematic and organisation level activities that involve identifying the strategic talent or position that contribute to an organisation's competitive advantage (Collings & Mellahi 2009). This strategic position could be the managerial, functional, and technical position that influences organisations performance (Collings & Mellahi 2009). In this respect, talent management becomes a company strategy and depends on an organisation's business model (Sparro, Scullion & Tarique 2014). The strategic perspective moves from a micro-focus on the individual to a macro focus on the organisational system (Jones et al. 2012). In other words, this perspective is based on organisational goals and objectives rather than a human resource department goal (Cappelli 2009). As was indicated by McDonnell et al. (2012) the aim of talent management, in light of the strategic perspective, is what to do and how to do it, with regards to systems and processes, in order to develop a talent mindset in the organisation. Therefore, the strategic perspective is an approach that combines system, process and talent (Cooke, Saini & Wang 2014).

Despite the novelty of these four perspectives in definitions of talent management, some scholars have some concerns about these perspectives in that they are seen as neglecting the culture and context of talent management, and that they are conceptualised and tested in the western world only (Tlaiss 2020; Valverde et al. 2013). Thus, it is difficult to transfer these perspectives to non-western countries without conceptualising and test them empirically in such contexts. This study adopts the definition of talent management provided by Scullion Collings and Caligiuri (2010) with some modification of the exclusive approach to become a hybrid approach, given that the majority of service organisations outside Anglo-Saxon countries adopt an inclusive view of talent (CIPD 2012; Festing et al. 2013; Gallardo-Gallardo et al .2013; Lewis & Heckman 2006; Meyers 2016). Therefore, based on the results of this study, talent management is defined as including all organisational activities to attract, select, develop and retain employees at all organisational levels in order to contribute to organisational goals by utilizing talent values (Meyers 2016; Scullion, Collings & Caligiuri 2010; Sparrow & Makram 2015).

2.5 Talent management practices

Talent management practices are a complicated and systematic set of processes that start with the identification of a talent management strategy and aligns that with organisational strategy (Collings & Mellah 2009; Vural et al. 2012). As concluded by Thunnissen, Boselie and Fruytier (2013) and Gallardo–Gallardo and Thunnissen (2016), talent management practices are deemed to be one of the most urgent topics discussed in talent management literature. The literature has explored different talent management practices (Bolander, Werr &Asplund 2017; Tafti, Mahmoudsalehi & Amiri 2017). This wide range of talent management practices is due to a lack of agreement on talent definitions and talent management definitions, and these definitions provide a base for talent management practices in such organisations (Bolander, Werr & Asplund 2017; Lumme-Tuomala 2019; Thunnissen, Boselie & Fruytier 2013). In addition, human resource managers' beliefs about talent (talent philosophy) influence the adoption of talent management practices in organisations (Meyers et al. 2019). Generally, talent acquisition, talent learning and development, and talent retention are considered dominant talent management practices studied in talent management research (Ewerlin & Sub 2016; Gallardo–Gallardo and Thunnissen 2016; Thunnissen, Boselie & Fruytier 2013). However, as concluded in Thunnissen, Boselie & Fruytier's (2013) critical review, many talent management researchers emphasize best-fit talent management practices rather than universal ones for best talent management practices.

Talent management practices differ from one region to another. The reason for this mismatch between talent management practices in different countries refers to talent management still being in its infancy in some regions, including in Middle Eastern countries (Raheem 2016), or the specific need of talent or talent management perspectives adopted in the region (Collings, Scullion & Viaman 2011; Gallardo–Gallardo and Thunnissen 2016). For example, talent identification, retention, and acquisition have received major attention from talent management scholars in Europe (Bjorkman et al. 2013). Talent attraction and talent learning and development in East and South Asia (Schmidt, Mansson, & Dolles 2013) has also been discussed, as these regions suffer from a talent shortage (Gallardo–Gallardo and Thunnissen 2016). Talent identification is a dominant practice, which has been investigated in Middle-Eastern countries (Gallardo–

Gallardo & Thunnissen 2016). However, recently some scholars have investigated talent management practices in Middle Eastern countries and they have indicated that talent acquisition, talent learning and development, and talent retention are dominant practices in this region (Nasser 2019; Obeidat, Yassin & Maasadeh 2018).

For this study, the talent management practices selected for investigation are: (1) talent acquisition, (2) talent learning and development, and (3) talent retention. However, these practices could be changed based on the results of interview analyses conducted with employees responsible for talent management in Jordanian telecommunication organisations. The justification for adopting these practices are as follows:

1. The majority of scholars identified these domains of talent management practices as being essential for organisational needs (Ewerlin & Sub 2016; Gallardo-Gallardo & Theunissen 2016; Thunnissen, Boselli & Fruytier 2013).

2. Empirical talent management studies are particularly interested in these Three sets of talent management practices as these contribute to organisational performance (Gallardo-Gallardo & Thunnissen 2016).

3. These practices are dominant in Middle Eastern countries (Nasser 2019; Obeidat, Yassin & Maasadeh 2018).

Talent Acquisition

Talent acquisition is an activity designed to hire talented applicants (Meyers 2013) by adopting appropriate tools to appoint the most talented applicants (Festing et al. 2013; Vural et al. 2012). The human resource department or owner/CEO is responsible for the acquisition of candidates (Festing et al. 2013), and for managing that acquisition process based on organisational requirements (Al Arisis et al. 2014). Organisations adopt sophisticated tools to recruit talent, including considering whether applicants can fit culturally into the organisation (Thunissen et al. 2013). Thus, talent acquisition aims to take the organisation to a state of equilibrium between the demand for, and the supply of, talented employees (Capelli 2008). The talent acquisition literature focuses mainly on internal or external acquisition (Burus & Osula 2011; Mensah 2015; McDonnell & Collings 2011) through sophisticated tools or assessor judgments. Internal acquisition

refers to acquiring talent for a specific position from inside the organisation. Many organisations prefer internal acquisitions because they save costs, applicant are familiar with the organisational culture, and perform better than external acquisitions (Bidwell 2011; TeTik 2016). External acquisition refers to organisations acquiring talented employees from the external labor market (Collings & Mellahi 2009). Organisations have used external acquisition to appoint scarcity and mystery talent to add value to their organisations (Thunnissen, Boselie & Fruytier 2013). The disadvantage of external acquisition is that the organisation may be uncertain about whether the talent fits with its culture and meets the expectation of high performance (Groysberg, Nanda & Nohria 2004). Some scholars have provided suggestions and guidelines for the acquisition process in organisations. For example, McDonnell and Collings (2011) have highlighted the importance of balance between internal acquisition and external acquisition. Similarly, Cappelli (2008) developed a framework to regulate the demand and the supply of talent through supply chain management, which emphasised the equilibrium between internal and external acquisition. Some scholars have emphasised the importance of utilizing technological advancement in the talent acquisition process, for example big data, artificial intelligence, and skills based acquisition (Walford-Wright & Scott-Jackson 2018; Wiblen 2016). These method are designed to make talent acquisition more effective as effective talent acquisition is deemed to be a predictor of organisational effectiveness (Allen, Mahto & Otondo 2007; Phillips-Wren, Doran & Merrill 2016). There are some areas talent acquisition that need further investigation, for example the psychological processes and the implications of talent management philosophy on talent acquisition (Meyers & Woerkom 2014). Additionally, data analytics, big data, artificial intelligence, and skills-based acquisition need further attention as these play an important role in talent acquisition (Parthasarathy& Pingle 2014; Pillai & Sivathanu 2020; Russell & Bennett 2015).

Learning and development

Talent learning and development focus on organisational activities that aim to nurture talent and to enhance their abilities, experience and knowledge (Bolander, Werr & Asplund 2017; Garvan, Carbery & Rock 2012) to work effectively in business environments that are challenging to employees (Mensah 2015; Noe et al. 2013). Learning and development programs are divided into two streams among organisations, based on how those

organisations view the concept of talent. The first stream is based on who the employees' are targeted in learning and development programs (exclusive/inclusive), and the second stream is based on organisational dependence on learning and development programs (innate/acquired) (Bolander, Werr & Asplund 2017; Garvan, Carbery & Rock 2012). The exclusive and innate views of talent definition refer to talent learning and development targeted at a specific segment of employees and do not rely heavily on learning and development (Dries 2013). On the other hand, the inclusive and acquired views in defining talent refer to talent learning and development with a focus on all employees and they rely heavily on talent learning and development (Tansley 2011). Some scholars have divided talent learning and development activities into program-based and experience-based (Bolander Werr & Asplund 2017). Program-based activities refer to formal organisation activities to nurture talented employees, while experience-based relies on talented employees' experience through past assignments and rotation (Yost & Chang 2009). Talent learning and development has four stages: identify talent targeted for learning and development, design talent learning and development programs, evaluate the results, and finally, measure to what extent these learning and development programs support the organisation's objectives and strategy (Stahl et al. 2012).

The importance of talent learning and development stems from the fact that it is deemed to be a source of competitive advantage (Garvan, Carbery & Rock 2012). Similarly, Lepak and Snell (1999) emphasised the critical role of developing an internal organisation workforce. Thus, the implication is that an organisation has to invest in talent learning and development in order to fulfill its goals (Maycock & Ikuomola 2015). The context of organisations affect learning and development programs (Lehmann 2009; Nilsson & Ellstrom 2012). In essence, Glastra and Meerman (2012) have argued that talent learning and development is not a completely cognitive process, but includes social acceptance and alignment with organisation culture. In spite of its importance, talent learning and development suffer from a lack of a consensus about definitions grounded in empirical research, a lack of taking into account the role of contextual factors in learning and development, and not being aware of the significance of new technology in enhancing talent learning and development programs (Garvan, Carbery & Rock 2012; Mehdiabadi & Li 2016).

Talent retention

Talent retention is defined as organisational activities designed to prevent talent from turn-over (Bolander, Werr & Asplund 2017; Ott, Tolentio & Michailova 2018; Tarique & Shuller 2012). Talent retention has received attention from scholars and practitioners because they consider talent as an opportunity for an organisation to take a step forward compared with its competitors, particularly in a hypercompetitive economy (Fishman 1998; McCracken 2000). As a result, the demand for talent increases and the supply decreases, which makes it critical to maintain talented employees in the organisation (Chambers, Handfield-Jones & Hankin, 1998; Ott, Tolentio & Michailova 2018). The salient attention for talent retention refers to the 90% of respondents in a Mckinsey study who believed that it was more difficult to retain talent for more than three years (Axelord et al. 2001). Talent retention is considered among the top five workforce challenges that CEOs are worried about it (Hewit 2008; Schwartz, Bersin & Pelster 2014). Thus, organisations find it difficult to retain their talent (Schuler et al. 2011; Vaiman et al. 2012). This difficulty refers to many challenges that confront organisations in striving to keep their talent, for example, a shortage of skilled employees, demographic changes in some countries, and increased employee mobility (European Commission 2011; Ott, Tolentio & Michailova 2018; Tung &Lazarova 2007). The harmful results from talent turnover could be divided into direct and indirect harm. Direct harm includes the cost of talent replacement, and training new talent, while indirect costs include the loss of talent experience, knowledge, customer network, and specialized skills (Ott, Tolentio & Michailova 2018). It is expected that the financial impact of talent turnover will cost organisations more than US $8tn by 2030 (Korn Ferry institute 2017) or range between 200%-250% of employees' annual pay (Allen, Mahto & Otondo 2010). For all these reasons talent, turnover harms organisations and talent retention is considered an important talent management practice (Noe et al. 2017).

Organisations adopt several strategies to retain talented employees (D'Annunzio-Green et al. 2008). Two main questions have to be considered by organisations: what are their talent retention strategies, and how to implement these strategies. The answer to the first question is that such strategies could be divided on an individual level and an organisational level. Talent retention strategies on an individual level include enhancing talent loyalty, talent

engagement, personality traits, enhancing the psychological status, compensation, social activities, and training and development (Bharwani & Butt 2012; Lockwood 2007; Marinakou & Giousmpasoglou 2019; Stahel et al. 2007; Woo 2016). On the organisational level, strategies include the organisational brand, which refers to how organisations distinguish themselves from their competitors in the same sector (Thunnissen et al. 2013). The answer to the second question is that an organisation have to implement talent retentions strategies that align with characteristics of its industry and talented employees (Festing et al. 2013). For example, luxury industries are characterised by seasonal work and an imbalance between life and work, due to working requirements during holidays and at night (Clark et al. 2017; Deery & Jago 2009). Hence, organisations should consider these factors in implementing talent retention strategies. Characteristics of talented employees that should be considered include age, level of education and gender (Govaerts et al. 2011; Meyers & Woerkom 2014). In this way, identifying talent retention strategies and implementing appropriate strategies could reduce talent turnover in the organisations.

Although several scholars have called for more research on talent retention (Gallard-Gallardo et al. 2013; Nijs 2013), few researchers have investigated talent retention (Tlaiss et al. 2017). Results of such studies are often drawn from case study design (i.e. Tlasis, Matin &Hofaidhllaoui 2017; Zhang et al. 2014), and the results can often not be generalised to other contexts. Furthermore, few studies have investigated the talent decision-making processes to leave or to stay in organisations, and accordingly, the related processes need more investigation (Ibidunni et al. 2015).

2.6 Employee performance
Employee performance has received considerable attention from researchers and experts from many fields, from management, to organisational psychology and occupational health (Evans 2004; Garg & Dhar 2017; Hakim & Fernandes 2017; Harms & Spain 2016; Koopmans et al. 2011; Learner & Henk 2008; Pham-Thai et al. 2018) because the success of organisations is measured by employees' contributions (Mathew 2015; Mensah, Bawole & Wedchayanon 2016). Talent management researchers have emphasised the importance of employees' performance (Thunnissen & Van Arensbergen 2015), as talent management has a significant relationship with employees' performance, and this is reflected in the

relevant literature (Mensah 2015; Mensah, Bawole & Wedchayanon 2016). Employees' performance is considered one of the most studied topics among academics and practitioners alike (Devonish & Greenidge 2010).

However, there is no consensus on the definition of employees' performance (Atatsi, Stoffers & Kil 2019; Cancelliere et al. 2011; Griffin, Neal & Parker 2007). This lack of consensus relates to changes that occurred in how employees' performance was viewed; for example, the main focus has been on defining employees' performance as task performance proficiency only (Griffin, Neal & Parker 2007; Koopmans et al. 2012;). Another reason for the lack of consensus on employees' performance definitions is that little attention has been paid to clarifying it. In other words, it has been taken for granted that it is defined according to researchers' preferences (Lebas & Euske 2002; Sonnentag & Frese 2002). The importance of employees' performance definitions has been deemed to be a prerequisite to establishing valid measurement for employees' performance (Koopmans et al. 2013). Some scholars have defined employee performance as fulfilling job tasks (Campbell 1990; Pawar 2013), while Mathias and Jackson (2000) and Bochlander et al. (2001) refer to employees' performance as accomplishing work goals and fulfilling employer expectations. Viswesvaran and Ones (2000, p.216) defined employees' performance from a holistic point of view by combining all employee performance dimensions: "scalable actions, behavior, and outcomes that employees engage in or bring about that is linked with and contribute to organisational goals". The definition of employee performance adopted for this study is a multi-dimensional concept that comprises employee behavior and positive results that aim to fulfill the organisational goals. The reason for adopting this definition is that it covers two main parts: firstly, employee performance is a multi-dimensional concept; secondly, it focuses on behaviour that is directed towards achieving organisational objectives (Koopmans et al. 2011).

2.7 Dimensions of employees' performance

A multi-dimensional approach is adopted to measure employee performance in this research. The four dimensions include task performance, contextual performance (Borman & Motowidlo 1993), adaptive performance (Griffin et al. 2007; Sinclair & Tucker 2006) and counterproductive performance (Rotundo & Sackett 2002). Koopmans et al. (2011)

indicated in their systematic review that these four dimensions are the most commonly adopted among researchers from different backgrounds. It is worth mentioning that employees' performance dimensions are correlated to each other (Koompanas et al. 2011; Pattnaik & Pattnail 2020). This high correlation may be due to the rater halo-effect (Pattnaik & Pattnail 2020). Rotundo and Sackett (2002) advised that researchers should go beyond this debate to explore how managers and employees perceived these dimensions in the world of organisations.

Task performance

Task performance deals with behaviours that are related to the job's core activities in organisations (Becton et al. 2017; Scotter, Motowildo & Cross 2000), which covers the requirements of a specific job and may differ from one job to another (Mensah 2015). Thus, task performance is focused on the fundamental responsibilities assigned in a job description (Harrison, Newman & Roth 2006; Mensah 2015; Pradhan & Jena 2017). Most employee performance frameworks mention task performance as a crucial dimension of individual performance (Koompanas et al. 2011). Task performance is deemed the most significant indicator of employees' direct contributions to organisational goals (Kehoe, Lepak & Bentley 2018). The distinct feature of task performance compared to other employees' performance dimensions is that it differs from one job to another, even inside the same organisation, and it is compulsory for an employee holding such a position (Pattnaik & Pattnail 2020; Tett et al. 2000).

Task performance is required to cover three main tasks. Firstly, task knowledge refers to the required knowledge (theoretical or technical) to fulfill the job assignment. Secondly, task skill refers to specific skills needed to accomplish multiple job assignments. Finally, task habit refers to innate habits that help in accomplishing job assignments (Conway 1999; Pradhan & Jena 2017). Thus, task performance refers to the transfer of raw materials to goods or services that the organisation produces. Job-specific task proficiency, technical proficiency, and in-role performance are other names used to describe task performance in previous literature (Griffin et al. 2007; Maxham, Netemeyer & Lichtenstein 2008). Distinguishing task performance from contextual performance and investigating the impact

of cultural values on task performance need more attention (Becton et al. 2017). Thus, more research is necessary to examine these gaps.

Contextual performance

The definition of contextual performance refers to employees' behaviors enhancing the organisational, social, and psychological environment (Sonnentage & Frese 2002). Contextual performance appears as the belief that performance is more than meeting the prescribed work goal (Koopmanas et al. 2011). Five major areas of contextual performance are communication, effort, discipline, interpersonal behavior,leading and supervising colleagues (Bergeron 2007; Koopmans et al. 2011; Pattnaik & Pattnail 2020). Many organisations adopt personality tests and group discussions in their selection criteria to focus on the contextual performance dimension in candidates (Pradhan & Jena 2017). Contextual performance improves the social and psychological life in the work place (Mensah 2015) by creating a climate for a cooperative and stimulating organisational environment (Pradhan & Jena 2017). Thus, contextual performance depends more on motivation and personality than on cognitive abilities as task performance. By contrast to task performance, contextual performance is similar to almost all jobs, predicted by personality and motivation, and it is considered as an extra role (Mensah 2015; Motowidlo & Schmit 1999; Sonnentage & Frese 2002).

Contextual performance is expected from employees but is not included in the job description (Pradhan & Jena 2017). However, many variables in contextual performance need to be analysed in order to shed light on it; for instance, few empirical studies examine how different work contexts affect managerial contextual performance. In addition, it is important to use multiple methods to measure contextual performance, for example self-reports and peer reports in the same study to avoid measurement bias (Hosie & Nankervis 2016). There is a debate in the literature about whether contextual performance is similar to organisational citizenship behavior as they are used interchangeably. Yet, they have different origins and definitions (Motowidlo 2000). Organ (1997) defined organisational citizenship behaviour as similar to contextual performance. However, Meyers et al. (2020) argue that contextual performance is wider in its scope than organisational citizenship behavior.

Adaptive performance

Adaptive performance focuses on employees' ability to adjust to a job assignment, particularly in dynamic work situations in which the techniques and tools rapidly change (Hunage et al. 2014) at both the individual and organisational levels (Baard, Rench & Kozlowski 2014). Thus, adaptive performance is initiated by talented employees themselves rather than being a prescribed job or dependent on supervisor direction (Ghitulescu 2013). At the individual level, adaptive performance has positive outcomes such as improved performance capability and career success (Griffin, Neal & Parker 2007), while the positive outcome on organisational level includes a learning organisation, fulfilment of changing customer expectations, and management of changes (Dorsey, Cortina & Luchman 2010). The changing environments of organisations reflect the need for adaptive performance (Mensah 2015; Park & Park 2019), and the occurrence and intensity of these changes raise the importance of adaptive performance (Campbell 2012). Adaptive performance has only recently been considered as one of the employees' performance dimensions (Koopmans et al. 2011) and many scholars have not identified or developed a measurement for adaptive performance (Koopmans et al. 2013). Koopmans et al. (2011) defined two reasons to include adaptive behavior in the performance dimension: firstly, technological changes take place frequently; secondly, adaptive performance theoretically does not fit under the other three dimensions of employee performance dimensions.

Adaptive performance studies are categorised into Four streams: studies at a personal level, at a contextual level, the relationship between employees and the context, and focus on adaptive performance intervention (Park & Park 2019). The organisation can foster and support adaptive performance for employees through individual and contextual factors (Park & Park 2019). Individual factors include personality characteristics, knowledge, and skills (Naami et al. 2014; Zhang et al. 2012), while contextual characteristics include job characteristics, co-worker and supervision support, and climate for innovation (Chiaburu et al. 2013; Oreg, Vakola & Armenakis 2011). The adaptive performance field needs measurement tools to measure adaptive performance at the individual, team and organisational levels (Park & Park 2019). Moreover, the implications of this measurement and how organisations can foster the adaptive performance of their employees require more

investigation (Jundt, Shoss & Huang 2015). Thus, additional research is required to avoid ambiguity and to develop solid recommendations based on the adaptive performance literature (Baard, Rench & Kozlowski 2014), in particular, to respond to the uncertain and changing world of organisations.

Task performance, contextual performance and counterproductive performance are the dominant variables used to measure employees' performance (Koopmans et al. 2011). This evidence is based on the results of Koopmans et al.'s (2011) systematic review which showed that only three employees performance scholars (Allowrth & Hesket 1999; Pulakos et al. 2002; Griffin et al. 2007) focused on adaptive performance as a separate variable, while 32 scholars agreed on task performance, contextual performance and counterproductive performance as the variables of employees' performance (e.g. Bakker, Demerouti, & Verbeke 2004; Borman & Motowidlo 1993; Campbell 1990; Hunt 1996; Murhy 1989; Pulakos et al. 2000; Viswesvaran 1993, Viswesvaran & Ones 2000). Additionally, Koopmans et al.'s (2013) exploratory factor analysis of employees' performance variables showed three variables of employees' performance, namely task performance, contextual performance, and counterproductive performance. The justification was that contextual performance was considered as proactive and adaptive performance rather than reactive (Koopamns et al. 2011). Thus, both contextual and adaptive performance could be considered to support the psychological and social environment inside the organisation and adaptive performance as an aspect of contextual performance.

Counterproductive performance

Counterproductive performance refers to the harmful result of employees' undesired behaviors for both individuals and organisations (Rotundo & Sackett 2002; Whelpley & McDaniel 2016). Billions of dollars are lost every year worldwide due to the harmful results of counterproductive performance (Banks et al. 2012; Miharja et al. 2020). For example, in the US more than 50 billion US dollars are lost annually and it is considered as the main cause of 20% of organisations' failure (Sammani, Salamon & Singh 2014; Coffin 2004). Generally, employees who engage in one form of counterproductive performance are likely to engage in other forms (Trent et al. 2020). This evidence from

Ones and Viswesvaran's (2003) study indicated that 44% of employees who engage in theft and property harm engage in other features of counterproductive performance (e.g. absenteeism and taking a long time to fulfill job tasks). Additionally, employees who suffered from counterproductive performance could be engaged in some forms of counterproductive performance. Mensah (2015) has indicated that counterproductive performance comprises multiple behaviors, for instance absence, coming late to work, unhelpful conflicts with colleagues, lack of discipline and substance abuse. Counterproductive performance is divided into two key dimensions: firstly, organisational/individual; and secondly, serious/minor (Harari, Reaves & Viswesvaran 2016; Viswesvaran & Ones 2000). Based on these two dimensions, Mensah (2015, p. 549) has indicated that deviance is divided into four categories: "serious deviance to the organisation (property deviance); minor deviance to the organisation (production deviance); serious deviance to the individual (personal aggression); and minor deviance to the individual (political deviance)". Thus, counterproductive performance affects all daily interaction, organisational revenue and income (Whelpley & McDaniel 2016).

Preventing or reducing counterproductive performance requires an understanding of its antecedents (Krings & Bollmann 2011). These antecedents include decrease or absence of workplace fairness, unfavorable working conditions, and disengagement in responsible leadership (Kelloeway et al. 2010; Krings & Bollmann 2011). In addition, personality traits are deemed as a considerable factor of preventing counterproductive performance, for example, integrity, agreeableness, and emotional stability (Berry, Ones & Sackett 2007; Berry, Carpenter & Barratt 2012; Marcus & Schuler 2004; Van Iddekinge et al. 2012). Therefore, several factors mitigate or prevent counterproductive performance in organisations such as a friendly organisational climate, holistic acquisition practices, organisational justice, and clear role and job descriptions (Penny & Spector 2002; Penney, Hunter & Perry 2011; Shoss, Eisenberger & Zagenczyk 2013; Spector et al. 2006).

Overall, counterproductive performance harms organisations and colleagues simultaneously. Accordingly, additional research is required to investigate the multi-dimensionality of counterproductive performance, which is important to avoid dissimilar results (Whelpley & Mcdaniel 2016). Thus, further studies are required to capture all aspects of counterproductive performance (Miharja et al. 2020).

2.8 Relationship between talent management and employees' performance

Talent management literature has investigated three main areas in talent management: talent definition, talent management definition, and talent management outcomes (Bolander, Werr & Asplund 2017; Gallardo-Gallardo & Thunnissen 2016). Talent management outcomes include employee satisfaction, motivation, perceived organisational support, and employee performance (Barkhuizen, Mogwere & Schutte 2014; Collings & Mellahi 2009; Lockwood 2006; Mensah 2015). Thus, talent management is related to multiple employee outcomes (Dries et al. 2012). In this respect, talent management aims to maximise the benefit from talented employees in terms of their performance, which ultimately leads to organisational performance (Mensah 2015). Maximising employees' performance could help the organisation to respond to challenges, such as (financial crises and skill shortages), opening up of new markets, innovative ideas, solving organisational problems, and stepping forward amongst the competition (Hengst 2007; Mensah, Bawole & Wedayanon 2016; Yapp 2009). Therefore, investigating the relationship between talent management and employee performance has theoretical and practical importance.

Talent management has a positive impact on employees' performance (Colling & Mellahi 2009; Mensah, Bawole & Wedayanon 2016). This evidence has been presented in previous literature that has investigated the relationship between talent management and employees' performance (Al-Hussaini et al. 2019; Bibi 2018; Dang, Nguyen & Ha 2020; Kaleem 2019; Wahwa & Tripathi 2018). These previous studies could be divided into three streams. Firstly, some investigate the relationship between talent management and employees' performance from the mono-dimensional perspective (e.g Onwuka,Ugwu & Kekeocha 2015). However, these studies have neglected the multidimensionality of talent management and employee performance constructs (Fay & Sonnentag 2010; Koopmans et al. 2011; Mensah 2015). The second stream investigates talent management and employee performance by considering the multi-dimensionality of the employees' performance construct only (e.g. Dang, Nguyen & Ha 2018; Mensah, Bawole & Wedchynon 2016). The third stream is an investigation into the relationship between talent management and employees' performance while considering the multi-dimensionality of the talent management construct (e.g Bibi 2019; Ei & Abubakr 2019; Hitu & Baroda 2018;; Praise

& Kah 2020; Kaleem 2019; Sadri et al. 2019). Thus, despite much literature investigating the relationship between talent management and employee performance, there is still a need for further studies investigating this relationship through considering the multidimensionality of talent management and the employees' performance construct in the same study (Bolander, Werr & Asplund 2017; Koopmans et al. 2011; Scotter, Motowildo & Cross 2000). Additionally, as talent management is contextualised based on the country, sector, and organisation (Gallardo-Gallardo et al. 2015; Gallardo-Gallardo, Thunnissen & Scullion 2020; Myloni, Harzing & Mirza 2004; Thunnissen, Boselie & Fruytier 2013), none of these previous studies have developed a questionnaire based on an exploratory study that identifies talent management in the context of their study.

Talent management needs further understanding in developing countries (Cooke 2017; Cooke, Saini & Wang 2014). Similarly, talent management and its relationship with employees' performance needs further attention in that context (Sophia et al. 2020). In this sense, understanding how talent management influences the different dimensions of employees' performance needs further attention (Mensah 2015). Such an understanding will help the organisation to identify effective mechanisms for talent management which may lead to enhanced employees' performance.

2.9 The gap in the literature
Based on a critical literature review, it was found that many researchers have expressed the need for more empirical studies in talent management in order to move this field from proposition and hypothesis to become a theory-driven field (Arisis et al. 2014; Mensah 2015; Morley et al. 2015; Tetik 2016; Thunnissen 2016; Son et al. 2018). In response, some empirical studies have been conducted to explore the motives and outputs of talent management (Sidani & Al Ariss 2014; Son et al.2018; Tatoglu et al. 2016). For further informations about talent management see table 2.1). However, only some of these empirical studies have investigated the relationship between talent management and employees' performance (Luna-Arocas & Morley 2015; Mensah, Bawole & Wedchayanon 2016). Additionally, these few studies were based on a case study design; for example, Mensah, Bawole, and Wedchayanon (2016) conducted a study in Ghana, and Luna-Arocas and Morley (2015) conducted a study in Valencia, Spain. Thus, the results cannot be

generalised to other contexts or settings in particular talent management that is contextualised based on culture, organisation size and industry (Myloni, Harzing & Mirza 2004; Gallardo-Gallardo et al. 2015; Gallardo-Gallardo, Thunnissen & Scullion 2020; Thunnissen, Boselie & Fruytier 2013). In addition, there are further limitations in some of these previous studies. For example, Mensah, Bawole, and Wedchayanon (2016) collected research data solely from participants who were recognised as talented employees in their organisation which led to sample bias. Moreover, Mensah, Bawole, and Wedchayanon's (2016) study measured the talent management construct from a mono-dimensional perspective. According to Luna-Arocas, and Morley (2015), one of their study's limitations was the use of self-report questionnaires, and they recommended avoidance of this mono-method limitation by collecting data from many sources. Furthermore, all these previous studies that have measured the relationship between talent management and employees' performance through a questionnaire were not based on an exploratory study of talent management in their study contexts. Therefore, the questionnaire does not measure all dimensions of talent management which then leads to measurement bias.

Overall, from the literature review, the following gaps were identified from prior studies: (a) The talent management field needs more empirical research to go beyond assumptions to a theory-driven field (Bolander, Werr & Asplund 2017; Mensah 2015; Thunnissen 2016).

(b) There is a need to digress from Anglo-Saxon countries' contexts, in order to explore differences and similarities in talent management views and practices (Anlesinya et al. 2020; Bolander, Werr & Asplund 2017; Thunnissen 2016; Thunnissen & Arensbergen 2015; Son et al. 2018).

(c) Middle Eastern countries suffer from underexplored or even unexplored talent management research in their contexts, as the talent management field is still lagging behind in these countries (Gallardo-Gallard & Thunnissen 2016; Raheem 2016).

(d) Less than eight percent of empirical research in talent management adopts a mixed methods design. Therefore, there is a need to conduct talent management research with a mixed-method design that will enhance the robustness of the methodological approach. (Al-risis et al. 2014; Anlesinya et al. 2020; Gallardo-Gallardo et al. 2015).

(e) Most previous studies have collected study data from human resource management representatives and neglected employees. Therefore, the collected data could be subjective because they were responsible for talent management (Anlesinya et al. 2020; Krishnan & Scullion 2017).

(f) Previous studies have investigated the influence of talent management on employees' performance, but this lacks the potential for generalisation. For example, Mensah, Bawole, and Wedchayanon's (2016) results cannot be generalised because of their study being conducted in the banking sector and in a country different from Jordan. Another example, Luna-Arocas and Morley's (2015) research was based in Valencia in Spain and investigated the public and private sector. The results of these studies cannot be easily generalised to another context. Additionally, it is still not clear how talent management is related to the various dimensions of employee performance (Mensah 2015)

Table 2.1: Previous studies about talent management

Author(s)	Theory/context	objective	Method	Result(s)	Limitation/ future research
Adamsen 2014	Conceptual	Identify talent in talent management	Literature review	Suggestions for talent definition	Further research to agree about talent definition
Aguinis, Gottfredson & Joo	Conceptual	Nature of the talent war and why it is crucial to win it	Literature review	Using performance management to win the war for talent	Empirically, four recommendations provided in the article
Al-Ariss, Cascio & Paauwe 2014	Conceptual	Offering a talent management research agenda at multiple levels and contexts	Literature review	Identify several trends that influence practice and study of talent management	Suggestions for few research questions that need to be addressed
Al-Majroob, Al-Raggad & Al-Badi 2020	Kuwait	Investigate the impact of talent management strategies on employees' performance	Quantitative	Positive influence of talent management strategies on	Further studies in other contexts

				employees' performance	
Anlesinya, Dartey-Baah & Tawiah 2020	Conceptual	Review strategic talent management research 2007-2019	Literature review	Talent management has positive outcomes for employees and organisational performance	The studies included in the review may not include all the studies published from 2007-2019
Atan & Stapf 2017	Conceptual	Advance the understanding of the talent management conceptualisation	Literature review	Describes talent and talent management definitions, talent management perspectives, and talent management outcomes.	Future talent management research has to focus on region outside of Anglo-Saxon countries.
Beamond, Farndale & Hartel 2016	Resource-based view and	Address how multinational organisations translate their strategies	Literature review	Provides a heuristic framework for translation of	Further talent management studies at the micro level

	Institutional theory			multinational organisational strategies	
Beechler & Woodward 2009	Conceptual	Examine the factors affecting the global war for talent	Literature review	The dominant approach to the talent war is a scarcity state of mind and action	Further research needed to provide evidence-based solutions for human resource practice
Bethke-Langenengger, Mahler & Staffelbach 2011	Swiss organisation	Investigate the impact of talent management on organisational performance	Review dataset of 138 Swiss organisations	Talent management has a positive relationship with job satisfaction	Lack of generalisation to other contexts
Bhatia & Baruah 2020	Conceptual	Explore the the ethical considerations of exclusive talent management	literature review	Exclusive talent management violates equity theory and stackholder theory	Literature review should be based on availability not on systematic literature review

Bibi 2019	Maslow's hierarchy of need theory	Examine the effect of talent management on employees' performance	Quantitative	Positive impact of talent management on employees' performance	Investigate the impact of talent management on organisation performance
Bjorkam et al. 2013	Social exchange theory	Investigate the relationship between talent identification and employees' attitudes	Quantitative	Talent identification has a positive impact on talent attitudes	Lack of generalisations to other contexts
Bolander, Werr & Asplund 2017	Swedish organisations	Exlore talent management pactices	Qualitative	Typology of talent management practices	Lack of generalisation of talent management practice typology to other contexts
Bonnetonet al. 2020	Italy	Examine elite construction of talent management	Qualitative	Mechanism of talent management that leads to exclusive talent management	Methodological limitations in terms of a single case study

Burbach & Royle 2010	German and Irish	Identify how talent is managed in multinational organisations	Qualitative	Factors of success talent management	Adoption of single case study methodology
Butler 2020	Unted Kingdom	Explore talent management practices in midlife careers	Qualitative	Talent in midlife career review helped to identify the importance of second phases of careers	Lack of generalisation
Cascio & Boudreau 2016	Conceptual	Describe the evolution for search of talent competencies	Literature review/ content analysis	Key development of competition for talent	Study global talent management as a discipline in itself
Claus 2020	Conceptual	Create new talent management practices for the future	Literature review	Demographic, technology and globalisation are the major challenges for talent management	Further research to help organisations to overcome these challenges

Claussen et al. 2014	Conceptual	Investigate talent managerial skills that are essential for career promotion	Literature review	Talent manager own experience and expertise affect promotion odd	Explore the impact of context on talent managerial skill
Collings 2014	Conceptual	Reflect on the nature of talent management	Literature review	There is an overemphasis on shareholders in talent management	Further research should focus on shareholders and stackholder interest in talent management
Collings & Mellahi 2009	Conceptual	Critical review of talent management literature	Literature review	Develop clear and concise definition of talent management	Future research to test the talent management definition provided in the article
Collings, Mellahi & Cascio 2018	Resource-based view	Develop framework for the link between global talent management, and organisation and	Literature review	Adoption of global transnational strategy influences the performance at	Test the theoretical framework provided in the article

		individual level at subsiduaries		the organisation and individual levels	
Cooke, Saini & Wang 2014	China and India	Explore talent definition and talent management practices	Qualitative	Adopt best fit approach in talent management	Future studies should explore managerial and non-managerial perspectives on talent management
Crowley-Henry, Benson & Al-Ariss 2018	Conceptual	Examine career literature in talent management	Literature review	Consideration of career development, which is cucial in effective talent management	Further studies on talent management practices as part of downsizing
Dang, Nguyen & Ha 2020	Social exchange theory	Investigate the relationship between talent management and different dimensions of	Quantitative	Talent management has a positive impact on employees' performance	Longitudinal study to examine the relationship between talent management

		employees' performance			and employees' performance
DeBoeck, Meyers & Dries 2017	Conceptual	Examine two assumptions rearding employees' reactions to talent management	Literature review	Support two assumptions about negative and positive reactions to talent management	Further studies to measure employees' reactions at multiple levels
Dirani et al. 2018	United Arab Emirates (UAE)	Explore talent management in the United Arab Emirates	qualitative	Emiratiasation has a significant impact on talent management in the UAE	Further studies to explore talent management in other sectors in the UAE
Dries 2013	Conceptual	Identify the mismatch between talent management scholars and practitioners	Literature review	Provide a basis for theory and methodology of talent management research	Further studies needed to enhance the talent management field to become a mature field

Ei & Abubakr 2019	Qatar	Examine the link between talent management and employees' performance	Quantitative	Talent management significantly affects employees' performance	Inability to reach performance appraisals
Ewerlin & Sub 2016	Germany	Identify the dissemination and configuration of talent management in Germany	Quantitative	Talent management implemented in Germany as a management façade or economic necessity	The study sample should be comprised of employees who are responsible for talent management
Festing, Schafer & Scullion 2013	Germany	Explore talent management in medium sized organisations	Quantitative	Talent management is commonly used in small sized organisations	Further studies needed to enhance theory building in talent management

Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013	Conceptual	Identify the meaning of talent in the organisations	Literature review	Talent definition categorised under subjective and objective views	Further studies to test the framework provided in the study
Gallardo-Gallardo et al. 2015	Conceptual	Examine the talent management field	Literature review/ content analysis	Resource-based review is the dominant theory in the talent management literature	Further studies needed to evolve and grow talent management to a mature field
Gallardo-Gallardo & Thunnissen 2016	Conceptual	Review talent management empirical studies	Literature review	Talent management builds on exclusive approaches	Talent management studies need further rigorous research
Garavan, Carbery & Rock 2012	Conceptual	Examine the talent development concept in the talent management literature	Literature review	Talent targeted for development and the structure of development programs that are	Further studies in talent development needed

				dominant in the talent development literature	
Garrow & Hirsh 2008	Conceptual	Identify approaches to help in effective talent management implementation	Literature review	Suggest a fit and focused approach	Conceptual nature of the article
Hartmann, Feisel & Schober 2010	China	Explore talent management in China	Qualitative	Multinational organisations transfer their talent management strategies without any alteration	Further talent management studies in the Chinese context needed
Iles, Chuai & Preece 2010	China	Explore talent and talent management definitions and challenges	Qualitative	Add four dimensions to talent management (social capital)	Further studies should explore the differences between talent and talent management definitions in organisations

Krishnan & Krishnaprabha 2020	India	Identify talent acquisition	Qualitative	Career planning and employee development are the main objectives of talent acquisition	Lack of generalisation
King & Vaiman 2019	Conceptual	Identify contingent talent management views	Literature review	Provide a framework for contingent talent management	Test the conceptual framework presented in the study
Luna-Acrocas & Morley 2015	Resource-based view	Measure the relationship between talent mindset and job performance	Quantitative	Positive relationship between talent mindset and job performance	Using a mono-method for collecting study data
Mansour & Shehadeh 2020	Jordan	Investigate the impact of talent management on counterproductive performances	Quantitative	There is a negative impact of talent management on counterproductive performances	Lack of generalisation to other contexts

Mensah 2015	Conceptual	Open the black box of talent management and employees' performance	Literature review	Provide a framework for the relationship between talent management and employees' performance	Further study needed to test the framework provided in the article
Mangusho, Murei & Nelima 2015	Kenya	Investigate the influence of talent management practices on employees' performance	Quantitative	Positive influence of talent management practices on employees' performance	Lack of generalisation to other contexts
Meyers 2016	Conceptual	Identify the importance of an inclusive approach	Literature review	Inclusive approach of talent management is effective in enhancing the wellbeing of the workforce	Further studies on inclusive talent management needed

Meyers & Woerkom 2014	Conceptual	Investigate the impact of the underlying philosophy on talent management	Literature review	Four talent management philosophies	Test four propositions presented in the article
Meyers et al. 2019	Countries all over the world	Investigate the influence of HR managers' philosophies on talent management practices	Quantitative	Four talent management philosophies are represented equally through HR managers	Further study about HR managers' philosophical differences
Minbaeva & Collings 2013	Conceptual	Uncover the myths about talent management	Literature review	Seven myths about talent management	Further studies on global talent management
Muratbekova-Touron, Kabalina & Festing 2018	Russia	Explore young talent management in Russia	Qualitative	Talent management is contextualised in Russia	Further studies on the differences between intended outcomes of talent management and the actual outcomes

Nzewi, Chiekezie & Ogbeta 2015	Nigeria	Examine the relationship between talent management and employees' performance	Quantitative	Positive relationship between talent management and employees' performance	Lack of generalisation to other contexts
Nijs et al. 2014	Conceptual	Explore talent definition in multidisciplinary reviews	Literature review	Framework of talent definition	Further studies needed to examine the framework presented in the study
Onwuka, Ugwu & Kekeocha 2015	Nigeria	Examine the effect of talent management on employees' performance	Quantitative	Positive influence of talent management on employees' performance	Small sample size
Parthasarathy & Pingle 2014	Conceptual	Assess talent acquisition in India and provide a framework	Literature review	Framework of talent acquisition in India	Further attention to mobile recruitment

		for effective talent acquisition			
Praise & Kah 2020	Nigeria	Examine the impact of talent acquisition on employees' performance	Quantitative	Positive influence of talent acquisition on employees' performance	Respondent bias
Sadri et al. 2015	Banks in Iran	Examine the relationship between talent management and employees' performance	Quantitative	Positive influence of talent management on employees' performance	Lack of generalisation to other contexts
Sparrow 2019	Conceptual	Examine the progression of the talent management field	Literature review	Identify six concepts related to talent management	Further studies needed
Tansley 2011	Conceptual	Explore talent definitions in organisations	Literature review	No universal definition of talent	Further studies on the impact of context on talent definitions

Thunnissen 2016	Five Dutch universities	Identify what happens in practice in talent management	Qualitative/longitudinal	Talented employees and organisations have different perceptions of talent management	Further studies needed on multiple levels of talent management
Thunnissen & Gallado-Gallardo 2019	Conceptual	Examine the talent management literature in terms of rigour and relevance	Literature review	The quality of empirical talent management studies hindering the progress of talent management	Further rigour needed in empirical studies on talent management to progress the field of talent management

2.7 Chapter summary

This chapter has provided an explanation of the literature regarding study constructs and variables. the literature review chapter structured into Seven sections. it started with presenting an overview of the chapter. In following sections discussed talent, talent management and talent management practices. The most significant information in these sections is there is a lack of consensus on talent and talent management definition. subsequently, employee performance and its dimensions were explained. After review talent management and employees' performance critically a gaps found in this review. These gaps included talent management in Middle Eastern countries needs further attention. Additionally, there is a black box in the relationship between talent management and employees' performances. Therefore, a research needs to fulfill these gaps.

Chapter Three: Measurement and theoretical underpinning

3.1-Chapter overview

In the previous chapter, the literature review was discussed. This chapter covers the measurement and theoretical underpinning of this study as it relates to the research questions and objectives. Measurement in research is to clarify the empirical events through a valid and reliable method (Cooper & Schindler 2011; Zikmund et al. 2013). Moreover, high-quality research should be based on theories and accurate measurement tools (Creswell & Creswell 2018; Kim et al. 2014). Discussing the research results in light of a theory relates to the theoretical contribution of the research. A theory is a statement that describes the relationship between objects through a scientific method based on empirical evidence (Johnson & Christensen 2014; Zikmund et al. 2013).

Based on the qualitative results of this study, three variables emerged under the talent management construct, namely talent acquisition, talent learning, and development and talent retention. The researcher has borrowed several theories that provide a foundation for the study's constructs, variables and their relationship to the building of the study's conceptual model. Thus, the conceptual model is based on talent management and employees' performance and their relationship. A further discussion of the development of the conceptual model is provided in chapter Seven.

The purpose of this chapter is to discuss the measurement and theoretical underpinning of the constructs and variables of the study. This chapter is structured into five sections. The first section provides an overview of the chapter. Section 3.2 discusses talent management constructs, measurements and three variables under it, talent acquisition, talent learning and development, and talent retention. The subsequent section covers measurement of employees' performance. Section 3.4 presents theories underpinning the qualitative and quantitative results of this study. Finally, the chapter summary is provided in section 3.5, while Figure 3.1 shows the graphical layout of chapter three's structure.
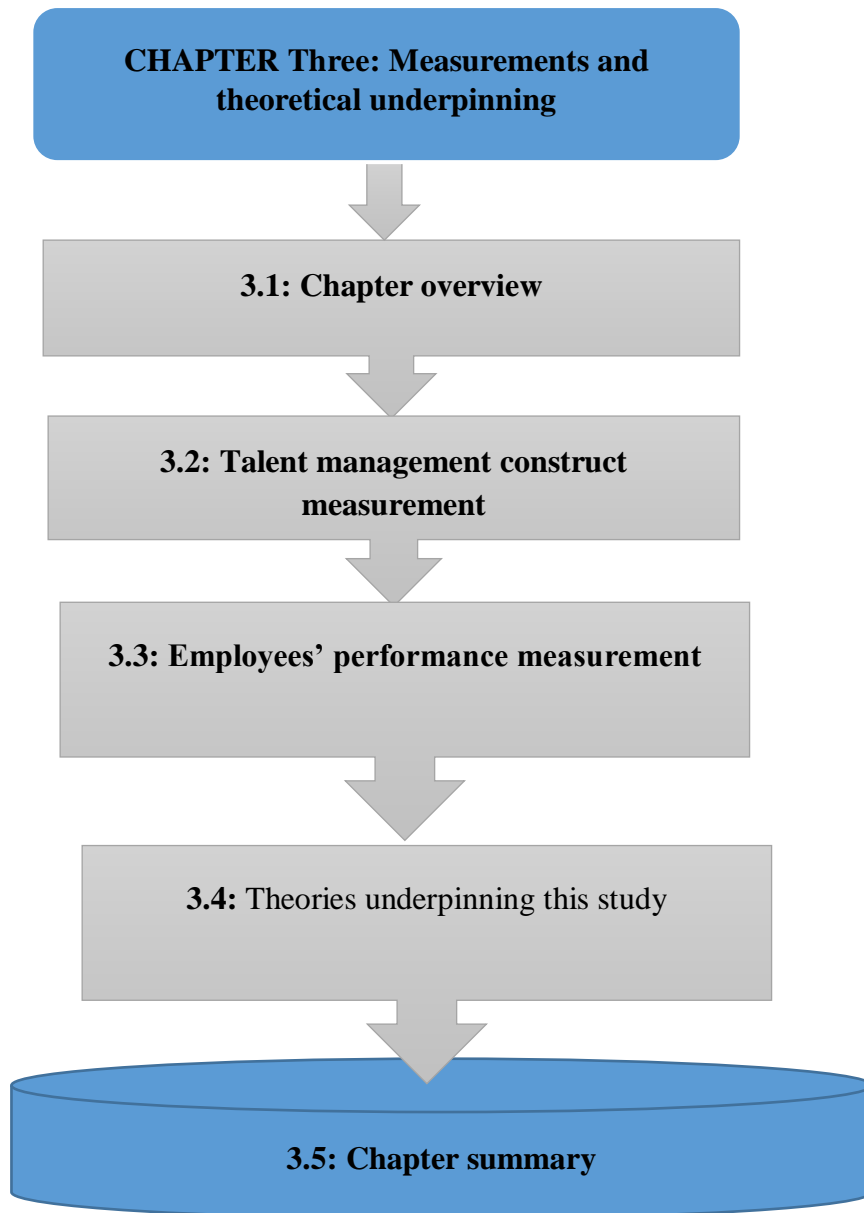
Figure 3.1: A graphical layout of Chapter Three

Source: created by the researcher

3.2 The measurement of talent management variables

Talent management practices that emerged, based on qualitative results, were talent acquisition, talent learning and development and talent retention, further details are found in chapter Six, qualitative data analysis. These three variables were measured through a questionnaire with a five point Likert scale where 1= strongly disagree, 5= strongly agree. As discussed in the previous chapter, there is a lack of consensus on talent management practices and the vast majority of studies is conducted in the Anglo-Saxon context. Thus, the measurement of talent management practice was based on the results of qualitative results and the review of existing literature on these three talent management practices.

3.2.1 Talent acquisition

Many measurements of talent acquisition are found in the literature. For example, Saifalislam, Osman and AlQudah (2014) measured talent acquisition through five items in their questionnaire. Similarly, Tiwari and Shrivastava (2013) measured talent acquisition through five items in their questionnaire. A study conducted by Sadri et al. (2015) also measured talent acquisition through five items in their questionnaire. Phillip and Roper (2009) provided a conceptual framework to measure talent acquisition in their research. This conceptual framework relied on four main categories: traditional tools, psychological assessment, behavioral interviews and personality assessment to assure matching between the talented candidate and the position in the organization.

In the context of this study, talent acquisition was measured through five items in the questionnaire. These items were derived from the previous literature reviews and the results of the qualitative stage of this study. For example, the first item in the questionnaire (My organisation uses objective criteria to select talented candidates) was derived from previous literature (Alkerdawy 2016) and the result of the qualitative stage of this study. The second item was adopted from Alkerdawy's (2016) study. The third and fifth items were developed based on the literature review (McDonnell & Collings 2011; Odeku 2015). The fourth item (My organisation uses different tools (interview and resume filtration) to acquire talented employees) derived from results of the qualitative data in this study. Further details about the questionnaire items can be found in chapter Seven: quantitative data collection.

3.2.2 Talent learning and development

Many studies have measured talent learning and development. These studies have measured talent learning and development, could be divided into Two categories: measure talent learning and development theoretically through identifying best practices for talent learning and development, or via questionnaire items. As an example of the first category, Stahl et al. (2007) reported best

practices for talent learning and development on a global scale. Similarly, McDonnell et al. (2010) measured talent learning and development via four main areas: short and long assignments, global management training, performance management and external qualifications. On the other hand, as an example of the second category, Festing et al. (2013) measured talent learning and development via One item. Additionally, Alekerdawy (2016) measured talent learning and development through Six items, while Gostick and Elton (2007), Saifalislam, Osman, and AlQudah (2014), and Tiwari and Shrivastava (2013) all measured talent learning and development via Five items in their questionnaires. Hitu and Baroda (2018) measured talent development through Two items. Finally, Knott (2016) measured learning and development through Ten items in their questionnaire.

In the scope of this study, talent learning and development were measured through four items in the questionnaire. Similar to talent acquisition, these items were derived from previous literature and results of the qualitative data analysis. The first item (My organisation determines training needs accurately) was developed based on Alkerdawy's (2016) study. The (My organisation identifies the needed area in learning and development based on e.g. psychometric analysis, skill gap analysis, performance appraisal) item, and the (Talented employees participate in their promotion systems) item derived from qualitative data analysis. The third item (My organization identifies accurately the competencies needed to develop talented employess) derived from a literature review (Wuim-Pam 2014), and the results of qualitative data analysis. Further details about talent learning and development measures are provided in chapter Seven: quantitative data collection.

3.2.3 Talent retention

The literature on talent retention adopted several measurements. Tiwari and Shrivastava (2013) measured talent retention through Five items in their questionnaire. In the same vein, Knott's (2016) study measured talent retention via Twelve items in their questionnaire. Similarly, Alkerdway (2016) measured talent retention through Six items in their questionnaire, while Lyria (2014) also adopted Six categories to measure talent retention in the banking sector in Kenya. These categories were competitive compensation, flexible working hours, organisation image, employee motivation, and non-monetary rewards. Strydom, Schultz and Bezuidenhout (2014) adopted Elven items to measured talent retention. Butler's (2020) study highlighted the importance of midlife review in talent retention through a range of main areas, namely training and upskill benefits package, and considering any changes to ways of working. Finally, Marinakou and

Giousmpasglou (2019) measured talent retention in luxury hotels through friendly environment, competitive compensation, learning and development and teamwork.

In regard to this study, talent retention was measured via Five items in the questionnaire. These items are defined from different sources such as literature review, results of qualitative data analysis in this study, and a combination of previous literature and the results of qualitative data. The first item (My organisation retains talents needed to achieve orgnaisation goals) was developed from Alkerdawy (2016). The second item was based on the results of qualitative data analysis and previous literature (Lyria 2014; Strydom, Schultz & Bezuidenhout 2014). Similarly, the third item was based on the results of qualitative data results of this study and previous literature (Lyria 2014). The fourth item was adopted from talent retention measurements in Alkerdawy's (2016) study. The final item (My organisation provides activities that enhance the social life of talented employees) was based on the results of the qualitative data analysis. Thus, the first and fourth items were based on previous literature, the second and third items were based on qualitative data analysis and previous literature, while the final item was based on the results of qualitative data analysis in this study.

3.3 Employees performance measurement

Employee performance measurements have received much attention in previous literature as organisational performance measures through employee performance (Mathew 2015; Mensah, Bawole & Wedchayanon 2016). Thus, Hersey and Goldsmith (2003), Tabouli, Habtoor, and Nashief (2016), and Williams and Anderson (1991) have provided a measurement for employees' performance. However, this study is similar to Dang, Nguyen and Ha (2020) and Mensah, Bawole and Wedchayanon (2016) and has adopted Koopmans et al.'s (2012) employee performance measurements. The reason to adopt this questionnaire to measure employees' performance was based on a number of reasons. Firstly, this questionnaire builds on a systematic review of employees' performance literature from different fields and contexts (Koopmans et al. 2011). Secondly, this questionnaire highlights the multidimensionality of employees' performance, which consists of the employees' performance conceptualization in the current study project. Finally, previous employee performance measurements were developed for specific context, for example Tabouli, Habtoor and Nashief's (2016) which were developed for an Indian bank. Thus, this questionnaire could not be generalised to another context.

In the context of this study, as mentioned in chapter Two's literature review, employee performance is a multidimensional concept comprised of four dimensions, namely task performance, adaptive performance, contextual performance, and counterproductive performance.

Task performance was measured through Six items in the questionnaire. Adaptive performance was measured via five items in the questionnaire, while contextual performance was measured by Six items in the questionnaire. Finally, counterproductive performance was measured through Five items in the questionnaire of this study. Thus, employee performance variables were measured through questionnaire items in the questionnaire, which built on previous literature (Kompans et al. 2012).

3.4 Theories underpinning this study

3.4.1 Theory underpinning qualitative data results

Contingency theory

Contingency theory is dominant in research studies of organisational design, strategies and performance (Van deVen & Drazin 1984). The basic premise of contingency theory relied on the fit between organisational context, strategy and culture (Kulkarni 2017; Van de Ven & Drazin 1984). Thus, an organisation is an open system and should react based on its context (Kulkarni 2017). Selection, interaction and system approaches are the three main approaches of fit in contingency theory (Van deVen & Drazin 1984). The selection approach refers to the fit between organisation and its context characteristics, while the interaction approach refers to the interaction effect of organisational context on its performance (Van deVen & Drazin 1984). Finally, the system approach refers to the organisation's design that can be advanced if it is seen in a simultaneous manner (Van de Ven & Drazin 1984). In other words, the organisation is seen as a dynamic system rather than a single contextual factor. Therefore, based on contingency theory there is no best way for organisations to act but the organisation's actions depend on the extent to which it fits with the context, goals and environment of the organisation (Lartey 2020).

In the context of this study, contingency theory is applied to talent management. Organisations adopt a talent management system that fits with them based on context, environment, and the organisational goals (Ewerlin & Sub 2016; Harney 2016). Hence, Talent management scholars emphasize the importance of the fit between talent management and organisational context (Gallardo-Gallardo et al. 2015; Gallardo-Gallardo, Thunnissen & Scullion 2020). This has been strengthened, based on empirical studies' results, which have reported that talent management is contextualized based on organisational context, organisation size and organisation industry (Thunnissen, Boselie & Fruytier 2013), for example, talent definition, talent management definition and talent management practices and how organisations implement talent management. In this regard, effective talent management could be explained in light of contingency theory (King

& Viaman 2019). Therefore, contingency theory provides a theoretical base for explaining that effective talent management is contingent on the extent to which talent management fit with the organisational context, goals and environment.

Institutional theory

Institutional theory is applied to different fields of study such as culture, communication and human resource management (Lewis, Gardy & Huang 2019). Institutional theory provides the term 'isomorphism,' which means that organizations become similar to each other in the same context (Gallardo-Gallardo et al. 2015). Institutional theory (DiMaggio & Powell 1991) helps in understanding how organisations adopt and implement talent management, and in some cases, why organisations fail to establish and implement talent management (Sidani & AlAriss 2014). DiMaggio and Powell (1991) indicated that organizations are under pressure from three types of isomorphism. Coercive isomorphism is produced by legislation and regulations (i.e. government), imposing a specific pattern of organization practices. Cognitive-cultural isomorphism relies on the premise that organizations follow acceptable behaviors, roles and beliefs in a specific context (Ayentimi, Burgess & Dayaram 2018; House et al. 2004; Kang & Jiang 2012). Normative isomorphism refers to educational institutions (universities), and consultant organizations that act as disseminators of an appropriate organizational pattern; organizations then adopt this organizational pattern under the pressure of these professional organizations (Leicht & Fennell 2008; Scott 2001).

In the context of this study, applying institutional theory to talent management, institutional theory is borrowed to explain theoretically the influence of institutional factors such as national culture, government rules and regulation, and labor market on talent management strategies, implementation and policies (Sidani & AlAriss 2014). Thus, institutional theory explains how the organisation changes or adopts a talent management system to respond to environmental forces (Tarique & Schuler 2010). In this regard, talent management is not deemed to be a technical activity of acquisition, learning and developing, and retaining talented employees but also as an interaction between multiple stakeholders such as government and employee culture (Fruytier & Thunnissen 2013). Accordingly, if the multinational organization did not take into account the institutional factors in transferring talent management to its subsidiary, the result will be failure in implementing talent management in these subsidiaries (Bousseba & Morgan 2008). Therefore, talent management scholars have adopted institutional theory as their theoretical framework to discuss the influence of institutional factors on talent management systems.

3.4.2 Theory underpinning relationship between talent management and employees' performance

Social exchange theory

Social exchange theory is considered as one of the predominant theories in the management field, as well as sociology and social psychology (Cropoanzano et al. 2017). Social exchange theory is the dominant theoretical paradigm clarifying employees' behaviours in a corporation (Cropanzano & Mitchell 2005). Additionally, social exchange theory explores the relationship between two parties where one party (the organisation) needs to trust that the other party that receives the benefits (the employees) will reciprocate these benefits (Shapiro, Jacqueline & Parzefall 2008). In this regard, social exchange theory deals with all social and organisational life as a series of transactions between two or more parties (Mitchell, Cropanzano & Quisenberry 2012). Thus, social exchange theory explains theoretically the nature of the relationship inside the organisation between employees and their organisation.

In the context of this study, social exchange theory has been adopted by a number of talent management scholars (Gallarodo-Gallardo et al. 2015). The use of social exchange theory in talent management research is divided into two streams. The first stream of research has borrowed social exchange theory to explain theoretically exclusive talent management (Gelens et al. 2014). The second stream of research has used social exchange theory to theoretically explain talent management outcomes (employees' performance) (e.g., Dang, Nguyen & Ha 2020; Mensah, Bawole & Wedchayanon 2016). Social exchange theory can be applied to talent management by conceiving of the notion that organisations invest in talented employees (i.e. talent management practices), and the employees reciprocate the organisation's gesture through work outcomes (performance) (Glenns et al. 2014). Therefore, the actions and reactions between the organisations and their employees are contingent upon the characteristics of what each of the parties provides to the other (Festing & Schafer 2014; Shapiro, Jacqueline & Parzefall 2008). Thus, social exchange theory provides a helpful theoretical lens to understand the relationship between the employer's talent management practices (talent acquisition, talent learning and development, and talent retention) and the employee's performance (task performance, contextual performance, adaptive performance, and counterproductive performance) (Dries et al. 2014; Mensah 2015; Meyers 2016). Therefore, in regard to this study, social exchange theory was adopted to discuss

theoretically the mutual relationship between talent management practices and employees' performance in the Jordanian telecommunication industry.

3.5 Chapter summary

This chapter has explained the measurement and theoretical underpinning of this study constructs and variables. In the first section an overview of the chapter was covered. The talent management practices items that derived from qualitative data analysis and previous literature were outlined in section Two, while the employees' performance items that derived from previous literature that based on Koopmans et al. (2012) study's. Additionally, the justifications for adopting Koopmans et al. (2012) questionnaire were addressed in section 3.3. contingency theory, institutional theory and social exchange theory were the theories underpinning this study were explained in section 3.4. Finally, a summary of all chapter sections was covered in the final section.

Chapter Four: Research methodology

4.1 Chapter overview

Research in its common meaning refers to the search for knowledge or solutions in a systematic way (Kothari 2004; Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016). Business research is a scientific method that is organised, data-based and systematic in order to investigate business problems or phenomena (Collis & Hussey 2013; Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016). Based on previous definitions of business research, the aim of it is to utilise information related to business and management problems or phenomena to reach a finding that solves the problem or explores the phenomenon (Babin & Zikmund 2016; Saunders, Lewis & Thornhill 2016). Thus, research is accomplished by collecting related data to provide a manager with findings to help them make decisions. This chapter, therefore, discusses how the scientific method of business and management research has been conducted as part of the methodological approach for the current study.

The research methodology chapter is structured into Ten sections. The first section 4.1 provides a general overview of this chapter. A general explanation about the research philosophy adhered by the researcher in this current study is discussed in section 4.2. Section 4.3 explains the mixed-method research design adopted in this study, which includes the qualitative stage (individual interview) and quantitative stage (survey questionnaire) methods. The subsequent section 4.4 addresses the research approach, which includes the inductive, deductive and abductive approach. The following section 4.5 investigates the qualitative method, while the quantitative method is discussed in section 4.6. The sources of study data, in terms of primary and secondary data, are illustrated in section 4.7. Study population and participant sampling are clarified in section 4.8. Section 4.9 addresses ethical considerations that were deployed in this study in terms of benefit, risk, participant rights and consent forms. In the final section 4.10, all chapter sections are summarised. Figure 4.1 shows all the chapter Four sections.
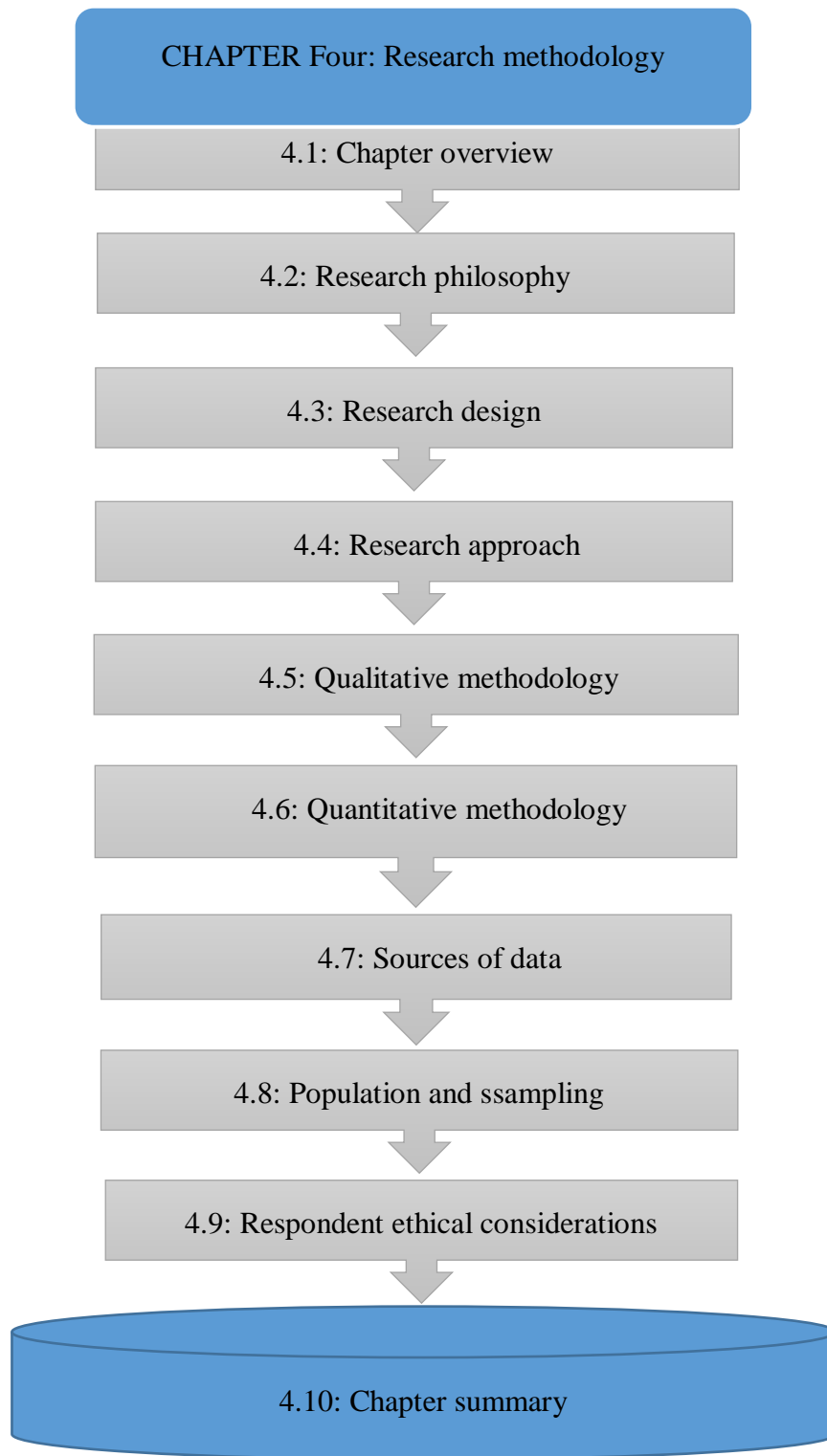
Figure 4.1: A graphical layout for Chapter Four

Source: Prepared by the researcher

4.2 Research philosophy

Research philosophy is related to the development of knowledge and the nature of knowledge (Saunders, Lewis & Thornhill 2016). Ontology, epistemology and axiology are the main branches of research philosophy. Ontology seeks to answer the question of what the nature of reality is, and in what way we assume to see and study reality (Killam 2013; Saunders, Lewis & Thornhill 2016; Scotland 2012). Epistemology is concerned with what is the knowledge, in terms of validity, what constitutes acceptability and how the knowledge is acquired (Cooksey & Mcdonald 2011; Kivunja & Kuyini 2017). The role of values and ethics during the research process refers to axiology. The main question in axiology is about how to deal with researcher and participant values during the research process (Kaushik & Walsh 2019; Killam 2013; Saunders, Lewis & Thornhill 2016). Overall, answering the aforementioned philosophical questions determines the philosophical position of the researcher, which will consequently be reflected in the research question, methods, and analysis.

The philosophical position adopted in this study is pragmatism. Adopting pragmatism paradigm is based on answering the ontology, epistemology and axiology philosophical questions. The reality addressed in this research is seen as stemming from multiple views, and as externally and socially constructed. Thus, there can be either a single or multiple reality (Morgan 2014; Tashakkori & Teddlie 2008). The reality in this study is based on what best enables the researcher to answer the research questions (Saunders, Lewis & Thornhill 2016; Teddlie 2009). Regarding the epistemology philosophical questions, the knowledge is what answers the research questions, provides practical solutions and helps to interpret the data. The axiology-related philosophical questions focus on the role of the researcher and participants' value during the research process. In this study, the values of the researcher and participants is combined between objectivism (value-free) and subjectivism (value-bound). Thus, the response to ontology-, epistemology-, and axiology-related philosophical questions are lined up with the pragmatist paradigm adopted in this study. In conclusion, the pragmatist paradigm focuses on solving the problem, and providing a practical solution, rather than adopt a specific approach or method based on a philosophical position alone. The methods are effective in pragmatism if they achieve the objective of the study (Hothersall 2019; Morgan 2014).

The pragmatic paradigm is incorporated in this study in all stages. The reality in the pragmatic paradigm is rich, complex and external. The Jordanian telecommunication industry's reality is complex, rich and external. Addressing the first research objective requires capturing the rich and

complex multiple realities from human resource managers who are responsible for the talent management program. This includes their experiences, perceptions and opinions about talent management programs in the Jordanian telecommunication industry. By contrast, for the second research objective, the reality is singular, independent from the researcher, and external. The acceptable knowledge and how to access the knowledge in a pragmatic paradigm depends on the research objective. The acceptable knowledge for first resrach objective is human resource management opnions, experiences, and perceptions about talent management in the Jordanian telecommunication industry. This knowledge (study data) was collected through interviews. The second research objective accepted knowledge as the employees' responses to the questionnaire items.

Furthermore, a pragmatic paradigm provides an underlying philosophical framework for mixed-method research (Feilzer 2010; Johnson & Onwuegbuzie 2004; Mitchell 2018; Morgan 2014; Tashakkori & Teddlie 2003), and aligns with the abduction research approach applied in this study, which moves forwards and backwards between observation and theory (Morgan 2007). The pragmatic paradigm reconciled subjectivist and objectivist philosophies (Saunders, Lewis & Thornhill 2016) and permitted the use of a wider range of instruments to collect study data from both objectivist and subjectivist philosophies, for instance interviews and questionnaires. In the same vein, the pragmatic paradigm is concerned with answering the research question and providing practical outcomes without a commitment to any particular research methods or approaches (Mackenzie & Knipe 2006). Thus, the pragmatic paradigm focuses on the aims of the study, addresses the research objectives and considers the research problem as the core of the study, rather than focusing on the research method (Mackenzie & Knipe 2006; Tashakkori &Teddlie 2003). The pragmatic paradigm offers a transfering and generalisation of the suggestions and results of the study after determining the level of context-specificity (Baker 2015). Thus, pragmatism helps to overcome the limitations of other mono-method philosophical approaches.

To sum up, this research adopts the pragmatic paradigm to address its research objectives. The pragmatist paradigm allows the researcher to collect required data by different methods and provide practical solutions with a focus on the core of the study. For the aforementioned reasons the pragmatic paradigm was adopted in this study.

4.3 Research approach
Philosophers of science have divided research approaches into three different approaches: deductive, inductive and abductive (Folger & Stein 2017; Saunders, Lewis & Thornhill 2016). The main difference between these three forms of research approaches is how the research process

is associated with theory (Cho & Lee 2014; Tanwar et al. 2017). The deductive or the hypothetico-deductive approach reaches out towards a logical conclusion based on a true premise by moving from theory to observation (Folger & Stein 2017; Woo, Boyle & Spector 2017). Hence, the deductive approach is followed when an existing theory or hypothesis are developed in the first phase, and the research question will test the theory or retest it in a different context and with a different methodology (Brannen 2017; Cho & Lee 2014; Hamad et al. 2016; O'Dwyer & Bernauer 2014). The inductive approach is concerned with coming up with new knowledge, starting from the observations of the phenomenon of interest to create a new concept or theory (Folger & Stein 2017; Vickers 2014). The final research approach is the abductive approach, which moves backwards and forwards between theory and observation in an effective combination of deductive and inductive approaches (Morgan 2007; Saunders, Lewis & Thornhill 2016; Thornberg 2012; Tsang 2017). The abductive approach explains and discovers new concepts or ideas (Mingers 2012). This research approach allows the researcher to be open and sensitive to the data and use existing theories (Kennedy & Thornberg 2018). Overall, the "abduction is a process of building theory, testing and revising theory, or synthesising multiple theories into a coherent one" (Woo, Boyle & Spector 2017, p. 257).

Deciding what research approach (abductive, deductive, inductive) to adopt in a study is important for two reasons: (1) it allows the researcher to decide the research design, for example, what kind of evidence to collect, and from where it will be gathered; and (2) it helps the researcher to decide about research strategies and methodology. For example, if the researcher is interested in exploring a phenomenon, would there be a need to use an inductive approach. In contrast, if the researcher is interested in what is happening, a deductive approach may be more suitable (Easterby-Smith, Thorpe & Jackson 2012). Deduction and induction are complementary, in of the sense that induction creates new knowledge, concepts and theory, and deduction tests this through different methodologies (Woiceshyn & Daellenbach 2017). A healthy discipline requires a balance between deductive, inductive and abductive research approaches. This balanced relationship provides a confirmation or testing of the validity of existing theory (deductive), the creation of new knowledge (inductive), and the provision of feasible explanations and theories (abduction) (Johnson 2015; Vicker 2014; Woo, Boyle & Spector 2017).

As this research project has adopted a pragmatist philosophy, it relies on the abductive research approach (Mitchell 2018; Morgan 2007). The abductive research approach allows the researcher to move forwards and backwards between theory and observation and to use a combination of inductive and deductive research approaches. This was suitable for the research objectives in this

study. The first research objective was to explore talent management in the Jordanian telecommunication industry. This objective required the researcher to conduct interviews with participants responsible for talent management in the Jordanian telecommunication industry. Accordingly, the inductive research approach was the most suitable tool to acquire rich data from participants about the phenomenon or problem (Brannen 2017; Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016). The results of the analytic-inductive of this study present themes and subthemes regarding talent management programs in the Jordanian telecommunication industry (refer to chapter Six for more details: qualitative data analysis). Thus, the first research objective was addressed.

The abductive research approach allows the researcher to use a suitable research design to address the research objective. The second research objective was to measure quantitatively the impact of talent management practices on employees' performance in the Jordanian telecommunication industry. This objective required the researcher to start from theory to observation and to collect the observations quantitatively through questionnaire items. Thus, the deductive approach was appropriate to achieve the second research objective. The social exchange theory was adopted as a starting point during this stage of the research. This theory was used to provide a theoretical understanding of the relationship between the employer's talent management practices (talent acquisition, talent learning and development, and talent retention) and the employees' performance (task performance, contextual performance, adaptive performance, counterproductive performance) (Dries et al. 2014; Mensah 2015; Meyers 2016). Based on qualitative data analysis, Nine research hypotheses were formulated and a survey questionnaire was developed. Nine research hypotheses were tested to measure the impact of talent management on employee performance in the Jordanian telecommunication industry (refer to chapter Nine and chapter Ten: quantitative data analysis of the thesis). Thus, the abduction approach adopted in this study allowed the researcher to address the research objectives through inductive and deductive research approaches.

4.4 Research design

The research design is an action plan to outline the process of data collection and analysis to answer the study's research questions (Creswell 2014; Saunders, Lewis & Thornhill 2015; Sekaran & Bougie 2016). Research design in the field of business administration has to collect and analyse the data in order to address the research purpose, with a perspective on the economy, in a relevant way (Waithiegeni 2015). A mixed-method design is suitable to overcome the complexity of organisations or to address a study's objectives that cannot be addressed in mono-method design

(Fiorini et al. 2016; Johnson & Christensen 2014; Morse 2016; Saunders, Lewis & Thornhill 2016).

As was mentioned in chapter One, the study design deployed in this study was a mixed-method design (qualitative and quantitative). The justification for adopting a mixed methods design lies along Four dimensions. Firstly, the first research objective of the study was to explore the talent management system in the Jordanian telecommunication industry. In order to meet the first research objective in this study, a qualitative method of in-depth individual interviews was needed to explore what talent management practices are and how they are applied in Jordanian telecommunication organisations. The second research objective was to measure the influence of talent management practices (acquisition, learning and development, and retention) on employees' performance (task, contextual, adaptive and counterproductive performance) in the context of this study. In order to meet this objective, there was a need to measure quantitatively the influence of talent management practices on employees' performance through a survey questionnaire. Secondly, in terms of filling the methodological gap in talent management research, the empirical talent management is either quantitative or qualitative. Less than 8% of talent management research has used mixed-method design (Gallardo-Gallardo & Thunnissen 2016; McDonnell et al. 2017). Thirdly, with regards to the characteristics of the mixed-method design, utilising mixed – method design increases the study's reliability and validity of outcomes by using the benefits of both qualitative and quantitative methods and thus avoiding the limitation of mono-method design (Creswell 2014; Morse 2016; Punch & Oancea 2014; Venkatesh, Brown & Bala 2013). Finally, the pragmatic paradigm adhered by the researcher were this paradigm support mixed method design.

A sequential exploratory strategy was deployed in this study to achieve the aforementioned research objective (Cooper & Schindler 2011; Creswell 2014; Johnson & Christensen 2014; Leavy 2017). Researchers in the first stage explore the phenomenon or the problem through qualitative data and then use the qualitative data results to build a questionnaire in a second quantitative phase (Creswell 2014; Mauceri 2016). This strategy was suitable to comprehend and explore a phenomenon and to develop an instrument that would be tested in the second, larger quantitative phase (Bentahar & Cameron 2015; Creswell 2014). The following figure 4.2 shows the sequential mixed methods design adopted in this study.

Figure 4.2: A sequential mixed methods design
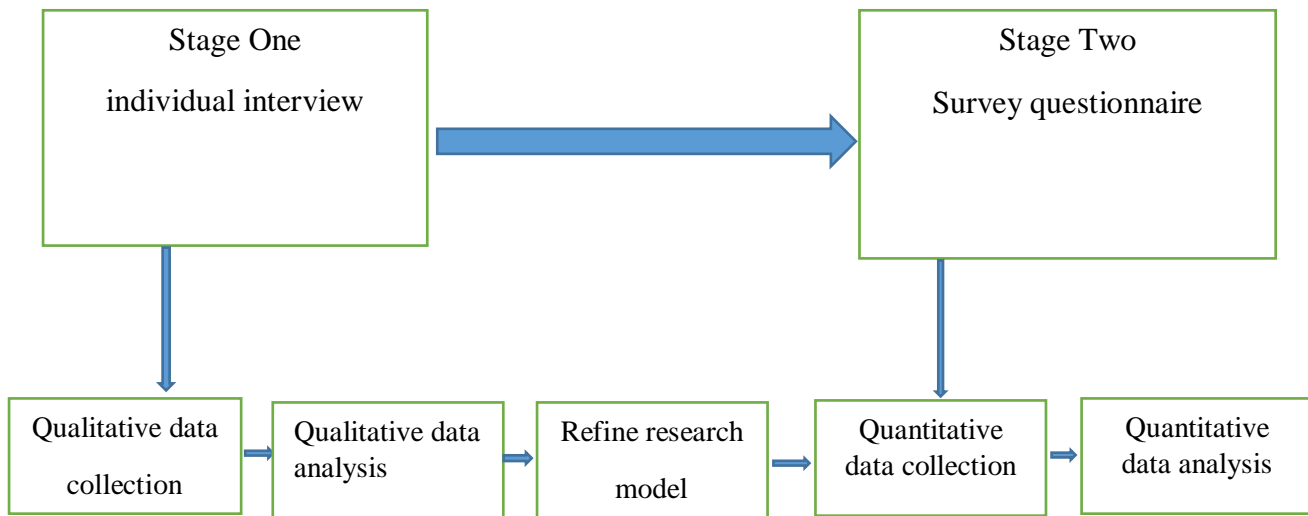
Source: Adopted from Creswell (2014)

As outlined in figure 4.2, the first phase of this study was the qualitative stage. In this phase, the qualitative data was collected through semi-structured individual interviews. The justification to deploy individual interviews to collect qualitative data included: (1) interviews are the most common data collection method, and they seek for interviewees to describe central themes about a study's topic, based on their experience and understanding (Korstjens & Moser 2017; Lucas 2014); (2) one-to-one interviews are performed to acquire in-depth information on a phenomenon or problem under study to address complex research objectives (Al-Arisss, Cascio & Paauwe 2014; Saberiyan 2015); and (3) individual interviews are helpful to develop the questionnaires by using quotes to write questionnaire items to collect the quantitative data (Brédart et al. 2014; Creswell 2014; Veronese, Pepe & Afana 2016). This strategy in developing the questionnaire items enhances its validity and reliability (Creswell 2014).

The individual interview is divided into three types based on its structure (Saunders, Lewis & Thornhill 2016, Sekaran & Bougie 2016): structured, semi-structured and unstructured interviews. In this research, the semi-structured interviews were applied by using open-ended questions to collect sufficient and comprehensive data about the study's topic. This method enables the researcher to ask more questions to acquire data based on interviewees' responses (Ghauri, Gronhaug & Strange 2020; Gururajan et al. 2016; Myers 2019). Semi-structured interviews with open-ended questions are suitable for exploring a problem or phenomenon and can be used to develop a questionnaire in mixed-method design (Brédart et al. 2014). Thus, this research has used semi-structured interviews to enable the interviewees to voice their experiences and opinions

(Saunders, Lewis & Thornhill 2016) about talent management in the Jordanian telecommunication industry.

Based on qualitative data results, the initial research model was refined. Then the questionnaire was developed based on the qualitative phase results, in order to collect the quantitative data. A survey questionnaire was developed to measure the impact of talent management on employees' performance in the Jordanian telecommunication industry. Thus, the survey questionnaires build on qualitative data analysis and were fit for sample and population in this study (Creswell 2014), and they proved to be more credible and objective to generalise the research outcomes than other research approaches (Bryman & Bell 2015; Creswell 2014; Tharenou, Donohue & Cooper 2007).

In conclusion, this study has selected mixed methods (qualitative and quantitative) as its research design to achieve the research objectives. In the qualitative phase, the semi-structured individual interview was deployed to collect qualitative data, while the survey questionnaire was used to collect the quantitative data. The first stage will be discussed in section five of this chapter, and the second quantitative stage is discussed in section six in this chapter.

4.5 Qualitative methodology

Qualitative research is a broad approach adopted in the field of social science to investigate a phenomenon or problem in its natural setting (Creswell 2014; Denzin & Lincoln 2011; Marshall & Rossman 2016). Before and during collecting and analysing the qualitative data, the researcher will have evaluated their reliability and validity. These aspects will be further explained in chapter Five (qualitative data collection), and chapter Six (qualitative data analysis). The researcher has used Lincoln and Guba's (1985) criteria, namely credibility, transferability, dependability, conformability and audit trails, which are widely accepted by qualitative researchers (Nowell et al. 2017). The qualitative phase in the current study is divided into two parts. The first part is qualitative data collection. The second part is qualitative data analysis. The qualitative data analysis aimed to provide a sufficient and comprehensive understanding of the talent management program currently in place in the Jordanian telecommunication industry. Figure 4.3 summarises the qualitative method that was deployed in this research project.

Figure 4.3: Qualitative methodology stages

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┌─────────────────────────────────────────────────────────┐
│                 Qualitative methodology                  │
└─────────────────────────────────────────────────────────┘
                           ↓
┌─────────────────────────────────────────────────────────┐
│                     Data collection                      │
└─────────────────────────────────────────────────────────┘
                           ↓
┌─────────────────────────────────────────────────────────┐
│                       Pilot study                        │
└─────────────────────────────────────────────────────────┘
                           ↓
┌─────────────────────────────────────────────────────────┐
│         Revise interview questions based on pilot study  │
└─────────────────────────────────────────────────────────┘
                           ↓
┌─────────────────────────────────────────────────────────┐
│     Conduct individual interviews: interviews with       │
│     individuals                                          │
└─────────────────────────────────────────────────────────┘
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┌─────────────────────────────────────────────────────────┐
│                Writing the answer literally              │
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                           ↓
┌─────────────────────────────────────────────────────────┐
│                      Transcription                       │
└─────────────────────────────────────────────────────────┘
                           ↓
┌─────────────────────────────────────────────────────────┐
│   Data analysis: manual methods and thematic analysis    │
│   software                                               │
└─────────────────────────────────────────────────────────┘
                           ↓
┌─────────────────────────────────────────────────────────┐
│                 Refine the conceptual model              │
└─────────────────────────────────────────────────────────┘
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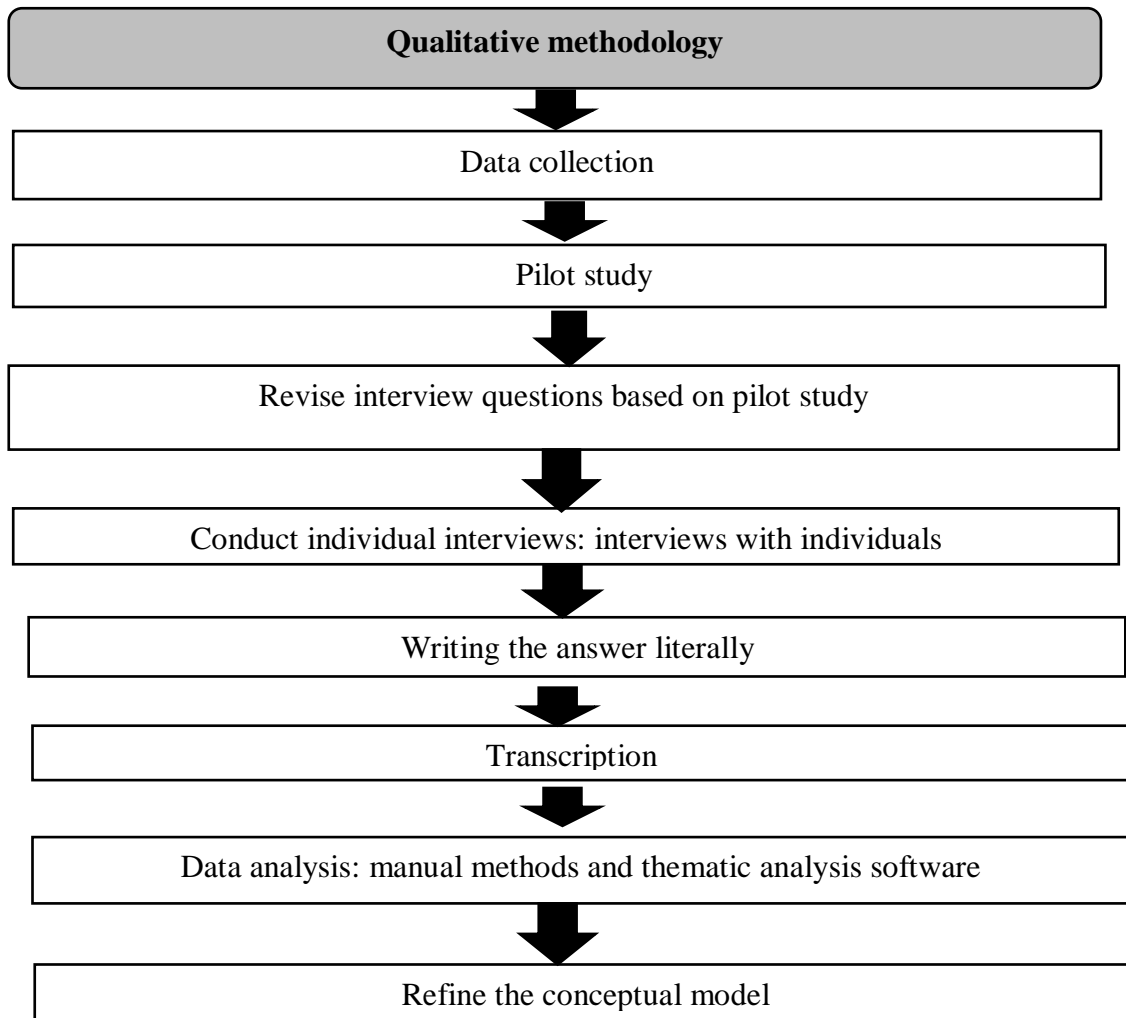
4.5.1 Qualitative data collection

Qualitative data collection is an integral part of research design (Sekaran & Bougie 2016; Zikmund et al. 2013). The qualitative data were collected in this study by semi-structured individual interviews to gain an in-depth understanding of the research topic (Creswell 2014; Saunders, Lewis & Thornhill 2015). They were sufficient to address the first research objective: explore the talent management program in the Jordanian telecommunication industry.

The step-by-step procedures used in collecting qualitative data in the current study were discussed in chapter Five. The following points are highlighting the main procedures in the qualitative data collection:

(1) Introduction of individual interviews.

(2) Justification of the qualitative method.

(3) Pilot study.

(4) Administering the qualitative data collection. This was divided into three significant aspects: (a) selection of the participants; (b) structure of qualitative interview technique; (c) pre-qualitative interview technique and steps involved.

(5) Conducting an individual interview.

(6) Understanding the challenges and difficulties of using qualitative techniques and how to overcome them; and

(7) Outlining the summary, justifications, administrating and challenges of the qualitative data technique deployed in this study.

4.5.2. Qualitative data analysis

Qualitative data analysis is the processing of qualitative data that has been gathered through the analytical tool into a clear and understandable meaning (Gibbs 2018; Zikmund et al. 2013). Qualitative data analysis is not a linear process, because the coding helps the researcher to develop themes and to display the themes. Then the feedback from this process may change the way of coding, and subsequently, the development of the themes and displays (Sekaran & Bougie 2016). Before conducting the qualitative data analysis, the researcher has two considerations. Firstly, the participants in the interviews were provided with a copy of the interview transcription the day after the interview to seek their approval before including it in the qualitative data analysis. Secondly, all interviewees were provided with sufficient time to review the transcript to request any changes. The researcher therefore advised the interviewees to return the transcript within one week and sent a reminder after three days.

Qualitative data analysis procedures and processes were conducted to extract constructs, themes, and variables from the qualitative data. The transcriptions were analysed manually and thematically using NVivo 12 to code, and to create categories and themes (Ngulube 2015; Paulus & Bennett 2017). Hence, the qualitative data analysis was a significant way to refine and revise the study model by adding/deleting one or more constructs, themes, or variables of talent management in the Jordanian telecommunication industry. Thus, after data analysis, the researcher could explore the talent management program in this industry in terms of talent management practices, talent management definitions and the steps followed in each talent management practice. The qualitative data analysis results were used to develop a survey questionnaire to collect the quantitative data in the second phase of this study. The procedures of qualitative data

analysis are fully explained in chapter Six of this thesis. The following key points are described in chapter Six:

1- Introduction of qualitative data analysis
2- A qualitative pilot study, and
3- Qualitative data analysis.

4.6 Quantitative methodology

Quantitative research measures the relationship between variables using different statistical techniques to examine objective theories (Creswell 2014; Sarantakos 2013; Saunder, Lewis & Thornhill 2016). As in the qualitative data phase, quantitative data are divided into two phases: firstly, quantitative data collection, and secondly quantitative data analysis. These phases aim to address the second research objective (measure the impact of talent management on employees' performance in the Jordanian telecommunication industry). Figure 4.4 summarises the quantitative methodology that was used in this research.

Figure 4.4: Quantitative methodology

Quantitative methodology

Data collection

Survey development

Content and face validity: a number of experts and academics

Pilot test: (10%) of actual sample to detect the feasibility

Conducting actual survey: to collect quantitative data

Data analysis

- Validity test: To validate the questionnaire instrument
- Reliability test: To ensure the survey instrument has reliability and stability
- Univariate analysis: To describe the respondents' information in a sample
- Multivariate analyses: To test the conceptual framework of the study
- Using SPSS & AMOS software

Obtaining and discussing results

As outlined in figure 4.4, a quantitative study has two parts: quantitative data collection and quantitative data analysis.

4.6.1 Quantitative data collection

Quantitative data collection is a process of gathering data that can be presented as a number (Male 2016; Zikmund et al. 2013). Quantitative research is a systematic and empirical method, which includes data in the form of a number (Punch & Oancea 2014). After completing the qualitative method phase, this research moved to the second research phase (quantitative phase). The survey questionnaire was developed based on qualitative data analysis and previous literature, then administered to employees in the Jordanian telecommunication industry. The questionnaire is a set of items to which the participant records their response (Sekaran & Bougie 2016). A five-item Likert scale was selected in the questionnaire of the current study project, which was considered to be one of the most suitable forms of data collection for quantitative data (Male 2016; Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016).

Before administering the survey questionnaire in this study, face and content validity were conducted. Face validity refers to the estimation of the clarity of questionnaire items (Mcelory & Esterhuizen 2017). Content validity involves experts and academic judgments relating to whether the questionnaire items reflect the content's aim, examining the construct, and considering its relevance (Newell & Burnard, 2011; Streiner, Norman & Cairney 2015). Experts and academics test the content and face validity of the questionnaire items in terms of their relevance and adequacy. This procedure is considered significant to the questionnaire structure and ensures its quality (Kimberlin & Winterstein 2008; Ritchie et al. 2013). The researcher prepares a special form of a questionnaire and sends it to academics and experts in the field of human resource management. In this case, the questionnaire was sent to Fifteen experts: Eight academics and experts from Jordan and the rest from outside Jordan. The reasons were: (1) to double-check the translation of the questionnaire items from English to Arabic; (2) to gain the experience of academics and experts from Jordan, in particular with regards to any cultural changes required in the wording of the questionnaire; (3) to obtain different views on the questionnaire that could be incorporated into the questionnaire content and design.

After refining and revising the questionnaire items based on expert and academic judgment, the pilot study was conducted with approximately 10% of the quantitative sample (Lyria 2014; Waithiegeni 2015). The pilot study was done to evaluate the feasibility of the questionnaire tool.

The procedure of quantitative data collection is fully discussed in chapter Eight of this thesis. The following key points are illustrated in chapter eight:

1- Quantitative method justifications
2- Survey questionnaire development
3- A quantitative pilot study
4- Administering the survey questionnaire, and
5- Difficulties, challenges, and strategies followed to minimize the quantitative data collection.

4.6.2 The quantitative data analysis

The quantitative data analysis comprises the processing of quantitative raw data that have been gathered to make them useful (Heale & Twycross 2015; Saunders, Lewis & Thornhill 2016; Zikmund et al. 2013), and it is usually used to test theory (Tharenou, Donohue & Cooper 2007). As shown in figure 4.4, the quantitative data analysis contains several tests: descriptive statistics (standard deviation, frequency), validity, reliability and multivariate analysis (regression, correlation, structural equation modelling analyses). This analysis technique is used in chapters nine and ten of this thesis.

4.6.2.1 Validity testing

Validity is a concept of interest which helps to identify to what extent something measures what it is supposed to measure (Field 2018; Hair et al. 2010; Pallant 2013). This study adopted several ways to measure the validity, for instance, content, face and construct validity (Cooper & Schindler 2011; Drost 2016; Pallant 2013). The content and face validity were discussed in section 4.6.1 of this chapter because content validity is conducted before quantitative data collection. In brief, the questionnaire survey is sent to academics and experts in the field of human resource management to seek their judgment about the clarity of questionnaire items in terms of meaning, grammar and suitability of questionnaire items. The construct validity test assesses to what extent the measurement used accurately tests the hypothesis or theory they are measuring (Ginty 2013; Pallant 2013). Exploratory factor analysis is used to evaluate the construct validity of the measurement model, which is widely used in social science (Osborne & Costello 2009; Yong & Pearce 2013). The results from exploratory factor analysis may expose one or more latent constructs or variables that are suggested in the conceptual framework model. The convergent

validity of the measurement model of the study could be assessed by a number of statistical techniques for the instance average variance extracted technique (Hair et al. 2016).

4.6.2.2 Reliability testing

Reliability refers to the extent to which the measurement procedure produces the same result on repeated trials (Bhattacharyya et al. 2014). The Cronbach alpha (Coefficient alpha) was conducted to examine the reliability of the quantitative data (Field 2018; Hair et al. 2010; Johnson & Christensen 2014). The value of the Cronbach alpha ranges between 0 to 1; values above .70 are considered an acceptable minimum value (Field 2018, Hair et al. 2016; Pallant 2013). This statistical test was performed for each variable independently, even though several statistical tests can be performed to measure the reliability, for example, the composite reliability technique and mean inter-item correlation values (Bagozzi &Yi 1988; Pallant 2013).

4.6.2.3 Descriptive statistics

Descriptive statistics were used to describe the characteristics of the sample, for instance, demographic data in terms of age, qualification, gender and experience. Moreover, univariate analysis was examined by reporting on measures of central tendency (mean) and dispersion (standard deviation).

4.6.2.4 Correlation, regression, and structural equation modelling analysis

Correlation, simple regression, and structural equation modelling analyses were used to identify and measure any relationship between talent management and employee performance in the Jordanian telecommunication industry. Simple regression and structural equation modelling were performed to test the research hypotheses. The statistical package for social science (SPSS 26 software (version 26) was used for correlation and simple regression. Analysis of moment structure (AMOS) software (version 26) was used for structural equation modelling. Simple regression and structural equation modelling were used for the same purpose, namely to investigate the relationship between talent management and employee performance in the Jordanian telecommunication industry. The reason to use both statistical techniques was to maximise the reliability of the quantitative results of the study (Graham 2003; Hair et al. 2011; Jeon 2015). Moreover, performing regression and structural equation modelling in the same study provides more flexibility to examine the relationships between theory and data. In this regard, regression analysis should be used firstly, followed by structural equation modelling as a second-generation analysis technique (Chin 1998; Gefen, Straub & Boudreau 2000).

In this study, the simple regression was conducted as a first-generation analysis technique to examine the relationship level between talent management practices and employee performance

in the Jordanian telecommunication industry (Field 2018; Jeon 2015; Pallant 2013). Structural equation modelling was then used to investigate the extent to which the study met high qualified statistical analysis (Byrne 2010; Hair et al. 2010; Hair et al. 2011). Structural equation modelling provides a progressive level of statistical analysis and confirms the results that were obtained by simple regression analysis through providing a further investigation into the relationship between talent management and employee performance in the Jordanian telecommunication industry. In addition, structural equation modelling can deal with more than one independent and dependent variable in the study model (Kline 2016; Lau et al. 2016). Structural equation modelling utilises AMOS, which was simultaneously performed to investigate direct and indirect structural links, multiple independent composite variables and dependent composite variables (Lau et al. 2016; Othman & Naintin 2016; Vikkraman & Duraikannan 2015). AMOS software is considered the most commonly used and available program among other structural equation modelling packages (Awang, Afthanorhan & Asri 2015; Byrne 2016). Therefore, structural equation modelling was utilised as the statistical analysis program in the current study.

4.7 Source of data

Research data comprise evidence obtained by the researchers from the research environment (Cooper & Schindler 2011). There are two categories of data based on their sources: the primary and secondary data used in the research (Hox & Boeije 2005).

4.7.1 Primary data

Primary data are gathered to address the research objectives, using instruments such as interviews and questionnaires (Cooper & Schindler 2011; Hox & Boeije 2005). The primary data of this study were collected through mixed-method techniques. These techniques include individual interviews and survey questionnaires. The primary data were collected from human resource managers and employees in the Jordanian telecommunication industry.

4.7.2 Secondary data

Secondary data are collected from different sources such as books, journal articles, theses, organisational reports, data archives, and official statistics (Cooper & Schindler 2011; Hox & Boeije 2005; Zikmund et al. 2013). Published data are beneficial to the researcher as they are widely available (Zikmund et al. 2013). Secondary data have some advantages such as saving time and cost; these data can be collected more quickly and cheaply because they are easily accessible (Hox & Boeije 2005; Zikmund et al. 2013). Secondary data could include both quantitative and qualitative data, and finding it requires some skill in detection work in terms of validity and credibility of the data (Rozenblat et al. 2017; Saunders, Lewis & Thornhill 2016). In this study,

the secondary data were obtained from different sources with some considerations and priorities. These considerations and priorities included: (1) high-quality peer-reviewed journal articles; (2) high quality published books; (3) peer-reviewed journal articles; (4) published books; (5) unpublished doctoral theses.

4.8 Population and sampling

This section contains two subsections: target population and sampling, which in turn includes three subdivisions: sampling criteria, sample frame and sample size.

4.8.1 Target population

A population is a full set of cases from which a sample is selected (Bryman & Bell 2015; Cooper & Schindler 2011; Saunders, Lewis & Thornhill 2016). Determining the target population and the appropriate sample occurs prior to data collection (Zikmund et al. 2013). The target population is defined in terms of time, geographical boundaries and elements (Sekaran & Bougie 2016). Thus, determining the target population is the first stage in selecting the sample (Cooper & Schindler 2011; Zikmund et al. 2013).

The target population for the current study comprised employees in the Jordanian telecommunication industry, which included three organisations: Zain, Umniah, and Orange. The Zain organisation is the first private telecommunication organisation in Jordan, with 5,903 million subscribers, and it is a branch of Zain group. Zain Jordan incubates innovative and creative ideas of Jordanian talent and provides them with all the facilities and support to transfer their ideas into productive projects. The Umniah organisation was launched in 2005; it has achieved considerable market share in the highly competitive and fast-growing Jordanian telecommunication industry and it is a subsidiary of Batelco Bahrain. Umniah has selected Halogen's talent management system, and aims to pursue the talent management system in the Umniah organisation, which reflects on its hiring process. The Orange organisation is a joint ownership between the Jordanian government and France telecom and has more than five million subscribers in Jordan. Orange Jordan received the top employer brand award for 2018 for the third consecutive year from the global Top Employer Institute, for its success in implementing talent management practices. The size of the target population is 3396, divided as follows: 1300 for the Zain organisation; 1546 for the Orange organisation; and 550 for the Umniah organisation

The employees in the Jordanian telecommunication industry were the focus and target population in this current study for five reasons.

    1- They were accessible and convenient to the researcher to collect the study data.

2- The location of the target population enabled the researcher to collect the data with cost and time savings, as well as being practical.

3- Jordan's service organisations, in particular telecommunication organizations, rely on human capital and play a vital role in the Jordanian economy, generating $ 1.523 billion in revenues in 2014, representing 4.3% (Oxford business group 2014; Qutaishat & Al-manasra 2016).

4- The Jordanian telecommunication industry faces salient challenges in terms of extremely demanding environments (Weshah, Al-mansrah & Al-qatawneh 2019). Yet, the Jordanian telecommunication industry occupied the second place in Arab world industry competitiveness (Alnsour, Abu-tayb & Alzyadat 2014), indicating its strength.

5- Jordan is one of the Middle-Eastern countries that is considered an underexplored area in talent management research (Gallardo -Gallardo 2016; Raheem 2016). However, on the practical side, the Orange telecommunication organization in Jordan received an award from the global top employer award for the third consecutive year. This award reflects the company's efforts in implementing talent management (Orange web site 2019). As another example, the Zain organisation has a talent development position (Zain organization web site) which reflects the organisation's interest in talent management. Finally, the Umniah organisation has chosen to deploy the Halogen talent management system as a talent management program in its organization (Umniah website). Together, this reflects an interest in the Jordanian telecommunication industry in talent management.

4.8.2 Sampling

The target population phase is followed by the sampling phase. The sampling phase refers to drawing a sample from the population (Cooper & Schindler 2011; Johnson & Christensen 2014; Leavy 2017; Sekaran & Bougie 2016). There are two designs for sampling: probability and non-probability sampling (Creswell 2014; Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016;). The first stage (qualitative stage) in this study selected the non-probability purposive sampling technique. The purposive sampling technique is widely used in qualitative research, where the researcher selects the most data-rich participants (Etikan, Musa & Alkassim 2016; Teddlie & Yu 2007). A probability simple random sample technique was deployed during the second stage (quantitative stage) to select the participants (Levy & Lemeshow 2013) from the Jordanian telecommunication industry.

The purposive sampling technique was performed during the qualitative stage in this study for several reasons:

1- Purposive sampling helps the researcher to obtain rich and sufficient data from limited chosen participants (Gururajan et al. 2016; Saunders, Lewis & Thornhill 2016). Hence, purposive sampling helps the researcher to select participants who understand and shape talent management in their organisation. Thus, they would be able to help the researcher to address the first research objective in this study.

2- It can be useful to explore the phenomenon and gather sufficient data about it (Lwin & Lynch 2015; Spearman 2015). In this case, it helped the researcher to explore the talent management phenomenon in the Jordanian telecommunication industry, as talent management is considered to be underexplored in Middle Eastern countries (Gallardo-Gallardo 2016; Raheem 2016), and

3- Purposive sampling may also be significant to ensure the quality of data collected (Gururajan et al. 2016; Tongco 2007).

The justifications for adopting a simple random sample technique in the quantitative stage are to avoid bias in selecting the sample and therefore to provide statistical rigour (Creswell 2014; Johnson & Christensen 2014; Saunders, Lewis & Thornhill 2016). This technique permits the researcher to generalise the results to the population (Johnson & Christensen 2014; Migiro & Magangi 2011; Sharma 2017). This technique also has benefits if the population is homogeneous and extensive (Bryman 2015; Collins et al. 2007; Migiro & Magangi 2011).

4.8.2.1 Sample frame

The sample frame for probability sampling is referred to as all lists of cases in the population (Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016). The sample frame of this study was drawn from the human resource management departments. The researcher had to ensure that the sample frame was updated, accurate and complete (Sekaran & Bougie 2016). An incomplete sample frame list will lead to new cases that have been excluded, or include cases that are not available. This affects equality in selecting the cases (Saunders, Lewis & Thornhill 2016), thereby affecting the generalisation from the sample to the population. Sekaran and Bougie (2006) indicated that the researcher can ignore small discrepancies between the sample frame and the target population.

4.8.2.1 Sampling criteria

The sampling criteria is the determination of the cases that are eligible to be considered based on specific characteristics. This study adopted two techniques of sampling: non-probability purposive sampling, and probability simple random sampling. Hence, there are two criteria for considering the eligibility of two samples. The sample criteria followed in non-probability purposive sampling

are to select participants responsible for talent management in their organisations and those participants are human resource managers and line managers (Bolander, Werr & Asplund 2017; Cooke, Saini & Wang 2014; Illes, Chaui & Preece 2010; Sidani & Al-Ariss 2014). By contrast, the sample criteria for probability simple random sampling for each employee have the same probability as they are considered to be part of the sample.

4.8.2.3 Sample size

Determining the appropriate sample size depends on many factors. These factors include: (1) the type of statistical analysis; for example, structural equation modelling requires a sample size of at least more than 200 participants and exploratory factor analysis requires more than 300 participants (Barrerr 2007; Tabachnick & Fidell 2014); (2) the saturation level of data collected, such as in qualitative sample size (Boddy 2016; Kong et al. 2013; Malterud, Siersma &Guassora 2016; Peet et al. 2010); (3) the size of the population (Saunders, Lewis & Thornhill 2016); and (4) the confidence interval and confidence level (Sekaran & Bougie 2016). In this study, the qualitative sample size is determined based on the saturation level. This approach is widely accepted in qualitative studies (Fusch & Ness 2015; Given 2016; Urquhart 2013) and helps the researcher to address the first research objective. The qualitative sample size was 14 participants from the Jordanian telecommunication industry, Five participants from the Zain organisation, five participants from the Orange organisation, and Four participants from the Umniah organisation. Table 4.2 shows a summary of the population and sample size in the current study project.

The quantitative sample size is determined based on several factors. Firstly, the statistical analysis adopted in this study. There is empirical evidence that the structural equation modeling requires more than 200 participants (Byrne 2016; Fabrigar, Porter & Norris 2010; Hoe 2008; Igundunasse 2016; Kuo & Yang 2013; Lei & Wu 2007; Siddiqui, Mirani & Fahim 2015; Taherdoost, 2016). Secondly, the sample size is equal to the function of the questionnaire items with at least Five (Hair et al. 2010; Rourke & Hatcher 2013), using a mathematical formula (e.g. Krejcie & Morgan, 1970). The quantitative sample size in this study, which was 346, was compatible with the aforementioned factors. This number is compatible with the statistical analysis adopted in this study in terms of structural equation modeling and exploratory factor analysis. This number is also compatible with the function of questionnaire items with at least Five, where the questionnaire items in this study were 42. Thus $42 \times 5 = 220$. Finally, Kerci and Morgan's (1970) table of determining sample size indicates that a population of 3500 needs a sample size of 346. Thus, the sample size in the quantitative stage of this current research was compatible with three points of view in the literature regarding the determination of the quantitative sample size.

The researcher administered 400 questionnaires among three Jordanian telecommunication organisations (Zain, Orange, and Umniah). The reason for administering the questionnaire to more than the required sample was to adequately deal with the response rate and to keep the sample representative (Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016). This technique saves time and cost for the researcher (Saunders, Lewis & Thornhill 2016). The researcher determined the number of questionnaires to administer (400 questionnaire) based on the researcher's knowledge of Jordanian culture. The collectivist cultural value is dominant in Jordan where all the group members help each member in the group (Cho & Yoon 2009; Ewerlin 2013; Kulkarni et al. 2010; Triandis 2001). Further discussion about the quantitative sample size is provided in chapter Eight of this thesis. Table 4.2 shows a summary of the population and the research sample.

Table 4.1: The population and research sample

Description	Qualitative study	Quantitative study
Population	Jordanian telecommunication industry employees	
Justification	Accessibility, feasibility, cost, time, characteristics of the Jordanian telecommunication industry	
Sampling method	Non-probabilistic: Purposive	Probabilistic: simple Random
Sample size	14	346

4.9 Respondent ethical considerations

Moral research in the field of business and management research consists of ethical behavior that guides the research, starting from topic formulation to writing the research report (Cooper & Schindler 2011; Saunders, Lewis & Thornhill 2016; Zikmund et al. 2013). Ethical concerns are greatest when dealing with humanity as a sample of the study (Saunders, Lewis & Thornhill 2016). A great number of scholars maintain that ethical considerations are significant in guiding the researcher in conducting his/her research to avoid any ethical problems between researcher, participant and organisation, and even between participants (Creswell 2014; Hesse-Biber & Leavy 2011; Ritchie et al. 2013; Saunders, Lewis & Thornhill 2016; Tharenou, Donohue & Cooper 2007; Zikmund et al. 2013). The researcher may have to deal with a number of issues, such as consent forms, affiliation, conflicts of interest, harm to participants, confidentiality, and anonymity (Bryman & Bell 2015; Easterby-Smith, Thrope & Jackson 2015; Tharenou, Donohue & Cooper 2007; Zikmund et al. 2013. This study involved human participants in individual interviews and a survey questionnaire. Therefore, the researcher was required to follow all required procedures to obtain ethical approval from the University of Southern Queensland's Office of Research/ Human Research Ethics Committee. This research complied with the national statement on ethical conduct

in human research (2007). Full ethical approval was obtained from 09/08/2019 to 09/08/2022 with the ethical approval number H19REA149. The ethical approval letter from the University of Southern Queensland's Ethical Committee is shown in Appendix A. In terms of communication of research outcomes, the researcher facilitated a debriefing of the results of the study. Participants were provided with the research team's contact details and could thus ask for the results. Another way to communicate the research results was that the researcher could send the results to the human resource manager in each organisation in the Jordanian telecommunication industry, who would then circulate it to their employees. Three key ethical considerations have been considered in this research in compliance with ethical requirements: benefits and risks, informed consent, and respondents' rights and protection (Arifin 2018; Cooper & Schindler 2011).

4.9.1 Respondents' benefits and risks

Maximising the benefits and minimising the risks is an ethical imperative in research (Jacobsen 2020). It is important to explain the possible benefits related to participation in the research to participants beforehand (Castillo, Jandrof & Thelemaque 2012; Leavy 2017). The researcher has to explain and report the important benefits to the participants to be ethically acceptable (Punch 2005). Following this principle, the researcher communicates many advantages:

1- The participants (the qualitative study) had the opportunity to fully discuss any issues in talent management from a research point of view.
2- The participants (qualitative and quantitative) benefitted from the results and recommendations of the study, which may enhance talent management programs in their organisations.
3- The participants (qualitative and quantitative) benefitted indirectly in terms of enhancing the body of knowledge of talent management worldwide.

Risk in research refers to any procedure or action that could be harmful to participants (Furniss et al. 2016; Jack et al. 2005; Wessele & Visagie 2017). It is essential to deal with the risks arise while conducting research (Swift et al. 2008). In terms of the qualitative stage, there was minimal risk associated with participants' involvement. This minimal risk in this case was time imposition which varied from 30-49 minutes. The researcher implemented the following procedures to minimise the potential risks of the research. Firstly, participation in the study was voluntary. Secondly, the participants were informed that they had the right to withdraw at any time. Thirdly, the development of the data collection instrument was under the supervision of appropriate experts, academics, a supervisory team, and the Jordanian telecommunication organisations. The research aimed to answer questions of how, what, why, and where, rather than focus on the name

or identification of participants who provided the study data. The data contained in the participants' identification remained confidential within the research team. Furthermore, anonymity was ensured by removing all participants' details prior to reporting the results and publication. In terms of the quantitative study, the risk was minimal with regards to the time it took to fill out the questionnaire. The questionnaire respondents were not required to fill in their name and it was used for academic purposes only. Before administering the questionnaire survey, a pilot test was conducted to ensure the wording of the questionnaire items did not include any ethical concerns. In addition, the questionnaire was checked by an employee in each of the responsible Jordanian telecommunication industries to make sure the questionnaire items did not include any ethical concerns. These strategies were followed to minimise the risks in the quantitative stage of research.

4.9.2 Respondent consent forms

A respondent consent form was delivered by the researcher to the expected participants and aimed to provide sufficient information about the research to help the participants understand what the researcher wanted them to do (Creswell 2014; Saunders, Lewis & Thornhill 2016; Zikmund et al. 2013). Prior to conducting the research, the participants should have completed the consent form. The consent form applied to both the qualitative and quantitative stages. After the participant had approved their participation, the researcher advised them that participation was voluntary and they could withdraw at any time. The consent form for the qualitative study is provided in Appendix C and the consent form for quantitative study is available in Appendix C. There are several differences between qualitative and quantitative consent forms. These differences are based on the difference between the interviews and survey questionnaires; for example, the qualitative consent form mentioned the interview while the quantitative consent form focused on filling in the questionnaire. Both quantitative and qualitative consent forms comply with ethical guidelines.

4.9.3 Respondent rights and protections

The researcher has adhered to guidelines and instructions about data protection provided by experts and the Librarian at the University of Southern Queensland. The research data were stored on the researcher's private computer at the University of Southern Queensland (USQ), managed by USQ ICT services. This computer is locked by a password. After completion of the study, all digital data were stored in the USQ record repository. In terms of data retention, the data were stored in the USQ cloud storage site, which has been designed to store USQ research data. The data were publically locked because they might contain information about commercially sensitive processes of the organisation. Moreover, according to the research data management policy at

USQ, the data of this research should be retained securely. The data were stored in a separate file named with a symbol, rather than a name to maintain the participants' anonymity and confidentiality.

4.10 Chapter summary

this chapter has addressed the methodological approach adopted in the current study project. The research methodology chapter was structured into Ten sections. It's started with an overview of the chapter. Pragmatic paradigm and abductive research approach adhered by the researcher were explained in sections 4.2, 4.3 respectively. Exploratory sequential mixed method design that includes the qualitative stage and quantitative stage was discussed in in section 4.5. Thematic analysis was deployed for qualitative data analysis, while mean, standard deviation, simple regression and structural equation modelling were the descriptive and inferential statistical analysis for quantitative data. The target population was the Jordanian telecommunication industry and the sampling techniques were covered in section 4.8. Finally, confidentiality and anonymity as an ethical consideration was discussed in section 4.9.

Chapter Five: Qualitative data collection

5.1 Chapter overview

Qualitative research is a field of inquiry across many disciplines, deployed by social scientists to discover, explore and interpret the meanings that individuals and groups attribute to human matters (Creswell & Creswell 2018; Denzin & Lincoln 2017). In chapter Four, the methodology was discussed. This chapter explains the qualitative data collection. The qualitative method of research (individual interviews) was applied to address the first research objective. The first research objective was to explore talent management in the Jordanian telecommunication industry. The qualitative research methodology has been explained in Chapter Four.

This chapter has been structured into Eight sections. The chapter overview is in Section 5.1. The introduction to the individual interviews and semi-structured interviews can be found in Section 5.2. The next section 5.3 discusses the formulation of the interview questions. The fourth section 5.4 in this chapter explains the qualitative pilot study. The subsequent section 5.5 elaborates on administering the qualitative data collection. Conducting individual interviews is outlined in Section 5.6. The challenges of using qualitative techniques and the strategies to overcome these issues are discussed in Section 5.7, and the final section of the chapter 5.8 summarises the preceding sections in this chapter. This chapter contains Eight sections which are shown and summarised in figure 5.1.
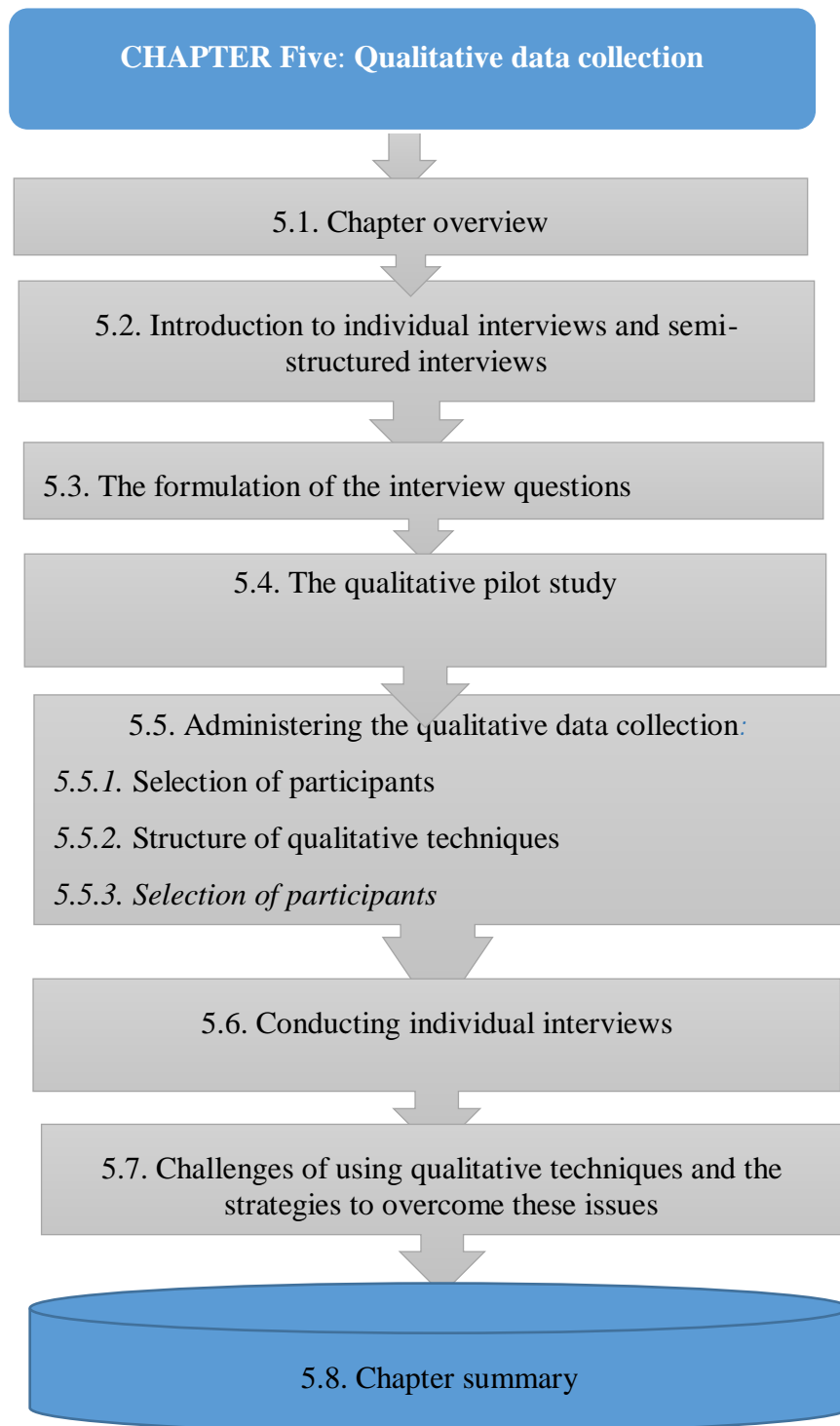
Figure 5.1: A graphical layout of Chapter Five

Source: Prepared by the researcher

5.2 Introduction to individual interviews and semi-structured interviews

Chapter Two, the literature review, explained that talent management has received considerable attention from practitioners and academics. However, talent management research in Middle Eastern countries, in particular Jordan, is extremely limited and is considered an underexplored area (Gallardo-Gallardo & Thunnisenn 2016; Raheem 2016). Therefore, this chapter addresses the first research objective in this study (to explore the talent management system in the Jordanian telecommunication industry) and the first research question (How are the talent management systems carried out in the Jordanian telecommunication industry?). Each individual interview comprised concise and unambiguous questions in a productive conversation between the researcher and the respondent in order to gather the participant's experiences and opinions. These experiences and opinions helped the researcher to address the study's research questions and objectives (Merriam & Tisdell 2016; Rubin & Rubin 2012; Saunders, Lewis & Thornhill 2016). One-on-one interviews are a commonly used qualitative research approach (Bryman 2015; Cridland et al. 2016; Keeley et al. 2016). Furthermore, there are three types of individual interviews based on the formality and structure of the interview. The first type is structured interviews; the second is semi-structured interviews; and the third is unstructured interviews (Al Sawafi 2014; Bryman 2015; DeFour-Howard 2015; Doody & Noonan 2013; Leavy 2017; McTate & Leffler 2017). Saunders, Lewis and Thronhil (2016) have identified four criteria for selecting the appropriate type of the individual interview: firstly, the purpose of the research; secondly, the importance of establishing contact with the interviewee; thirdly, the nature of the interview questions; and finally, the duration required to complete the interview. Table 5.1 presents a comparison of the three types of interviews.

Table 5.1: Comparison of the three types of interviews

Comparison based on	Structured interviews	Semi-structured interviews	Unstructured interviews
Interview questions	Have a predetermined order and wording of questions	Have an agenda of questions but could add another questions	Allow participants to talk freely
Flexibility	Permit very little flexibility	Elicit more details and explanations	Allow more flexibility
Level of control	The interviewer controls the interview	Give the interviewer some control over the flow of the interview	The interviewer does not control the interview

Level of details	Provide fewer details	Provide more details	Provide in-depth details
Analysis duration	Require less time to analyse	Require more time to analyse	Are very time-consuming to analyse
	Are easier to be analysed and interpreted	Are difficult to be analysed and may provide irrelevant data	May include data that may be irrelevant and difficult to analyse
Sample size	Can be used with large samples	Are less suitable for larger samples	Are unsuitable for larger samples
Research type	Have descriptive and explanatory uses	Have explanatory and exploratory uses	Have exploratory uses

Source: (Al Sawafi 2014, p. 64, Merriam, Tisdell 2015; Saunders, Lewis & Thronhil 2016).

As can be seen in Table 5.1, each type of individual interview has specific advantages and disadvantages. Choosing the appropriate type is dependent on the methodological requirements and the data required to fulfil the research objectives (King, Horrocks & Brooks, 2019; Merriam & Tisdell 2015). In this study, semi-structured interviews were adopted by using open-ended questions to acquire sufficiently comprehensive data about talent management. The semi-structured interview is considered the most common type of individual interview. In addition, the semi-structured interview generally has Six to Twelve questions, and each question has at least one sub-question that is delivered in a specific order (Easterby-Smith et al. 2016; Merriam & Tisdell 2015; Rowley 2012). The justification for collecting qualitative data via semi-structured interviews in this research was that their flexible structure helped the researcher to develop a deep understanding of the decisions, opinions and attitudes regarding talent, talent management conceptions and talent management practices implemented in the Jordanian telecommunication industry, and also that semi-structured interviews enabled additional questions regarding the study topic to be posed (Al Sawafi 2014; Brédart et al. 2014; DeFour-Howard 2015; DeStefano 2016; Gururajan et al. 2014; Gururajan et al. 2015; Gururajan et al. 2016; McTate & Leffler 2017; Mwakima 2014; Saunders, Lewis & Thornhill 2016).

5.3 The formulation of the interview questions

The interview questions used in this study were open-ended questions. The use of open-ended questions permits the interviewee to provide an extensive and developmental answer and to describe the situation comprehensively (Saunders, Lewis & Thornhill 2016). Thus, the open-ended questions enriched the discussion and created an open flow of conversation between the researcher and the interviewee, improving interpersonal interactions during the discussion and thereby exploring comprehensively the talent management system in the Jordanian telecommunication industry.

The interview research questions were formulated with several considerations. These considerations could be divided into structure and content considerations. The structure considerations included avoiding asking "Yes" or "No" questions, avoiding emotional questions, long questions, or combining two questions in one question. Also, avoiding using of jargon or theoretical concepts that are familiar only to academics (Merriam & Tisdell 2015; Saunders, Lewis & Thornhill 2016). The second consideration was the content of the interview questions. This included the interview questions need to be aligned with the research questions and some questions being based on previous literature about talent management. Table 5.2 presents the previous talent management literature from which each interview question was derived.

Table 5.2: Interview questions derived from talent management literature

Semi-structured interview questions	Article title	Author
What is the definition of talent?	"The practice of talent management: A framework and typology"	Bolander, Werr, & Asplund 2017
	"Talent management and HRM in multinational companies in Beijing: definitions, differences and drivers"	Iles et al. 2010
	"The development of a talent management framework for the private sector"	Zyl, Mathafena & Ras 2017

What is the definition of talent management?	"The practice of talent management: a framework and typology"	Bolander, Werr, & Asplund 2017
	"Institutional and corporate drivers of global talent management: Evidence from the Arab Gulf region"	Sidani & Ariss 2014
	"Talent management and HRM in multinational companies in Beijing: definitions, differences, and drivers"	Iles et al. 2010
	"The development of a talent management framework for the private sector"	Zyl, Mathafena & Ras 2017
What are the talent management practices in your organisation?	"Talent management and HRM in multinational companies in Beijing: definitions, differences and drivers"	Iles et al. 2010
	"The practice of talent management: a framework and typology"	Bolander, Werr, & Asplund 2017
	"Talent management in China and India: a comparison of management perceptions and human resource practice"	Cook et al. 2014
	"Talent management in Russian companies: domestic challenges and international experience"	Latukha 2015
	"Talent management practices in selected organizations in India"	Mathew 2015
	"Institutional and corporate drivers of global talent management: evidence from the Arab Gulf region"	Sidani & Ariss 2014

What are the challenges and difficulties facing your organisation when applying for a talent management program?	"Talent management in Russian companies: domestic challenges and international experience" "Critical success factors, challenges and obstacles in talent management"	Latukha 2015 Tafi, Mahmoudsalehi & Amiri 2017
What are the roles of the HR staff or other department directors in the TM process?	"Talent management and HRM in multinational companies in Beijing: definitions, differences, and drivers"	Iles et al. 2010
How do you see talent management as part/differing from HR or not? Why?	"Talent management and HRM in multinational companies in Beijing: definitions, differences and drivers"	Iles et al. 2010
What are the steps or procedures followed in each TM practice?	"The phenomenon of young talent management in Russia — a context-embedded analysis" "The practice of talent management: A framework and typology"	Muratbekova-Touron, Kabalina & Festing 2018 Bolander, Werr, & Asplund 2017

Source: adapted by the author

5.4 The qualitative pilot study

A pilot study is a feasibility study carried out with a small sample from a planned actual sample conducted to prepare for the actual study (Pyrczak & Bruce 2016; Shader 2015; Wijk & Harrison 2013; Zikmund et al. 2013). Thus, a qualitative pilot study aims to improve the actual methodological approach taken in the main study and its enhance the robust and feasibility of the study (Malmqvist et al 2019; Vogel & Draper-Rodi 2017). In this way, a qualitative pilot study provides the researcher with opportunities to adjust and revise the actual study (Thabane et al. 2010), thereby enhancing the likelihood of conducting the study successfully. Thus, the significance of pilot study is to avoid mistakes and eliminating aspects that could affect the study negatively – for example, the wording of interview questions, interview duration and the order of interview questions. Another important issue is to gain an overview of the actual situation where the planned investigation will be executed (Kim 2011; Korstjens & Moser 2017). In addition to the previous benefits, the researcher gained more experience in interviewing.

There is no consensus in the literature about the optimum size of a qualitative pilot sample. As a rule of thumb, the size of a qualitative pilot study has to be sufficient to address the main objective,

which is accessing enough useful information to assess the feasibility of the study (Hertzog 2008). Another view is that the pilot study should be equal to 10% of the actual qualitative sample size (Korstjens & Moser 2017). Importantly, the qualitative pilot study has to be representative of all target populations. It should also follow the same criteria in selecting the qualitative respondents as are used in the actual study. In addition, the qualitative pilot study results may or may not be included in the final qualitative study results. Thus, for this study, three respondents were selected from three Jordanian telecommunication organisations, which represented approximately 10% of the qualitative actual study sample size. This approach, adopted by the researcher in this study, met the appropriate requirement for diversity of sampling by selecting one participant from each Jordanian telecommunication organisation. Thus, this avoided selection bias, helped in ensuring the external validity of the current study and provided sufficient information about the appropriateness and clarity of the interview questions.

After receiving ethical approval from the University of Southern Queensland human ethics review committee, and also from all relevant Jordanian telecommunication organisations, to conduct the current study, the qualitative pilot study was implemented. The pilot study interviews were conducted in participants' offices in their organisations. The protocol for the qualitative pilot study interview was the same protocol adopted in the actual study. The interviews started by introducing the researcher and providing a summary of the current study in terms of title, objectives, expected outcomes and in particular the practical implications. The interview started with ice-breaker questions, followed by sub-questions; thus, the key questions were placed between the beginning and the end of the interview (Creswell & Creswell 2018; Montoya 2016). Furthermore, general considerations of interviews were followed in the qualitative pilot study such as it being an inquiry-based conversation (Montoya 2016) as well as cultural considerations. An inquiry-based conversation took place in which the interviewer had to balance social conversation with inquiry to collect sufficient data in order to address the first research objective, which was to explore talent management in the Jordanian telecommunication industry. The researcher adhered to the cultural considerations in relation to sitting and body language. These considerations were performed based and on the cultural background of the researcher.

After the qualitative pilot study had been completed, the "activity checklist for close reading of the interview protocol" (Montoya 2016 p. 825) was deployed. This checklist is most suitable for refining the structure and content of semi-structured interviews, which will strengthen the quality of the study data (Montoya 2016). For further details of the activity checklist for close reading of the interview protocol, please see Appendix B. In brief, the wording of some questions changed.

For example, for the interview question "What is the role of human resource managers and employees in the talent management process?", the question received an addition to clarify it: "What is the role of human resource staff members and other department directors in the talent management process?" Some words were removed - for example, "What is the talent management perspective in your organisation?" In this case, the word "perspective" was not fully understood by the interviewees, so the question became "How do you see talent management?". Yet, the interview time, other interview questions and the order of questions were the same.

5.5 Administering the qualitative data collection

Qualitative data collection is considered to be a key method used to collect study data using specific tools – for example, structured and semi-structured interviews and observations (Ayon et al. 2016, Creswell 2014). In this research, the semi-structured interviews were conducted by using open-ended questions to collect sufficient and comprehensive data about the study topic. This method enables the researcher to ask more questions to acquire data based on interviewees' responses (Ghauri, Gronhaug & Strange 2020; Gururajan et al. 2016; McIntosh & Morse 2015; Myers 2019). Semi-structured interviews with open-ended questions are suitable for exploring a problem or a phenomenon and can be used to develop a questionnaire in a mixed-method design (Brédart et al. 2014). Thus, this research used semi-structured interviews to enable the interviewees to voice their experiences and opinions (Saunders, Lewis & Thornhill 2016) about talent management in the Jordanian telecommunication industry.

Qualitative data collection can be divided into three stages: (1) participant selection; (2) structure of qualitative techniques; and (3) pre-qualitative techniques.

5.5.1 Participant selection

The first stage in qualitative data collection is participant selection. The sampling is the process of selecting respondents who are able to provide rich data about the study (Moser & Korstjens 2018). As was explained in Chapter Four -Section Eight. "Population and sampling", this study adopted non-probability, which is a purposive sampling technique.

5.5.2 The structure of the qualitative technique

The second stage in administering qualitative data is determining its structure. Several considerations are important in the structure of qualitative data collection:

1. Planning and organising the procedures needed for individual interviews.
2. Selecting the appropriate sample size of individual interviews.

5.5.2.1 Planning and organising the procedures needed for the individual interview

The individual interview protocol contained open-ended questions about talent management in the Jordanian telecommunication industry. These in-depth questions aimed to explore talent management in terms of the definitions of talent and talent management, talent management practices, and the roles and challenges of talent management in the Jordanian telecommunication industry. The interview was not recorded due to organisational policy, but the researcher found that it was possible to interview without recording for the following reasons. Firstly, a large number of researchers conduct semi-structured interviews without audio-digital recording (Chong 2008), and this does not necessarily affect the richness and the depth of the data gathered. Secondly, all interviewees accepted an increase in the duration of the interview to permit the researcher to write down answers and extra notes. Furthermore, recording an individual interview has many disadvantages: for instance, it may inhibit some interviewee responses, and reduce the reliability, while increasing the possibility of technical problems (Saunders, Lewis & Thornhill 2016). Leedy and Ormrod (2010) have suggested that in conducting a productive interview, the researcher needs to record all responses verbatim, whether through the use of handwritten notes, shorthand and tape recordings, or via direct capturing onto a computer, especially if it is an unstructured.

Before conducting the individual interview, the researcher's handwriting was improved, as suggested by Harvey (2011); in case the interview was not recorded, the researcher would need to practice handwriting to increase its speed. The researcher wrote the respondents' answers verbatim (Bachiochi & Weiner, 2004), then read each of the answers to the interviewee to ensure their accuracy. After transcribing the interview on the same day of the interview, the researcher sent a draft to the interviewee to check the transcription accuracy (Bryman & Cassell 2006).

5.5.2. 2Selecting the appropriate sample size of the individual interview

The sample size in qualitative research has prompted a lot of debate, yet there is no consensus about sample size (Creswell 2014, Denzin &Lincoln 2011; Mason 2010). Some scholars have aimed to provide guidelines to determine the sample size of a qualitative study (Malterud, Siersma & Guassora 2016; Marshall et al.2013). Another view is the saturation level of the data gathered, which is then considered as a criterion for the sample size in qualitative research (Boddy 2016; Malterud, Siersma & Guassora 2016). The main point in qualitative data is the richness and sufficiency of the data to address the research objectives (Burmeister & Aitken 2012; Dibley 2011). Qualitative data saturation is reached when no codes, themes or new data are generated (Fusch, & Ness 2015; Given 2016; Urquhart 2013). Fusch and Ness (2015) have argued that the

saturation level is different from one method to another; for example, the saturation level in ethnography is different from that of phenomenology. For this current study, the saturation level was deployed to determine the sample size. The saturation level in the current study was reached when no further codes, themes or information were generated about talent management in the Jordanian telecommunication organisations. Thus, the sample size in this research was 14 respondents: five from Zain, five from Orange, and four from Umniah. This was deemed adequate to reach the saturation level and to develop the conceptual research model that was used in the quantitative stage.

5.5.3 The pre-qualitative data collection technique and steps

The final issue is the pre-qualitative data collection technique and steps that were employed for the participant interviews (Saunders, Lewis & Thornhill 2016). Some of these steps have been explained previously in 5.5.1 and 5.5.2.

1- Acquire ethical approval

2- Determine the aim of the qualitative technique

3- Enhance the researcher's level of knowledge about talent management in the Jordanian telecommunication industry.

4- Identify the population and the sample.

5- Draw up a list of questions and extra questions to address the first research objective (to explore the talent management in the Jordanian telecommunication industry).

6- Ensure the appropriateness of the interview location to avoid interview interruption and to maximise the comfort of the interviewee.

7- Contact participants through a personal letter or the person who is responsible for arranging the interview (the gatekeeper).

8- Ensure the appropriateness of the researcher's appearance in the interview.

9- Start the interview by providing the interviewee with the research objectives, and the practical and theoretical implications, and by confirming that the data will be used only for research.

5.6 Conducting the individual interviews

Conducting individual interviews was divided into six recommended stages (Ritchie et al. 2013; Yeo et al. 2013).

1- The arrival stage

In the arrival stage the researcher makes sure of the interviewee's first impression of them as successful, self-confident and professional, and highlights that the interview will benefit

the interviewee and their organisation. The interviewee's first impression of the interviewer is significant for building trust with the interviewer and for feeling comfortable, which will enhance the richness and adequacy of the data provided by the interviewees (Sabbah 2017; Saunders, Lewis & Thornhill 2016). The standard procedures followed in the arrival stage could be divided into two parts. The first part relates to the location and equipment required in the interview. This includes checking that the site of the interview is quiet and without any unexpected interruptions, preparing a notebook and having two pencils. The second part of the arrival stage involves the interviewer's personal introduction and the appropriateness of the interviewer's appearance (Brennen 2017; Sabbah 2017; Woods 2011).

2- Introducing the research

This stage focuses on providing the interviewees with the research objectives and with the study's implications – in particular, the practical implications for the interviewee and the implications for the organisation. In addition, this stage explains why the participant has been selected (Brennen 2017; Sabbah 2017; Woods 2011). This helps the interviewee to be more comfortable, and to build trust in the researcher. This could lead to a deeper discussion, with rich and sufficient data being provided.

3- Beginning the interview

The third stage in the individual interviews is the beginning of the interview. During this stage, the interviewer starts with an "ice-breaking" question – for example, specific and closed questions (Creswell & Creswell 2018; Saunders, Lewis & Thornhill 2016). In this regard, the interviewer's experience in, and knowledge of, the cultural background of the interviewees facilitates this ice-breaking question. For example, asking the interviewee about his or her family and other personal issues may be accepted and will "break the ice". However, this type of question may not be accepted in other cultures. Thus, the researcher sets the interview style, encourages the participant to provide more extensive and higher quality data, and avoids undesirable replies (Sabbah 2017; Woods 2011).

4- During the interview

The interviewer has to control the interview in terms of major themes. During this stage, the interviewer asks questions to explore responses that are important in terms of the research questions and objectives. These probing questions could be used to seek an extra explanation of the interviewee's response by paraphrasing the answer to the question

(Saunders, Lewis & Thornhill 2016). It is important to ask these types of questions at this stage because it is expected that the trust builds between interviewer and interviewee, and that the interviewee will become more engaged in the interview.

5- Ending the interview

During this stage, the researcher ends the interview with a general question to send a signal to the interviewee that the interview is coming to an end. Subsequently, the researcher ends the interview with an acknowledgement statement. This statement is an expression of appreciation of the interviewee's effort and time.

6- After the interview

The researcher collects the notebook, interview equipment and makes sure that everything is replaced as it was before the interview started – for example, chairs and table. In addition, it is important to follow the organisation's policy when leaving. For example, in the organisation A, one employee has to walk with the researcher to open the elevator and announce his departure to the reception office to retrieve the access card from the researcher.

Overall, the first three stages help the researcher to transfer the interviewees from casual daily thinking to engaging in the interview questions. The fourth stage is the deep cognitive level where the interviewee provides rich and sufficient data to address the research objectives and questions. The fifth and sixth stages are designed to bring the interviewees back to their daily thinking routine. In this study, as was noted above, the researcher conducted 14 interviews: five from Zain; five from Orange; and four from Umniah. The period required to conduct the interviews was from 12 September until 26 October 2019. The duration of the interview differed from one interview to another. Generally, the duration was between 42 and 53 minutes. The number of the individual interviews was sufficient to reach the saturation level for the data gathered. The saturation level is reached when no further code, theme or rich data can be obtained from the interviewee (Fusch, & Ness 2015;Given 2016; Urquhart 2013). Further information about the saturation level in qualitative research is provided in Section 5.5.2, "Qualitative sample size", earlier in this chapter. The 14 participants were all responsible for the talent management programs in their organisations. The individual interviews in the current project were conducted face-face. The interviewer arrived at the site of the interview 30 minutes before the interview time to prepare the interview location, and to make sure that all the interview equipment was available. The researcher had sent invitations to the interviewees to participate in the research project. This formal invitation sheet included the title of the study, the contact details of the research team, a description of the study, general guidelines about the interview in terms of its duration and location, expected benefits,

risks and finally the ethical considerations adopted by the researcher. More details of this sheet can be found in Appendix C. Therefore, the interviewees were fully informed about the interview before participating in the interviews. The interviewees were asked to sign the consent form after reading it carefully, and then the interview was conducted.

The interview started with a short introduction comprising a welcoming statement and a statement expressing research team thanks, the researcher's background, information about talent management, the research objectives and practical implications of the study. The interview protocol was standard for all interviews and adhered to by the researcher. After capturing the respondents' views about and experiences of the research topic, the researcher ended the interview. Subsequently, the researcher collected the notebook and all the interview equipment. On the same day of the interview, the researcher transcribed the interview and sent it back to the interviewee. The reasons for doing this were to permit the interviewee to have another read of the document and to agree on all the components of the transcript draft. The researcher avoided conducting more than one interview per day in order to put the necessary effort into transcribing the interview and sending it back to the interviewee.

Qualitative data collection and analysis proceed hand-in-hand (Creswell & Creswell 2018). The researcher conducts the interview, and at the same time starts to formulate possible codes, categories and themes. These codes, categories and themes may not be the final analysis because qualitative data analysis is not a linear, step by step process. This technique helps the researcher to judge when the saturation point has been reached.

5.7 Difficulties, challenges, and strategies to minimise the impact of qualitative method
Qualitative data collection could pose potential difficulties and challenges during the qualitative data phases (Bamu, De Schauwer & Van Hove 2016). This is due to the requirement of complex experience and the researcher has to control external issues. There are different types of challenges and difficulties during the qualitative data phases, including environmental difficulties, such as the interview site not being able to be effectively controlled by the researcher in terms of noise or any interruptions during the interview. Another difficulty, the duration specified from the interviewee to conduct the interview may sometimes minimise the quality and quantity of data gathered.

In the literature, there are different challenges and difficulties. These challenges and difficulties could be divided into four categories:

      1- Challenges related to the researcher. This includes:

A. A lack of trust between interviewee and interviewer, such that the interviewee may not provide deep, sufficient data (Holden et al. 2015; Johnsrud 2016; Pelteret 2014). Hence, the result of the study will be affected.

B. Constructing knowledge: when the interviewee provides data about topics they do not have sufficient and deep knowledge about. This can affect the deep knowledge required by the interviewer. In this case, the interviewer cannot build a consistency code and theme because the interviewees have provided mismatching data (Johnsrud 2016; Pelteret 2014).

C. The wording of interview questions: this includes when the interviewer asks an ambiguous question or uses jargon words that the interviewee does not understand. In this case, the interviewee may not provide significant data. Hence, the objectives of the interview may not be met (Arsel 2017; Johnsrud 2016; Pelteret 2014).

2- Challenges related to the participant-interviewer conversation, which may cause the interview to go wrong and may include unintentional misunderstandings between the interviewer and the participants. In this situation, it could be the interviewee ignoring the interviewer completely or partially (Johnsrud 2016; Pelteret 2014).

3- Lack of time for the interview, which may lead to incomplete data collection (Johnsrud 2016; Pelteret 2014).

4- Elite bias - It expected that the interviewer meets only responsible participants, and it could be that they provide points of view that are opposed to non-elite views. This may lead to bias and decrease the comprehension of the topic (Johnsrud 2016; Jolly 2017; Woods 2011).

However, there are many solutions in the literature to overcome the difficulties and challenges in qualitative data collection. In terms of Challenges related to the researcher.

A - Lack of trust: the researcher aims to build a friendly relationship with the interviewees before conducting the interview (Golding 2009). This friendly relationship was relatively easy to build by the author of the current study in light of the fact that the researcher's cultural background was similar to the interviewees. In the same sense, another solution to a lack of trust is to inform interviewees clearly in a formal way about the research ethics in terms of confidently and anonymity (Doody & Noonan 2103). Also, the researcher's level of knowledge about the topic and the study context (Jordanian telecommunication industry) helps to increase researcher credibility. So it becomes easy to build trust with the interviewees (Saunders, Lewis & Thornhill 2016).

B - Construction knowledge: to deal with the knowledge construction challenge, the researcher adopts a purposive sampling technique to select participants who are experts and knowledgeable in the topic of study (Henderson 2016; Zulkifli 2016).

C - The wording of interview questions: to overcome this challenge, the researcher formulates the questions in plain language about talent management takes precautions not to include any words or concepts used in the research area that can have multiple interpretations (Brennen 2017; Doody & Noonan 2013; Ervo 2016; Martínez-Gómez 2014).

The challenges and difficulties relate to researcher-interviewee conversations, and may cause the interview to go wrong. The researcher deals with this challenge by setting the pace of the interview by keeping the interviewee focused on answering the question or rephrasing the question to make it clear and to remove any unintended misunderstanding (Doody & Noonan 2013). Regarding the third challenge, lack of time, the researcher sets the interview time through organising the time specified for each question in the interview protocol. The researcher takes into account the need to provide a sufficient and flexible allowance of time (Penven 2016); for example, the researcher organises the time for each question based on their importance to the study. Finally, the fourth challenge is elite bias. The researcher dealt with this challenge by selecting participants in the top and middle management for this current study (Kupfer et al. 2016), because they provided sufficient data about talent management in their organistion based on their positions.

All in all, by following the strategies discussed above, the individual interviews provided helpful, sufficient and comprehensive data about talent management in the Jordanian telecommunication industry. This subsequently helped the researcher of this study to develop the study questionnaire to collect the quantitative data (Brédart et al. 2014; Creswell 2014; Howard et al. 2016; Veronese, Pepe & Afana 2016). Thus, individual interviews in this study provided enough data about the talent management subject (Dilshad & Latif 2013; Gururajan et al. 2014), and was an appropriate instrument to develop a questionnaire for the quantitative phase of the study (Brédart et al. 2014; Veronese, Pepe & Afana 2016).

5.8 Chapter summary

This chapter has explained the qualitative data collection in current study project. Its structured into Eight sections. After providing an overview of the chapter, the introduction for individual interview was covered. The main aspect of this section was adopting semi-structure interview as a qualitative data collection instrument. The interview questions were formulated based on

previous literature which shown in table 5.2. Purposive sampling technique and semi-structured individual interview was discussed in section 5.5. The arrival stage, introducing the research, beginning the interview, during the interview, ending the interview and after the interview were the stages of individual interview in this study. a lack of trust from interviewee to interviewer and other challenges were addressed in section 5.7. Finally, the summary of the chapter was outlined in the final section.

Chapter Six: Qualitative data analysis

6.1 Chapter overview

The previous chapter explained the qualitative data collection. This chapter covers the qualitative data analysis, focusing on the procedures and processes relating to the analysis of the qualitative data, and the process of analysis to extract the themes from the qualitative data. The qualitative data collected from individual interviews were analysed manually and by using NVivo 12 software to construct codes, recodes, and categories, and to generate themes.

The qualitative data analysis chapter is structured into Seven sections. Section 6.1 provides an overview of the chapter. Section 6.2 covers the introduction to qualitative data analysis. The reliability and validity (trustworthiness) of the qualitative data are discussed in Section 6.3. Section 6.4 addresses the qualitative pilot study. Section 6.5 discusses the main qualitative data analysis that was conducted to develop the quantitative questionnaire items for the survey. This section is divided into eight subsections. Each subsection analyses the raw data of each interview question. Section 6.6 discusses the trustworthiness of the thematic analysis. Finally, the summary of this chapter is provided in section 6.7. Figure 6.1 shows and summarises the seven sections of Chapter Six.

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│   CHAPTER Six: Qualitative data analysis │
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│  6.4: Qualitative data analysis: the pilot study │
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│ 6.5: Qualitative data analysis: the main study │
│ 6.5.1-8 Qualitative data analysis to identify the │
│ talent management themes                 │
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│ 6.6 Trustworthiness check for thematic analysis: │
│ the talent management program            │
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│          6.7: Chapter summary            │
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Figure 6.1: A graphical layout of Chapter Six

Source: created by the researcher

6.2 Introduction

As was outlined in Chapter Three, which focused on the theoretical underpinnings of this study, talent management has received considerable attention from academics and practitioners. However, talent management in Middle Eastern countries is considered to be an under-explored area. In this regard, the first key objective of this study was to explore talent management in the Jordanian telecommunication industry. Also, the first research question related to how talent management programs are carried out in the Jordanian telecommunication industry. This objective and question were addressed by conducting a qualitative research method that is commonly used to explore particular phenomenona. Thus, the first research objective and research question in this study were addressed by using this qualitative research method.

As was discussed in Chapter Four, as part of the research methodology, qualitative data analysis was used to generate themes. All the transcripts were analysed manually and by using NVivo software 12 to code, recode and gather similar codes into one category to generate themes (Braun & Clarke 2012; Campbell et al. 2013; Vaismoradi et al. 2016). A thematic analysis method has been used to derive abuctively (inductivelly and deductivelly) the phrases or words that related to the first research question and the first objective in this study (Tong, Winkelmayer & Craig 2014). "Text query search" is a technique in NVivo software to help the researcher locate words or phrases in the text (Hatcher 2017).

Thematic analysis is a method used to organise and identify a pattern in order to search for themes in a data set (Braun & Clarke 2012; Fereday & Muir-Cochrane 2006). The researcher has to make many choices during thematic analysis. Adopting the abductive approach in thematic analysis is one of these decisions. For the current research, a hybrid (abductive) approach was adopted to analyse the data set (Braun & Clarke 2012; Swain 2018; Vaismoradi et al. 2016). The justifications for adopting this approach were: (a) it is compatible with the research approach adopted in this study (further explanation of the research approach is found in Chapter Four, Section Four); (b) to help the researcher address the first research objective and question, for which it was necessary to analyse the data set deductively and inductively; for example, talent management practices were analysed deductively, while inductive thematic analysis was suitable to analyse talent management and talent definitions; and (c) in reality, coding and generating themes use a combination of deductive and inductive approaches (Braun & Clarke 2012).

6.3 Reliability and validity (trustworthiness)

Traditionally, reliability and validity are related to quantitative research. However, qualitative research has also applied validity and reliability (Golafshani 2003; Johnson & Christensen 2014; Royal & Hecker 2016). Reliability and validity are two factors that need to be considered during all research procedures – for example, collecting and analysing the study data (Cypress 2017; Patton 2001). Lincoln and Guba (1985) refined the reliability and validity concept of trustworthiness by introducing the criteria of credibility, transferability, dependability, and conformability. The trustworthiness criteria are deployed to ensure that the research has been carried out correctly. The four criteria of trustworthiness are focused on addressing the truth value (credibility), applicability (transferability), consistency (dependability) and neutrality (conformability). Credibility is parallel to internal validity, transferability is parallel to external validity, dependability is parallel to reliability, and conformability is parallel to objectivity (Collis & Hussey 2009). Recently, other researchers, based on Lincoln and Guba's (1985) work, have provided other criteria of quality in qualitative studies – for example "eight big-tent criteria for excellent qualitative research" (Tracy 2010). This study adopted Lincoln and Guba's (1985) original criteria for the trustworthiness of a qualitative method, which are deemed as being widely accepted and easily recognised by researchers (Nowell et al. 2017). Thus, the trustworthiness criteria were adopted in this study to eliminate any threat, and to enhance the quality of the qualitative research stage of this study.

The first criterion in Lincon and Guba's (1985) work is credibility, which refers to the truth of research findings and whether these findings truly represent the participants' original views and experiences and interpret them correctly (Korstjens & Moser 2018; Tobin & Begley 2004). There are specific strategies to ensure the credibility of qualitative research – namely, prolonged engagement, persistent observation, triangulation, and member checking (Lincoln & Guba 1985). However, when designing a study, a researcher determines the suitable strategies of credibility to align with the study (Korstjens & Moser 2018). Prolonged engagement refers to building trust with the interviewees to generate sufficient and rich data through investing time during the interviews (Korstjens & Moser 2018). For this study, the researcher achieved a prolonged engagement strategy by spending time informally with the interviewees before the start of the interviews, building rapport with the interviewees and asking follow-up questions designed to generate sufficient and rich data from the interviewees in the Jordanian telecommunication organisations. The second strategy, persistent observation, means focusing on the characteristics and elements that refer to the phenomena or problems under study (Lincoln & Guba 1985).

Persistent observation was attained in this study by identifying the characteristics of the data sets through the continuous process of developing codes and classifying these codes into categories. Thus, the data set of this study was read and re-read, and the codes, categories and themes were revised until the writing of the analysis. The third strategy was data triangulation, which is a technique that refers to the use of multiple perspectives, methodological approaches, and data sources in qualitative research (Carter et al 2014; Sekaran & Bougie 2016). For the data triangulation in this study, a hybrid approach was adopted to analyse the data set; this approach relies on moving backwards and forwards between individual interview data (the primary data) and previous literature and theory of talent management (the secondary data). Thus, this strategy permits the triangulation of the study data from more than one source. However, the methodological triangulation was not aligned with this study because the data set was collected from one method (individual interviews). The final strategy in credibility strategies is a member checking technique, which refers to seeking feedback from the participants in the study about transcription, data analysis and results (Korstjens & Moser 2018). In this vein, the interviewees from all the Jordanian telecommunication organisations were invited to check the transcripts of their interviews, in order to confirm their agreement with the content of those transcripts.

The second criterion is transferability, which refers to how the research results can be applied to other contexts or settings. The researcher cannot provide the site or the context where the research results can be transferred or generalised. In this regard, all the procedures of current study were outlined, from motives, the scope of the study, explaining the context of the study, sample size, methodology, inclusion and exclusion criteria, data analysis techniques, to discussion of the results. This enables other scholars to read this current study to make transferability judgments of whether the results and procedures are similar to those that have been and/or will be undertaken by other scholars.

The third criterion is dependability, which refers to the consistency of the research to ensure that the research is systematic, rigorous and clearly documented (Korstjens & Moser 2018; Nowell et al. 2017). In this study, the researcher prepared the individual interview questions in advance to ensure that the research was consistent during individual interviews, particularly in terms of individual interview questions. In addition, the supervisory team was considered to be an audit tool for this research, as they made sure that the research processes were clearly documented, logical and consistent throughout the study. The researcher in the current study provided the supervisory team with justifications for all the decisions and choices made by the researcher

regarding research theory, methodology and analysis, thus enabling the supervisory team to audit the research for consistency and clarity.

The final criterion is conformability, which is concerned with the research results and conclusions that were based on and derived from the data set of the study. In other words, the results and conclusions represented the interviewees' viewpoints rather than what the researcher wanted the study to discover. This objectivity in deriving the results and conclusions is attained and built on credibility, transferability, and dependability. For the current study, the researcher clearly outlined the analysis and interpretation of the data set; for example, the researcher provided the interviewees' direct quotations in all the processes of the analysis. Therefore, the analysis, results, and conclusions of this study were built on the data obtained from the interviewees.

6.4 Qualitative data analysis: the pilot study

As was outlined in Chapter Five, Section Four, a pilot study was conducted to adjust and revise the main study (Thabane et al. 2010). The pilot study results were not included in the results of this study. The pilot study data were analysed manually without the assistance of NVivo software 12, as the data collected could be managed manually. Three individual interviews were conducted in the pilot study. The participants understood and responded to most interview questions. However, some alterations and deletions occurred to the question wording after the pilot study. More detail is presented about these alterations in Appendix E. Also, Chapter Five, Section Four discussed the activity checklist for a close reading of the interview protocol, which was adopted to revise the interview protocol, and some examples of these alterations were provided. The pilot study enhanced the researcher's experience and skills in conducting face-face individual interviews. All the questions in the pilot study with individual interviews related to the first research objective (exploring the talent management system in the Jordanian telecommunication industry) and to the first research question (how is talent management carried out in the Jordanian telecommunication industry?).

The pilot study provided helpful feedback to the researcher. For instance, the pilot study contributed to the researcher's experiences, knowledge and skills in conducting and managing individual interviews. Thus, the researcher learned new strategies about communicating with and interviewing the study participants. Another benefit was that the qualitative pilot study helped the researcher to determine the duration required for each interview. In addition, the researcher became familiar with the place where the individual interview would be conducted. In essence, the researcher learned about the organisation's entry and exit because each organisation had a specific policy. For example, organisation A required that each guest (the researcher) register their

name in the reception office and show their identification card. As another example, in organisation B the participants had to use the sign-in form in the reception office and use the access card to open the elevator.

All in all, the qualitative pilot study aimed to ensure the feasibility to conduct the main study by checking the wording of the interview questions, the order of the interview questions and the avoidance of any jargon words in the interview questions. Moreover, the researcher became aware of organisational policies of entry and exit and the location of the individual interview. Therefore, the qualitative pilot study prepared the researcher to conduct the main study interviews. This preparation contributed to collecting rich and sufficient data that addressed the first research objective and the first research question in this study.

6.5 Qualitative data analysis: The main study

All transcripts were analysed by using the manual method and thematic analysis software NVivo 12 to code, categorise similar codes and generate themes (Ferday & Muir-Cochrane 2006; Viasmoradi et al. 2016). Manual data analysis was used to derive inductively and deductively from the data set the words and phrases that related to the first research objective and question (Tong, Winkelmayer & Craig). "Text query search" is a technique in NVivo software that helps the researcher identify where the similar words or phrases are found in the context of the data sets (Hatcher 2017). The text search query provides Five ways to search for words or phrases, starting from the exact match and proceeding to generalisation. All these aspects of the text search query helped the researcher to allocate the words and phrases in relation to the data sets.

Qualitative thematic analysis is a method for systematically identifying and then organising the implicit and explicit themes among the data set (Braun & Clarke 2012; Guest, Macqueen & Namey 2012). This method focuses on the meanings across the data set that related to research objectives or questions (Braun & Clarke 2012) and moving beyond counting the words or phrases in terms of their frequencies to identifying the relationships among the codes in order to extract the themes (Guest, Macqueen & Namey 2012). This approach to thematic analysis is used to analyse a wide range of data sets – for instance, written, verbal or visual documents (Hamad et al. 2016; Ozuem et al. 2016; Tharenou, Donohue & Cooper 2007). Thus, thematic analysis can deal with a wide range of documents in order to generate the themes related to the research objectives and questions. Selecting thematic analysis for this study relied on many justifications. These justifications included: (a) the flexibility of thematic analysis that can be performed by inductive, deductive and hybrid approaches (Braun & Clarke 2006); (b) the accessibility characteristics of thematic analysis that do not require theoretical or technological knowledge, which is ideal for early-career researchers and for researchers not familiar with qualitative research in general (Braun & Clarke

2006 & Nowell et al. 2017); and (c) thematic analysis is beneficial to explore a phenomenon by highlighting the similarities and differences in the data set and a well-structured approach to handling the data set (Nowell et al. 2017). Therefore, thematic analysis was a useful analytical method to analyse the current study data set because it addressed the first research objective (to explore the talent management programs in the Jordanian telecommunication industry) and the first research question. It also aligned with the researcher's characteristics in terms of being an early career researcher and being unfamiliar with qualitative research.

The thematic analysis approach adopted in this study was a hybrid approach, which relies on a deductive and inductive approach (Braun & Clarke 2006; Swin 2018). Thus, the codes and themes were extracted from the data set and from previous theories of talent management. For example, the theme of talent management practices was based on the theory of talent management, while the fit approach theme was based on the individual interview data set. Braun and Clarke (2006) and Vaismoradi et al. (2016) have identified specific stages of conducting the thematic analysis of the individual interviews. These phases of analysis were considered in analysing the individual interviews for the current study. There is a mismatch in the number of thematic analysis phases between Braun and Clarke (2006) and Vaismoradi et al. (2016). However, they are compatible in terms of the content of the phases. For example, the first phase in Vaismoradi et al. (2016) is the initialisation phase, which is a composite of familiarising the researcher with the data set and the code formulation. This phase is compatible with the first and second phases in Braun and Clarke (2006), which are becoming familiar with the data and generating the initial codes. Therefore, combining these two phases enhanced the researcher's understanding of conducting thematic analysis to address the first research objective and the first research question in this study. Table 6.1 summarises the phases of thematic analysis adopted in this study, based on the phases of Braun and Clarke (2006) and Vaismoradi et al. (2016). The thematic analysis is presented in Table 6.2 as linear steps. However, it was a continuous and iterative process comprising moving backwards and forwards between these phases.

Table 6.1 Phases of thematic analysis

Phases	Description
Initialisation	Familiarisation with the data set by reading and re-reading the transcript. Generating the initial codes from the data set.
Construction	Classifying similar codes under categories or themes. Reviewing the themes in terms of their relation to the codes and the entire data set.
Defining and naming the themes	Ongoing analysis to reach the stabilisation stage of the themes.
Finalisation	Writing the analysis report (the story).

Source: adapted based on Braun and Clarke (2006) and Vaismoradi et al. (2016).

The following subsections discuss the qualitative data analysis in this study. These subsections are structured based on the order of the interview questions. The reason for this order is to introduce themes in a convenient way for the subsequent analysis; for example, the analysis was started with themes of talent definition, and the second section of the analysis was the definition of talent management. This order relies on the conceptualisation of talent and talent management that provided the boundaries for talent management practices and perspectives (Bolander, Werr & Asplund 2017; Gallardo-Gallardo et al. 2013; Thunnissen & Arensbergen 2015).

6.5.1 Talent definition

The first question in the individual interview was: "what is the definition of talent?". The interviewees from organisations A, B, and C provided different views of defining talent. As outlined previously in 5.5, a hybrid approach was adopted in the thematic analysis for the current study. Thus, for this question, the researcher reviewed the previous literature about the definition of talent. Consequently, after the familiarisation stage, the researcher started to manually code the data set on A3 sheets. These codes were then stored in NVivo 12 software.

Generally, the interviewees from organisation A defined talent based on the exclusive view, high performance, high potential, and objective view. The exclusive view focuses on a small proportion of the employees and considers them as talent among the employees in the organisation. The high-performance view defines talent as employees with high-performance in their job. The high

potential view defines talent as he/she can be developed in the future. The objective view focuses on defining talent as being the characteristics of the employee.

Fundamentally, the interviewees from organisation A had a consensus on the segment of employees considered as talent. A1 interviewee defined talent based on an exclusive view: "*some employees who own*". Similarly, A2 defined talent as "*he/she is the only one or few like him*". A3 provided the exclusive view of defining talent as "*not all employees are considered as talent*". A4 supported the exclusive view: "*there are few employees who can be considered as talent*". Likewise, A5 defined talent as "*Few employees can be talent*".

However, interviewees from A organisation did not provide only the exclusive view in their definition. They combined more than one view in defining talent. A1 presented three views of defining talent, namely exclusive "*employees who own*", high performance "*to do the complicated task*", and objective view "*own energies and creative abilities*". A1 said: "*Talent is some employee who owns energies and creative abilities that qualify them to do complicated tasks*".
Another example was A2, who defined talent as an exclusive view, a high-performance view, and a high potential view: "*talent is a person who can perform now*" (high-performance view) "*or in the future*" (high potential view)" *extremely well, and he is the only one or there are few like him/her*" (exclusive view). Similarly, A3 defined talent based on the exclusive view, high-performance view and objective view: "*Talent: is a person who has characteristics such as skills and knowledge*" (objective view) "*enabling him/her to perform more effectively than others*" (high-performance view). "*So, not all employees are considered as talent*" (exclusive view).

A4 supported the exclusive view and high potential view: "*Talent is an employee who can add value to the organisation now and in the future*" (high potential view); "*Few employees can be considered having talent*" (exclusive view). Similarly, A5 was inclined towards the exclusive view and high potential view in defining talent: "*Talent is a person who can expand his or her potential*" (high potential) "*to add value to the company. Few employees can be talented*" (exclusive view).

The talent definition data set from organisation A was coded into four codes: the exclusive, high performance, high potential, and objective view. These codes were classified into two categories based on their similarity. The first category was the subjective approach to defining talent as people. The exclusive, high performance, and high potential codes were similar to one another in terms of defining talent based on the subjective approach (talent as people). The second category was the objective approach. This category included all similar codes that defined talent as

characteristics of people (the objective approach of defining talent). Table 6.2 summarises the quotes, codes, and categories of organisation A for the talent definition questions.

Table 6.2 Organisation A quotations, codes and categories

Quotation	Code	Category
"*Employee who owns*" "*He is the only one or there are few like him*" "*There are few employees who can be considered as talent*" "*Few employees can be talent*" "*Not all employees consider as talent*"	Exclusive	Subjective approach
"*In the future extremely well*" "*In the future*" "*Expand his or her potential*"	High potential	Subjective approach
"*To do complicated tasks*" "*Can perform now*" "*Enabling him/her to perform more effectively than others*"	High performance	Subjective approach
"*Who has characteristics (skill, knowledge)*" "*An employee who have energies and creative abilities*"	Objective view	Objective approach

Source: created by the researcher

The interviewees from organisation B provided different views about defining talent. They combined more than one view in each definition. The interviewees' responses were coded into three codes. These codes were inclusive, acquired and objective view. Generally, the interviewees from organisation B had communicated a consensus about the inclusive view through considering all employees as having talent. For example, B1 said that "*All employees have talent*", B2 stated that "*It includes all employees*"; similarly, B3 asserted that "*Every employee has his/her talent*"; likewise, B4 contended that "*All employees are considered having talent in our organisation,* while B5 argued that talent was *"Found in all employees*". At the same time, and as noted above the interviewees from organisation B combined more than one view in the same definition. B1, B2, and B5 combined the inclusive view with the acquired view. B1 said: "*All employees have talent but the important aspect is how to create and develop this talent*". Similarly, B2 remarked on the inclusive and acquired views in defining talent "*It includes all employees. However, it is important to discover and develop these talents with the organisation's needs*". Also, B5 combined the acquired and inclusive views in defining talent: "*Talent is found in all employees and it is*

important to incubate him/her by providing them with facilities and creating them". On the other hand, B3 and B4 combined the inclusive and objective views. As B3 stated, "*Talent is a person who has competencies (skill, knowledge, abilities) and all employees are considered as talent in our organisation*". Likewise, B4 mentioned that "*Talented employees have special skills or capabilities. Every employee has his/her talent*".

Organisation B's data set was coded into three codes. These codes were inclusive, acquired, and objective codes, which were categorised into two categories. The first category was the subjective approach. The subjective approach defined talent as people. The inclusive code was classified under the subjective approach category, due to the inclusive view defining talent based on the assumption that all employees are talented, which aligns with the subjective approach category. By contrast, the acquired and objective codes were similar, in terms of the defined talent, as being characteristics of people. Thus, they were included in the objective approach category.

In summary, the organisation B interviewees responded diversely to the first question in the interview: "what is the definition of talent?". Their responses were coded into three codes, and these codes were classified into two categories: the subjective approach, and the objective approach. Table 6.3 summarises the quotes, codes, and categories related to organisation B.

Table 6.3 Organisation B, quotation, codes and categories

Quote	Code	Category
"*All employees have talent*" "*It includes all employees*" "*Every employee has his/her talent*" "*Found in all employees*" "*All employees are considered as having talent in our organisation*"	Inclusive	Subjective approach
"*Create and develop this talent*" "*It is important to discover and develop these talents*" "*And it is important to incubate and develop him/her by providing them with facilities and create them*"	Acquired	Objective approach
"*Has competencies (skill, knowledge, abilities)*" "*Have special skills or capabilities*"	Objective	Objective approach

The interviewees from organisation C provided many views about defining talent. The organisation C data set was coded into four codes: the exclusive view, the high-performance view, the talent as mastery view, and the objective view. C2 and C4 defined talent based on the exclusive view: "*Talent is a person who differentiates him/herself from others, and there are few employees considered as talents*". C3 and C4 defined talent as mastery; C3 said "*Talent enables him/her to do more than colleagues*", while C1 and C3 agreed on defining talent based on an objective view. C1 said that "*Talent is a combination of knowledge, motivation, and skills*". C1 supported the high-performance view in defining talent: "*Talent is the ability to do the work in the best way*". The interviewees from organisation C combined more than one view in the same definition that they provided. C1 interviewee combined the objective and high-performance views. Similarly, C3 combined talent as mastery and the objective view in defining talent. Likewise, C4 combined the exclusive and mastery views in responding to the interview question "What is the definition of talent". Thus, the interviewees from organisation C provided multiple views in defining talent and combined more than one view in the same definition.

The data set codes from organisation C were classified into two categories: the subjective and the objective categories. The exclusive and high-performance codes were included under the subjective approach category. This was due to both these codes defining the talent as people, which was compatible with the subjective approach category. On the other hand, the talent as mastery and objective view codes were incorporated under the objective approach category, because the talent as mastery and talent as objective codes consider talent as characteristics of people, which aligned with the objective approach category. Table 6.4 summarises quotation, codes, and categories for the talent definition question for organisation C

Table 6.4 Organisation C, quotations, codes and categories

Quote	Code	Category
"*There are few employees considered having talents*" "*Segment of employees able*"	Exclusive	Subjective approach
"*Talent is the ability to do the work in the best way*"	High performance	Subjective approach
"*Talent found in an employee who does more than colleagues*"	Talent as mastery	Objective approach

"*Perform more than others because they have superior skills and competencies*"		
"*Talent is a combination of knowledge, motivation, and skills*" "*Skill, competencies, and abilities found in an employee*"	Objective view	Objective approach

Source: created by the researcher

Overall, the data set of talent definitions from the three organisations (A, B, and C) were coded into Six codes (inclusive, exclusive, high potential, high performance, objective, talent as mastery, and talent as acquired). These codes were classified, based on their similarity, into two categories, namely the subjective and objective approaches. All these codes were identified manually and then stored in the NVivo software 12. NVivo helped the researcher to draw a map that contained the codes, categories and themes. A map is a technique located in the NVivo software 12 to help the researcher to visualise the codes, categories and themes. Thus, the researcher drew a map in NVivo software of the codes, categories, and themes related to the first question in the individual interviews. Figure 6.3 presents the talent definition codes, categories, and theme map.

The interviewees from organisations A, B, and C provided different views in defining talent. Therefore, the fit approach theme was extracted because it related to all the codes and categories obtained from the data set related to the talent definition question. The fit approach theme refers to an organisation adopting a talent definition based on its needs rather than adopting a universal talent definition or one similar to what can be found in the talent definition literature. Figure 6.2 presents the codes, categories, and themes related to the talent definition.

More information about the process of coding, categorising similar codes and theme extraction of and from the data set of the "what is the definition of talent?" question is outlined in the A3 sheet of paper in Appendix F.

Figure 6.2: Codes, categories and theme related to the talent definition.

Codes	Category	Theme	Category	Codes
Exclusive				Objective view
High-potential				Talent as acquired
Inclusive	Subjective approach	Fit approach	Objective approach	
High performance				Talent as mastery
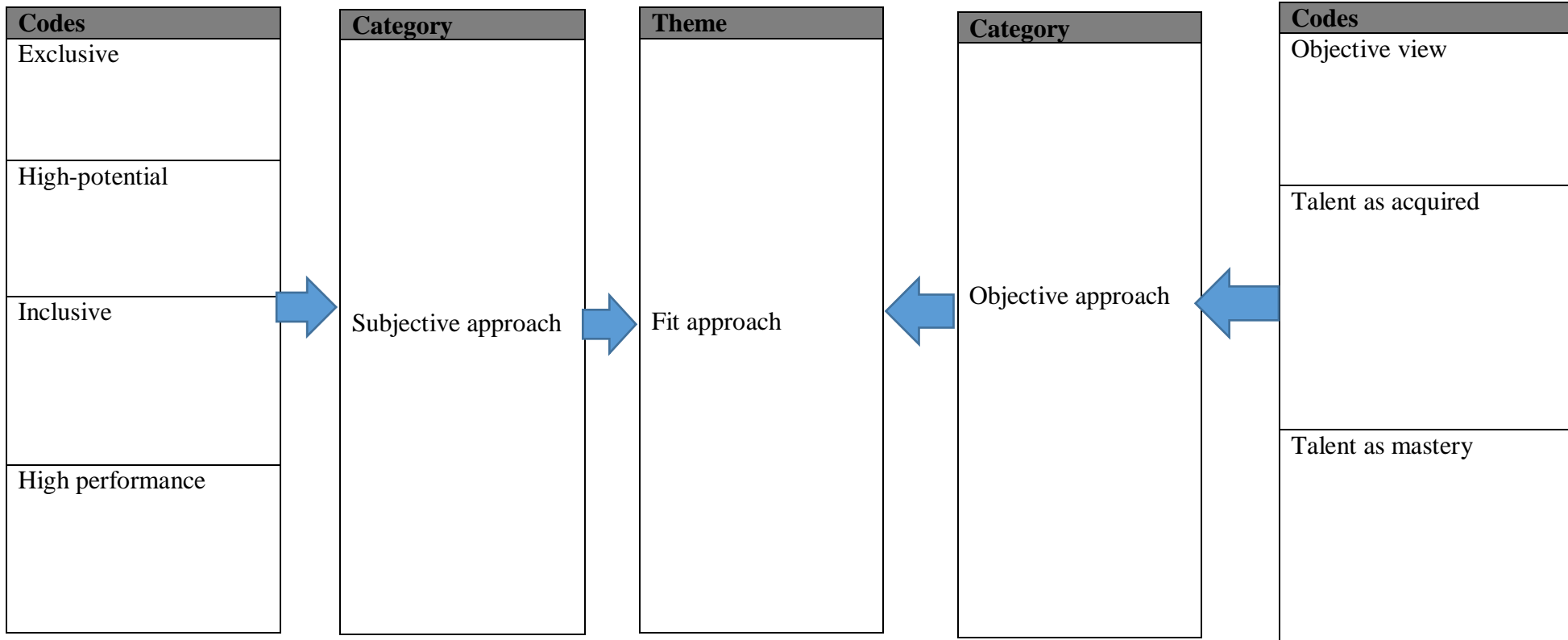
Figure 6.3: Talent definition codes, categories and theme map
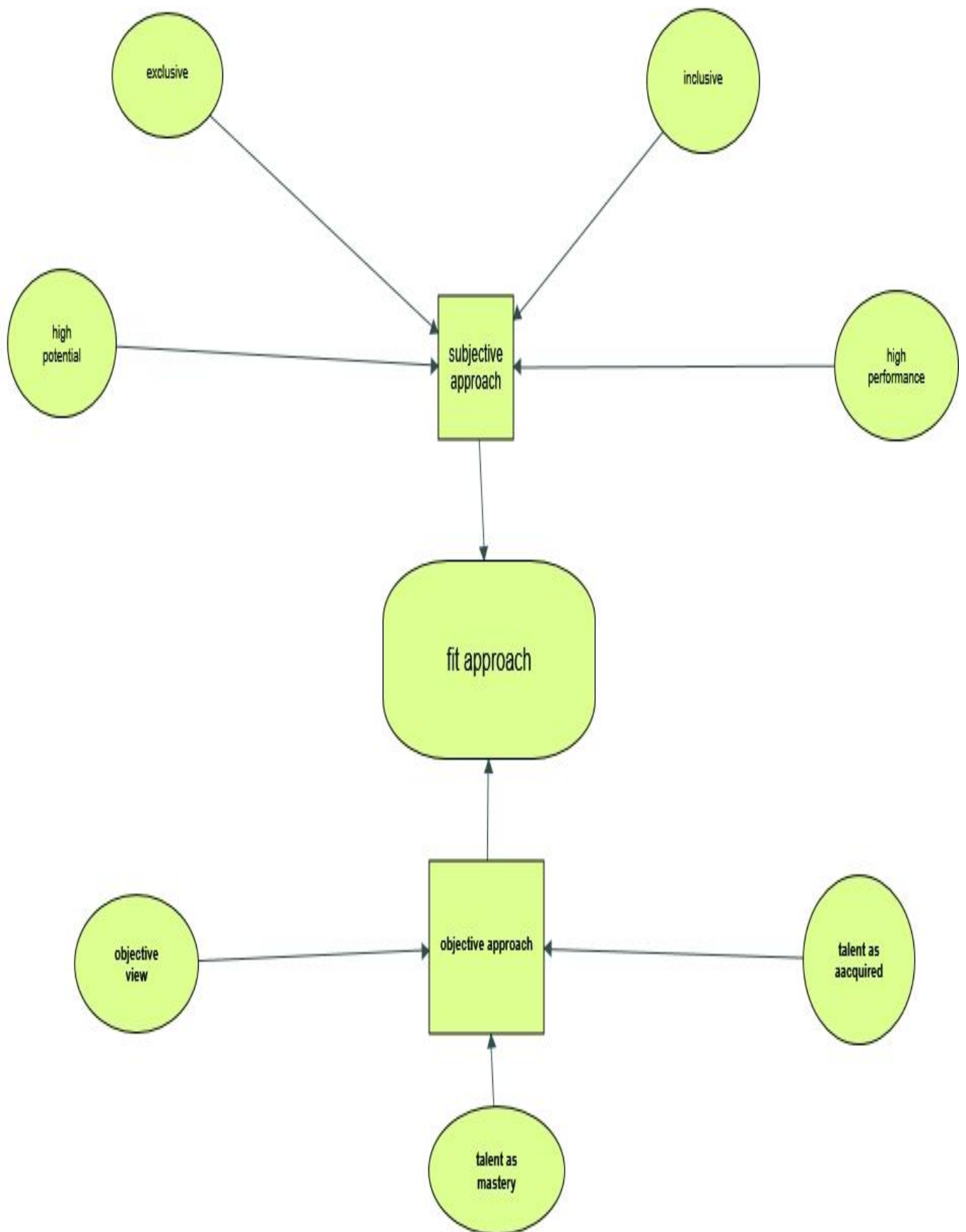
Source: created by the researcher in the NVivo software

6.5.2 Talent management definition

The second question in the interview was: "What is the definition of talent management?" As outlined previously in section 5.5, the hybrid approach to thematic analysis was adopted in the current study. Thus, for this question, the researcher reviewed the previous literature about talent management definitions. Subsequently, after the familiarisation stage, the researcher started to code the data set manually on A3 sheets of paper, before storing these codes in the NVivo 12 software.

The interviewees from organisation A demonstrated a consensus in defining talent management in terms of discovering talent or high potential talent. From this perspective, talent management was seen as managing talent or employees who were expected to be talented in the future. The interviewees' responses to the definition of talent management were coded into two codes: discover talent or high potential talent, and fulfilling organisational need. All interviewees (A1, A2, A3, A4, and A5) equated talent management with discovering talent or high potential talent. For example, A1 said "*Talent management is discovering talented employees*"; A2 supported this definition: "*Talent management is discovering talented employees and developing their talent*". Similarly, A3 indicated that "*Talent management enhances and discovers talented employees through specific tools*". Likewise, A4 mentioned that "*Talent management is a process of creating and improving talented employees by providing them with facilities required for that*", while A5 remarked: "*talent management is the process of discovering potential talent and giving him/her the opportunity*". However, A1 was inclined to highlight also the organisational needs of human resources to discover talent and potential talent. Thus, A1 said: "*Talent management is a program aiming to discover talented employees in order to develop their talent in terms of competencies and efficiency and then manage it*" (discover talent or high potential talent), and "*to fulfil human resource needs of the organisation currently and in the future*" (fulfil organisation's needs).

The code discovering talent and high potential talent was categorised under the people perspective category. This was because the core idea in this code was to equate talent management with discovering talented employees (people). Fulfilling the organisation needs code was categorised in the pool perspective category because it aligned talent management with supplying the organisation with what it needs from talented employees. Table 6.5 summarises the quotations, codes, and categories for organisation A's data set related to the talent management definition.

Table 6.5: Talent management definition quotes, codes and category of organisation A

Quotes	Codes	Categories
"*Talent management is a program aiming to discover talented employees*" "*Talent management is a program focused on discovering talented employees and developing their talent*" "*Talent management aims to enhance and discover talented employees through specific tools*" "*Talent management is a process of creating and improving talented employees*" "*Talent management is the process of discovering potential talent and giving him or her the opportunity*"	Discovering talent or high potential talent	People perspective
"*To fulfil the human resource needs of the organization currently and in the future*"	Fulfilling organisational needs	Pool perspective

Organisation B interviewees provided another two aspects of defining talent management. The responses of the interviewees from organisation B were coded into three codes. These codes were talent management as being right, talent management being encapsulated in talent management practices, and fulfilling the organisational needs. B1 and B2 supported the definition of talent management as being right. B1 said: "*Talent management is putting the right talent in the right place and it is like a process of improvement and creating talent*". In the same way, B2 said: "*Talent management is the best person for the best place at the best time*". However, B3 and B4 identified talent management as being encapsulated in talent management practices. B3 talked about the talent management definition as follows: "*Talent management is starting with identification, acquisition, learning, and development and finally retention*". Similarly, B4 said: "*Talent management is a process of acquisition, learning, and development and the retention of talented employees*". By contrast, B5 described talent management as fulfilling organisational needs: "*talent management is managing talented employees in order to provide the organisation with what it needs*".

Interviewee B2 linked more than one concept in the same talent management definition. These two concepts were talent management as being right and fulfilling organisational needs. B2 said: "*Talent management is knowing what you have and knowing what you want and filling the gaps*

between what you have and what you want. It is being the best person for the best place at the best time".

The talent management definition codes from organisation B were classified into two categories: the practice perspective and the pool perspective. Thus, talent as being right and talent management were encapsulated in the talent management practices codes, which were categorised under the practice perspective. This was due to talent management being the right code and being encapsulated in talent management practices codes, have similar core concepts within their definition of talent management. This core concept dealt with talent management as a sophisticated and advanced collection of key activities, for example acquisition, learning and development, and retention.

Table 6.6 summarises the quotation, codes, and categories of the talent management data set from organisation B.

Table 6.6: Organisation B quotation, codes and categories of the talent management definition

Quotation	Code	Category
"*Putting the right talent in the right place*" "*It is the best person for the best place at the best time*"	Being right	Practice perspective
"*Talent management acquisition, learning and development and retention of talented employees*" "*Talent management is acquisition, learning and development and retention of talented employees*"	Being encapsulated in talent management practices	Practice perspective
"*Talent management is what you have and what you want*" "*Talent management provides the organisation with what it needs*"	Fulfilling organisational needs	Pool perspective

Source: created by the researcher

Organisation C interviewees demonstrated a consensus in defining talent management in terms of its practices. Thus, only the talent management encapsulated in the talent management practice code was found in the data set. C1 defined talent management as "*A process of attraction,*

acquisition, learning and development, and retention", while C2 also supported this definition, commenting that "*Talent management is the acquisition, learning and development, and retention of talented employees*". C3 used the same definition: "*Enhancing organisational abilities to deal with talent by acquisition, learning and development, and retention.*" Likewise, C4 defined talent management as follows: "*Talent management is knowing how to deal with talent, by the process of attracting, acquiring, learning, and development and retention*".

The code being encapsulated in talent management practices was included under the practice perspective category. Accordingly, for the talent management definition of organisation C there was one code (being encapsulated in talent management practices) and there was one category (practice perspective category).

In conclusion, all codes from organisation A, B, and C about the definition of talent management were identified manually and then stored in the NVivo software 12. The interviewees from organisations A, B, and C provided different views in defining talent management. Therefore, the talent management philosophy theme was extracted because it related to all codes and categories obtained from the data set of the question of the definition of talent management. Accordingly, figure 6.3 presents a map of the definition of talent management codes, categories, and theme.

More information about the process of coding and categorising similar codes, and theme extraction of and from the data set of "What is the definition of talent management?", is outlined in the A3 sheet paper in Appendix F.

Figure 6.4: Codes, categories, and themes of talent management definition

Codes	Category	Theme
Talent management encapsulated in talent management practices / Talent management as being right	Practice perspective	Talent management philosophy
Fulfilling organisational needs	Pool perspective	
Discovering high potential	People perspective	
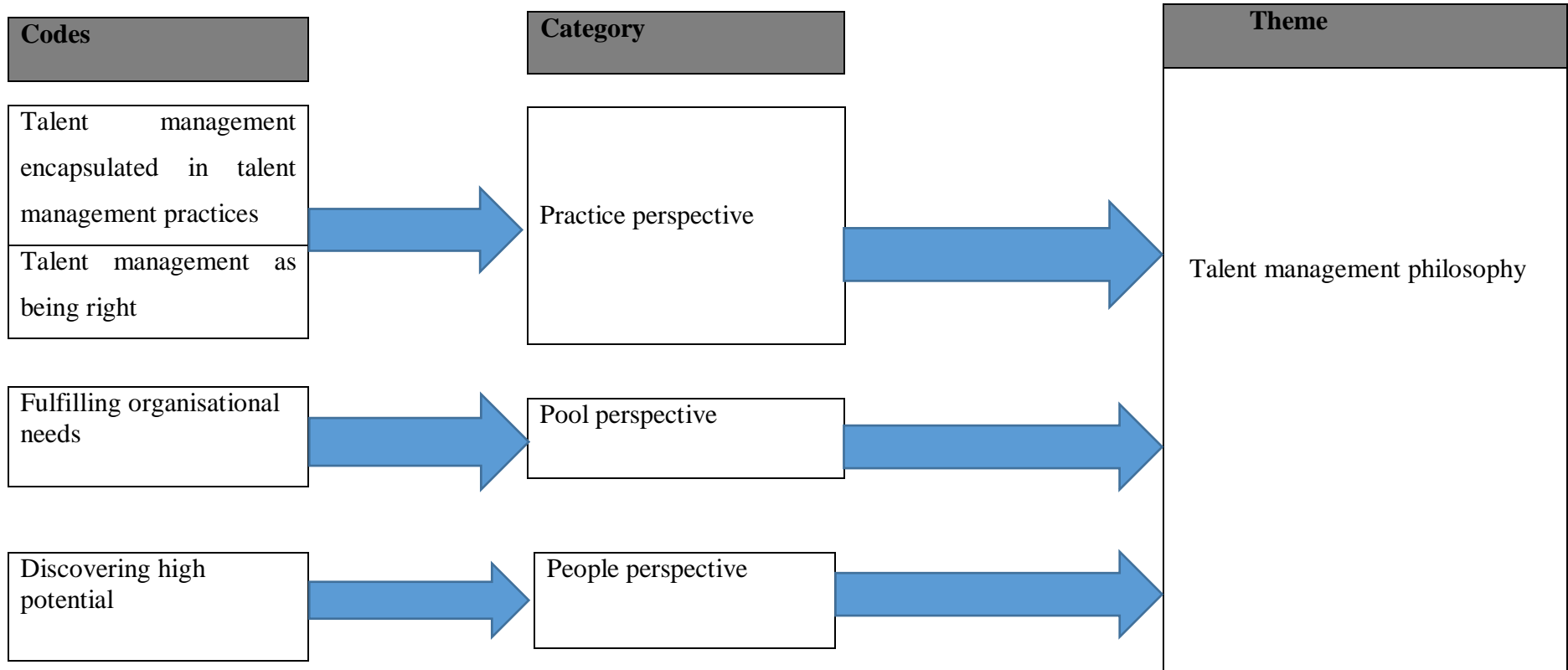
6.5.3 Talent management practices

The third question in the individual interview was "What are the talent management practices in your organisation?". This question aimed to ask about the concrete practices found in Jordanian telecommunication organisations. As previously mentioned in section 5.5, a hybrid approach was adopted for the thematic analysis of the data set of this study. Thus, for this individual interview question, the deductive approach was deployed, because it is better suited to analysing deductively what is considered to be concrete practice in the research field (Fereday & Muir-Cochrane 2006). Therefore, based on the previous literature, there are three dominant talent management practices: acquisition, learning and development, and retention (Ewerlin & Sub 2016; Gallardo-Gallardo & Theunissen 2016; Thunnissen, Boselli & Fruytier, 2013). The data were therefore coded into three codes: acquisition, learning and development, and retention.

The text search query in NVivo software 12 was deployed to obtain the talent management practices in the Jordanian telecommunication organisations. The following figures (6.5, 6.6, and 6.7) show that talent acquisition, talent learning and development, and talent retention were being used actively as talent management practices in the Jordanian telecommunication organisations.

Figure 6.5: Talent acquisition in organisation A, B, and C
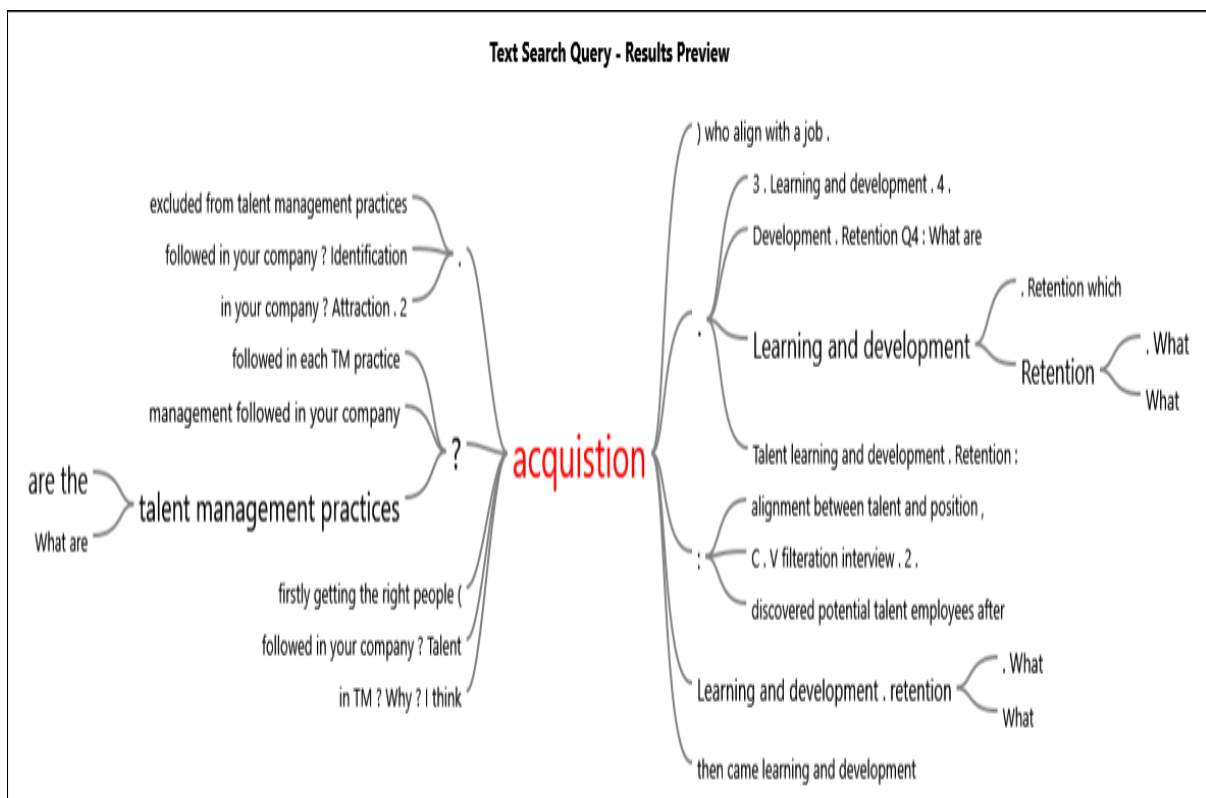
Source: NVivo output

Figure 6.6: Talent learning and development in organisation A, B, and C

Source: NVivo output

Figure 6.7: Talent retention in organisation A, B, and C
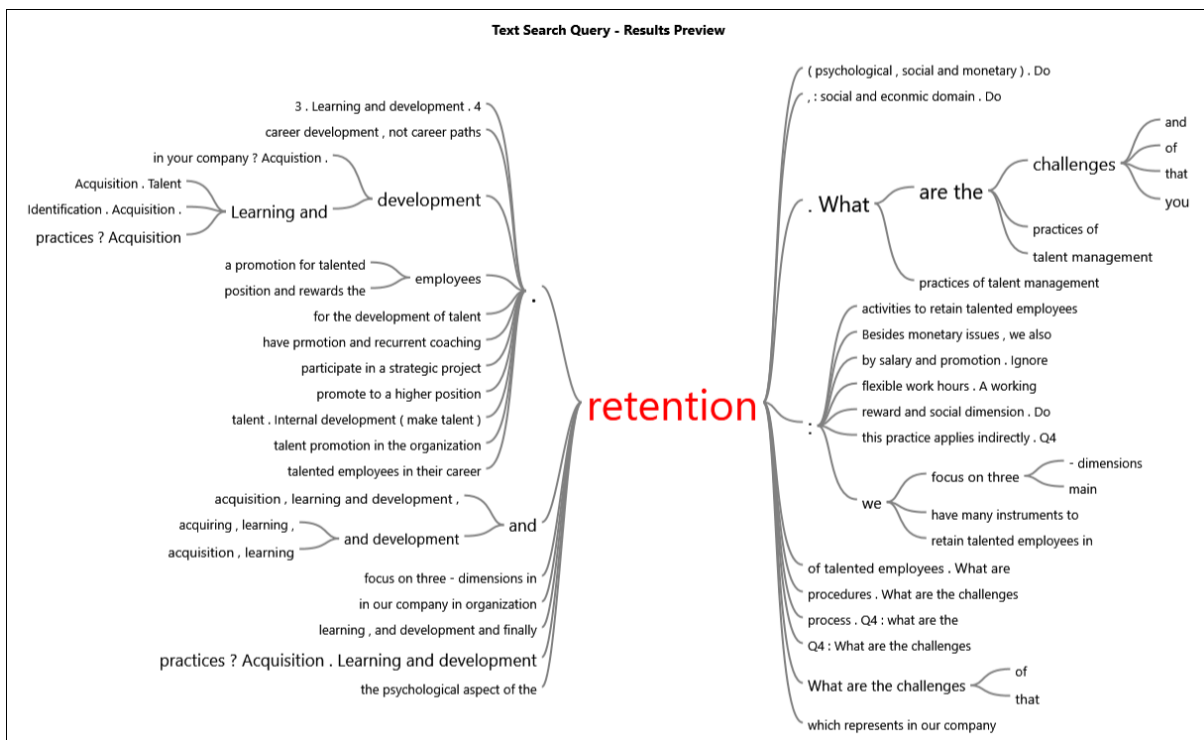
Source: NVivo output

All the interviewees from organisations A, B, and C demonstrated a consensus that talent acquisition, talent learning and development, and talent retention were deployed in their organisations. Table 6.7 summarises the codes and the theme of talent management practices in the Jordanian telecommunication industry.

Table 6.7: Codes and theme of talent management practices in organisations A, B, and C

Organisation	Acquisition code	Learning and development code	Retention code	Theme
A1	Acquisition	Learning and development	Retention	Talent management practices
A2	Acquisition	Learning and development	Retention	
A3	Acquisition	Learning and development	Retention	
A4	Acquisition	Learning and development	Retention	
A5	Acquisition	Learning and development	Retention	
B1	Acquisition	Learning and development	Retention	
B2	Acquisition	Learning and development	Retention	

B3	Acquisition	Learning and development	Retention	
B4	Acquisition	Learning and development	Retention	
B5	Acquisition	Learning and development	Retention	
C1	Acquisition	Learning and development	Retention	
C2	Acquisition	Learning and development	Retention	
C3	Acquisition	Learning and development	Retention	
C4	Acquisition	Learning and development	Retention	

Source: created by the researcher

6.5.4 Talent management challenges

The fourth question in the individual interview was: "what are the challenges facing your organisation in implementing the talent management program?". As outlined previously in 5.5, the hybrid approach to thematic analysis was adopted for the current study. Thus, for this question, the researcher reviewed the previous literature about talent management challenges. Subsequently, after the familiarisation stage, the researcher started to code manually the data set on A3 sheets of paper. These codes were then stored in the NVivo 12 software.

All interviewees from organisation A agreed that they did not face any challenges in implementing talent management program; for instance, A2 emphasised that "*We build our talent management program, so you will not face any major difficulties in implementing something you build*". Similarly, A3 said, "*We did not face any difficulties or challenges in implementing the talent management program*". In the same vein, A4 supported this response: "*We did not face any challenges in implementing talent management programs*". Given the flexible structure of semi-structured interviews, the researcher asked the interviewees from organisation A further question. This question was to provide the reason or justification of why they did not face any challenges in implementing the talent management program. The interviewees from organisation A demonstrated a consensus in relation to the reasons why they did not face any difficulties in the talent management program because it was built into their organisation and aligned with the strategy of the mother company. For example, A1 mentioned that "*We build our talent management system then send it to the mother company and we justify why we will use this talent management program*". In the same way, A2 said: "*We build talent management in our branch in line with the mother company strategy. So you will not face any major difficulties in applying something you build*". Similarly, A5 remarked: "*We conduct a talent management program based*

on our needs and culture. It is worth mentioning that we follow the general guidance from the mother company". Thus, all the interviewees from organisation A agreed that they did not face any difficulties in applying the talent management program and the reasons behind that.

The responses by the interviewees from organisation A were coded into three codes, and these codes were classified under one category. The codes were: no challenges, building talent management and aligning with the mother company, while the category was decentralise talent management. The reason for categorising these codes under decentralise talent management was that all these codes were interconnected in terms of the management style followed in building talent management programs. Accordingly, the appropriate approach theme was extracted, because it indicated that the pattern found in the organisation A data set was adopting the appropriate approach, not a universalistic approach in building talent management. Table 6.7 summarises the quotations, codes, category, and theme of organisation A, responding to "What are the challenges facing you in implementing for talent management program? Why?"

Table 6.8: Organisation A quotation, codes, category and theme in relating to the fourth interview question

Quotations	Codes	Category	Theme
"*No, we did not*" "*You will not face any major difficulties in implementing something you build*" "*We did not face any difficulties or challenges in implementing for talent management program*" "*We did not confront any obstacles in implementing talent management*" "*We don't face any challenges in applying for the talent management programs*"	No challenges	Decentralise talent management	appropriate approach
"*We build our talent management system*" "*We build talent management in our branch*" "*We deploy and build talent management programs based on the Jordanian culture*" "*We conduct a talent management program based on our needs and culture*" "*First of all the headquarters follow a decentralisation management style how to implement it depend on the branch*"	Building talent management		
"*The mother company's role in the talent management*" "*In line with the mother company's strategy*"	Aligning talent management		

"Align with policies and strategies of the mother company" *"It is worth mentioning that we follow the general guidance from the mother company"* *"The guidelines from headquarter"*			

Source: adapted by the researcher

All interviewees from organisation B had similar responses to "what are the challenges facing your organisation in implementing the talent management program?" They agreed that they did not face any challenges or difficulties; for example, B1 said "*No we did not*", and B2 supported this answer "*I cannot remember that we confronted any difficulties in applying the talent management program*". Similarly, B3 said "*Of course not*". As in organisation A, the researcher added another question, by asking the interviewees "Why did you not face any challenges in applying talent management program?" This flexibility of adding questions during the interviews is considered to be one of the advantages of semi-structured interviews. All interviewees from organisation B clarified that the reason that they did not face any challenges was because the talent management program was built into their organisation. B1 mentioned that "*We build talent management processes and programs*", and B2 said: "*We build our talent management program*". Likewise, B3 said "*We build our talent management program based on Jordanian culture, which is different from the mother company culture*". In the same vein, B4 responded with this answer: "*We built a talent management program that can be implemented easily and is compatible with our branch*". Moreover, three out of the five interviewees from organisation B spoke clearly about aligning their talent management program with the mother company's strategy and guidelines. These three interviewees were B1, B2, and B3. B1 said: "*Based on the mother company's strategy*"; B2 supported this answer: "*The guidelines are from the mother company*". B3 mentioned that "*Our talent management system must align with the mother company's strategy*".

Overall, the organisation B data set about the fourth question in the individual interview was coded into three codes and classified into one category. The codes were no challenges, building talent management and aligning with the mother company. The category was decentralisation in talent management. The reason for collecting all the codes under this category was that they were interconnected in terms of reflecting a similar management style in building talent management. Thus, the theme-appropriate approach was extracted, because this theme was compatible with the data set pattern in organisation B. Table 6.8 summarises the quotations, codes, category, and theme of organisation B interviewees, responding to "What are the challenges facing your organisation in applying for the talent management program? Why?".

Table 6.9: Organisation B quotations, codes, category and theme

Quotations	Code	Category	Theme
"*No, we did not*" "*I cannot remember we confront any difficulties in applying for talent management program*" "*Of course not*" "*None at all*" "*We didn't confront any challenges in applying for talent management programs*"	No challenges	Decentralise talent management	appropriate approach
"*We build talent management process and programs*" "*We build our talent management program*" "*We build our TM program*" "*We built a talent management program*" "*We performed a talent management program that we built*"	Building talent management		
"*Based on the mother company's strategy*" "*The guidelines are from the mother company*" "*Our TM system must align with the mother company's strategy*"	Aligning talent management		

All interviewees from organisation C had a similar answer to "What are the challenges facing your organisation in implementing talent management program?" They agreed that their organisation did not face any challenges in implementing their talent management programs. C1 said "*No we did not*", and C2 supported this answer: "*None at all*". In the same way, C4 said "*Regarding the challenges, none*". Also, all interviewees from organisation C mentioned their reasons for not facing any challenges when they built their talent management program. C1 said: "*We design and implement talent management processes based on our needs and the requirements of Jordanian environments*". Likewise, C2 stated: "*We design and implement the talent management processes based on our needs and the requirements of Jordanian environments*". In the same vein, C3 remarked: "*It comes back to our branch to create and implement a talent management program*". C2 was the only interviewee who indicated clearly that the talent management program was aligned with the mother company strategy: "*Of course, we follow the strategy of the mother company*". Thus, all the interviewees from organisation C provided a similar response to "what challenges does your organisation face in implementing the talent management program?", and the reasons that their organisation did not face any challenges. Only C2 claimed that the talent management program needed to be aligned with the strategy of the mother company.

Three codes, One category and One theme were extracted from the organisation C data set. These codes were no challenges, building talent management, and aligning with talent management. All these codes were classified under decentralise talent management because they were interconnected and similar in terms of a similar management style in building talent management. Thus, the appropriate approach theme was extracted because it represented the pattern in the data set. Table 6.8 summarises the quotations, codes, category, and theme of the responses by the organisation C to: "What are the challenges facing your organisation in applying talent management? Why?" More information about the process of coding, categorising similar codes, and theme extraction of and from the data set of "what are the challenges facing your organisation in implementing talent management? Why?" is outlined in the A3 sheet of paper in Appendix F.

Table 6.10: Quotations, codes, category, and theme of organisation C about challenges in implementing talent management program.

Quotations	Codes	Category	Theme
"No, we did not" *"None at all"* *"We did not have any challenges in applying talent management"* *"Regarding the challenges, none"*	No challenges	Decentralisation in talent management	Appropriate approach
"We create and deploy what is appropriate to our branch and Jordanian culture" *"It comes back to our branch to create and implement a talent management program"* *"We build and perform talent management based on our requirements and culture"* *"We design and implement TM processes based on our needs and the requirements of Jordanian environments"*	Building talent management		
"We follow the strategy of the mother company"	Aligning talent management		

Source: created by the researcher

Figure 6.8 shows all organisations codes, category and theme related to challenges in applying talent management.

Figure 6.8: Codes, category and theme of all Jordanian telecommunication organisation of challenges of implementing talent management
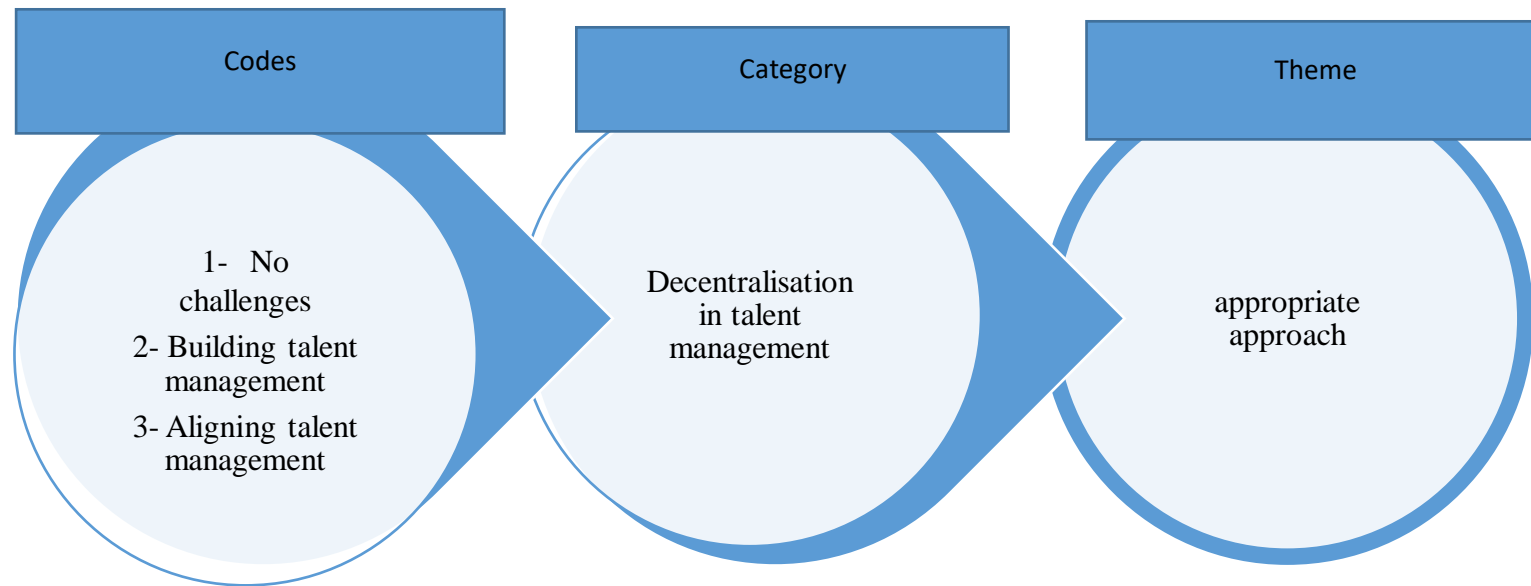
6.5.5 Procedures of talent management practices

The fifth question in the individual interview was: "What are the steps followed in each talent management practice?" As outlined previously in 5.5, a hybrid approach to thematic analysis was adopted for the current study. Thus, for this question, the researcher reviewed the previous literature about talent management practices. Subsequently, after the familiarisation stage, the researcher started to code manually the data set on the A3 sheets of paper, before storing these codes in the NVivo 12 software.

The interviewees explained the procedures of each talent management practice. These practices were acquisition, learning and development, and retention. All Organisation A interviewees provided a similar reply to the question about the procedures of talent acquisition in their organisation. These procedures were resume filtration and individual interviews. For instance, A2 said: "*We follow tools like resume filtration and interviews, and based on these two tools the decision will be taken*"; similarly, A3 supported this answer with: "*We usually use resume filtration and interviews*". Likewise, A5 stated that "*we conduct resume filtration and interviews in the acquisition process*". The second talent management practice was learning and development. The interviewees referred to delivering different procedures in learning and development. These procedures related to the source of learning and career development. All organisation A interviewees expressed a consensus about the source of learning, which was based on organisation and self-experience. For example, A1 mentioned that "*Self-experience relied on employee experience inside the company and organisational program experience relied on the learning program built on weaknesses and strong points that are obtained from psychometric assessment*". Similarly, A2 said: "*We conduct performance appraisal and psychometric analysis. Based on these we establish a competency plan. Moreover, self-experience-based learning enhances talent learning*". A4 supported this answer: "*We emphasise the self-experience from working in our organisation and we build a competencies action plan for each talented employee based on performance appraisal and psychometric analysis*". All the interviewees from organisation A agreed that their organisation provided career development for talented employees as part of their development practice. For instance, A1 said: "*We have promotion opportunities for talented employees*". A3 also supported this viewpoint: "*For development, we promote talented employees to a higher position*".

The final talent management practice was retention; the interviewees from organisation A indicated many domains for retaining talent. All the interviewees from organisation A expressed a consensus about using social activities to retain talent employees. For instance, A1 said: "*We conduct social activities to enhance the social life of talent inside and outside the organisation*". A2 supported this

reply by saying, "*We perform activities that enhance the relationship between employees*". In the same vein, A3 remarked that "*We focus on the social domain to retain talent*", while A5 stated that "*In the social aspect, we provide activities that improve the social life of talented employees inside the organisation*". Thus, the social activities in organisation A were considered an important aspect of retaining talent.

However, another aspect of retaining talented employees was mentioned during the individual interviews. A1 and A2 focused on the importance of organisational image to retain talented employees; for example, A1 said: "*Our organisational image enhances the talent to retain in our organisation*"; likewise, A2 supported this by noting that "*Our organisational image has a significant role in retaining talented employees*". On the other hand, A3 and A4 mentioned the importance of rewards in retention; for instance, A3 said: "*Rewards play a vital role in retaining talented employees in our organisation*". Additionally, A4 noted: "*We provided rewards to retain talented employees*". Finally, A5 talked about another aspect of retaining talented employees: "*We offered some flexible work hours to some talent*".

The organisation A data set relating to the procedures of talent management practices was coded into eight codes. These codes covered all procedures in acquisition, learning and development and retention, namely resume filtration and interviews for acquisition, career development, and emphasis on programs-based and experience-based in learning and development, and rewards, psychological aspects, social aspects and organisational images for retention. The codes were classified under four categories. Accordingly, based on the codes and categories the themes were extracted. Figure 6.9 summarise organisation A's codes, categories and themes about procedures in talent management practices.

Figure 6.9: Organisation A codes, categories and theme about procedures in talent management practice**.**

Codes	Category	Theme
Talent acquisition Resume filtration Interview	Formal tools	Humanistic/ competitive
Talent learning and development Career development Emphasis on organisational and personal learning Organisation-based	Organisation and personal based	
Talent retention Rewards Psychological Social Organisation image	tangible intangible	
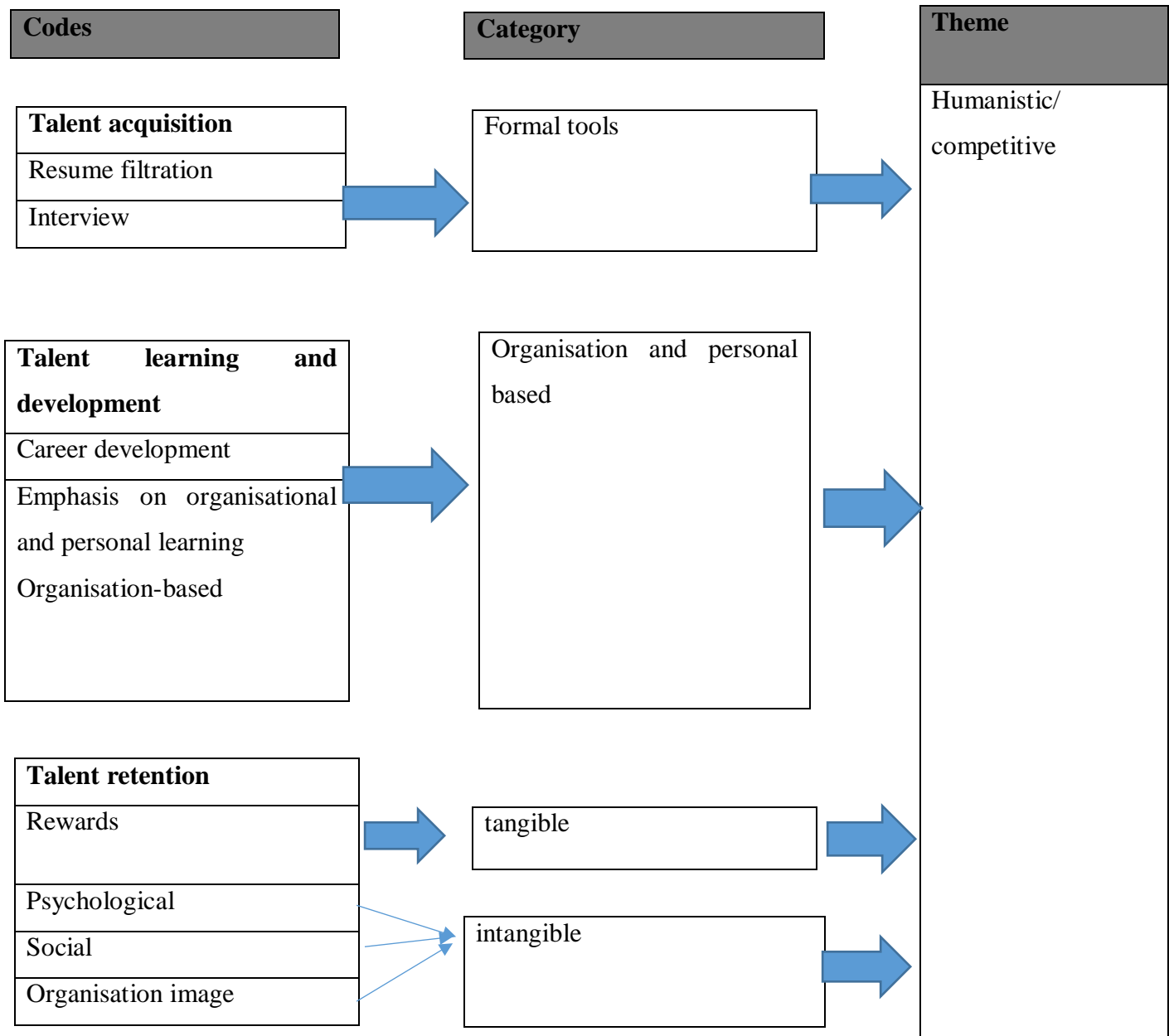
The interviewees from organisation B discussed many procedures for talent acquisition, learning and development and retention. All interviewees from organisation B expressed consensus about resume filtration and interviews that were adopted in the talent acquisition process. For example, B1 said: "*In the acquisition process, we rely on resume filtration and interviews*". Similarly, B3 confirmed these procedures: "*In the acquisition process, we rely on resume filtration and interviews*". Likewise, B4 stated: *"We started with resume filtration then an interview committee, with at least four members on the committee and maybe more depending on the position"*. The second practice was learning and development. All interviewees outlined that the procedures in talent learning were program-based. The program-based learning and development were offered to all talent, and were not for chosen or nominated talent only. The admission to these learning and development programs depended on talent decisions. For example, B1 mentioned that "*The learning and development are based on talent choices of what area he or she has a need to improve and learn. So our responsibility is to facilitate all material required for that*". In the same way, B2 said: "*Focusing on talent, the learning program is based on what talent should be trained in it*". Likewise, B5 supported this reply: "*We focus on employees themselves to determine their needs to develop and learn*". Another procedure, illustrated by Organisation B interviewees, was career development. B1, B2, B4, and B5 all agreed that their organisation followed career development. For instance, B1 said: "*Also, we provide career development to all talent*"; in the same way, B2 supported this procedure, which "*Develops talent by seeking planning and career development*". Similarly, B5 mentioned: "*Also, we have a promotion to develop talent career*".

Interviewees from organisation B referred to different procedures in relation to talent retention. These procedures were reward, social, psychological, and organisational image. All the interviewees communicated a consensus about psychological and social procedures to retain talent. B1 said, "*We offered talent to join different types of training or programs that he/she loved, for example, music or yoga sessions to satisfy him/her psychologically. Moreover, we arrange different social activities to enhance the talent life inside the organisation*". Likewise, B3 supported the psychological and social procedures: "*We rely on many aspects to retain our talent, for example satisfying talented employees in their social lives by strengthening the social activity in the organisation*". Additionally, B3 noted that, *"The second aspect, is that we provide in our academy training courses selected based on talented employees' choice to relax him/her, for example, music, or any other hobbies*". B3 and B4 mentioned that the organisation's image was considered a major factor in retaining talent in their organisation. For example, B3 said: "*Finally, our organisation's image plays a vital role in retaining talented employees*". B2 and B4 mentioned the reward procedure to retain talent; for instance, B2 said: "*We offered a reward to talent in order to retain*

them". The data set of "What are the procedures of talent management practices" question was coded into eight codes. These codes were resume filtration, interview, career development, program-based learning, reward, social procedure, psychological procedures, and organisational image. The resume filtration and interview were classified under the formal tools category, while career development and program-based learning were classified under the organisational source category, and psychological, social, and organisational image were classified under intangible retention; finally, reward was classified under tangible retention. Figure 6.10 summarises codes, categories, and theme of organisation B in relation to procedures in talent management practices.

Figure 6.10: Codes, categories, and theme of organisation B in relation to procedures in talent management practices.

Codes	Category	Theme
		Humanistic

Talent acquisition
Resume filtration
Interview

→ Formal tools →

Talent learning and development
Career development
Program-based learning

→ Organisation source →

Talent retention
Rewards

→ Intangible →

Psychological
Social
Organisation image

→ Tangible →
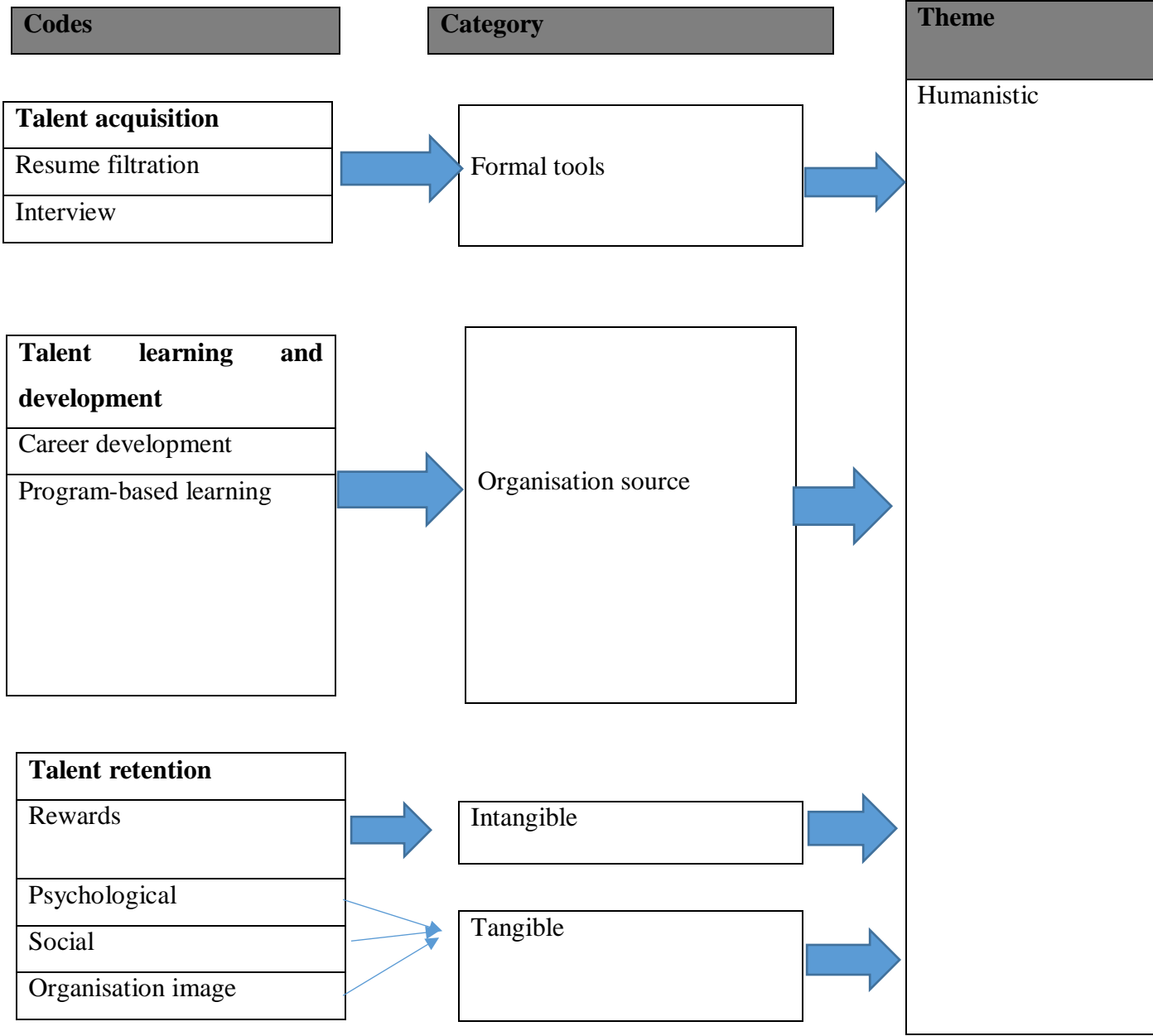
Source: created by the researcher

The interviewees from organisation C outlined the procedures in their talent management practices. Embarking on the acquisition of talent, all the interviewees identified the resume filtration and interview procedures that were adopted in the acquisition process. C1 said, "*In the acquisition, we follow resume filtration then interview*"; in the same way, C3 supported this procedure: "*Acquisition decisions made depend upon resume filtration and interviews*". For learning and development, all the organisation C interviewees communicated a consensus about program-based talent development, whereby talented employees presented a case study in front of the committee, and the

committee then decided the appropriate learning program. C1 stated: "*Learning and development is based on an assessment that builds on a case study that employees present. Then the committee makes notes about strength and weaknesses points in the talent*". Similarly, C3 supported this procedure in relation to talent learning and development: "*Each talented employee presents a case study about him/herself in front of the committee. This committee, based on their experience and knowledge, provides talented employees with feedback*". In addition, all the organisation C interviewees identified the career development procedure that was adopted in their organisation. C2 said: "*In our organisation we develop the talented employees in their career*", and in the same vein, C4 mentioned: "*We focus on talent career development in the organisation*". Organisation C interviewees were provided with different procedures to retain talent. All the interviewees agreed on a social procedure to retain talent. For example, C2 referred to "*taking care of social life inside and outside the organisation for talented employees*". C1 and C3 mentioned the role of the organisation's image and psychological procedures in retaining talent in their organisation. For instance, C1 stated: "*Our organisation image plays a vital role in retaining talent, and we offered procedures for example a nursery inside the organisation to support the talent psychologically*". Finally, C1 and C4 mentioned the reward procedure to retain talent, and C4 said: "*Besides rewards issues*".

The data set of organisation C was coded into eight codes. These codes were resume filtration, interview, program-based, career development, reward, psychological procedures, social procedures, and organisational image. These codes were classified under four categories; resume filtration and interview were classified under the formal tool category; program-based learning, and career development were classified under organisational sources; psychological procedures, social procedures, and organisational image were classified under intangible retention; and reward was classified under tangible retention. Table 6.9 summarises the codes, categories, and theme of organisation C in relation to procedures in talent management practices.

Figure 6.11: Organisation C codes, categories, and theme about procedures in talent management practice.
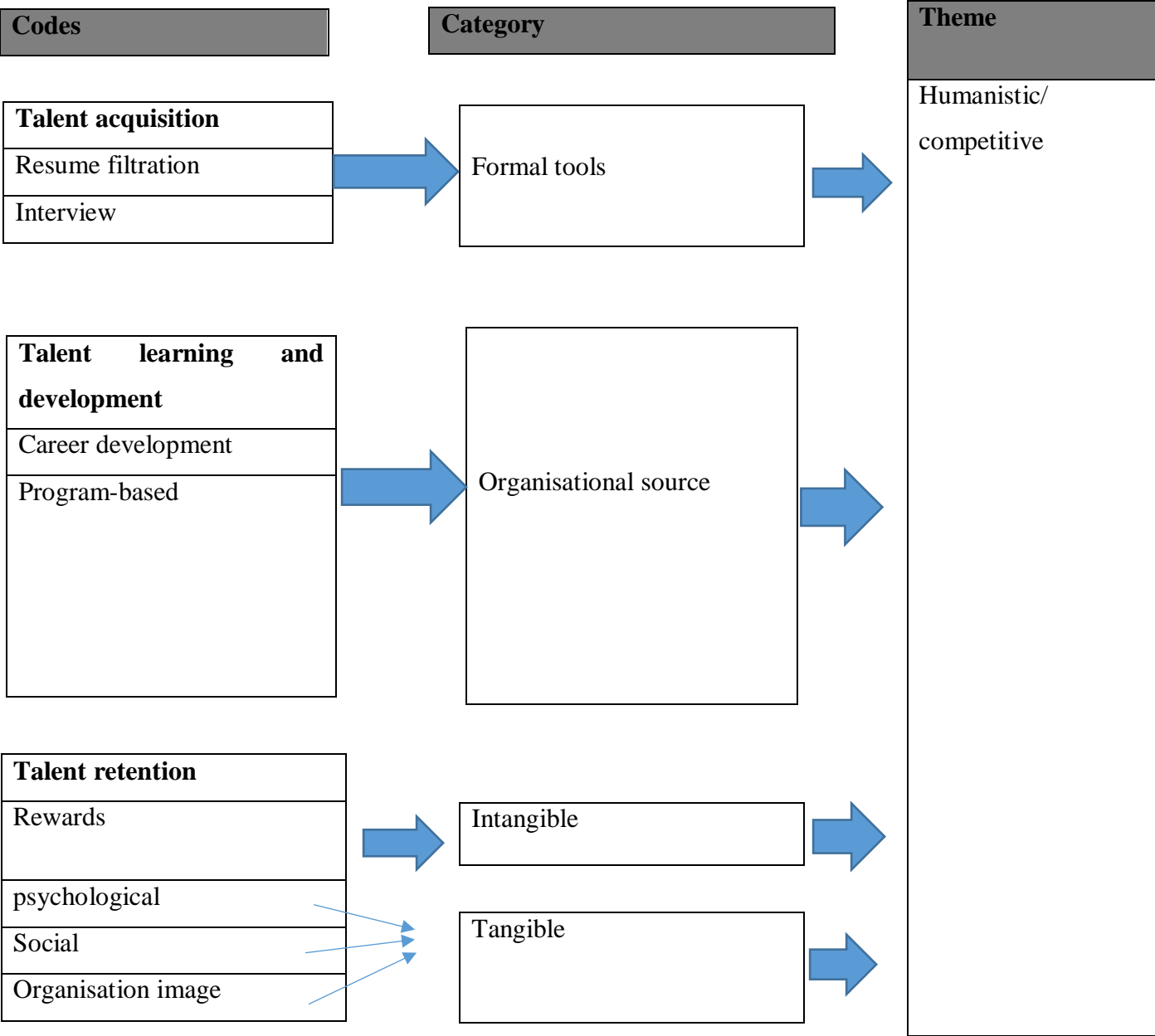
After coding the data set and classifying these codes under categories based on their similarity, searching for themes that correlated with codes was started. There were differences and similarities between the organisations A, B, and C in terms of the procedures in their talent management practices. Thus, extracting one theme that correlated with A, B, and C was quite difficult. After moving backward and forward between the data sets and the previous literature about procedures in talent management practices, two themes were extracted. As indicated by Braun and Clarke (2006), the theme needs to work in light of the codes and the entire data set. The first theme was humanistic/competitive and the second theme was humanistic. The humanistic/competitive theme

correlated with the codes and the entire data set of organisation A and C, whereas the humanistic theme correlated with the codes and the entire data set of organisation B. These two themes were based on the work of Bolander, Werr and Asplund (2017) about typology of talent management practices, they explore talent management. Then based on analysis, four type of talent management were emerged namely, humanistic, competitive, elitist and entrepreneurial. More information is included about the process of coding, categorising similar codes, and theme extraction of and from the data set in relation to "What are the procedures of talent management practices in your organisation?" in the A3 sheet of paper in Appendix F.

6.5.6 Talent management as part of human resource management

The sixth question in the interviews was "Do you see talent management as part of human resource management? Why?". As outlined previously in 5.5, a hybrid approach to themes was adopted for the current study. Thus, for this question, the researcher reviewed the previous literature about talent management practices. Subsequently, after the familiarisation stage, the researcher started to code the data set manually on A3 sheets paper and these were then stored in the NVivo 12 software.

Surprisingly, all organisations A, B, and C interviewees saw talent management as being part of human resource management. A1 said: "*Yes, talent management is human resource management*". Similarly, B3 supported this reply: "*Sure, talent management is like human resource management*". In the same way, C4 stated: "*Yes, it is the same as human resource management*". However, the interviewees provided diverse justifications about why they considered talent management to be part of the human resource department. Organisation A interviewees provided two reasons. Firstly, A1 and A3 mentioned that talent management practices were similar to human resource management practices, and A1 said: "*Because they are the same practices*". Secondly, A2, A4, and A5 offered the reason that human resource employees can deal with a talent management program; A4 said: "….*Because the human resource team can manage talented employees effectively*". Similarly, organisation B interviewees provided two reasons why they saw talent management as being part of human resource management. The first reason was that talent management practices are similar to human resource management practices, and the second reason was that human resource management employees can deal with the talent management program. B1, B3, and B5 supported the first reason (talent management practices are similar to human resource management practices). For example, B1 said: "*Talent management is part of human resource management because it has the same practices*". B2 and B4 considered that human resource employees can deal with talent management; for instance, B2 mentioned: "*I think talent management programs can be deployed by human resource employees*". Organisation C interviewees demonstrated a consensus about the reason for considering talent management as being part of human resources management.

This reason was that human resource employees can deal with talent management programs effectively. C3 said: "…*Because talent management practices can be done by human resource employees*"; similarly, C1 supported this reply: "…..*Because human resource employees can deal with the talent management process effectively*".

The data set of all organisations A, B, and C were coded into three codes, talent management as human resource management, talent management practices similar to human resource management, and human resource employees covering talent management. The theme extracted from these codes was that talent management integrated with human resources. Table 6.9 summarises codes and themes of organisations A, B, and C in relation to talent management as part of human resource management. More information about the process of coding, and theme extraction of and from the data set, related to the "Do you see talent management as part of human resource management? Why?" question, is outlined in the A3 sheet of paper in Appendix F.

Table 6.11: Codes and theme of organisation A, B, and C about talent management as part of human resource management.

Codes	Theme
Talent management as a human resource management	Talent management similar to human resource
Human resource employees deal with talent management	Integrative talent management
Talent management practice similar to human resource practices	
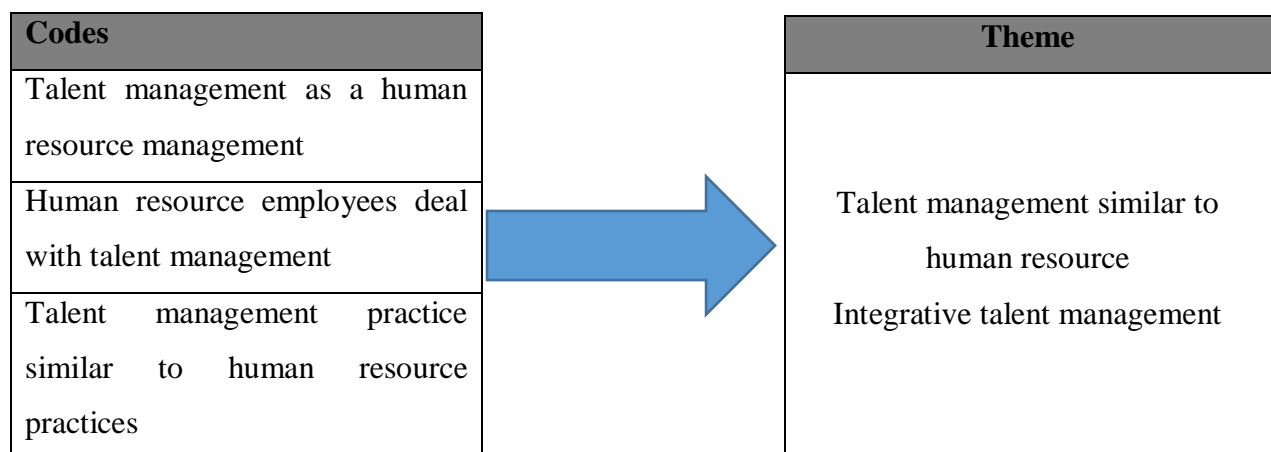
6.5.7 Human resource staff member roles and other department directors

The seventh question in the interview was: "What are the roles of human resource staff member and other departments' directors in talent management programs?" As outlined previously in 5.5, a hybrid approach to thematic analysis was adopted for the current study. Thus, for this question, the researcher reviewed the previous literature about talent management practices. Subsequently, after the familiarisation stage, the researcher started to code manually the data set on A3 sheets and then, stored these codes in the NVivo 12 software.

All interviewees from organisations A, B, and C reached consensus that building talent management programs in their organisation was a dual responsibility of human resource management staff and

directors from other departments. A2 said: "*We built a talent management program after consulting other department directors*". Similarly, B3 supported this reply: "*We shared the talent management program with directors from multiple departments by conducting a brainstorming workshop and then keeping the director informed about the program process*". Likewise, C2 mentioned: "*We asked other department directors to share with us their views*". The organisations A, B, and C interviewees outlined that the dual responsibilities were continuing after building a talent management program. For example, B3 said: "*Keeping the directors of other department informed about talent management program process. It is important to collaborate with managers from all departments*", and in the same way, C2 said: "*managers sharing their feedback about the talent management process because they work directly and daily with talent*". Likewise, A2 had the same reply: "*Then we start to build a talent management program based on that. We share the talent management program with other directors to gain their help and commitment in the talent management program*".

All the interviewees from organisations A, B, and C provided a similar response to: "What are the roles of human resource staff and other department directors in talent management?" Thus, all data sets were coded into one code. This code was dual building and sharing. The theme extracted from this code was the continuous cycle. The continuous cycle theme represents the communication process of talent management programs between human resource management staff and other department directors. More information about the process of coding, categorising similar codes, and theme extraction of the data set of "What are the roles of human resource staff and other department directors in talent management program?" was outlined in the A3 sheet in appendix F. Table 6.10 summarises the codes and theme of organisation A, B, and C.

Figure 6.12: Code and theme of organisation A, B, C
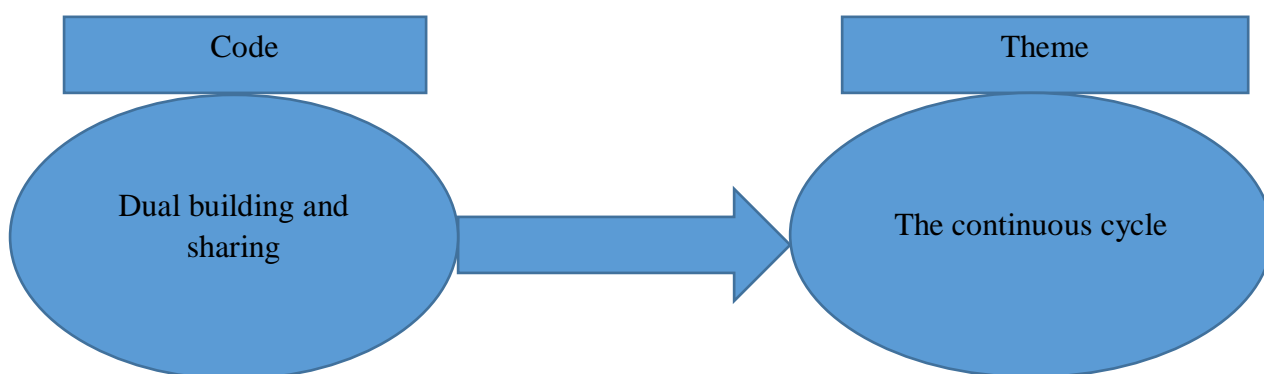
6.6 Trustworthiness check for the thematic analysis of the talent management program

Section 6.2 discussed the trustworthiness criterion for qualitative methods. This section explains the criterion of trustworthiness that was adopted specifically in the thematic analysis. Nowell et al. (2017) outlined each phase of thematic analysis and how to meet the criterion of trustworthiness, based on Lincoln and Guba's (1985) criteria. This study adopted Lincoln and Guba's (1985) criterion of trustworthiness. Accordingly, the thematic analysis emphasised trustworthiness, as outlined by Nowell et al. (2017). Table 6.12 summarises each phase of the thematic analysis and the accompanying trustworthiness procedures.

Table 6.12. Trustworthiness during each phase of thematic analysis

Phases	Description
Initialisation: A. Familiarising with the data set	-Prolonged engagement with the interview transcripts. -Storing the transcripts and interviews in well-organised folders. -Writing initial thoughts about codes
B. Generating initial codes	-Keep revising the transcript -Sorting the codes in NVivo 12 -Developing the codes framework manually on A3 sheets of paper and providing definitions of the codes
C. Construction: 1. Searching for theme	-Visualising the themes' connections with codes and categories in figures drawn with the map technique in NVivo 12 as in a talent definition map. -Keep the detailed notes on the A3 sheet about theme development, and the A3 sheet was included in the study appendix.
2. Reviewing themes	-Revising the themes in order to check their references to the raw data.

C. Defining and naming the theme	-The final themes were checked by two supervisory teams (researcher triangulation). -Documentation on A3 sheets of paper and in the NVivo software and A3 sheets of paper were included in the study appendix.
D. Finalisation	-The qualitative data analysis checked by the supervisory team. -Explaining in detail the phases of coding, classifying similar codes under the category, and the extraction themes process. -Reporting all theoretical, methodological, and analytical decisions that were taken in the study. For example, the justification for adopting a qualitative method, semi-structured interviews, and the thematic analysis approach were discussed in the current research.

Source: adapted by the researcher based on Nowell et al. (2017)

As was outlined in table 6.12, the trustworthiness criterion was established in each phase of the thematic analysis. Deploying the trustworthiness criterion in the thematic analysis phases enhanced the trustworthiness of qualitative study in the current research project. Also, it showed how to apply the trustworthiness criterion in practice during the thematic analysis.

6.8 Chapter summary
This chapter has discussed the qualitative data analysis. its structured into Seven sections. The first section provided an overview of the chapter. The main part of introduction section was the justifications for adopting thematic analysis to analyse the qualitative data in the current study project. Trustworthiness of qualitative data analysis was addressed in section 6.3. Seven themes were extracted from qualitative data for example, The fit approach, appropriate approach, talent management philosophy. Trustworthiness check for each phase of thematic analysis was explained in section 6.6. Finally, a summary of the main aspects of chapter Six was provided.

Chapter Seven: Conceptual model development

7.1. Chapter overview

Chapter Six, the study's qualitative data analysis, discussed the emerging themes of talent management in the Jordanian telecommunication industry. The conceptual model was revised based on themes extracted from the qualitative data analysis in this study. Thus, the conceptual model represented and visualised the themes extracted from the participants' qualitative data.

This chapter reviews the conceptual model development based on the research questions and objectives of this study. The chapter is structured into Six sections. The first section, 7.1, provides an overview of the chapter. Section 7.2 covers the introduction to this chapter, while the following section, 7.3, discusses the refinement of the research model in detail. The next section, 7.4, illustrates the definitions of factors used in the initial conceptual model. The research hypotheses are outlined in Section 7.5. The final section, 7.6, summarises the preceding sections in the chapter. This chapter Six sections are represented in the following graphical layout in Figure 7.1.
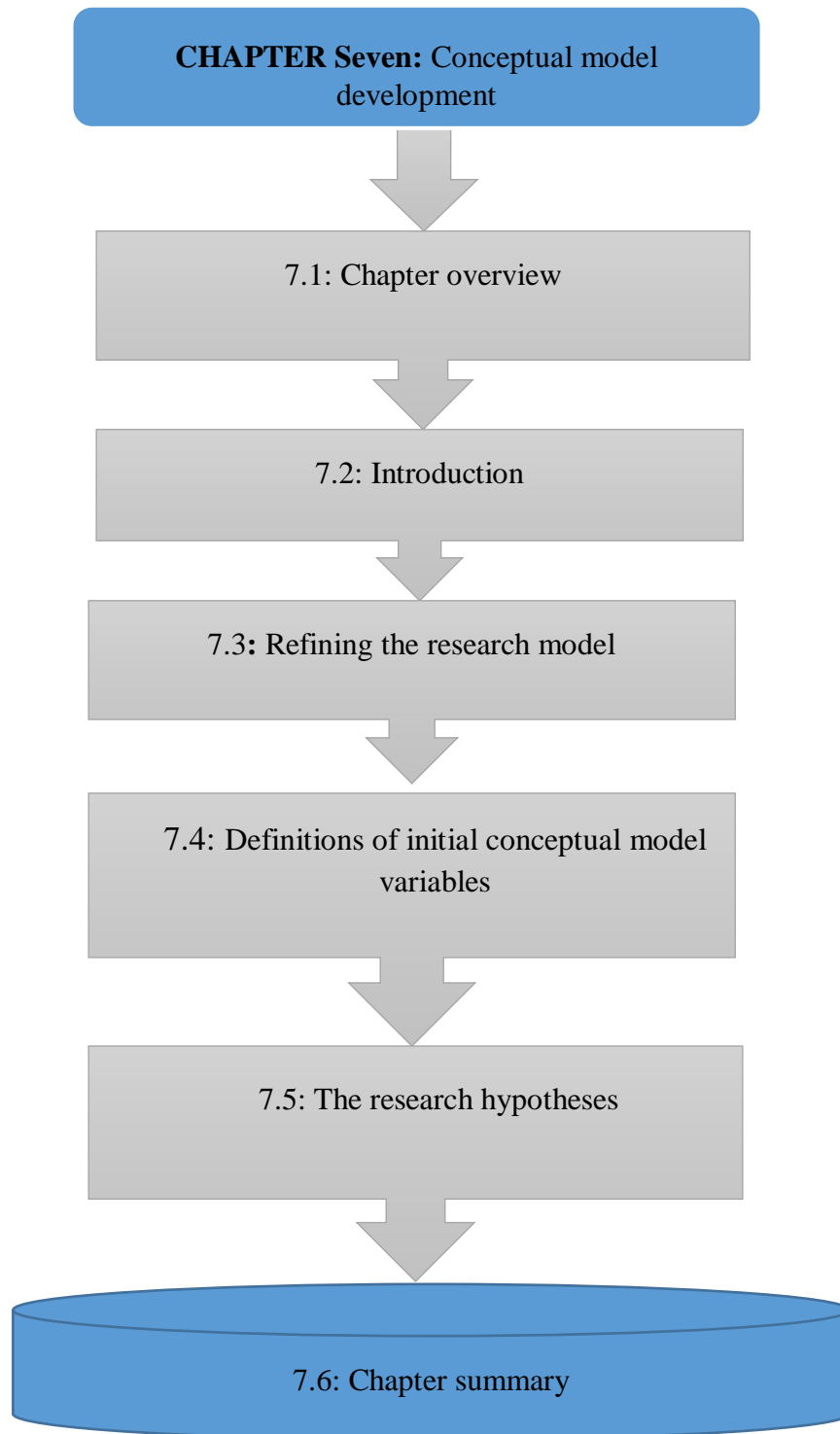
Figure 7.1: A graphical layout for Chapter Seven

Source: Prepared by the researcher

7.2 Introduction

The second research objective in this study was to measure the impact of talent management practices on the employees' performance in the Jordanian telecommunication industry. To achieve this objective, the initial conceptual model of this study was developed. There are three main elements that need to be incorporated in the conceptual framework: the study variables; a description of the relationships between variables; and the theory explaining those relationships between variables (Sekaran & Bougie 2016). This conceptual model development was based on the literature about talent management and employees' performance and their associated theoretical underpinnings. As was outlined in Chapter Three in this thesis, theoretical underpinnings function as a foundation to develop conceptual models. These theoretical underpinnings comprised two theories: the strengths-based approach; and social exchange theory. For the first research objective and question, the strength-based approach explained theoretically the expected inclusive approach to talent management applied in the Jordanian telecommunication industry. For the second research objective and question, social exchange theory provided a theoretical explanation about the relationship between the employer's talent management practices (talent acquisition, talent learning and development, talent retention) and the employee's performance (task performance, contextual performance, adaptive performance, counterproductive performance) in the Jordanian telecommunication industry.

The initial research conceptual model was based on Two constructs and Eight variables. These Two constructs were talent management and employee performance. The Eight variables were divided into Four variables for talent management (talent attraction, talent acquisition, talent learning and development, and talent retention), and Four variables for employee performance (task performance, adaptive performance, contextual performance and counterproductive performance). These variables were extracted based on a comprehensive review of the literature about talent management and employee performance. However, as was noted above, this initial research conceptual model was refined based on the results of the qualitative data analysis in the current study. The refined research conceptual model comprised Two constructs and Seven variables. Three variables were included under the talent management construct. These variables were talent acquisition, talent learning and development and talent retention. Thus, the talent attraction variable was omitted. For employees' performance, the same variables remained in the refined model. These variables were task performance, adaptive performance, contextual performance and counterproductive performance. Therefore, the questionnaire items were developed based on qualitative data analysis, and, to achieve fully the second research objective. Twelve research hypotheses were formulated from the refined conceptual research model. These hypotheses were

intended to assist the researcher in two ways: firstly, to test whether there was a relationship between the study variables; and secondly, to measure the relationship between the study variables if it existed.

7.3 Refining the research model

The initial conceptual model is presented in Figure 7.2, which visualised the supported theories, research hypotheses and research questions. This initial model was developed before the qualitative study was carried out. The initial conceptual model was composed of four talent management practices as independent variables: talent attraction, talent acquisition, talent learning and development, and talent retention (Bolander, Werr & Asplund 2017; Ewerlin & Sub 2016; Gallardo-Gallardo & Thunnissen 2016; Thunnissen, Boselli & Fruytier, 2013). These talent management practices may have a positive influence on employees' performance variables: task performance, contextual performance, adaptive performance and counterproductive performance (Kehoe, Lepak & Bentley 2018; Koopmans et al. 2011; Mensah 2015; Pradhan & Jena 2017) as dependent variables in the Jordanian telecommunication organisations. The initial quantitative questionnaire instrument that was submitted to the University of Southern Queensland ethics review committee consisted of 24 items covering talent attraction (three items), talent acquisition (three items), talent learning and development (three items), talent retention (three items), task performance (three items), contextual performance (three items), adaptive performance (three items) and finally counterproductive performance (three items).

However, after the qualitative data were analysed, the initial conceptual model has been refined as presented in Figure 7.3. The following three themes were extracted as talent management practices: talent acquisition, talent learning and development and talent retention in the context of Jordanian telecommunication organisations. Thus, the first alteration in the refined conceptual model was removing talent attraction from the refined conceptual model based on the analysis of the qualitative data. Nine codes about the procedures of talent management practices emerged from that analysis: resume filtration and interviews for talent acquisition; career development; program-based and personal based approaches for learning and development; psychological, social, rewards and organisational image for talent retention in the context of Jordanian telecommunication organisations. The employees' performance construct and the four variables included under it (task performance, adaptive performance, contextual performance and counterproductive performance) did not receive any refinement. This was due to the fact that the employees' performance was out of the scope of the first research objective and question in this study. Therefore the employees'

performance construct and variables remained the same as in the initial conceptual model because they were derived from the previous literature about employees' performance.

Furthermore, the second alteration in the refined conceptual model was adding the contingency theory and institutional theory to explain theoretically the talent management process carried out in the Jordanian telecommunication organisations. In addition, strength based approach was removed because the inclusive approach did not the dominant approach adopted in the Jordanian telecommunication organisation as expected which explained theoretically by the strength-based approach. However, another approach emerged based on analysing the qualitative data, which was the exclusive approach in applying talent management.

Figure 7.2: The initial research conceptual model
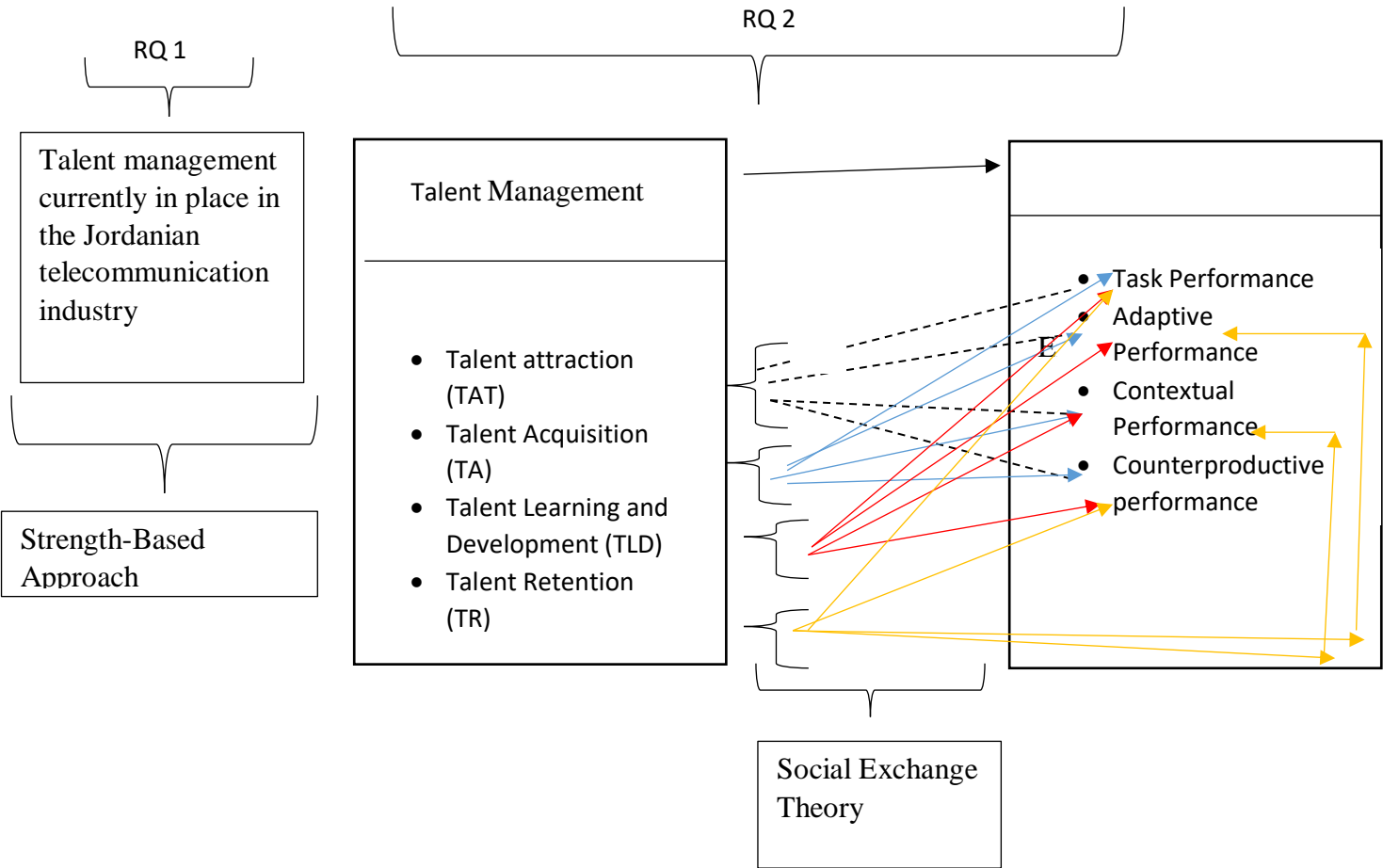
Figure 7.3: The refined research conceptual model
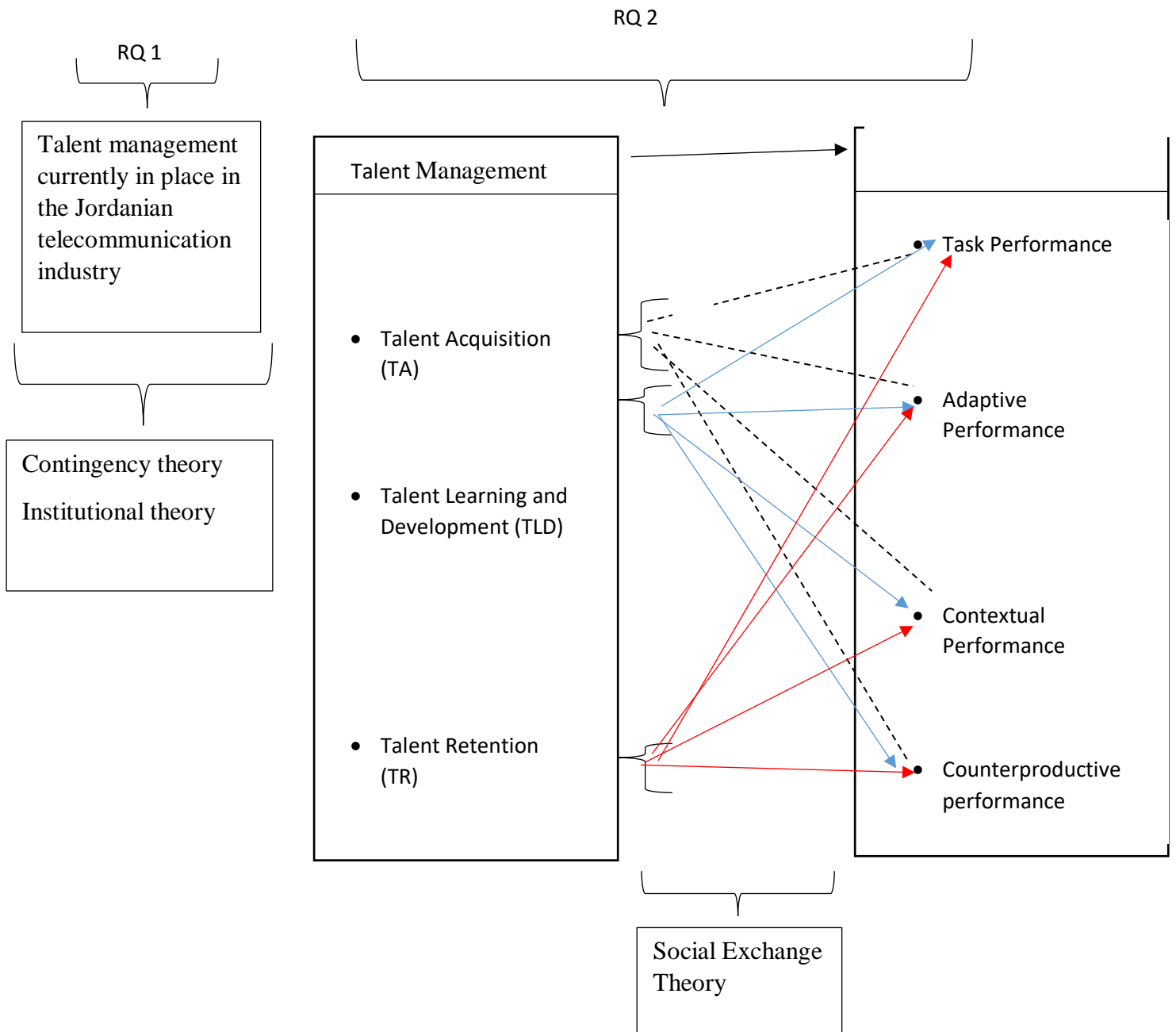
Note: the 12 arrows represent the research hypotheses.

As shown in Figure 7.3, the refined conceptual model comprised two main variables:

1- The independent variable was represented by talent management, which was operationalised by three variables: talent acquisition, talent learning and development and talent retention.

   a- Talent acquisition: included two sub-variables that emerged as codes in the qualitative data analysis: resume filtration, and interview.

   b- Talent learning and development: included three sub-variables that emerged as codes from the results of the qualitative data analysis: carer development, organisational-based learning and personal-based learning.

   c- Talent retention: included four sub-variables that emerged from the results of the qualitative data analysis: psychological, social, rewards and organisational images.

2- The dependent variable was represented by employees' performance, which operationalised by four variables: task performance, adaptive performance, contextual performance and counterproductive performance. As was explained in Section 7.3, the employees' performance was out of scope for the first research objective. Accordingly, the employees' performance variables were extracted based on a comprehensive review of the employees' performance literature. Therefore, the employees' performance construct and its variables did not receive any changes.

The arrows' directions in the refined conceptual model visualised the expected relationship or influence of talent management variables on employees' performance variables. Overall, the alterations that occurred in the refined research conceptual model were the removal of the talent attraction variable, reduced hypothesis number from Sixteen hypotheses to Twelve hypotheses and finally the addition of

7.4 Definitions of initial conceptual model variables

The research variables need to be defined in order to be understood clearly by readers, particularly if they are from outside the study field (Creswell 2014). The main variables used in the initial conceptual model were:

1- Talent attraction: is defined as the ability of an organisation to attract talent relying on employer branding, industry image and identification with organisational values (Tansely et al. 2007).

2- Talent acquisition: is an activity designed to hire talented applicants by adopting appropriate tools to appoint the most talented applicants (Festing et al. 2013:Meyers 2013; Vural et al. 2012).

3- Talent learning and development: are focused on organisational activities that aim to nurture talent and to enhance their abilities, experience and knowledge to work effectively in business environments that are challenging to employees (Bolander, Werr & Asplund 2017: Mensah 2015; Noe et al. 2012).

4- Talent retention: is defined as organisational activities designed to prevent talent from turn-over (Bolander, Werr & Asplund 2017; Tarique & Shuller 2012).

5- Task performance: deals with behaviours that are related to the job's core activities in organisations, and that cover the requirements of a specific job, which may differ from one job to another (Mensah 2015; Scotter et al. 2000).

6- Contextual performance: lies in employees' behaviors enhancing the organisational social and psychological environment (Koopmanas et al. 2011; Sonnentage & Frese 2002).

7- Adaptive performance: focuses on employees' ability to adjust to the job assignment, particularly in dynamic work situations, in which the techniques and tools change rapidly at the individual, team and unit levels (Baard, Rench & Kozlowski 2014; Hunage et al. 2014).

8- Counterproductive performance: refers to the harmful result of employees' undesired behaviours for both individuals and organisations (Rotundo & Sackett 2002).

7.5. The research hypotheses

The research hypothesis can be defined as a testable statement that describes the relationship between study variables (Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016). There are many forms of hypotheses, including the null hypothesis, alternative hypothesis, directional hypothesis and nondirectional hypothesis (Johnson & Christensen 2014; O'Dwyer & Bernauer 2014; Sekaran & Bougie 2016). The research hypotheses form of this study was formulated based on null and alternative hypothesis forms; this refers to directional and nondirectional hypothesis forms used to compare two groups or to speculate a relationship between variables that has never been explored before. Thus, these forms of the hypothesis are not aligned with the expected relationship of this study's variables. The alternative hypothesis form refers to predicting a positive relationship or influence between study variables. On the other hand, the null hypothesis form refers to predicting that there will not be a relationship or influence between study variables (Sekaran & Bougie 2016; Saunders, Lewis & Thornhill 2016). Talent management practices may have a direct influence on employees' performance (Al-Hussaini et al. 2019; Atoom 2018; Mensah 2015; Mensah, Bawole & Wedchayanon 2016; Nadine & Abubakar 2019; Sadri et al. 2015). Thus, for the

current study, the research hypotheses were used to investigate and measure the relationship between talent management practices and employee performance in the Jordanian telecommunication organisations.

According to the refined conceptual model, Twelve hypotheses needed to be tested in order to achieve the second objective in this study: to investigate the relationship between talent management practices and employee performance in the Jordanian telecommunication industry. These Twelve hypotheses were designed to test the relationship between each talent management practice namely, talent acquisition, talent learning and development, and talent retention – and each employee's performance variables – namely, task performance, adaptive performance, contextual performance and counterproductive performance. This investigation was based on the quantitative data gathered via a questionnaire from the Jordanian telecommunication industry.

Given the focus on the relationship between talent management practices and employee performance, this relationship could be proposed based on previous empirical and conceptual articles that investigated this relationship, and based also on the social exchange theory.The empirical evidence from the previous literature proposed that implementing talent management practices may have a relationship and a positive influence on employees' performance (Al-Hussaini et al. 2019; Atoom 2018; Mensah 2015; Mensah, Bawole & Wedchayanon 2016; Nadine & Abubakar 2019; Sadri et al. 2015). From this perspective, implementing talent learning and development and talent retention practices may lead to enhanced employee performance (Nadine & Abubakar 2019; Sadri et al. 2015). Similarly, Wahwa and Tripathi (2018) argued that implementing talent management practices – namely, talent acquisition, talent learning and development, and talent retention – may have a positive relationship with employees' performance. Al-Hussaini et al. (2019) reported that talent acquisition and talent retention may influence employees' task, adaptive and contextual performance. Thus, the results of previous empirical research that investigated the relationship between talent management practices and employee performance contributed to formulating these research hypotheses.

A great number of previous conceptual articles indicated that the employees' performance is considered an outcome of talent management practices (Boeck, Meyers & Dries 2018; Colling & Mellahi 2009; Mensah 2015; Viaman & Collings 2013). For example, Mensah (2015) provided a framework that indicated that talent management practices have a positive relationship with task performance, adaptive performance and contextual performance, and a negative relationship with counterproductive performance. In the same vein, Colling and Mellahi (2009), Boeck, Meyers and Dries (2018) and Viaman and Collings (2013) stated that the employees' performance is considered

the main output of talent management practices. Thus, the relationship between talent management practices and employee performance was indicated in previous conceptual research.

As was shown in the refined conceptual model of this study in Figure 7.2, the social exchange theory can be used to explain theoretically the relationship between talent management and employees' performance. Thus, social exchange theory can be applied to talent management by conceiving the notion that organisations invest in talented employees by talent acquisition, talent learning and development, and talent retention practices, and the employees reciprocate the organisation's gesture through work outcomes (performance) (Glenns et al. 2014). Therefore, the actions and reactions between the organisations and the employees are contingent upon the characteristics of what the other party provides (Festing & Schafer 2014; Shapiro, Jacqueline & Parzefall 2008). Therefore, the hypotheses in this study that proposed a relationship between talent management practices and employee performance could be formulated based on social exchange theory.

Overall, based on previous conceptual and empirical research about talent management practices and employees' performance and social exchange theory, the following Twelve research hypotheses of this research were formulated:

Hypothesis 1:

There is no significant positive influence of talent acquisition on task performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent acquisition on task performance. Therefore this null hypothesis seeks to examine the relationship between talent acquisition and task performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 2:

There is no significant positive influence of talent acquisition on adaptive performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent acquisition on adaptive performance. Therefore this null hypothesis seeks to examine the relationship between talent acquisition and adaptive performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 3:

There is no significant positive influence of talent acquisition on contextual performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent acquisition on contextual performance. Therefore this null hypothesis seeks to examine the relationship between talent acquisition and contextual performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 4:

There is no significant positive influence of talent acquisition on counterproductive performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent acquisition on counterproductive performance. Therefore this null hypothesis seeks to examine the relationship between talent acquisition and counterproductive performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 5:

There is no significant positive influence of talent learning and development on task performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent learning and development on task performance. Therefore this null hypothesis seeks to examine the relationship between talent learning and development and task performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 6:

There is no significant positive influence of talent learning and development on adaptive performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent learning and development on adaptive performance. Therefore this null hypothesis seeks to examine the relationship between talent learning and development and adaptive performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 7:

There is no significant positive influence of talent learning and development on contextual performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent learning and development on contextual performance. Therefore this null hypothesis seeks to examine the relationship between talent learning and development and contextual performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 8:

There is no significant positive influence of talent learning and development on counterproductive performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent learning and development on counterproductive performance. Therefore this null hypothesis seeks to examine the relationship between talent learning and development and counterproductive performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 9:

There is no significant positive influence of talent retention on task performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent retention on task performance. Therefore this null hypothesis seeks to examine the relationship between talent retention and task performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 10:

There is no significant positive influence of talent retention on adaptive performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent retention on adaptive performance. Therefore this null hypothesis seeks to examine the relationship between talent retention and adaptive performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 11:

There is no significant positive influence of talent retention on contextual performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent retention on contextual performance. Therefore this null hypothesis seeks to examine the relationship between talent retention and contextual performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

Hypothesis 12:

There is no significant positive influence of talent retention on counterproductive performance in the Jordanian telecommunication industry. This null hypothesis states that there is no significant positive influence of talent retention on counterproductive performance. Therefore this null hypothesis seeks to examine the relationship between talent retention and counterproductive performance in the Jordanian telecommunication industry, and, if such a relationship exists, to measure it in order to decide whether to accept or reject this null hypothesis.

7.6 Chapter summary:

This chapter has addressed the conceptual model and theoretical underpinning of the current study project. it is structured into Six sections. the main point in the introduction section was to provide details about the initial model in terms of constructs and variables in it and refined the conceptual model based on qualitative data analysis results. Examples of the alterations that occurred to the initial model were the deletion of the talent attraction variable and added the contingency theory and institutional theory to explain theoretically the results related to t6he first research question and objective. Twelve hypotheses were formulated based on a refined research model to measure the relationship between talent management practices and employee performance.

Chapter Eight: Quantitative data collection

8.1 Chapter overview

Quantitative research aims to measure the relationships among study variables in order to test specific theories. Also, quantitative research usually aligns with positivism as a research philosophy with a deductive research approach (Saunders, Lewis & Thornhill 2016; Taheri et al. 2015). In the previous chapter, the refinement of the study's conceptual model was outlined and this chapter focuses on the study's quantitative data collection.

This quantitative data collection chapter is structured as follows. The chapter is divided into Nine sections. Section 8.1 provides an overview of the chapter; section 8.2 section presents an introduction to the chapter. The next section 8.3 discusses the justification for adopting the quantitative methodology. The following section 8.4 covers the development of the quantitative data collection instrument. The quantitative pilot study is explained in section 8.5, and the administering of the quantitative data collection instrument is introduced in section 8.6, while the method adopted to analyse the quantitative data is outlined in 8.7. The subsequent section 8.8 examines the difficulties and challenges that accompany the quantitative method and the strategies followed to overcome or minimise these difficulties and challenges. The final section 8.9 summarise the preceding sections of this chapter. Thus, this chapter includes Nine sections presented in the following graphical layout in figure 8.1.
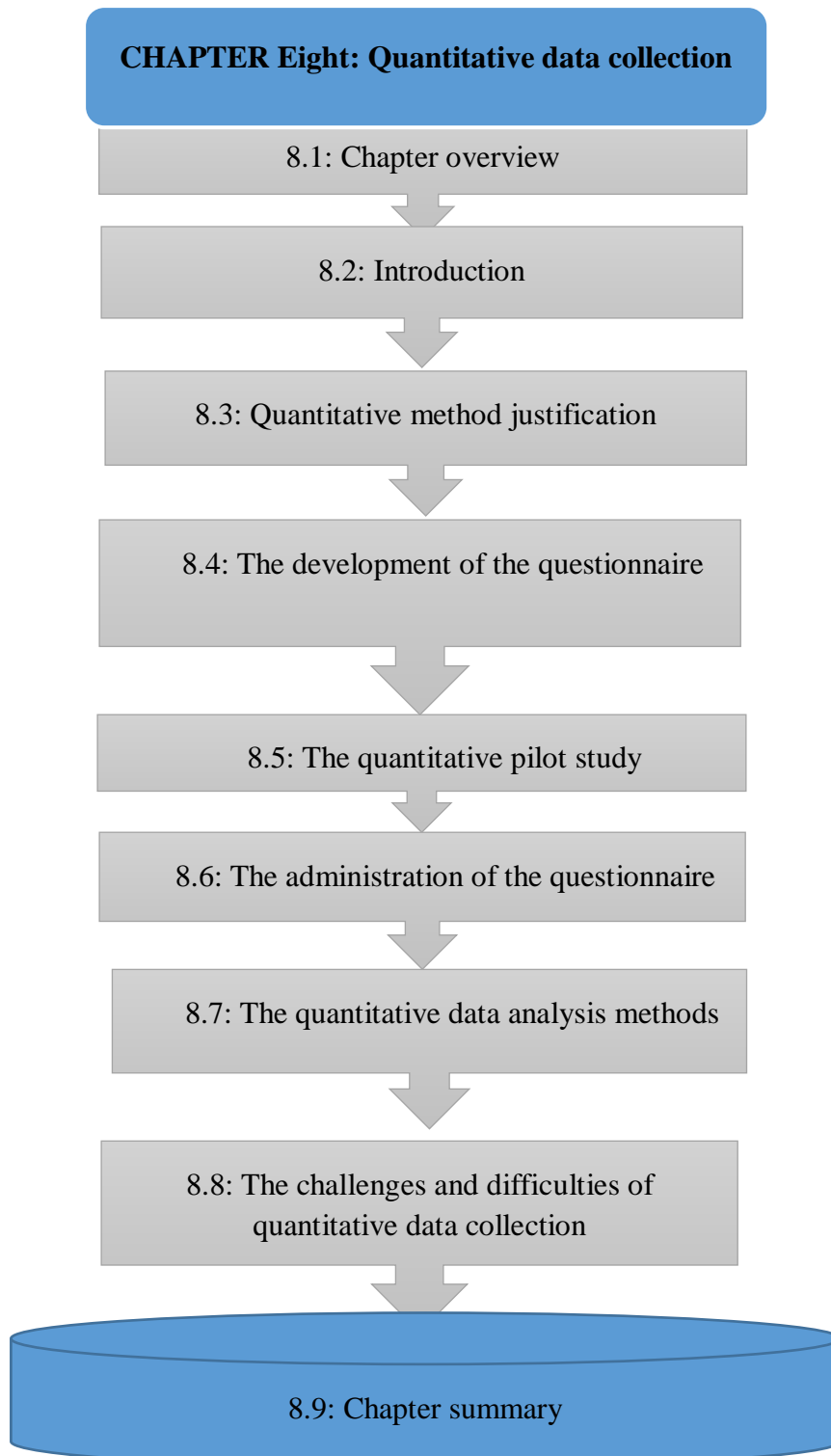
Figure 8.1: A graphical layout for Chapter Eight

Source: Prepared by the researcher

8.2 Introduction

The second objective of this study was to investigate the relationship between talent management practices and employee performance in the Jordanian telecommunication industry. In the same way, the second research question of this study was: What is the impact of talent management practices on employees' performance in the Jordanian telecommunication industry?. Thus, the quantitative method was adopted to achieve the second research objective and to address the second question of this study. The result of the quantitative component of this study could be generalised from the study sample to Jordanian telecommunication employees (Cresswell 2014; Saunders, Lewis & Thornhill 2016).

The survey questionnaire is considered to be a widely used technique in empirical quantitative research (Brace 2018; Sekaran & Bougie 2016). Accordingly, the survey questionnaire was a key data collection instrument completed by study participants (DeCastellarnau 2018). The development of the questionnaire of this study was an iterative process. The first stage started from reviewing of the literature about talent management and employee performance with a focus on the Jordanian telecommunication industry. The second stage was based on the results of the qualitative data analysis to identify the practice of talent management, the procedures in each talent management practice and the conceptualisation of talent and talent management. Thus, the first draft of the questionnaire of this study was formulated after it received several alterations and adjustments.

The questionnaire contained 36 items: 14 items for talent management practices, and 22 for the employees' performance variables. Most items related to the talent management practices were generated based on the analysis of the qualitative data, while the rest were based on the talent management literature. The 22 items of employee performance were based on previous literature about employees' performance. More information about the origin of each questionnaire item is provided in section 8.4.1.

Overall, the quantitative method was adopted to achieve the second research objective and to address the second research question in this research project. Therefore, a survey questionnaire was developed to collect the quantitative data, that was completed by the study respondents. The next section provides further justification for adopting the quantitative method of this study.

8.3 Justification of the quantitative method

Quantitative research is considered as a common research design used in the social sciences (Zikmund et al 2013). Quantitative research has several advantages, for example the speed in collecting the study data, it is inexpensive and the results from the study sample can be generalise

to the study population (Cooper & Schindler 2011; Cresswell 2014). Also, it is suitable for testing theories, for achieving research objectives and addressing research questions that seek to investigate a relationship between the study variables and measure it (Saunders, Lewis & Thornhill 2016; Tabachnick & Fidell 2013). The study data can be collected from a large number of respondents quickly and the results can be inexpensively generalised to the study population (Queirós, Faria & Almeida 2017). Therefore, quantitative research focuses on the objectivity of the study, particularly by using statistical analysis to provide inferences based on the study data.

A mixed-methods strategy with a sequential exploratory approach was adopted in this research project as the research design, as was discussed in chapter four, the research methodology. Thus, in the first stage of this study, the qualitative data were collected and analysed to refine the conceptual model of this study and to develop the questionnaire as a quantitative data collection tool during the second stage. The second stage of the study (the quantitative stage) was conducted to achieve the second research objective and to address the research question in this research project.

Overall, the characteristics of the quantitative method in terms of its objectivity, generalisability, speed in collecting the study data, achieving the second research objective and addressing the second question were the reasons for adopting the quantitative method in this research project.

8.4 The development of the questionnaire

After the qualitative data had been analysed, the researcher proceeded to the quantitative stage of this project. Quantitative research refers to addressing the research objectives and research questions through numerical statistical analysis (Zikmund 2013). Accordingly, the quantitative data were collected by a survey questionnaire that was administered to the Jordanian telecommunication organisations, to investigate the relationship between talent management practices and employee performance. The administrating of the questionnaire could be divided into two stages: the questionnaire design, and the pre-test questionnaire.

8.4.1 The questionnaire design

The questionnaire design has to take into account the statistical requirements, the wording of the questionnaire items, and the layout of the questionnaire which needed to be easily understood by the respondents (Brancato et al. 2006). The questionnaire items covered all the constructs of the study by measuring the operationalising variable of each construct (O'Dwyer & Bernauer 2014; Zikmund et al. 2013). Thus, the questionnaire survey used in this study was the main tool to collect the quantitative data.

The questionnaire in this study covered Seven variables, three were included under the talent management practices and Four constructs were included under employees' performance. The talent

management practice variables were talent acquisition, talent learning and development, and talent retention. The four variables of employees' performance construct were task performance, adaptive performance, contextual performance and counterproductive performance. Each variable was measured through questionnaire items. These items helped to test the hypotheses of the study (Leavey 2017). The number of items for each variable was between Four and Six. As was indicated by Robinson (2018), each construct needed from four to six items in order to measure it sufficiently. Talent acquisition has Five items, talent learning and development has Four items, talent retention has Five items, task performance has Six items, adaptive performance has Five items, contextual performance has Six items and counterproductive performance has Five items. Thus, the total number of questionnaire items was 36. The questionnaire was written in two languages, English and Arabic, because the participants' native language was Arabic and it could be that some participants' English was weak.

The rating scale adopted in the questionnaire items was a Likert Five-point scale. The justification for adopting such a scale was that the Likert Five-point scale is commonly used in the social sciences and as being suitable for the nature of the second research objective and the question of this research. Furthermore, the Five-point scale enhances the reliability and the validity of the study (Taherdoost 2019). Moreover, as was indicated by Bouranta, Chitris and Paravantis (2009), the Likert five-point scale can enhance the participants' response rate and decreases the confusion for study participants. The participants in the study were asked to tick the appropriate option that correlated with their level of agreement. These options ranged from strongly disagree to strongly agree (Simms et al. 2019). Thus, through the quantitative data collected by the questionnaire, the study investigated and measured the relationship between talent management practices and employee performance in the Jordanian telecommunication industry.

As was previously mentioned in 4.6 and 8.2, the questionnaire was developed based on the qualitative data analysis and on previous literature about talent management and employee performance. Table 8.1 provides further details about the source of each questionnaire item from the qualitative data analysis, the previous literature, or both.

Table 8.1: Source of questionnaire items and constructs

Questionnaire item	Source
Talent acquisition	
My organisation uses objective criteria (such as C.V filtration) to select talented candidates	Alkerdawy 2016, qualitative analysis results
My organisation conducts in-depth interviews to select skilled candidates	Alkerdawy 2016

My organisation uses different tools to acquire talented employees (advertisement, employee relations, social media).	McDonnell & Collings 2011; Odeku 2015
The interview process in my organization is a fair process by treating all interviewees in the same manner.	Qualitative analysis results
My organisation uses both internal and external acquisition to acquire talent	McDonnell & Collings 2011; Odeku 2015
talent learinng and dvelopment	
My organisation determines training needs accurately	Alkerdawy 2016
My organisation identifies needed areas in learning and development based on (e.g. psychometric analysis, skills gap analysis, performance appraisal)	Qualitative analysis results
My organisation identifies accurately the competencies needed o develop talented employees.	Wuim-Pam 2014, qualitative analysis results
Talented employees participate in their promotion system	Qualitative analysis results
Talent retention	
My organisation retains talents needed to achieve organisation goals.	Alkerdawy 2016
My organisation ensures the organizational image remains good all the time in order to retain our talented employees.	Lyria 2014; Strydom, Schultz & Bezuidenhout 2014, qualitative analysis results
My organisation offers training opportunities to enhance career development in order to retain talented employees.	Lyria 2014, qualitative analysis results
My organisation provides activities that enhance the social life of talented employees.	Qualitative analysis results
task performance	
I am able to plan my work so that I finished it on time.	Kompans et al. 2012
I kept in mind the work task I needed to achieve.	Kompans et al. 2012
I am able to carry out my work productively (fewer resources, fewer errors…).	Kompans et al. 2012
I maintain a high standard of work.	Kompans et al. 2012
I am capable of handling my tasks without much supervision.	Kompans et al. 2012
Adaptive performance	

I could manage the change in my job very well whenever the situation demands.	Kompans et al. 2012
I can effectively handle my work team in the face of change.	Kompans et al. 2012
I am very comfortable with job flexibility.	Kompans et al. 2012
I work at keeping my job skills up-to-date.	Kompans et al. 2012
I recover quickly after difficult situations or setbacks at work.	Kompans et al. 2012
Contextual performance	
I take initiative when there was a problem to be solved	Kompans et al. 2012
I start new tasks myself when my old ones were finished.	Kompans et al. 2012
I am open to suggestions at my work	Kompans et al. 2012
I maintain good coordination among fellow workers.	Kompans et al. 2012
I communicate effectively with my colleagues for problem-solving and decision making.	Kompans et al. 2012
I guide new colleagues beyond my job purview	Kompans et al. 2012
Counterproductive performance	
I complain about unimportant matters at work.	Kompans et al. 2012
I give an impression that problems are greater than they were at work	Kompans et al. 2012
I focus on the negative aspects of a work situation, instead of the positive aspects.	Kompans et al. 2012
I speak negative aspects of my work outside the organisation.	Kompans et al. 2012
I behave rudely towards my colleagues at work.	Kompans et al. 2012

8.4.2 Pre-test questionnaire

Before conducting the quantitative pilot study, the questionnaire needs to be pre-tested to ensure the quality of the questionnaire (Leavy 2017; Saunders, Lewis & Thornhill 2016). Thus, besides the questionnaire items being based on previous literature and qualitative data results, the questionnaire was sent to academics and experts to check the quality of the questionnaire (Taherdoost 2016). After receiving all academics' and experts' opinions about the questionnaire, the researcher decided to modify the questionnaire items before administering it in the quantitative pilot study.

For this study, the pre-test questionnaire was designed by the researcher. This questionnaire was designed into two parts. The first part explained the research purpose, constructs and variables, research gap, methodology, significance and implications. The second part contained the 38 questionnaire items that covered all study constructs (further information about the questionnaire

sent to experts and academics in appendix D). The academics and experts checked the questionnaire in terms of its word clarity, grammatical issues and order of items for each construct. Thus, this procedure attained the objective of the face and content validity and pre-tested the questionnaire items. After receiving the questionnaire, the experts and academics provided some notes about the clarity and wording of some items. The researcher modified these items as appropriate. Then the researcher discussed with the supervisory team the final version of the questionnaire and received their acceptance before conducting the quantitative pilot study.

8.5 The quantitative pilot study

The pilot study is an exploratory study conducted prior to the main study to ensure the feasibility of the main study and to ensure that the participants clearly understand the questionnaire items (Eldridge et al. 2016; Zikmund et al. 2013). Thus, the justification to conduct the quantitative pilot study in this study was to make sure of conducting of the main study and the participants from the Jordanian telecommunication organisations could understand the questionnaire clearly without any ambiguity (Doody & Doody 2015; Perneger et al. 2015). This would lead to collecting sufficient data to address the second research question and objective for the current research. The quantitative pilot sample size was 30 respondents: 10 from organisation A, 10 from organisation B, and 10 from organisation C. The reasons to select this sample size for the quantitative pilot study was that it represented 10% of the actual sample as recommended in previous pilot study literature (Johanson & Brooks 2010; Perneger et al. 2014).

To respond to the context of this research, several steps were followed in conducting the quantitative pilot study. These steps could be divided into three stages: the first stage before conducting the quantitative pilot study; the second stage during the quantitative pilot study; and the third stage after conducting the quantitative pilot study. The steps before conducting the quantitative pilot study stage were to seek approval from the Jordanian telecommunication organisations to conduct the pilot study and use the same simple random sampling technique in selecting the participants. The steps during the quantitative pilot study stage were to invite the participants to fill in the questionnaire and measure the average time required to fill in the questionnaire. The steps after conducting the pilot study stage were to ask the participants about any misunderstandings and clarity of the questionnaire items' wording, to modify any ambiguous items, and to make sure that all the participants filled in all the questionnaire items (Peat, Mellis & Williams 2002; Saunders, Lewis & Thornhill 2016).

All the aforementioned quantitative pilot study steps were addressed in this research. Thirty participants were invited to fill in the questionnaire. Twenty eight questionnaires were received

from the participants and only one questionnaire was eliminated because the participant did not fill in all the questionnaire items. Thus, the valid pilot study questionnaire number was 27. The 27 participants provided feedback about the questionnaire items' clarity, the time needed to complete the questionnaire, and the general design of the questionnaire. Based on the feedback provided by the participants, the time needed to fill in the questionnaire was 10-15 minutes. Also, the general design of the questionnaire was modified; for example, the introductory explanation of the study was reduced. Thus, this feedback was analysed and used to modify the questionnaire in terms of its format and wording. The following modifications were applied to the questionnaire based on the pilot study:

a- Some jargon words or unclear words were changed. For example, for the third item of contextual performance, the word criticism was modified to suggestion because some participants interpreted it as negative.

b- Some question structures were revised.

c- Some extra explanation was removed from the introductory paragraph.

Overall, the quantitative pilot study was useful for this research by enhancing the design of the main study, to ensure the feasibility of the main study and to eliminate any misunderstanding or ambiguities from the questionnaire. In this way, sufficient data could be collected to address the second research objective and the second question of this study. The final version of the questionnaire is provided in Appendix E for further information.

8.6 Administering the questionnaire

As was outlined in section 8.5, the questionnaire was administered in the quantitative pilot study to check the feasibility and the wording clarity of the questionnaire, while the questionnaire was administered in the main study to collect sufficient data to test the research hypothesis in order to achieve the second research objective and address second question. This section discusses Four issues of questionnaire administration: ethical and anonymity issues, quantitative sample size, the response rate, and administering the questionnaire.

8.6.1 Ethical and anonymity issues

Ethical approval was received from the University of Southern Queensland human research ethics committee before this study was conducted. Also, acceptance was received from the Jordanian telecommunication organisations to conduct this study. Anonymity refers to masking the participant's identity (Coffelt 2018). Thus, the quantitative data was collected via a questionnaire without obtaining any personal and identity information from the participants. In the context of this study, the participants were not asked to fill in any information about their names and identity, and it was outlined to them that the study data would be used for academic purposes only and would be

stored securely, and that participation in the study was voluntary. The researcher complied with sound ethical and anonymity practice in conducting quantitative data collection.

8.6.2 Sample size

The main concern about the sample size is that it has to be representative of the study population (Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016;), so that the results can be generalised to the study population. As outlined in the methodology chapter (in 4.8.2), the appropriate sample size was chosen based on several points of view in the research methodology literature. The sample size of this study was selected based on three approaches. The first approach was the statistical analysis adopted in this study (Byrne 2016; Fabrigar, Porter & Norris 2010; Hoe 2008; Igundunasse 2016; Kuo & Yang 2013; Lei & Wu 2007; Siddiqui, Mirani & Fahim 2015; Taherdoost 2016). The second approach was a mathematical formula to calculate the sample size (Krejcie and Morgan 1970). The final approach was the number of questionnaire items or constructs of the study. The sample size for this study was compatible with these three approaches.

For the first approach, the statistical analysis used in this study were exploratory factor analysis and structural equation modelling in the analysis of the quantitative data. More than 300 participants are required for exploratory factor analysis (Tabachnick & Fidell 2014). In addition, the sample size required for structural equation modelling is greater than 200 participants, as indicated by much of the previous research (Byrne 2016; Fabrigar, Porter & Norris 2010; Hoe 2008; Igundunasse 2016; Kuo & Yang 2013; Lei & Wu 2007; Siddiqui, Mirani & Fahim 2015; Taherdoost 2016). The sample size of this study was therefore 350, so it was compatible with this approach. For the second approach, Krejcie and Morgan (1970) provided a mathematical equation to calculate the quantitative sample size and provided a table that outlined the required sample size based on this equation. Table 8.1 is part of Krejcie and Morgan's (1970) table, which shows that for a population of 3500, the appropriate sample size is 346. So, the sample size of this study was compatible with Krejcie and Morgan whereby the population of this study was 3500 and the sample size was 350.

Table 8.2: Krejcie and Morgan (1970) table of sample size and population

Population	Sample
1200	291

1300	297
3500	346

Source: Krejcie and Morgan (1970)

The final approach considered in determining the sample size was the number of the questionnaire items. The sample size is equal to the function of the questionnaire items with at least 5 to 10 (Anthoine, et al 2014; Rourke & Hatcher 2013). The questionnaire item number in this study was 36 items. Thus, based on the aforementioned ratio between questionnaire items and sample size, each questionnaire item had nearly 10 participants from the study sample. Similarly, Hair et al. (2010), Zainudin (2014), and Ulman (2007) have linked the sample size required for structural equation modelling, questionnaire items number, and the number of latent constructs. Table 8.2 summarises these links between sample size, number of questionnaire items and number of constructs.

Table 8.3: Sample size, questionnaire items number, and the number of latent constructs

Number of questionnaire items for each construct	Number of constructs	Minimum sample size
More than three items	Less than five	100
More than three items	Less than seven	150
Less than three items	Less than seven	300
Less than three items	More than seven constructs	500

Source (Hair et al. 2010; Zainudin 2014; Ulman 2007)

Overall, the sample size of this study was selected based on multiple points of view in the previous methodology literature. These multiple approaches in selecting the sample size of this study were adopted to correlate with previous sample size literature, in order to make it more convincing, trustworthy, and so that the study result could be generalised to the population of the study (Saunders, Lewis & Thornhill 2016; Sekaran & Bougie 2016).

8.6.3 Response rate
The response rate refers to the percentage of valid questionnaires from the total number of questionnaires administered (Zikmund et al. 2013). The high response rate is assumed to be the best

way to get unbiased results because a low response rate may lead to non-responding bias, which leads to the sample becoming non-representative (Fosnacht et al. 2017; Saunders, Lewis & Thornhill 2016). Thus, the response rate is addressed and reported in the final report of the study (Kelly et al. 2003). In the literature, there are different views about the response rate for online and face-to-face questionnaire surveys. For example, for some it is expected that the response rate is 60% (Fincham 2008; Saunders, Lewis & Thornhill 2016). For others, 65% (Kelly et al. 2003) or 50% is considered an acceptable percentage for in-person questionnaire administration (Mugenda & Mugenda 2003). Regardless, the researcher has to take into account the response rate when administering the questionnaire to avoid non-response bias.

The researcher has also to make an effort to increase the questionnaire response rate. This effort could include administering the questionnaire in person if possible rather than online because usually, the in person questionnaire has a higher response rate than online questionnaires (Rowley 2014). Also, the questionnaire design needs to be easy to complete (Nulty 2008). In the context of this study, the researcher followed several strategies to increase the response rate: the researcher administered the questionnaire in person, the questionnaire design made it easy, and it did not require a long time to fill in the questionnaire. Moreover, based on the researcher's cultural background being similar to the respondents' culture, it was relatively easy for the researcher to increase the respondents' response rate. The sample size was 350, so the researcher administered 450 questionnaires to all Jordanian telecommunication organisations. The researcher intended to conduct another wave of administering the questionnaire if the required sample size had not been achieved. The returned questionnaire number was 367, while the valid questionnaire number was 351. The reason to eliminate some of the questionnaires was that some respondents did not fill in all the items of the questionnaire or made several errors by ticking more than one option for the same items. Thus, the response rate was 78%, which was considered a higher than expected response rate. The reason for this high response rate were as mentioned, the cultural similarities between respondents and researchers, the easy questionnaire design, and the fact that the questionnaire was handed out to the employees of the Jordanian telecommunication organisations.

The following table summarises the number of a questionnaires administered to each Jordanian telecommunication organisation, the response rates, the number of returned questionnaires and the number of valid questionnaires. The organisations' names and the identifiers for the Jordanian telecommunication organisations were removed to ensure the anonymity of the participants and their organisation.

Table 8.4: The details of the questionnaire administration

Organisation	Number of questionnaires administered	Number of returned questionnaires	Number of valid questionnaires	Response rate
A	160	125	118	73%
B	160	133	128	83%
C	130	109	105	80%
Total	450	367	351	78%

Source: created by the researcher

Overall, as is shown in table 8.3, the total response rate was 78%, and the total number of questionnaires valid for analysis was 351, which met the requirement for all statistical analysis used in this study.

8.6.4 Conducting the survey questionnaire

Administering the questionnaire of this study took approximately 57 days, from the 18th of December 2019 to the 15th of February of 2020. The questionnaire was administered through an in-person form. Before participants filled in the questionnaire, a consent form was distributed to them. The consent form was written in plain Arabic language and was half a page in length. The content of the consent form was an explanation of the study's objectives, a statement indicating that the participation was voluntary with the right to withdraw at any stage of the study, and that the information would be stored securely and would be used for academic purposes only. Further details about the consent form are available in appendix C. After signing the consent form, the researcher started to administer the questionnaire to the Jordanian telecommunication industry.

As was discussed above, all the questionnaires were administered in person to the study sample after they signed the consent form. The researcher distributed the questionnaire to the organisations one by one. After the administration day, the researcher returned the next day to start collecting the questionnaires and to remind the participants who had not fill it to complete the questionnaire. Each Jordanian telecommunication organisation had employees responsible for checking the questionnaire's content and helping the researcher to administer the questionnaire. The researcher provided the Jordanian telecommunication organisations with a formal letter from University of Southern Queensland graduate school, which indicated that the researcher was a doctor student, the objective of the study, and that it appreciated their help in the researcher fulfilling their study. After completing questionnaire collection at the first organisation, the researcher started to administer the

questionnaire to the next organisation. The researcher adopted the same strategies in administering the questionnaire at all Jordanian telecommunication organisations.

Overall, the questionnaire required 10-15 minutes to complete, was administered in person, and the total number of valid questionnaires was 351. This number was compatible with the analysis strategy adopted in this study and was considered representative of the study population.

8.7 Methods of data analysis

The quantitative data of this study were analysed using several quantitative analysis techniques. These techniques were conducted through the SPSS and AMOS programs. The following sections highlight the process of quantitative data analysis used in this study.

8.7.1 Statistical analysis techniques

In order to analyse the quantitative data, several statistical techniques were utilised. These techniques are summarised as follows:

1- Descriptive statistics: used to describe the characteristics of the study sample. These characteristics include mean, standard deviation, range of score (Field 2018; Pallant 2013). For the context of this study, the descriptive statistics were conducted through the SPSS 26 program.

2- Comparison of means: this statistical tool refers to the analysis of the variance between two or more groups using the F-test (Saunders, Lewis & Thornhill 2016; Sawyer 2009;). In this study, one-way ANOVA was utilised through SPSS 26.

3- Exploratory factor analysis: this technique is useful to identify the factors that most highly relate to determined retained factors (Field 2018; Zikmund et al. 2013). This analysis technique was deployed in this study to determine the retained factors of talent management and employee performance through SPSS 26.

4- Correlation analysis: this technique deals with the assessment of the level of association between two variables (Collis & Hussey 2013; Pallant 2013). In this study, it was used to detect if there was a correlation between the variables of the study (talent management and employee performance) through SPSS 26.

5- Cronbach's alpha: this technique measures the internal consistency of study variables, the value of Cronbach alpha should be between 0-1 (Saunders, Lewis & Thornhill 2016; Tavakol & Dennick 2011). In this study, the Cronbach alpha was used through SPSS 26.

6- Regression analysis: this technique refers to examining the relationship between study variables in order to test the study hypothesis (Hair et al. 2010; Pallant 2013). This technique was conducted in this study through SPSS 26.

7- Confirmatory factor analysis: is the multivariate procedure aimed at testing the hypothesis that constitutes the study model (Henson & Robert 2006; Prudon 2015). In this study, confirmatory factor analysis was utilised via AMOS V26; and finally

8- SEM: refers to the statistical procedure used to validate the study hypothesis in order to validate the research's conceptual model (Byrne 2016; Zhou 2016) using AMOS V26 software.

8.7.2 Data preparation

The study data needed to be prepared before the analysis was conducted. These preparations include determining the types of data, coding, entering data and exploring and presenting data (Pallant 2013; Saunders, Lewis & Thornhill 2016; Sekaran & Bouige 2016;). The justification for preparing the study data prior to analysing it is to ensure the accuracy and validity of the data (Bhattacherjee 2012**;** Cooper & Schindler 2011).

The first activity of data preparation in this study was determining the type of data. There are two categories of quantitative data: categorical and numerical data. The categorical data refer to data that cannot be measured numerically, for example the gender (Saunders, Lewis & Thornhill 2016). In this regard, the demographical data is classified as categorical data. The second category of quantitative data is the numerical data, which refers to data that can be counted numerically (Saunders, Lewis & Thornhill 2016). For the current study, all participants responding to questionnaire items were considered as numerical data.

The second activity of data preparation was coding. Coding refers to the process of recording the data in a numerical form (Bhattacherjee 2012; Pallant 2013). All the variables' abbreviations, the response scale for each questionnaire item and the demographic data were stored in the codebook. The codebook was stored in a secure file to avoid forgetting what the abbreviations referred to. Table 8.4 summarises the abbreviations and expected responses for each item. The third preparation activity was entering the data. As indicated by Saunders, Lewis and Thornhill (2016), the data needs to be double-checked prior to entering it into SPSS software to check it for any errors, for example illegitimate errors. Thus, the data were entered into a Microsoft Excel sheet, then printed out to an A3 sheet, and the researcher checked it one by one. After that, the researcher asked a Ph.D. student to double-check it. The researcher found some errors; for example, the gender code had to be One or Two, with One referring to a male and Two referring to a female. Thus, it was not expected to find a number Three code for gender. The final activity in preparing the data was exploring and presenting the data. This activity refers to using a diagram to understand the data, and to guide the researcher to select the appropriate data analysis despite the fact that the researcher's analysis

technique had already been decided (Saunders, Lewis & Thornhill 2016). All the study data were prepared in order to start the study's quantitative data analysis through SPSS 26 and AMOS.

8.7.3 Missing data and data normality

Missing data occurred when the respondent did not fill in all the questionnaire items, provided more than one answer, or provided an unclear response (Bryman & Bell 2015; Saunders, Lewis & Thornhill 2016). It is important to decrease the missing data to ensure high-quality data. In this study, the missing values were excluded through the missing value analysis in SPSS 26, which identifies entry errors, or any contrary action by the respondent (Field 2018; Pallant 2103). The Mahalanobis distance technique was utilised through SPSS 26 to check and clean the data outliers to become normally distributed (Mertler & Reinhart 2017; Pallant 2013; Tiku, Islam & Qumsiyeh 2010). Thus, the normality of the data of this study was checked.

For the context of this study, 17 questionnaire items were eliminated from further data analysis. The elimination was due to participants not filling in all the questionnaire items or providing more than one answer for the same items. After the data was entered into the excel sheet, it was entered into SPSS 26 to start the analysis.

8.7.4 Validity and reliability

The validity and reliability of the quantitative data instrument were discussed in chapter four (4.6.2.1 & 4.6.2.2). The validity and reliability are two assessment tools to check the study's instruments (Bhattacharyya et al. 2014; Zikmund et al. 2013). In the following subsections 8.7.4.1 and 8.7.4.2, brief details are provided about the validity and reliability.

8.7.4.1 Validity

Validity refers to the extent to which the data collection instrument measures what it is supposed to measure (Field 2018; Hair et al. 2010; Pallant 2013). In the context of this study, the content and face validity was conducted by sending the questionnaire to 15 experts and academics of human resource management and business administration. The feedback was received from them, which contained suggestions to improve the wording of the questionnaire items, add or delete some items, and the order of the questionnaire items. Another technique used to measure the validity was exploratory construct validity (Hajian et al. 2016; Moafian et al. 2019). Construct validity will be discussed in chapter ten.

8.7.4.2 Reliability

The reliability measures to what extent the measurement instrument produces the same result for repeated trials (Bhattacharyya et al. 2014). For the context of this study, Cronbach's alpha was

conducted to measure internal consistency reliability through SPSS 26 (Field 2010; Pallant 2013). This statistical test was performed for each variable independently. An acceptable Cronbach's alpha value is more than 0.70 (Hair et al. 2016; Pallant 2013). As indicated by Zikmund et al. (2013), Cronbach's alpha value could be classified in the following categories:

- Poor reliability if the coefficient α is less than 0.60.
- Fair reliability if the coefficient α is between 0.60 - 0.70.
- Good reliability if the coefficient α is between 0.70-0.80.
- Very good reliability if the coefficient α is between 0.80-0.95.

Further discussion of Cronbach's alpha values in this study will be provided in chapter nine. Also, in chapter ten, the quantitative data analysis part B, the average variance extracted and composite reliability are discussed, which are suitable for measuring the validity and reliability of the study's measurement model (Hair et al. 2010).

8.8 Challenges, difficulties, and the strategies to overcome their impact on quantitative data collection

There are some difficulties in collecting quantitative data. One of the major difficulties is a low response rate (Cooper & Schindler 2011). Several strategies can improve the response rate, for example, the suitable length of the questionnaire, the content of the questionnaire, and the questionnaire administration (Anseel et al. 2010; Saunders, Lewis & Thornhill 2016). For the context of this study, the researcher adopted a strategy to increase the response rate that would reflect the collection of sufficient data and wold keep the study sample representative. In this way, the second research objective was achieved and second research question addressed.

The researcher followed three strategies as indicated in the previous quantitative data collection literature. The researcher administered the questionnaire in person, the content of the questionnaire was easy to understand by the participants, and the questionnaire had an appropriate length (Rowley 2014; Saunders, Lewis & Thornhill 2016; Zikmund et al. 2013). For the first strategy, the researcher administered the questionnaire to participants in a person, with the help of a gatekeeper who was an employee in each of the Jordanian telecommunication organisations and who was responsible to seek the approval to conduct the study. Also, the researcher reminded the participants to fill in the questionnaire. Regarding the second strategy, the pilot study results provided helpful feedback about the clarity of the questionnaire. The final strategy was the appropriate length of the questionnaire, which did not require more than 5-10 minutes to complete. Moreover, the similar cultural background of the researcher and the participants was helpful because it made it easy to

communicate and understand the participants' preference. Accordingly, these three strategies were useful as evidenced by a response rate of approximately 78%.

8.9 Chapter summary

This chapter has covered the quantitative data collection. Its structured into Nine sections. After providing an overview of the chapter in the first section, a general information about the survey questionnaire was discussed. The main justification for adopting the quantitative method to address the second research objective and second research question. Ethical and anonymity issues, sample size and response rate were the main topics addressed in the administration of the questionnaire section. Descriptive statistics such as mean and inferential statistics such as structural equation modelling were the statistical analysis in current study project for quantitative data. The response rate was discussed in section 8.8 as a challenges for quantitative data collection. Three strategies were deployed by the researcher to overcome this challenges. Finally, a summary of main point in the chapter were outlined in the final section.

Chapter Nine: Quantitative data analysis part A

9.1 Chapter overview

The previous chapter discussed the collection of quantitative data. This chapter discusses the analysis of quantitative data through SPSS 26 software. This software has been utilised to analyse the reliability, construct validity, descriptive statistics, factor analysis, correlation analysis and regression analysis. Thus, this chapter outlines the procedures and the results of the aforementioned analysis techniques.

Chapter Nine is structured into Seven sections. The first section, 9.1, provides an overview of the chapter. The subsequent section, 9.2, presents the introduction of the chapter. Validity and reliability are discussed in section 9.3, which is followed by an outline of the analysis of descriptive statistics in section 9.4. In section 9.5, exploratory factor analysis is outlined. Section 9.6 explains the correlation analysis. Regression analysis used to test the research hypotheses discussed in section 9.7. Finally, the chapter summary is provided in section 9.8. Thus, this chapter contains Eight sections presented in the following figure layout of the chapter in figure 9.1.

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┌─────────────────────────────────────────────────┐
│   CHAPTER Nine: Quantitative data analysis part A │
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┌─────────────────────────────────────────────────┐
│              9.1: Chapter overview                │
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│                9.2: Introduction                  │
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│            9.3: Reliability and validity          │
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┌─────────────────────────────────────────────────┐
│              9.4: Descriptive statistics          │
│  9.4.1 Descriptive statistics of demographic      │
│  variables.                                       │
│  9.4.2 Univariate data analysis                   │
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│          9.5 Exploratory factor analysis          │
│  9.5.1 Sampling adequacy and correlation between  │
│  variables.                                       │
│  9.5.2 Principle component analysis               │
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│              9.6 Correlation analysis             │
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│        9.7 Regression analysis and hypotheses     │
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│              9.8 Chapter summary                  │
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Figure 9.1: A graphical layout of Chapter Nine

Source: prepared by the researcher

9.2 Introduction

The second question and the second objective of this study, was to investigate the relationship between talent management and employee performance in the Jordanian telecommunication industry. Twelve hypotheses were formulated and tested to address the second research question and second research objective. The quantitative data were collected from the study sample and analysed in order to accept or reject these hypotheses (Johnson & Christensen 2014). Prior to analysis of the quantitative data, any missing data were eliminated. As explained in chapter eight, a total of 450 questionnaires were administered and 376 responses were received. Fifteen questionnaires were eliminated from further data analysis because of missing data where the respondent had not filled in all the questionnaire items or the participants had ticked more than one option for the same questionnaire items. Subsequently, all the numerical data were entered in an excel sheet for double-checking and then imported to an SPSS 26 program.

Following this data preparation, through SPSS 26, a range of descriptive statistics were conducted. The descriptive statistics included one-way analysis, which was utilised to test the variance based on demographic features of participants. Then, the mean and standard deviation were measured, in which the mean refers to the sum of all data divided by the number of the data, while the standard deviation refers to the root square of variance, which describes the amount of variability from the mean value.

After completing the descriptive statistics, the validity and reliability of quantitative data were tested. The content validity, which measured the appropriateness of the questionnaire items, and the exploratory construct validity which measured the validity of the questionnaire. Subsequently, exploratory factor analysis and internal consistency reliability, measured by Cronbach's alpha, were conducted to test the questionnaire's reliability. Thus, the conceptual research model of this study received some revision.

Correlation, simple regression and SEM analysis were conducted to investigate the relationship between talent management and employee performance in the Jordanian telecommunication industry. Correlation and regression in part A were analysed to understand the relationship between talent management and employee performance. Subsequently, SEM was conducted in the analysis of part B as a second wave of analysis.

9.3 Validity and reliability

The validity and reliability of quantitative data instruments were discussed in chapter Four and chapter Eight. Thus, a brief reminder is provided in this section, with extra details about the internal consistency test conducted by Cronbach's alpha. Content validity refers to the degree to which data

collection instruments measure what they intend to measure. Thus, it deals with the suitability of the questionnaire items (Creswell & Cresswell 2018; Pallant 2013; Saunders, Lewis & Thornhill 2016). In this regard, the researcher sent the questionnaire to 15 academics and experts in business administration and human resource management to check the wording of the questionnaire, any grammatical issues, and the clarity of the questionnaire items. All 15 arbitrators sent their feedback, and the researcher modified the questionnaire based on their valuable feedback.

The reliability of questionnaire items was examined through internal consistency, using Cronbach's alpha test. As discussed in chapter Eight, the expected value is 0-1, while the accepted value should be above 0.70 (Hair et al. 2016; Pallant 2013). The Cronbach alpha test was performed for each variable alone. Table 9.1 summarises the results of all variable Cronbach alpha test values.

Table 9.1: Cronbach alpha results for talent management and employees' performance variables

No	Non-demographic variables	Items	No. of items	Cronbach alpha value
1	Talent acquisition	TA1, TA2, TA3, TA4, TA5	5	.84
2	Talent learning and development	TLD1, TLD2, TLD3, TLD4	4	.87
3	Talent retention	TR1, TR2, TR3, TR4, TR5	5	.83
4	Task performance	TP1, TP2, TP3, TP4, TP5, TP6	6	.87
5	Contextual performance	CP1, CP2, CP3, CP4, CP5, CP6	6	.80
6	Adaptive performance	AP1, AP2, AP3, AP4, AP5	5	.78
7	Counterproductive performance	CCP1, CCP2, CCP3, CCP4, CCP5	5	.77

As shown in Table 9.1, all Cronbach alpha values were more than .70, and the values of Cronbach alpha ranged from 0.77-0.87. These values indicated that the questionnaire items had a high internal consistency. Thus, the Cronbach alpha confirmed the reliability of the whole questionnaire instrument.

9.4 Descriptive statistics

Descriptive statistics is a collection of tools focused on analysis as a way to describe the characteristics of data and summarise them (Leavy 2017; Pallant 2013; Saunders, Lewis & Thornhill 2016). Descriptive statistics is usually conducted as the first step in the process of analysis to describe the study sample, to check for any misinterpretation of the assumptions, and to address specific research questions (Field 2018). In the context of this study, the mean of variance, standard deviation, mean and frequency tests were conducted as part of descriptive statistics to describe the characteristics of the study sample.

9.4.1 Mean-variance via respondent characteristics

Mean of variance was conducted to verify the variance between corresponding population. The ANOVA analysis of variance was used in this study to test the variance of the demographic variable of the study sample through the SPSS 26 program (Field 2018; Pallant 2013). The basic assumption was that if the data of the study were normally distributed, the group would be independent in their response on the dependent variable; thus, the variance would be equal between groups (Hair et al. 2010). Thus, the ANOVA analyses test the variance between the study groups in relation to demographic features, which in this study were deemed as the independent variables with their responses to dependent variables, where the dependent variables were talent management and employees' performance. Demographic variables are deemed to be independent variables, and both talent management and employee performance were perceived to be dependent variables for ANOVA analysis only, while in the rest of analysis procedures, talent management was an independent variable and employees' performance was the dependent variable. The F-ratio or F-statistic refers to the variance differences between the groups where, if the probability (P-value) is equal to or lower than 0.05, there is no equal variance between the groups (Field 2018; Saunders, Lewis & Thornhill 2016). Table 9.2 summarises the demographic variables and compares means through a one-way analysis for demographic variables and talent management variables.

Table9.2: Results of ANOVA analysis of demographic variables and talent management variables

Characteristic		Freq	(%)	Mean	Std deviation	F-value	P-value
Age	Less than 29	88	29.2	2.16	.953	2.212	.43
	30-39	105	34.9				
	40-49	80	26.6				
	50-59	28	9.3				
	total	301	100				
Gender	Male	170	56.5	1.44	.497	1.556	.095
	Female	131	43.5				
	Total	301	100				

Department	Marketing	37	12.3	4.13	2.33	1.369	.083
	Finance	31	10.3				
	Human resource	13	4.3				
	Customer care	48	15.9				
	Engineering	62	20.6				
	Information technology	38	12.6				
	Project management	12	4.1				
	Quality assurance	13	4.3				
	Digital transformation	17	4.9				
	Sales	27	8.9				
	Retail	16	5.3				
	Total	301	100				
Experience	Less than 2 years	26	8.6	3.09	1.006	1.948	.071
	2-5	61	20.3				
	6-10	73	24.3				
	11-20	141	46.8				
	Total	301	100				

As shown in table 9.2, the majority of respondents (34.9%) belonged to the 30-39 age category; the second age category was under the age of 29, with 29.2% of correspondents, while the lowest age category was 50-59, which represented 9.3% of the study sample. The mean scale for age was 2.16 and the standard deviation was .953. According to a one-way analysis of variance, the F-value was 2.212, and the P-value was 0.43, which was higher than 0.05. Thus, these results indicated that there were no significant differences in talent management practices within the age group.

In terms of gender, 170 of the respondents were male, which represents 56.5 %, and 131 were female, which represents 43.5 percent. The mean for gender was 1.44 and the standard deviation was 0.497. According to a one-way analysis of variance analysis results, the F-value was 1.556, and the P-value was .095, which was higher than 0.05. Thus, this result confirmed that there were no significant differences in talent management practices within gender groups.

In regard to the department, the highest number of respondents was from the engineering department, with 20.6 percent, while the project management department was the lowest percent, with 4.1. The mean department was 4.13 and the standard deviation was 2.33. According to a one-way analysis of results, the F-value was 1.369 and the P-value was .083, which was greater than

.05. These results indicated that there were no significant differences in talent management practices within the department.

As shown in table 9.2, 11-20 years of expertise was the highest percentage of the study sample and the lowest percentage was less than 2 years. The mean was 3.09 and the standard deviation was 1.006. According to a one-way analysis of results, the P-value was 1.984 and the F-value was 0.071, which was higher than 0.05. This result confirmed that there were no significant differences in talent management practices within the experience group.

Table 9.3 summarises the demographic variables and compares means through a one-way analysis for demographic variables, and employees' performance variables.

Table 9.3: Results of ANOVA analysis of demographic variables and employees' performance variables

Characteristic		Freq	(%)	Mean	Std deviation	F-value	P-value
Age	Less than 29	88	29.2	2.16	.953	1.416	.068
	30-39	105	34.9				
	40-49	80	26.6				
	50-59	28	9.3				
	total	301	100				
Gender	Male	170	56.5	1.44	.497	1.965	.002
	Female	131	43.5				
	Total	301	100				
Department	Marketing	37	12.3	4.13	2.33	1.478	.047
	Finance	31	10.3				
	Human resource	13	4.3				
	Customer care	48	15.9				
	Engineering	62	20.6				
	Information technology	38	12.6				
	Project management	12	4.1				
	Quality assurance	13	4.3				
	Digital transformation	17	4.9				
	Sales	27	8.9				
	Retail	16	5.3				
	Total	301	100				

experience	Less than 2 years	26	8.6	3.09	1.006	1.602	.021
	2-5	61	20.3				
	6-10	73	24.3				
	11-20	141	46.8				
	Total	301	100				

As shown in table 9.3, the one-way analysis of variance result for the age group was: F-value was 1.416 and P-value was 0.068, which is greater than .05. This result confirmed that there were no significant differences in employees' performance within the age group. In terms of gender, based on a one-way analysis of variance, the F-value was 1.965 and the P-value 0.002, which was lower than 0.005. This result indicated that there were significant differences in employees' performance within the gender groups. For the department group, a one-way analysis of variance was conducted and the results were: F-value 1.478 and P-value .047, which is lower than 0.05. Thus, these results demonstrated that there were significant differences in employees' performance within the department group. The final demographic variable was the experience, and a one-way analysis of variance was conducted, where the results were: F-value 1.602 and P-value 0.021, which was lower than 0.05. Thus, this result confirmed that there were significant differences in employees' performance within the experience group.

9.4.2 Univariate data analysis

This research determined the level of response of seven variables by analysing the mean and standard deviation. These seven variables were talent acquisition, talent learning and development, and talent retention, which were included under talent management, while task performance, adaptive performance, contextual performance, and counterproductive performance were included under employees' performance. Statistical analysis was performed for each variable separately by measuring the central tendency (mean) and variability in terms of standard deviation (Field 2018; Leavy 2017; Mertler & Reinhart 2017).

9.4.2.1 Talent acquisition

The talent acquisition variable was measured through Five items in the questionnaire. The study sample responded to this variable by providing their views on five Likert scales. Table 9.4 summarises the statistics of mean, frequency and standard deviation for the talent acquisition variable.

Table 9.4: Summarises the statistics of mean, frequency, and standard deviation for talent acquisition variable

No	Item	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean	S.D
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	My organisation uses objective criteria (such as C.V filtration) to select talented candidates.	3	1	8	2.7	34	11.3	178	59.1	77	25.6	4.05	.786
2	My organisation conducts in-depth interviews to select skilled candidates.	2	.7	9	3.0	24	8.0	191	63.5	75	24.9	4.09	.708
3	The interview process in my organization is a fair process by treating all interviewees in the same manner.	2	.7	8	2.7	50	16.6	151	50.2	90	29.9	4.06	.794
4	My organisation uses different tools to acquire talented employees (advertisement, employee relations, social media).	1	.3	4	1.3	26	8.6	145	48.2	125	41.5	4.29	.708
5	My organisation uses both internal and external acquisition to acquire talent	0	0	3	1.0	12	4.0	125	41.5	161	53.5	4.48	.625
	Overall rate											4.194	

source: created by the researcher based on SPSS results

note: Fre refers to the frequency

As can be shown in table 9.4, the overall mean of talent acquisition was 4.194. The final item "My organisation uses both internal and external acquisition to acquire talent" received the highest rate among the study sample (4.48), with the lowest standard deviation being 0.625. In addition, the lowest item rated was "My orgnisation uses objective criteria (such as C.V filtration) to select talented candidates". It may be noticed also that the first three items were merely similar in the study sample view, 53.5% of the study sample strongly agreed on the fifth item: "My organisation uses both internal and external acquisition to acquire talent", while for the second item "My organisation conducts in-depth interviews to select skilled candidates", 63.5% of the study sample agreed on that option in the Likert scale. In addition, the highest study sample, rated the neutral option from the Likert scale, was for the third item "The interview process in my organization is a fair process by treating all interviewees in the same manner", and the highest item to receive the disagree option was the second item "My organisation conducts in-depth interviews to select skilled candidates". The standard deviation values ranged from 0.62-0.78, which was relatively smaller than means values. This confirmed that the mean accurately represented respondents' ratings on talent acquisition items.

9.4.2.2 Talent learning and development

The second variable included under talent management was learning and development. This variable was measured through Four items. Table 9.5 summarises the mean, standard deviation and frequency of learning and development variables.

As shown in table 9.5, the overall rate mean for learning and development was 3.81. The first item, "My organisation determines training needs accurately", had the highest mean among learning and development items with 3.88, while the lowest item was the fourth item, "Talented employees are participating in their promotion system", with 3.75. The mean of four learning and development items was merely similar. The highest, strongly agree, disagree, and strongly disagree options were found in the fourth item: "Talented employees are participating in their promotion system". In addition, 54.8% of respondents selected the agree option for the second item: "My organisation conducts in-depth interviews to select skilled candidates", which represents the highest agree score, while the highest neutral option selected by the respondent was for the third item, "My organization identifies accurately the competencies needed to develop talented employees", with 20.6%. The standard deviation values for all talent learning and development questionnaire items were relatively small in comparison with the mean value. Thus, these values indicate that the mean was representative of the respondents' rating (Field 2018) for all learning and development items.

Table 9.5: Summarises the statistics of mean, frequency, and standard deviation for talent learning and development variable

No	Item	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean	S.D
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	My organisation determines training needs accurately	2	.7	13	4.3	47	15.6	196	65.1	43	14.3	3.88	.786
2	My organisation identifies needed areas in learning and development based on (e.g. psychometric analysis, skills gap analysis, performance appraisal)	10	3.3	13	4.3	53	17.6	165	54.8	60	19.9	3.84	.708
3	My organisation identifies accurately the competencies needed o develop talented employees.	8	2.7	16	5.3	62	20.6	162	53.8	53	17.6	3.78	.794
4	Talented employees participate in their promotion system	11	3.7	22	7.3	61	20.3	145	48.2	62	20.6	3.75	.708
	Overall rate											3.81	

source: created by the researcher based on SPSS results

note: Fre refers to frequency

9.4.2.3 Talent retention

Talent retention is the final variable under talent management. This variable was measured by Five questionnaire items. Respondents selected an option that correlated with their views about talent retention. Table 9.6 summarises the mean, frequency, and standard deviation for all talent retention items.

As can be seen in Table 9.6, the overall rate mean for talent retention items was 3.948. The highest item mean was the second item: "My organisation ensures the organisational image remains good all the time in order to retain our talented employees" with 4.15, while the lowest item mean was the fifth item, "My organisation provides activities that enhance the social life of talented employees", with 3.69. In terms of questionnaire options, the 'strongly agree' option was the most rated for the second item: "My organisation ensures that the organisation's image remains good all the time in order to retain our talented employees" with 111 respondents, while 171 respondents selected the agree option for the first talent retention item: "My organisation retains the talents needed to achieve the organisation's goals", which was received the highest rating of agree option among all talent retention items. In addition, the neutral option and disagree option were most rated in the fifth item, with 72 and 35 respondents respectively. Respondents did not select the strongly disagree option for the second and fourth talent retention items, while the first questionnaire item was the most rated by respondents with a strongly disagree option. Standard deviation values ranged from 0.768- 0.943 which were relatively small in comparison to mean values. This indicated that the mean value accurately represented the respondent rating (Field 2018) for talent retention items.

Table 9.6: Summarises the statistics of mean, frequency, and standard deviation for talent retention variable

No	Item	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean	S.D
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	My organisation retains talents needed to achieve organisation goals.	6	2.0	17	5.6	51	16.9	171	56.8	56	18.6	3.84	.86
2	My organisation ensures the organizational image remains good all the time in order to retain our talented employees.	0	0	11	3.7	43	14.3	136	45.2	111	36.9	4.15	.798
3	My organisation's flexible working hours is a motivating factor for retaining our employees.	3	1.0	16	5.3	31	10.3	166	55.1	85	28.2	4.04	.83
4	My organisation offers training opportunities to enhance career development in order to retain talented employees.	0	0	9	3.0	59	19.6	151	50.2	82	27.2	4.02	.768
5	My organisation provides activities that enhance the social life of talented employees.	3	1.0	35	11.6	72	23.9	134	44.5	57	18.9	3.69	.943
	Overall rate											3.948	

source: adapted based on SPSS results

note: Fre refers to the frequency

9.4.2.4 Task performance

The first variable under the employees' performance construct was task performance. It was measured by six questionnaire items. Table 9.6 summarises the standard deviation, mean, and frequency of task performance items.

As can be seen from table 9.6, the respondents' overall rate mean for task performance was 4.28. The highest mean among task performance items was for the second and fifth items: "I kept in mind the work task I needed to achieve" and "I maintain a high standard of work" respectively, with value 4.35, while the lowest item mean was the first item: " I am able to plan my work so that I finished it on time", with 4.11. Generally, all the task performance items' means were similar except the first items, with a mean range from 4.27-4.35. In terms of task performance items options, the highest strongly agree option was rated for the sixth item of task performance: "I am capable of handling my tasks without much supervision" with 129 respondents, while for the agree option, the highest rating was on the fourth item: "I am able to carry out my work productively (fewer resources, fewer errors…)", with 175 respondents. In addition, the first item was the highest item rated with the neutral option, with 35 respondents, while the first and fourth items had the highest disagree options with 9 respondents. Finally, only one respondent rated the first item with the strongly disagree option while the respondents did not select the strongly disagree option for the rest of the items. Standard deviation values ranged from 0.595 to 0.744, which was relatively small compared with mean values. Thus, these relatively small values indicated that the mean accurately represented the respondents' rate.

Table 9.7: Summarises the statistics of mean, frequency, and standard deviation for task performance variable

No	Item	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean	S.D
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	I am able to plan my work so that I finished it on time.	1	.3	9	3.0	35	11.6	166	55.1	90	29.9	4.11	..744
2	I kept in mind the work task I needed to achieve.	0	0	2	.7	18	6.0	154	51.2	127	42.2	4.35	.623
3	I am able to set priorities in my work.	0	0	6	2.0	21	7.0	148	49.2	126	41.9	4.31	.689
4	I am able to carry out my work productively (fewer resources, fewer errors…).	0	0	9	1.3	17	5.6	175	58.1	105	34.9	4.27	.624
5	I maintain a high standard of work.	0	0	4	1.3	7	2.3	171	56.8	119	39.5	4.35	.595
6	I am capable of handling my tasks without much supervision.	0	0	8	2.7	19	6.3	145	48.2	129	42.9	4.31	.709
	Overall rate											4.28	

source: adapted based on SPSS results

note: Fre refers to frequency

9.4.2.5 Adaptive performance

Adaptive performance is the second variable of employees' performance construct. It was measured through Five items in the questionnaire. Mean, standard deviation and frequency for each of the adaptive performance items are outlined in table 9.7.

In terms of mean, the overall respondents' rating on all adaptive performance items was 4.178. The highest item mean was for the fourth item: "I work at keeping my job skills up-to-date" with 4.31, while the lowest item means was the fifth item: "I recover quickly after difficult situations or setbacks at work" with 4.04. In terms of adaptive performance items options, the highest strongly agree option was rated in the fourth item where 115 respondents selected this option, while the first item had the highest agree option, by 192 respondents. In addition, the neutral option was most selected by respondents for the third item, with 40 respondents. Three items had the same number of respondents who selected the disagree option, while respondents did not select the strongly disagree option for the first, fourth, and fifth items. Standard deviation values ranged from 0.624 to 0.760. These values were relatively small compared to the mean value, indicating small fluctuations of adaptive performance items from the means, which confirmed that the mean value in adaptive performance questionnaire items accurately represented the respondents' ratings.

Table 9.8: Summarises the statistics of mean, frequency, and standard deviation for adaptive performance variable

No	Item	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean	S.D
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	I could manage the change in my job very well whenever the situation demands.	0	0	8	2.7	16	5.3	192	63.8	85	28.2	4.18	.642
2	I can effectively handle my work team in the face of change.	2	.7	0	0	27	9.0	171	56.8	101	33.6	4.23	.660
3	I am very comfortable with job flexibility.	1	.3	8	2.7	40	13.3	155	51.5	97	32.2	4.13	.760
4	I work at keeping my job skills up-to-date.	0	0	5	1.7	11	3.7	170	56.5	115	38.2	4.31	.624
5	I recover quickly after difficult situations or setbacks at work.	0	0	8	2.7	39	13.0	186	61.8	68	22.6	4.04	.679
	Overall rate											4.178	

source: adapted based on SPSS results

note: Fre refers to the frequency

9.4.2.6 Contextual performance

The third variable in the employees' performance construct was contextual performance, which was measured by Six items in the questionnaire. Table 9.7 summarises the mean, standard deviation, and frequency of contextual performance questionnaire items.

The overall mean of contextual performance items was 4.16. The highest mean was for the sixth item: "I guide new colleagues beyond my job purview", with a value of 4.22, while the lowest mean referred to the third item in contextual performance: "I am open to suggestions at my work", with a value of 4.03. In terms of contextual performance items options, the sixth item was the highest item rated with the strongly agree option, while the agree option was highest for the first and fourth items, with 191 respondents selecting this option. In addition, 54 respondents matched the neutral option for the third item, which was the highest among other items while the first and sixth items were the highest items with the disagree option. For the strongly disagree option, the respondents did not select this option for the first, second, fifth, and sixth items. The respondents only selected the strongly disagree option for the third and fourth contextual performance items. Standard deviation results ranged from 0.559 to 0.830 which is generally considered to have a small value in comparison to mean value. This indicated that the respondent rate for contextual performance items was consistent with the mean value. Thus, the mean of the rating of contextual performance items represented the respondent rate (Field 2018).

Table 9.10: Summarises the statistics of mean, frequency, and standard deviation for contextual performance variable

No	Item	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean	S.D
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	I take initiative when there was a problem to be solved	0	0	3	1.0	23	7.6	191	63.5	84	27.9	4.18	.603
2	I start new tasks myself when my old ones were finished.	0	0	1	.3	31	10.3	188	62.5	81	26.9	4.16	.601
3	I am open to suggestions at my work	7	2.3	1	.3	54	17.9	153	50.8	86	28.6	4.03	.830
4	I maintain good coordination among fellow workers.	1	.3	1	.3	20	6.6	191	63.5	88	29.2	4.21	.599
5	I communicate effectively with my colleagues for problem-solving and decision making.	0	0	2	.7	23	7.6	188	62.5	88	29.2	4.20	.596
6	I guide new colleagues beyond my job purview	0	0	3	1.0	28	9.3	169	56.1	101	33.6	4.22	.648
	Overall rate											4.16	

source: adapted based on SPSS results

note: Fre refers to frequency

9.4.2.7 Counterproductive performance

The counterproductive performance was the final variable in employee performance construct. This variable was measured through Five questionnaire items. Table 9.8 summarises mean, standard deviation and frequency of counterproductive performance questionnaire items.

As shown in table 9.8, the overall mean was 1.81 for all counterproductive performance items. The highest mean was 2.28, which refers to the first item: "I complain about unimportant matters at work", while the lowest mean was for the fifth item: "I behave rudely towards my colleagues at work", with a value of 1.27. In terms of item options, the highest strongly agree option selected by the respondents was for the fourth item. Four respondents selected this option, while the highest agree option selected for the first item with 41 respondents. Moreover, the highest neutral option was selected for the first item, with 71 respondents, while for the disagree option, the second item and third item were the highest, which135 respondents correlated this option with their views. Finally, the strongly disagree option was most rated in the fifth item, with 230 respondents selecting this option. Standard deviation values ranged from 0.282 to 1.027. The standard deviation of the fifth item was .282, which is relatively small compared with the mean value of 1.27. Thus, the mean was an accurate representation of the sample rating on the fifth item. However, the standard deviation for the first item was 1.027, which was considered to be high compared to the mean value (2.28). This indicates that the rating of these items by the respondents did not represent the mean.

Table 9.10: Summarises the statistics of mean, frequency, and standard deviation for counterproductive performance variable

No	Item	Strongly disagree		Disagree		Neutral		Agree		Strongly agree		Mean	S.D
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%		
1	I complain about unimportant matters at work.	77	25.6	109	36.2	72	23.9	41	13.6	2	.7	2.28	1.027
2	I give an impression that problems are greater than they were at work.	101	33.6	135	44.9	35	11.6	16	5.3	0	0	1.94	.713
3	I focus on the negative aspects of a work situation, instead of the positive aspects.	122	40.5	135	44.9	35	11.6	8	2.7	1	.3	1.77	.609
4	I speak negative aspects of my work outside the organisation.	136	45.2	115	38.2	30	10.0	17	5.6	3	1.0	1.79	.826
5	I behave rudely towards my colleagues at work.	230	76.4	66	21.9	1	.3	4	1.3	0	0	1.27	.282
	Overall rate											1.81	

source: adapted based on SPSS results

note: Fre refers to the frequency

9.5 Exploratory factor analysis

Factor analysis is a data reduction technique which aims to refine the questionnaire items to a smaller number of items, and to prepare the data for further analysis, for example regression analysis (Field 2018; Pallant 2013; Zikmund et al. 2013). Prior to conduct exploratory factor analysis to measure the construct validity, the data were screened by the Mahlabonis distance to ensure the quality of the data. This test was conducted through SPSS 26 to check the data outliers (Mertler & Reinhart 2017). After conducting the Mahlabonis distance test, 50 questionnaires were eliminated from further analysis. Thus, the final sample size was 301. Exploratory construct validity is a method used to measure the construct validity. To achieve construct validity, exploratory factor analysis, which was deemed to be a widely used instrument in social science research, was utilised to evaluate exploratory construct validity (Hair et al. 2010; Yong & Pearce 2013). Additionally, exploratory factor analysis has been recommended before conducting SEM (Chin 1998). It is important that the criteria are met prior to conducting exploratory factor analysis (Pallant 2013; Field 2018). This criterion includes firstly, the adequacy of sample size and an existing correlation between study variables must be considered; secondly, the correlation coefficient of questionnaire items should be greater than 0.40 to be considered statistically significant, and the cumulative percentage of variance should be more than or equal to 0.60.

Overall, exploratory factor analysis was performed to obtain the loading of each factor in this study. This study consisted of seven variables, three related to talent management, namely talent acquisition, talent learning and development, and talent retention, while four variables related to employee performance, namely task performance, adaptive performance, contextual performance, and counterproductive performance. In terms of talent management variables, 14 items were developed to measure them, while 22 items were developed to measure four employees' performance variables. Therefore, after conducting exploratory factor analysis, only valid items were included in the final questionnaire based on the factor loading results.

9.5.1 Sampling adequacy and the correlation between variables

The first criterion prior to conducting exploratory factor analysis was sample adequacy and an existing correlation between study variables, which contributed to the achievement of the sample size adequacy criterion. Previous literature relating to exploratory factor analysis of the sample size indicated that a larger sample is better (Pallant 2013). However, two points of view have indicated that a specific size of the study sample is preferred for conducting exploratory factor analysis. The first view states that 300 cases are required for the sample size of exploratory factor analysis (Tabachnick & Fidell 2013), while the second view argues that the ratio between sample size and the number of items in the questionnaire should range from Five to Ten (Tabachnick & Fidell 2013).

In terms of the correlation between variables, Kaiser-Meyer-Olkin and Bartlet's test was recommended to detect the sample size adequacy. The Bartlet Result should be considered if P < 0.05, while the Kaiser-Meyer-Olkin test should be greater than 0.50 in a result ranging from Zero to One (Field 2018; Gaskin & Happell 2014; Tabachnick & Fidell 2013). Extra data collection or rethinking the inclusion of further variables should be considered if the result of the Kaiser-Meyer-Olkin test is less than 0.50 (Van Delft-Schreurs et al. 2016). To achieve this criterion, the Kaiser-Meyer-Olkin and Bartlett tests were conducted through SPSS 26. Table 9.9 summarises the results of the Kaiser-Meyer-Olkin and Bartlett tests.

Table 9.11: KMO and Bartlett's test results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.865
Bartlett's Test of Sphericity	Approx. Chi-Square	5982.197
	df	630
	Sig	.000

Source: created by the researcher based on SPSS results

As can be seen in Table 9.9, the KMO result was .865, which is greater than 0.5, and the Bartlett result was significant because p< 0.05. Thus, based on these results, the correlation model of this study was reliable. Therefore, two criteria for exploratory factor analysis were achieved in the current study; the sample size adequacy and the correlation between study variables.

9.5.2 Principal component analysis

Exploratory factor analysis was conducted through principal component analysis to reduce the study's factor by detecting loading factors (Field 2018; Pallant 2013). Principal component analysis is deemed to be one of the most important techniques; it is similar to exploratory factor analysis and is a widely used exploratory factor analysis method (Field 2018; Quiyono 2014). Exploratory factor analysis was conducted through SPSS 26. Several considerations were taken into account in conducting EFA. Each variable needed at least three items to measure it: the loading equal, or more than 0.4; Eigenvalues values greater than one; and it should represent more than 0.60% of total variance explained (Field 2018; Hair et al. 2010; Pallant 2013). Thus, after repeating EFA several times, many decisions were taken. Firstly, only ap1 from the adaptive performance variable had a loading factor of more than 0.40. Thus, based on considerations of previous literature of EFA, one item cannot measure variable properly. Secondly, the following items were eliminated because of the loading factor was less than 0.40: CCP5 for counterproductive performance; TR4 for the talent

retention variable; AP1, AP3, AP4, and AP5 for the adaptive performance variable; TP6 for task performance; and CP4 and CP5 for contextual performance. Therefore, the adaptive performance was deleted from the study because it did not meet the criteria of EFA. In this regard, the supervisory team and the University of Southern Queensland statistical consultant were consulted and they agreed on this deletion. In the employees' performance literature, it has been argued that the employees' performance variables are related to each other, and that task performance, contextual performance and counterproductive performance are the dominant variables used to measure employees' performance (Koopmans et al. 2011). In addition, as indicated in Koopmans et al.'s (2011) systematic review, only three employees' performance scholars (Allowrth & Hesket 1999; Griffin et al. 2007; Pulakos et al. 2002;) have focused on adaptive performance as being a separate variable, while 32 scholars agreed on task performance, contextual performance and counterproductive performance as the variables of employees performance (e.g. Bakker, Demerouti & Verbeke 2004; Borman & Motowidlo 1993; Campbell 1990; Hunt 1996; Murhy 1989; Pulakos et al. 2000;Viswesvaran 1993; Viswesvaran & Ones 2000). Additionally, the results of the EFA of this study align with Koopmans et al.'s (2013) results, which indicated that factor analysis of employees' performance variables showed three variables of employees' performance. The justification was that contextual performance was considered to be proactive, while adaptive performance was seen as reactive (Koopmans et al. 2011). Thus, both contextual and adaptive performance could be considered as supporting the psychological and social environment inside the organisation, while adaptive performance could be seen as an aspect of contextual performance. Thus, the deletion of adaptive performance variables was based on the EFA literature, the supervisory team and the employees' performance literature.

Many tables and figures resulted from the exploratory factor analysis. The first table was an explanation of the total variance, which is presented in table 9.10. Six components met the Kaiser criteria where Eigenvalues values were greater than 1 for these six components, which represented 63.4% of the total variance explained.

Table 9.12: Total variance explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loading
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.141	27.700	27.700	9.141	27.700	27.700	6.104
2	3.920	11.878	39.579	3.920	11.878	39.579	5.648
3	2.539	7.694	47.273	2.539	7.694	47.273	4.938
4	1.730	5.242	52.515	1.730	5.242	52.515	4.462
5	1.469	4.451	56.965	1.469	4.451	56.965	4.862
6	1.236	3.745	60.710	1.236	3.745	60.710	4.277
7	1.200	3.636	64.346	1.200	3.636	64.346	2.422
8	.979	2.968	67.314				
9	.896	2.716	70.031				
10	.828	2.509	72.540				
11	.737	2.234	74.773				
12	.669	2.027	76.800				
13	.640	1.939	78.739				
14	.608	1.843	80.582				
15	.587	1.778	82.360				
16	.583	1.766	84.125				
17	.547	1.657	85.782				
18	.470	1.424	87.206				
19	.462	1.401	88.606				
20	.412	1.248	89.854				
21	.379	1.148	91.002				
22	.366	1.110	92.112				
23	.335	1.014	93.126				
24	.311	.942	94.068				
25	.285	.863	94.931				
26	.261	.791	95.721				
27	.251	.760	96.481				
28	.237	.719	97.200				
29	.218	.659	97.860				
30	.198	.600	98.460				
31	.182	.550	99.010				
32	.175	.531	99.541				
33	.152	.459	100.000				

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loading
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

The second table of focus is a pattern matrix, which shows each item loading on six components. Table 9.11 shows the results of the pattern matrix. As can be seen from the table, all the factor loadings are greater than 0.4 and at least three items are loaded on each factor. Five factors are loaded on the first component and Four, Four, Six, Four and Three are loaded on the components from two to six, respectively. Thus, based on factor loading results, factors were eliminated: two factors for contextual performance (CP4, CP5), one factor for talent retention (TR4), one factor for task performance (TP6), and CCP5 for counterproductive performance. Therefore, the final questionnaire consists of 26 factors and principal component results confirmed the results of the item loading.

Table 9.13: Pattern matrix

Questionnaire items	Components					
	1	2	3	4	5	6
tp3	.859					
tp4	.837					
tp5	.814					
tp2	.666					
tp1	.635					
tr1		.807				
tr3		.800				
tr2		.777				
tr5		.692				
tld2			.777			
tld4			.807			
talent learning and development			.422			
tld3			.800			
tq3				.783		
tq4				.722		
tq5				.713		
talent acquisition				.688		
tq2				.832		
tq6				.764		
ccp1					.734	
ccp2					.720	
ccp3					.794	
ccp4					.867	
cp3						.902
cp1						.711
cp2						.723
Extraction Method: Principal Component Analysis.						
Rotation Method: Promax with Kaiser Normalization.						
a. Rotation converged in 8 iterations.						

After conducting exploratory factor analysis, the second wave of Cronbach alpha was performed for retaining questionnaire items in order to calculate the internal consistency and to check the retaining factor reliability. Table 9.12 presents the result of the Cronbach alpha test.

Table 9.14: The results of Cronbach alpha test

No.	Factor/ variable	Items included	No. of retained items	Cronbach alpha result
1	TA	Tq1, Tq2, Tq3, Tq4, Tq5	5	.836
2	TLD	TLD1, TLD2, TLD3, TLD4	4	.867
3	TR	TR1, TR2, TR3, TR5	4	.823
4	TP	TP1, TP2, TP3, TP4, TP5	5	.86
5	CP	CP1, CP2, CP3, CP6	4	.74
6	CCP	CCP1, CCP2, CCP3, CCP4	4	.769

As can be seen from table 9.12, all the values of Cronbach alpha were above 0.70. This result confirms that the questionnaire had a high internal consistency for talent management and employees' performance variables. However, Cronbach alpha detects only the internal consistency of questionnaire items and does not calculate the reliability between questionnaire items. Thus, the interclass correlation coefficient was utilised to measure the relationship between variables that measure the same construct. Table 9.13 shows the results of the interclass correlation coefficient. The results presented in table 9.13 indicate that all the single measures were lower than the average measure, with significance, where $p < .05$. Thus, these results confirmed that all the variables of talent management and employee performance measured the same construct.

Table 9.15: The results of the interclass correlation coefficient

No	Variables	Interclass correlation coefficient		Sig
		Single measure	Average measure	
1	TA	.505	.836	.000
2	TLD	.619	.867	.000
3	TR	.482	.823	.000
4	TP	.506	.860	.000
5	CP	.339	.672	.000
6	CCP	.370	.764	.000

9.6 Correlation analysis

Correlation analysis refers to detection of the strength and the direction of the relationship between two variables (Field 018; Pallant 2013). The correlation results values range from -1 and 1(Cohen 2013; Hair et al 2011). If the result of the correlation analysis is 0, there is no relationship between study variables, while if the result is +1, a perfect positive relationship exists between the study variables, and if the result is -1, there is a negative perfect relationship between the study variables (Field 2018; Saunders, Lewis & Thornhill 2016). In the context of this study, correlation analysis was conducted through SPSS 26 to detect the relationship between talent management variables and employee performance variables. The results of correlation analysis are shown in Table 9.13. As can be seen from the table, there is a relationship between talent management variables and employee performance variables at the 0.01 level of significance (two-tailed). The positive relationship is found between talent acquisition, talent learning and development, and talent retention with task performance, adaptive performance, and contextual performance. However, a negative relationship is found between all talent management variables and counterproductive performance.

Generally, the r-values range from 0.152-0.441. The minimum r-value has been referred to as the correlation between talent learning and development and task performance while the highest r-value is between talent retention and adaptive performance. Cohen (2013) indicated a guideline to interpreting the results of r-values, where r = 0.10 to 0.29 small relationship, r = 0.30 to 0.49 medium relationship, and r = 0.50 to 1.0 large relationship. Thus, based on these guidelines, the correlation between talent management variables and the employee performance ranges from small to medium correlation. Therefore, talent management (independent variables) has a correlation with employees' performance (dependent variable).

Table 9.16: The results of correlation analysis

Variables		Task performance	Contextual performance	Counterproductive performance
Talent acquisition	Pearson correlation	.305	.154	-.155
	Sig. (2-tailed)	.000	.008	.007
Talent learning and development	Pearson correlation	.152	.285	-.259
	Sig. (2-tailed)	.008	.000	.000
Talent retention	Pearson correlation	.331	.217	-.288
	Sig. (2-tailed)	.000	.000	.000

9.6 Regression analysis and hypotheses testing

The second objective of this research was to investigate the relationship between talent management practices and employee performance in the Jordanian telecommunication industry. Thus, to fulfil the second objective in this study, Nine hypotheses were formulated and tested through simple regression analysis (Field 2018; Sekaran & Bougie 2016). Regression analysis is referred to as the statistical technique of predicting the outcome variables from predictor variables (Jeon 2015; Pallant 2013). According to research on the conceptual model, each talent management practice influences each variable of employees' performance. Consequently, simple regression analysis is suitable to detect this influence between study variables (Tabachnick & Fidell 2013).

There are three main indicators in regression analysis. The first indicator is R^2-value, which provides a gauge of the relationship size between study variables and goodness of fit of the regression model (Field 2018; Sekaran & Bougie 2016). R-value range from 0 to 1; if the result of R is 1 or near to 1, there is an indication that the regression model was fit (Hair et al. 2010). The second indicator is F-value, which measures the difference between the improved prediction of outcomes and the level of inaccuracy of the regression model (Field 2018). The final indicator is the t-value, which measures whether the coefficient of the determinant ($R^{2)}$) is meaningful for the regression model (Cohen 2013). The F-value and t-value correlate with the p-value < .05 (Field 2018; Saunders, Lewis & Thornhill 2016).

Table 9.17: The results of hypotheses testing through regression analysis

Hypotheses	Hypothesis path	Regression results							result
		R	β	S.E	F-value	P-value	t-value	P-value	
H1	Talent acquisition ➤ task performance	.093	.305	.060	30.641	.000	5.535	.000	Rejected null hypothesis
H2	Talent acquisition ➤ contextual performance	.024	.154	.038	7.229	.008	2.689	.008	Rejected null hypothesis
H3	Talent acquisition ➤ counterproductive performance	.024	-.155	.060	7.335	.007	-2.708	.007	Accepted null hypothesis
H4	Talent learning and development ➤ task performance	.023	.152	.059	7.034	.008	2.652	.008	Rejected null hypothesis
H5	Talent learning and development ➤ contextual performance	.081	.285	.035	26.392	.000	5.137	.000	Rejected null hypothesis
H6	Talent learning and development ➤ counterproductive performance	.067	-.25	.055	21.536	.000	-4.641	.000	Accepted null hypothesis
H7	Talent retention ➤ task performance	.109	.331	.064	36.678	.000	6.056	.000	Rejected null hypothesis
H8	Talent retention ➤ contextual performance	.047	.217	.041	14.716	.000	3.836	.000	Rejected null hypothesis
H9	Talent retention ➤ counterproductive performance	.052	-.22	.063	16.357	.000	-4.044	.000	Accepted null hypothesis

The first null hypothesis in this study was: there is no significant positive influence of talent acquisition on task performance in the Jordanian telecommunication industry. As can be seen from table 9.14, it is apparent that the results of regression analysis confirm a rejection of the first null hypothesis. This rejection is demonstrated by calculating F-value 30.641 and t-value 5.535 both of which are significant if the p-value is .000. However, R^2-value was 0.093, which indicates a weak goodness of fit of the regression model (Mooi, Sarstedt & Mooi-Reci 2018). This R^2 value indicates that only 9% of task performance variation related to talent acquisition, while the remaining percentage was contributed by other factors not included in the regression model. In addition, β value was 0.30. This value indicated that when there is an increase of 1 unit in talent acquisition; the task performance was expected to increase by 0.305 with a standard error of 0.060. Thus, based on regression analysis results which confirmed a significant positive influence of talent acquisition on task performance, the null hypothesis was rejected.

The second null hypothesis was: there is no significant positive influence of talent acquisition on contextual performance in the Jordanian telecommunication industry. As can be seen in table 9.14, the results of the regression analysis were acceptable to describe the relationship between talent acquisition and contextual performance. This was indicated through F-value 7.229 and t-value 2.689 being significant because of P-value< 0.05. R^2 value was 0.024, which indicated a weak influence (Mooi, Sarstedt & Mooi-Reci 2018) of talent acquisition on adaptive performance, where only 2.4% of the variation of contextual performance was referred to talent acquisition. Thus, 97.6% of the variation of contextual performance referred to other factors not included in the regression model. The value of β was 0.154, which indicates that an increase of 1 unit of talent acquisition meets an increase of 0.154 of contextual performance with standard error 0.038. Therefore, based on the regression analysis results the null hypothesis was rejected.

The third null hypothesis in this study was: there is no significant negative influence of talent acquisition on counterproductive performance in the Jordanian telecommunication industry. As shown in table 9.14, it appears that the regression analysis was sufficient to describe the influence of talent acquisition on counterproductive performance. This was confirmed by F-value 7.335 and t-value -2.708 which were significant because the P-value was <0.05. However, the t-value was minus, which indicates a significant negative influence of talent acquisition on counterproductive performance. R^2 value was 0.023 which represents a weak influence of talent acquisition on counterproductive performance (Mooi, Sarstedt & Mooi-Reci 2018). This weak influence means that only 2.3% of the variation of counterproductive performance was referred to talent acquisition.

The value of β was -0.155, the minus sign referred to negative influence while the value represented an increase of 1 unit of talent acquisition meets with a decrease of 0.155 of counterproductive performance. Therefore, based on the aforementioned results of regression analysis the null hypothesis was accepted due to the significant negative influence of talent acquisition on counterproductive performance.

The fourth null hypothesis in this study was that there is no significant positive influence of talent learning and development on task performance in the Jordanian telecommunication industry. As seen in table 9.14, it seems that the regression analysis was describing the relationship between talent learning and development and task performance sufficiently. This was indicated by F-value 7.034 and t-value 2.652, which were significant because of the P-value < .05. R^2 value 0.023, which indicated a weak influence (Mooi, Sarstedt & Mooi-Reci 2018) of talent learning and development on task performance. Thus, 97.7% of the variation in task performance did not refer to talent learning and development. The value of β was 0.152, which meant that an increase of 1 unit of talent learning and development met an increase of 0.152 of task performance, with standard error .059. Therefore, based on regression analysis results, the fourth null hypothesis was rejected.

The fifth null hypothesis in this study was: there is no significant positive influence of talent learning and development on contextual performance in the Jordanian telecommunication industry. As shown in table 9.14, regression analysis described the influence of learning and development on contextual performance, through F-value 26.392 and t-value 5.137, both of which are significant due to P-value < 0.05. R^2 value being .081, which indicated a weak influence of the independent variable on the dependent variable (Mooi, Sarstedt & Mooi-Reci 2018). This weak influence, obtained through only 8.1% of the variation in contextual performance, could be attributed to talent learning and development. The value of β 0.285, which represented an increase of 1 unit of talent learning and development, met with an increase of 0.285 of contextual performance with standard error .035. These results indicate a significant positive relationship between talent learning and development and contextual performance. Therefore, the fifth null hypothesis was rejected.

The sixth null hypothesis in this study showed that there was no significant negative influence of talent learning and development on counterproductive performance in the Jordanian telecommunication industry. The regression analysis was considered suitable to describe the influence of talent learning and development on counterproductive performance. This was confirmed through F-value 21.536 and t-value -4.641, which were significant due to P-value < 0.05.

The minus sign of t-value referred to the negative influence of talent learning and development on counterproductive performance. R^2 $value$ was 0.067 , which indicated a weak influence of the independent variable on the dependent variable (Mooi, Sarstedt & Mooi-Reci 2018). This weak influence meant that 6.7% of the variation of counterproductive performance referred to talent learning and development while the remaining percentage referred to other factors included in the regression model. The value of β was -0.25, similar, as in t-value, while the minus sign referred to negative influence. In addition, this value meant that an increase of 1 unit of learning and development met with a decrease 0.25 of counterproductive performance. Thus, regression analysis results confirmed a negative significant influence of talent learning and development on counterproductive performance, so the null hypothesis was accepted.

The seventh null hypothesis in this study was: there is no significant positive influence of talent retention on task performance in the Jordanian telecommunication industry. As shown in table 9.14, regression analysis was suitable to describe the influence of talent retention on task performance. This was confirmed through F-value 36.678 and t-value 6.056, both of which were significant because of P-value < 0.05. R^2 $value$ was .109, which indicated a weak influence of the independent variable on the dependent variable (Mooi, Sarstedt & Mooi-Reci 2018). This weak influence meant that 10.9% of the variation of task performance could be attributed to talent retention while the remaining percentage referred to other factors not included in the regression model. The value of β was 0.331, which indicated that an increase of 1 unit of talent retention met with an increase of .331 of task performance with standard error 0.064. Therefore, based on the aforementioned results, a significant positive influence was confirmed between talent retention and task performance, so the null hypothesis was rejected.

The eighth null hypothesis in this study was: there is no significant positive influence of talent retention on contextual performance in the Jordanian telecommunication industry. Obviously, as shown in table 9.14, the regression analysis was suitable to describe the influence of talent retention on contextual performance. This conclusion was based on F-value 14.716 and t-value 3.836, both were significant because the P-value <.05. R^2 $value$ was .047, which indicated a weak influence of the independent variable on the dependent variable (Mooi, Sarstedt & Mooi-Reci 2018). This weak influence meant a 4.7% variation of contextual performance could be attributed to talent retention while the rest of the percentage referred to other factors not included in the regression model. The value of β was .217, which indicated an increase of 1 unit of talent retention meeting with an increase of0 .217 of contextual performance, with standard error 0.041. Therefore, based

on the aforementioned results, a significant positive relationship was confirmed between talent retention and contextual performance, so the null hypothesis was rejected.

The ninth null hypotheses in this study was: there is no significant negative influence of talent retention on counterproductive performance in the Jordanian telecommunication industry. It could be seen that the regression analysis was suitable to describe the influence of talent retention on counterproductive performance. This was confirmed through F-value 16.357 and t-value -4.044, which were significant due to P-value < 0.05. The minus sign of t-value referred to the negative influence of talent learning and development on counterproductive performance. R^2 $value$ was $.052,$ which indicated a weak influence of the independent variable on the the dependent variable (Mooi, Sarstedt & Mooi-Reci 2018). This weak influence meant that a 5.2% variation of counterproductive performance referred to talent retention while the remainder of the percentage referred to other factors not included in the regression model. The value of β was -0.22. As in t-value, the minus sign referred to negative influence. In addition, this value meant that an increase of 1 unit of learning and development met with a decrease 0.22 of counterproductive performance. Thus, regression analysis results confirmed a negative significant influence of talent learning and development on counterproductive performance, so the null hypothesis was accepted.

Overall, as indicated in Table 9.14, all regression analysis results confirmed a significant influence of talent management practices (independent variables) on employees' performance variables (dependent variables) in the Jordanian telecommunication industry. Six of these influences were positive and three influences were negative. Thus, Six null hypotheses were rejected and three null hypotheses were accepted. All null hypotheses accepted were for counterproductive performance.

9.7 Chapter summary

This chapter has discussed the quantitative data analysis part A. Chapter Nine is structured into seventh sections. Brief details about the statistical procedures deployed in this chapter were outlined in the introduction section for example descriptive and inferential statistics. Content validity and the results of Cronbach alpha to measure the internal consistency reliability were outlined in the third section. A detail of ANOVA test, standard deviation and other descriptive statistical tools were included in section 9.4. based on the result of exploratory factor analysis and previous literature of employees' performance, adaptive performance was deleted from further statistical analysis, Six null hypotheses were rejected and three null hypotheses were accepted based on the results of simple regression analysis. Finally, a summary of the main chapter's features was provided in section 9.7.

Chapter Ten: Quantitative data analysis part B

10.1 Chapter overview

The previous chapter has discussed the first part of the quantitative data analysis. This chapter addresses the quantitative data analysis part B by utilising AMOS software version 26, including SEM. This chapter articulates all the analysis test procedures related to how the analysis by SEM was conducted to investigate the inter-relationship among study variables simultaneously. The results of SEM were significant for whether to accept or reject this research hypothesis. Thus, this would achieve the second research objective and answer the second research question.

The quantitative data analysis part B chapter is structured into Six sections. The first section, 10.1, is an overview of the chapter. The introduction of the chapter is discussed in section 10.2, while the subsequent chapter provides a justification to utilise SEM analysis. Section 10.4 covers the multivariate data analysis, including the measurement model analysis and the four stages of confirmatory factor analysis, while the multivariate analysis in the structural model is discussed in section 10.5. Finally, in section 10.6, a summary of the chapter is presented. Thus, this chapter is composed of six sections that are outlined in figure 10.1.

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Figure 10.1: A graphical layout of Chapter Ten

Source: created by the researcher

10.2 Chapter introduction

The first wave of analysis was discussed in the previous chapter, which covered descriptive statistics, correlation and regression analysis. These techniques were conducted to investigate the relationship between talent management and employees' performance in the Jordanian telecommunication industry. It was decided to utilise SEM as a second wave of analysis to investigate the relationship between the independent and dependent variables. In terms of multivariate analysis, SEM is deemed as being one of the most helpful analysis techniques for social science research (Byrne 2016; Hair et al. 2016; Raykov & Marcoulides 2012). SEM is a statistical technique based on factor analysis (confirmatory factor analysis for hypotheses testing) and path analysis to investigate a particular phenomenon (Wang & Wang 2019). SEM considers explicitly the measurement error in the latent variables (Kline 2015).

Based on the SEM literature, it could be divided into two types: covariance-based SEM (CD-SEM) and partial least squares SEM (PLS-SEM) (Gefen et al. 2016; Hair et al. 2016). The first type of SEM is used to test the hypothesis in order to accept or reject that hypothesis. It explicitly takes into account the measurement errors of latent variables through modelling it by variance structure (Gefen et al. 2011; Wang & Wang 2019). On the other hand, PLS-SEM is basically used in an exploratory study to upgrade the theoretical model (Kline 2015). Thus, based on previous discussion, this study deployed CB-SEM because it was consistent with the second research question and met the second research objective of the current study. In addition, CB-SEM helped the researcher to test the study's hypothesis through investigation of the relationship between talent management and employees' performance in the Jordanian telecommunication industry.

There are three main research situations in SEM are used for affirming the right fit: single model, alternative model, and model generating (Byrne 2016; Joreskog & Sorbom 1993). In the first situation, a single model is formulated to test it and based on the result, the model is accepted or rejected. Thus, there would be no further modification to the formulated model (Byrne 2016). With an alternative model, a set of alternative models is formulated to be tested by the researcher in order to select the best model fit with the study sample data (Byrne 2016; Joreskog & Sorbom 1993). Finally, with part of model generation, the researcher proposes an initial model. Then, if the proposed model did not fit, adjustment and re-estimation of the model is conducted to enhance the quality of the proposed model. This process could be repeated several times to reach the model that strongly fits with the sample data (Byrne 2016; Joreskog & Sorbom 1993). Generally, the first and second situations are rarely used in SEM and they

were not aligned with study's second objective and second research question (Byrne 2016, Tarka 2018). The justification behind that is in the first situation researchers are not commonly dismissing a specific model unless they have an alternative model, while in the alternative model it is difficult to find many models to test in the literature or from the study sample (Byrne 2018; Tarka 2018). This study has adopted the model generating situation because of its flexibility in providing a solution to the researcher, rather than the alternative and strictly confirmatory situation (Byrne 2018; Jöreskog & Sörbom 1993). Thus, this study has adopted the third situation to implement in SEM analysis.

In SEM there are two models involved in the analysis: the measurement model and the structured model. The measurement model allows for the demonstrating of the relationship between the measured response items and their underlying constructs. The structured model allows for the demonstration of the inter-relationship among the constructs of the study (Byrne 2018; Wang & Wang 2019). As was indicated above, this study deployed the measurement model and the structured model to analyse the multivariate data (Schumacker & Lomax 2010). Thus, in the context of this study, CFA and SEM were used to validate the relationship between talent management and employees' performance in the Jordanian telecommunication industry.

10.3 SEM justification

Regression analysis is used to test only a single relationship at one time (Field 2018). Thus, SEM was suitable to be deployed because of its flexibility, which allowed the researcher to ascertain the relationship between theory and study data to validate the research conceptual model (Hair et al. 2010). SEM was deemed to be one of the strongest multivariate analyses, which permitted the researcher to assess the data quality of the measurement model of the study (Hair et al. 2011; Wang & Wang 2019). SEM investigates the direct and indirect structural relationship between multiple independent and dependent variables (Byrne 2016; Lau et al. 2017; O'Rourke & Hatcher 2013; Raykov & Marcoulides, 2012).

SEM was selected in this study as a second-generation technique for several reasons. Firstly, SEM is a more powerful alternative to regression analysis, that provides a more accurate estimation. This accuracy is due to the fact that SEM measures the error in the study variables (Hair et al. 2016; Jeon 2015). Secondly, SEM combines more than one statistical analysis techniques to utilise their combined strength, for example CFA and multiple regression (Wang & Wang 2019). Thirdly, SEM is a confirmatory and exploratory technique because it permits the researcher to build a model out of the non-directional model by not considering a linear relationship only (Byrne 2018; Lau et al. 2017). Finally, SEM is able to deal with the

underlying variables that are formed by a set of variables that can be measured (Tarka 2018). Thus, SEM move the study analysis to the next level.

10.4 Measurement model analysis

The measurement model indicates the connection between observed variables (Thakkar 2020). CFA, as part of Amos software, was used to assess the measurement model of this study (Kim et al. 2016; Prudon 2015). CFA provides results that examine to what extent the data fit in the study measurement model (Hair et al. 2010; Thakkar 2020). These results are represent as an index to ensure the quality of the measurement model (Dion 2008; Jeon 2015). The CFA index includes Chi-square/ degree of freedom, the goodness of fit index GFI, comparative fit index CFI, the Tucker lewis index TLI, the root mean square error of approximation RMSEA, and the root means square residual RMR. Thus, the result of the CFA index examines the goodness of fit of the measurement model. If the criteria of the goodness of fit are met, the measurement model fits the study data, while the measurement model will be rejected if the CFA criteria are not met (Byrne 2016). There are three categories for the goodness of fit (Hair et al. .2010; Zainudin 2011), as shown in Table 10.1.

Table 10.1: Goodness of fit categories

Category	Index	Level of acceptance	References	Explanation
1- Absolute fit	Chi-square	P < 0.05	(Thakkar 2020; Zainudin 2011)	Chi-square - used for sample greater than 200 and P <.05
	RMSEA	RMSEA ≤ 0.08	(Dion 2008; Prudon 2015)	RMSEA - detects the discrepancy between the measurement model and the study data through calculating the average of the residual correlation matrix
	GFI	GFI ≥ 0.90	(Byrne 2016; Hair et al. 2010)	GFI - measures the relative amount of population covariance for the proportion of variance.
	RMR	RMR ≤ 0.05	(Byrne 2016; Weston & Gore Jr 2006)	RMR - is based on the covariance residual.
Incremental fit	CFI	CFI ≥ 0.90	(Thakkar 2020; Weston & Gore Jr 2006)	CFI - compares the independence model with the researcher's model

				with an assumption of no relationship among variables
	TLI	TLI $\geq$ 0.90	(Byrne 2016; Dion 2008)	TLI - compares the study measurement model with the null model
	IFI	IFI $\geq$ 0.90	(Byrne 2016; Thakkar 2020)	IFI - addresses the parsimony and the sample size that are known to be associated with the normed fit index
Parsimonious fit	Chi-sequare/df	Chi-sequare/df $\leq$ 5.0	(Hair et al. 2010; Chan et al. 2007)	Chi-square/df - interprets what actual relationship exists and what would be expected in terms of degree of freedom
	AGFI	AGFI $\geq$ 0.90	(Byrne 2016; Hair et al. 2010)	AGFI - is an adjusted GFI based on the degree of freedom that is sensitive to sample size.

It is difficult to determine universal guidelines for the goodness of fit of a measurement models (Gupta &Chen, 2001; Hair et al. 2010). However, there have been recommendations around distinguish poor fit or a good fit for the measurement models (Hair et al. 2012). These recommendations include using three to four indices to verify the goodness of fit. In addition, the index cut off value should be justified in terms of the complexity of the measurement model and sample size, for example for a large sample size and a complex measurement model, RMSEA could be accepted if less than 0.10.

In terms of the current study, three stages were conducted to assess the measurement model of this study. In the first stage, CFA was deployed as a single variable measurement model. In the next stage, CFA was deployed for all exogenous and endogenous variables in the measurement model. Finally, the validity of the measurement model was tested.

10.4.1 Stage One: CFA for the single variable measurement model

During this stage, the measurement model included a single variable (exogenous or endogenous). In this study, CFA was deployed for all three exogenous variables and for four endogenous variables. The results of CFA for single variables included the loading factor, the regression weight of the variable and its items, and the goodness of fit statistics.

1-The CFA procedure for the talent acquisition variable

Figure 10.2 shows the talent acquisition measurement model. It provides the loading factor of talent acquisition's five items. The second item (My organisation conducts in-depth interviews to select skilled candidates) had the highest loading with 0.87, and the fifth item (My organisation uses both internal and external acquisition to acquire talent) had the lowest item loading with 0.55. The loading factor for the first items was 0.69, 0.79 for the third item, and .65 for the fourth item. Thus, the loading factor for the talent acquisition items ranged from .55-to 0.87.

As was indicated by the goodness of fit results (Chi-square=14.480, degree of freedom=5, Chi-square/df= 2.896, CFI: 0.983, TLI 0.967, IFI: 0.983, and RMSEA: 0.08). All these results fitted with goodness criteria of the measurement model. In addition, as presented in table 10.3, all the talent acquisition items were significant. This was indicated by the P value being less than 0.01. The estimate for tq5 is 1.00, so a solution could be established.

The CFA Goodness of fit results for talent acquisition:

Chi square: 14.48   Degree of freedom: 5   Chi-square/df:2.89

CFI: 0.983   TLI 0.967   IFI: 0.983

RMSEA: 0.08

Figure 10.2: the intial model measurment model of talent acquisition variable
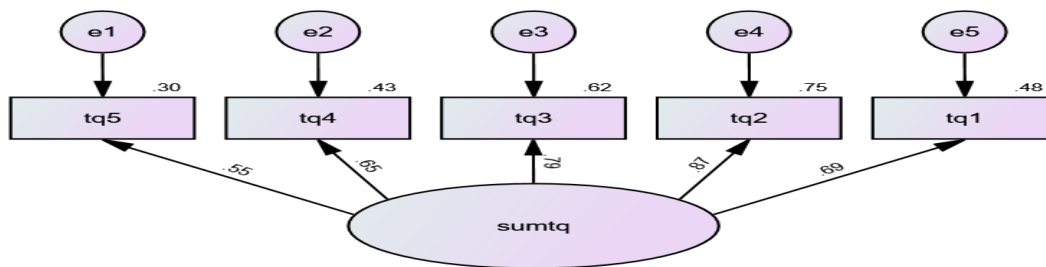
Table 10.2: Regression weight for talent acquisition

	Estimate	S.E.	C.R.	P	Label
tq5 <--- sumtq	1.000				
tq4 <--- sumtq	1.346	.161	8.361	***	
tq3 <--- sumtq	1.813	.196	9.270	***	
tq2 <--- sumtq	1.785	.186	9.615	***	
tq1 <--- sumtq	1.585	.183	8.664	***	

2-The CFA procedure for the talent learning and development variable

Figure 10.3 depicts the talent learning and development measurement model. It provides the loading factor on talent learning and development of Four items. The fourth item (Talented employees are participating in their promotion system) had the highest loading with 0.90 and the first item (My organisation determines training needs accurately) had the lowest item

loading with .65. The loading factor for the second item was 0.85, and 0.76 for the third item. Thus, the loading factor for talent learning and development items ranged from 0.65-0.90.

As was indicated by the goodness of fit results (Chi-square=11.870, degree of freedom=2, Chi-square/df= 5.98, GFI: 0.984, TLI 0.952, IFI: 0.984, CFI= .991 and RMSEA: 0.128), Nearly all these results fitted with the goodness criteria of the measurement model. However, Chi-square/df and RMSEA did not fit with the goodness criteria. In addition, as shown in Table 10.4, all talent learning and development items were significant. This was indicated by the P value being less than 0.01. The estimate for tld1 was 1.00, so a solution could be established..

Table 10.3 final measurment model for talent learning and develpment
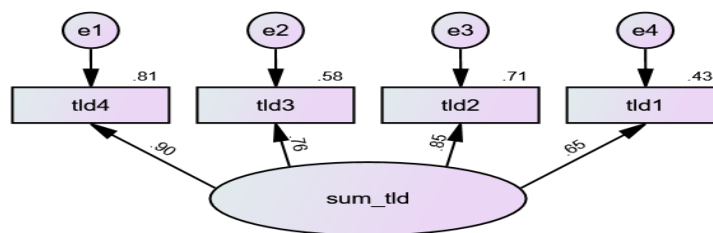
The goodness of fit results for talent learning and development

Chi-square= 11.87	Degree of freedom=2	p-value=.003
GFI= .981	AGFI= .907	IFI= .984
TLI= .952	CFI= .991	RMSEA= .128
RMR= .018	Chi-square/df= 5.9	

Table 10.3: regression weight for talent learning and development

			Estimate	S.E.	C.R.	P	Label
tld4	<---	sum_tld	1.000				
tld3	<---	sum_tld	.764	.049	15.531	***	
tld2	<---	sum_tld	.867	.048	17.916	***	
tld1	<---	sum_tld	.532	.042	12.552	***	

3-The CFA procedure for talent retention variable

Figure 10.4 presents the talent retention measurement model. It provided the loading factor on talent retention Four items. The fourth item (My organisation offers training opportunities to enhance career development in order to retain talented employees) had the highest loading with 0.78 and the first item (My organisation ensures that the organisation image remains good all the time in order to retain our talented employees) had the lowest item loading with 0.65. The loading factor for the third items was 0.69, and 0.68 for the tr5. Thus, the loading factor for talent acquisition items ranged from 0.65-0.78.

As was indicated in the goodness of fit results (Chi-square= 0.745, degree of freedom=2, Chi-square/df= 0.375, GFI: 0.999, TLI 1.011, IFI: 1.004, CFI= 1.000, RMR .006 and RMSEA: 0.00). All these results fitted with the goodness criteria of the measurement model. In addition, as is shown in Table 10.5, all the talent retention items were significant. This was indicated by a P value of less than .01. The estimate for tr5 was 1.00, so a solution could be established.

Figure 10.4: Measurement model for talent retention
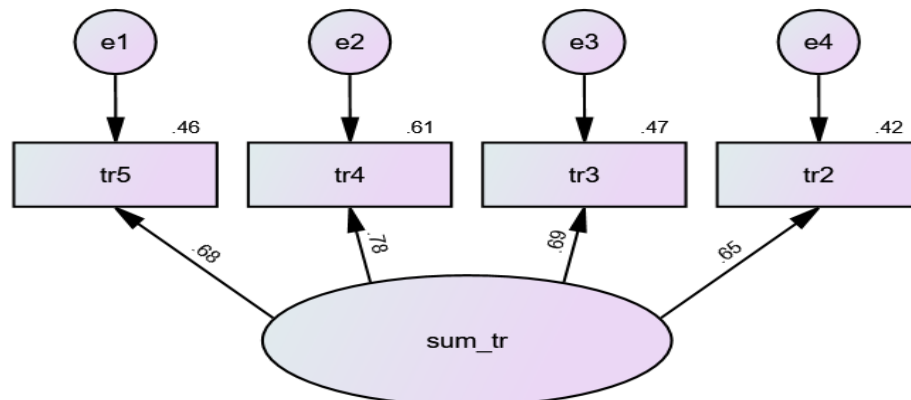
The goodness of fit results

Chi-square= .745   Degree of freedom= 2   Probability level=.689

GFI= .999   AGFI= .994   IFI= 1.004

TLI= 1.011   CFI= 1.000   RMSEA= .0000

RMR= .006   Chi-square/df= 0.375

Table 10.4: Regression weight for talent retention

	Estimate	S.E.	C.R.	P	Label
tr5 <--- sum_tr	1.000				
tr4 <--- sum_tr	.941	.092	10.182	***	
tr3 <--- sum_tr	.890	.093	9.534	***	
tr2 <--- sum_tr	.812	.089	9.162	***	

Figure 10.5: Measurement model for task performance
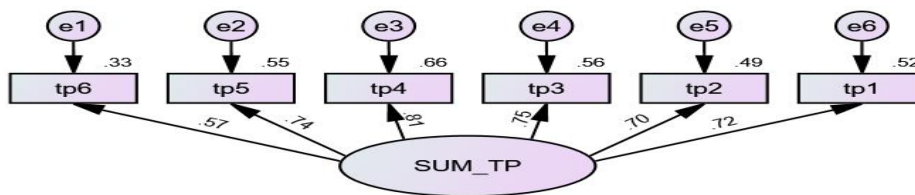
Goodness of fit results:

Chi square = 12.818   degree of freedom = 6   Chi-square/df = 2.13

GFI = .987   IFI = 0.991   TLI = 0.977

CFI = 0.991   RMSEA = 0.062   Probability level = 0.046

Table 10.5: Regression weights for task performance variable

		Estimate	S.E.	C.R.	P	Label
tp6 <---	SUM_TP	1.000				
tp5 <---	SUM_TP	.931	.100	9.275	***	
tp4 <---	SUM_TP	1.053	.105	9.989	***	
tp3 <---	SUM_TP	1.207	.127	9.499	***	
tp2 <---	SUM_TP	1.018	.104	9.798	***	
tp1 <---	SUM_TP	1.208	.123	9.861	***	

4-The CFA procedure for the task performance variable

Figure 10.4 presents the task performance measurement model. It provides the loading factor for task performance six items. The fourth item (I am able to carry out my work productively) had the highest loading with 0.81, and the sixth item (I am capable of handling my tasks without much supervision) was the lowest item loading with 0.57. The loading factor for the first item was .0.72, 0.70 for the second item, 0.75 for the third item and 0.74 for the fifth item. Thus, the loading factors for the talent acquisition items ranged from 0.57 to 0.81.

As was shown from the goodness of fit results, Chi-square = 12.818, degree of freedom = 6, Chi-square/df = 2.13, GFI: 0.987, TLI: 0.977, IFI: 0.991, CFI = 0.991, RMR: 0.01 and RMSEA: 0.062. All these results fitted with the goodness criteria of the measurement model except RMR. In addition, as is presented in Table 10.6, all the task performance items were significant. This was indicated by the P value being less than .01. The estimate for tp6 was 1.00, so a solution could be established.

Figure 10.6: Measurement model for task performance
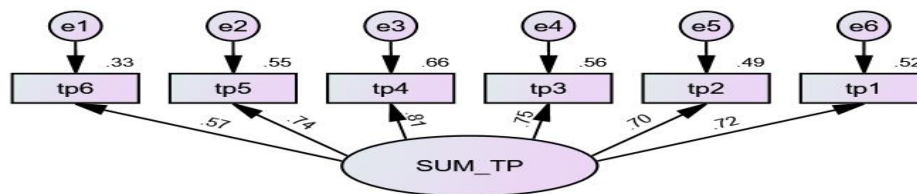
Goodness of fit results:

Chi square = 12.818   degree of freedom = 6   Chi-square/df = 2.13

GFI = .987   IFI = 0.991   TLI = 0.977

CFI = 0.991   RMSEA = 0.062   Probability level = 0.046

Table 10.6: Regression weights for task performance variable

		Estimate	S.E.	C.R.	P	Label
tp6 <---	SUM_TP	1.000				
tp5 <---	SUM_TP	.931	.100	9.275	***	
tp4 <---	SUM_TP	1.053	.105	9.989	***	
tp3 <---	SUM_TP	1.207	.127	9.499	***	
tp2 <---	SUM_TP	1.018	.104	9.798	***	

	Estimate	S.E.	C.R.	P	Label
tp1 <--- SUM_TP	1.208	.123	9.861	***	

5- The CFA procedure for the contextual performance variable

Figure 10.7 depicts the final contextual performance measurement model. The contextual performance measurement model procedures were repeated many times to fit with the goodness criteria. The contextual performance final measurement model provides the loading factor for contextual performance for four items. The fourth item (I maintain good coordination among fellow workers) was the highest loading with 0.83. and the second item (I start new tasks myself when my old ones were finished) was the lowest item loading with 0.28. The loading factor for the third item was .0.37, and 0.80 for the first item. Thus, the loading factor for contextual performance items ranged from 0.28 to 0.83.

As was presented from the goodness of fit results, Chi-square = 0.472, degree of freedom = 1, Chi-square/df = 0.472, GFI: 0.999, TLI: 1.012, IFI: 1.002, CFI = 1.000, RMR: 0.002 and RMSEA: 0.000. All these results fitted with the goodness criteria of the measurement model. This final result of goodness of fit was achieved by improving the initial measurement model by drawing a double headed arrow between e3 and e4, as was indicated from the modification results index. In addition, as presented in Table 10.7, all contextual performance items are significant. This was indicated by the P value being less than .01. The estimate for cp5 was 1.00, so a solution could be established.

Figure 10.7: Measurement model for contextual performance
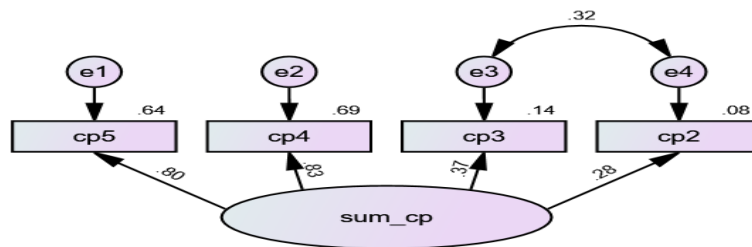
Goodness of fit results:

Chi-square = 0.472   degree of freedom = 1   Chi-square/df = 0.472

GFI = 0.999   RMR = 0.002   CFI = 1.000

TLI = 1.012   IFI = 1.002   RMSEA = 0.000

Table 10.7: Regression weights for contextual performance

	Estimate	S.E.	C.R.	P	Label
cp5 <--- F1	1.000				
cp4 <--- F1	1.050	.153	6.876	***	
cp3 <--- F1	.650	.116	5.595	***	

	Estimate	S.E.	C.R.	P	Label
cp2 <--- F1	.352	.083	4.241	***	

6-The CFA procedure for the counterproductive performance variable

Figure 10.7 presents the final counterproductive performance measurement model. The counterproductive performance measurement model procedures were repeated many times to fit with the goodness criteria. The counterproductive performance final measurement model provided the loading factor for counterproductive performance Five items. The second item, (I give an impression that problems are greater than they are at work) was the highest loading item with 0.73 and ccp5 item (I behave rudely towards my colleagues at work) was the lowest item loading with 0.29. The loading factor for the first item was .0.68, 0.67 for the ccp3 and 0.64 for the fourth item. Thus, the loading factor for the counterproductive performance items ranged from 0.29 to 0.73.

As was presented from the goodness of fit results, Chi-square = 18.9, degree of freedom = 5, Chi-square/df = 3.78, GFI: 0.975, TLI: 0.916, IFI: 0.958, CFI = 0.958, RMR: 0.025 and RMSEA: 0.096. All these results fitted with the goodness criteria of the measurement model. In addition, as presented in Table 10.8, all the counterproductive performance items were significant. This was indicated by the P value being less than .01. The estimate for ccp5 was 1.00, so a solution could be established.

Figure 10.8: Measurement model for counterproductive performance
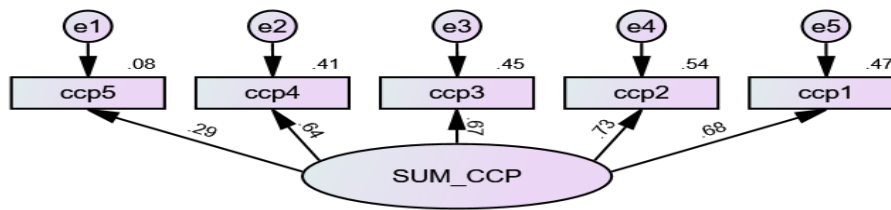
Goodness of fit results:

Chi-square = 18.9   degree of freedom = 5   Chi-square/df = 3.78

GFI = 0.975   RMR = .025   IFI = 0.958

CFI = 0.958   RMSEA = .096   TLI = 0.916

Table 10.8: Regression weights for counterproductive performance

		Estimate	S.E.	C.R.	P	Label
ccp5 <---	F1	1.000				
ccp4 <---	F1	3.468	.801	4.331	***	
ccp3 <---	F1	3.118	.714	4.366	***	
ccp2 <---	F1	3.704	.838	4.422	***	
ccp1 <---	F1	4.153	.948	4.383	***	

10.4.2 Stage Two: CFA for exogenous and endogenous variables

In this second stage, CFA was conducted in relation to all exogenous and endogenous variables in this study. All results of the single variable measurement model for all exogenous and endogenous variables were considered in drawing the measurement model using the Amos software. These considerations included firstly deleting observed variables with loading factors less than 0.60, and secondly creating headed arrows between unobserved variables based on the modification of the index results. Examples of the first consideration included tq5 with a loading factor of 0.55 (the fifth item in talent acquisition), tp5 with a loading factor of 0.57 (the fifth item in task performance). However, cp3 was not deleted in spite of its loading factor being less than 0.60 because each variable required at least three factors (items) to measure it. Thus, the total number of observed variables (items) was 26 items. The second consideration was to make a covariance through a headed arrow between observed variable where the modification of index was greater than 10. An example of these covariance connections was between the unobserved variables cp2 and cp3. As was indicated by Hair et al. (2012), the priority was to delete the items with loading factors less than .060 if the modification of index were greater than 10. Figure 10.8 depicts the final measurement model for all exogenous and endogenous variables in this study. This final measurement model was reached after considering all the results from the single variable measurement model, and was based on the results of the initial measurement model for exogenous and endogenous variables in terms of the modification of index results.

As was obtained from the goodness of fit results, Chi-square 610.519, degree of freedom = 267, Chi-square/df = 2.28, IFI = 0.912, TLI = 0.891, CFI = 0.911, P<0.001 and RMSEA = 0.065. These results indicated that the measurement model for all exogenous and endogenous variables was fit according to the criteria of goodness of fit. This conclusion was based on the recommendation of Hair et al. (2010) and Holmes-Smith et al. (2005) about selecting at least four fitness indices from the absolute fit, incremental fit and parsimonious fit categories. Therefore, in terms of this study, all the fitness categories of the measurement model were summarised in Table 10.10. Looking at this table, this study adopted Chi-square/df and p-value from the parsimonious fit category, RMSEA from the absolute fit category and IFI, TLI and CFI from the incremental fit category, and all these indices results were satisfactory in relation to the goodness of fit criteria.

Table 10.9: Evaluation of goodness of fit for the measurement model of exogenous and endogenous variables

Fitness category	Fit indices	Fit statistics	Evaluation
Parsimonious fit	Chi-square/df	2.28	satisfactory
	p-value	0.000	satisfactory
Absolute fit	RMSEA	0.065	satisfactory
Incremental fit	IFI	0.912	satisfactory
	TLI	0.891	satisfactory
	CFI	0.911	satisfactory

As was shown in Table 10.11, all regression weights for all items of the exogenous and endogenous variables in the final measurement model were significant. This was indicated by the p-value <0.01. Furthermore, for six of these items – namely, tq4, tld4, tr5, tp5, cp5 and ccp4 – their regression weight was 1.00. Thus, a solution could be established.

Figure 10.9: The measurement model for all exogenous and endogenous variables
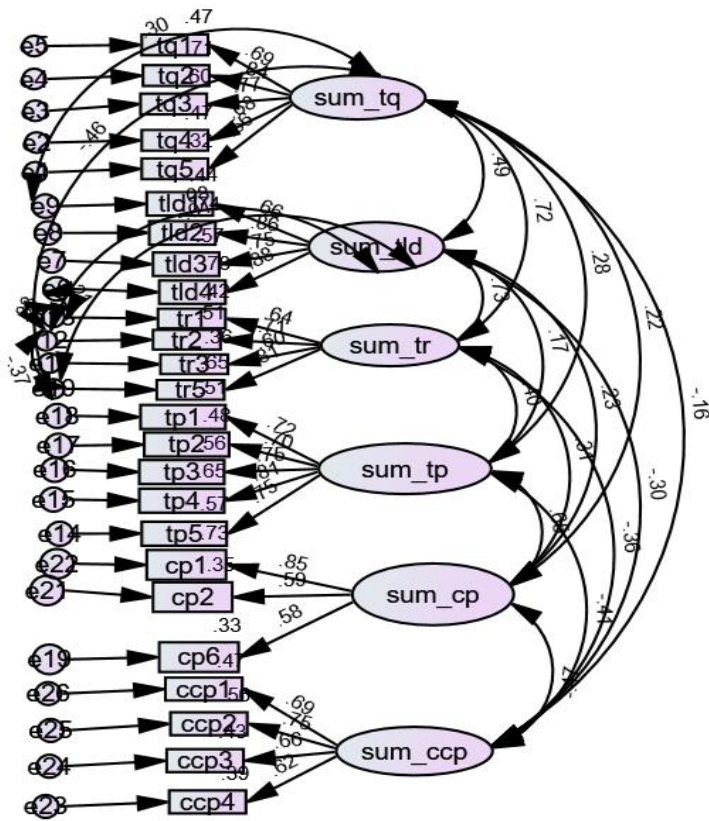
Goodness of fit results for the measurement model:

Chi-square = 610.519   degree of freedom = 267   Chi-square/df = 2.285

IFI = 0.912   TLI = 0.891   CFI = 0.911

RMSEA = 0.065   probability level = .000

Table 10.10: Regression weights for the measurement model for all variables

			Estimate	S.E.	C.R.	P	Label
tq5	<---	sum_tq	1.000				
tq4	<---	sum_tq	1.377	.156	8.814	***	
tq3	<---	sum_tq	1.742	.184	9.468	***	
tq2	<---	sum_tq	1.687	.171	9.858	***	
tq1	<---	sum_tq	1.540	.174	8.852	***	
tld4	<---	sum_tld	1.000				
tld3	<---	sum_tld	.774	.050	15.452	***	
tld2	<---	sum_tld	.900	.048	18.726	***	
tld1	<---	sum_tld	.552	.043	12.857	***	
tr5	<---	sum_tr	1.000				
tr3	<---	sum_tr	.656	.075	8.694	***	
tr2	<---	sum_tr	.743	.083	8.978	***	
tr1	<---	sum_tr	.719	.081	8.859	***	
tp5	<---	sum_tp	1.000				
tp4	<---	sum_tp	1.123	.082	13.664	***	
tp3	<---	sum_tp	1.146	.091	12.616	***	
tp2	<---	sum_tp	.966	.082	11.719	***	
tp1	<---	sum_tp	1.187	.098	12.073	***	
cp6	<---	sum_cp	1.000				
cp2	<---	sum_cp	.943	.122	7.725	***	
cp1	<---	sum_cp	1.370	.157	8.751	***	
ccp4	<---	sum_ccp	1.000				
ccp3	<---	sum_ccp	.904	.104	8.665	***	
ccp2	<---	sum_ccp	1.113	.119	9.319	***	
ccp1	<---	sum_ccp	1.228	.138	8.915	***	

10.4.3 Stage Three: Testing the validity and reliability of the measurement model

Prior to test the research hypothesis through structural equation modelling, a further test has to be conducted to ensure the validity and reliability of the measurement model of the exogenous and endogenous variables (Hair et al.2010; Thakkar 2020). These tests include average variance extracted (AVE), composite reliability (CR) and squared multiple correlation (SMC), which are deemed as being widely accepted for measuring the validity and reliability for the measurement model (Hair et al. 2010; Nunnally & Bernstein 1994; Thakkar 2020). AVE is used to check the convergent validity of the variable, while composite reliability assesses the reliability of the variables (Fornell & Larcker 1981; Hair et al. 2010). In addition, SMC is used to assesses the items' reliability. In this study, AVE was calculated manually based on the following formula:

$$AVE = \frac{\sum_{i=1}^{n} Li^2}{n}$$

(Hair et al. 2010, p. 709).

Li: Factor loadings; i: number of items

CR was calculated using the following website that provides a composite reliability calculator: http://www.thestatisticalmind.com/calculators/comprel/composite_reliability.htm

SMC was calculated through the Amos software.

The criteria adopted in this study for acceptable levels of AVE, CR and SMC were as follows: acceptable value for AVE more than 0.50 (Fornell & Larcker 1981; Hair et al. 2010); CR acceptable value is greater than 0.70 (Fornell & Larcker 1981; Thakkar 2020); finally, the acceptable value for SMC is greater than 0.30 (Holmes-Smith 2011). Table 10.11 provides all the value of AVE, CR and SMC. All the results for AVE, CR and SMC were outlined in table 10.11.

Table 10.11: The results of AVE, CR and SMC

Variable	AVE ≥ 0.50	Comment	CR≥ 0.70	Comment	SMC≥0.30	Comment
Talent acquisition	0.57	valid	0.84	reliable	TQ1=0.48 TQ2=0.71 TQ3=0.60 TQ4=0.47 TQ5=0.32	Accepted for all talent acquisition variables
Talent learning and development	0.63	valid	0.91	reliable	TLD1=0.45 TLD2=0.74 TLD3=0.58 TLD4=0.78	Accepted for all talent learning and development variables
Talent retention	0.50	valid	0.80	reliable	TR1=0.415 TR2=0.51 TR3=0.37 TR5=0.64	Accepted for all talent retention variables
Task performance	0.56	valid	0.86	reliable	TP1=0.52 TP2=0.49 TP3=0.56 TP4=0.64 TP5=0.58	Accepted for all task performance variables d
Contextual performance	0.57	valid	0.79	reliable	CP1=0.73 CP2=0.35 CP6=0.34	Accepted for all contextual performance variables
Counterproductive performance	0.50	valid	0.77	reliable	CCP1=0.48 CCP2=0.57 CCP3=0.44 CCP4=0.40	Accepted for all counterproductive performance variables

As can be seen from Table 10.10, there are 25 items, with six of them assigned weights as a reference (tq4, tld4, tr5, tp5, cp6 and ccp4), so a solution can be established. This was due to these items' estimate values equal to 1.000. All other items were significant because the p value was <0.001. This indicated that there were significant positive effects for each item and variable. As was presented in Table 10.11, the results of AVE, CR and SMC confirmed the validity and reliability of the measurement model. This conclusion referred to all AVE values for endogenous and exogenous variables greater than 0.50 and to their ranging from 0.50 to 0.63. In addition, the CR value for all variables included in the measurement model greater than 0.70 ranged from 0.77 to 0.91, which was greater than the threshold value of 0.70. The value of SMC for all items was greater than 0.30, and it ranged from 0.34 to 0.78, which was greater than 0.30. This meant that all SMC values were statistically satisfactory.

Henseler et al. (2015) argued that the Fornell-Larcker criterion that is used to assess the discriminant validity in SEM exhibits poor performance. Thus, to overcome this issue, Henseler et al. (2015) suggested a new criterion: the heterotrait-monotrait (HTMT) ratio. The HTMT ratio is the calculation of the heterotrait-monotrait correlation divided by the average of monotrait-heteromethod correlation (Yusif 2017). According to HTMT, a ratio less than .90 is considered satisfactory for discriminant validity. Table 10.12 presents the results of the HTMT ratios for all variables included in the measurement model. As can be seen from the table, all the HTMT ratios were less than 0.90, and they range from 0.15 to 0.67. Therefore, this was further evidence that the measurement model achieved discriminant validity.

Table 10.12: Discriminant validity of the measurement model

Variables	TQ	TLD	TR	TP	CP	CCP
TQ	1					
TLD	0.46	1				
TR	0.51	0.67	1			
TP	0.29	0.15	0.32	1		
CP	0.15	0.28	0.21	0.42	1	
CCP	0.15	0.25	0.22	0.34	0.39	1

10.5 Structural model analysis

CFA was conducted to ensure the quality of the measurement model. Then the structural model was analysed through SEM to test the study's hypotheses and to confirm the results of simple regression analysis. This analysis aimed to confirm the relationship between talent management variables and employees' performance variables in the Jordanian telecommunication organisations. Nine research hypotheses were tested in SEM to investigate the relationships between the study variables. Table 10.13 summarises all the results of SEM outputs that contained the values of critical ration (CR), estimate (β) and standard error (SE).

Table 10.13: The results of research hypotheses based on the structural model

Hypothesis	The path	Regression weights result				Results
		Estimate (β)	S.E	C.R	P-value	
H1	Talent acquisition ---->task performance	0.147	0.061	2.4	0.016	Reject null-hypothesis
H2	Talent acquisition **---->**contextual performance	0.223	0.06	3.6	***	Reject null-hypothesis
H3	Talent acquisition--->counterproductive performance	-0.275	0.07	3.5	***	Reject null-hypothesis
H4	Talent learning and development-----> task performance	0.77	0.10	7.1	***	Reject null-hypothesis
H5	Talent learning and development ----> contextual performance	0.71	0.09	7.3	***	Reject null-hypothesis
H6	Talent learning and development**---->** counterproductive performance	-0.70	0.11	5.6	0.019	Reject null-hypothesis
H7	Talent retention**---->**task performance	0.549	0.10	5.3	***	Reject null-hypothesis
H8	Talent retention ---->contextual performance	0.425	0.09	4.5	***	Reject null-hypothesis
H9	Talent retention ---->counterproductive performance	-0.267	0.12	2.3	***	Reject null-hypothesis

The first null hypothesis was as follows: there is no significant positive influence of talent acquisition on task performance in the Jordanian telecommunication organisations. As can be seen in Table 10.13, the first null hypothesis was rejected. This was demonstrated through the p-value being less than 0.05 and the CR value being greater than 1.96. Thus, the impact of talent acquisition on task performance was significant owing to the p-value = 0.016. The estimate (β) value was 0.147, which meant that an increase of one unit of talent acquisition would lead to an increase of 0.147 of task performance. Therefore, these results confirmed the positive influence of talent acquisition on task performance in the Jordanian telecommunication organisation, and the null hypothesis was rejected.

The second null hypothesis was as follows: there is no significant positive influence of talent acquisition on contextual performance in the Jordanian telecommunication organisations. As can be seen in Table 10.13, the second null hypothesis was rejected. This was demonstrated through the p-value being less than 0.05 and the CR value being greater than 1.96. Thus, the impact of talent acquisition on contextual performance was significant owing to the p-value < 0.001. The estimate (β) value was 0.22, which meant that an increase of one unit of talent acquisition would lead to an increase of 0.22 of contextual performance. Therefore, these results confirmed the positive influence of talent acquisition on contextual performance in the Jordanian telecommunication organisations, and allowed the null hypothesis to be rejected.

The third null hypothesis was as follows: there is no significant negative influence of talent acquisition on counterproductive performance in the Jordanian telecommunication organisations. As can be seen in Table 10.13, the third null hypothesis was rejected. This was demonstrated through the p-value being less than 0.05 and the CR value being greater than 1.96. Thus, the impact of talent acquisition on counterproductive performance was significant owing to the p-value < 0.001. The estimate (β) value was -0.27, which meant that an increase of one unit of talent acquisition would lead to a decrease of 0.27 of counterproductive performance. Therefore, these results confirmed the negative influence of talent acquisition on counterproductive performance in the Jordanian telecommunication organisations, and allowed the null hypothesis to be rejected.

The fourth null hypothesis was as follows: there is no significant positive influence of talent learning and development on task performance in the Jordanian telecommunication organisations. As can be seen in Table 10.13, the fourth null hypothesis was rejected. This was

demonstrated through the p-value being less than 0.05 and the CR value being greater than 1.96. Thus, the impact of talent learning and development on task performance was significant owing to the p-value < 0.001. The estimate (β) value was 0.77, which meant that an increase of one unit of talent learning and development would lead to an increase of 0.77 of task performance. Therefore, these results confirmed a positive influence of talent learning and development on task performance in the Jordanian telecommunication organisations, and allowed the null hypothesis to be rejected.

The fifth null hypothesis was as follows: there is no significant positive influence of talent learning and development on contextual performance in the Jordanian telecommunication organisations. As can be seen in Table 10.13, the fifth null hypothesis was rejected. This was demonstrated through the p-value being less than 0.05 and the CR value being greater than 1.96. Thus, the impact of talent learning and development on contextual performance was significant owing to the p-value < 0.001. The estimate (β) value was 0.71, which meant that an increase of one unit of talent learning and development would lead to an increase of 0.71 of contextual performance. Therefore, these result confirmed the positive influence of talent learning and development on contextual performance in the Jordanian telecommunication organisations, and allowed the null hypothesis to be rejected.

The sixth null hypothesis was as follows: there is no significant negative influence of talent learning and development on counterproductive performance in the Jordanian telecommunication organisations. As can be seen in Table 10.13, the sixth null hypothesis was rejected. This was demonstrated through the p-value being less than 0.05 and the CR value being greater than 1.96. Thus, the impact of talent learning and development on counterproductive performance was significant owing to the p-value < 0.019. The estimate (β) value was 0.71, which mean that an increase of one unit of talent learning and development would lead to a decrease of 0.71 of counterproductive performance. Therefore, these results confirmed the negative influence of talent learning and development on counterproductive performance in the Jordanian telecommunication organisations, and allowed the null hypothesis to be rejected.

The seventh null hypothesis was as follows: there is no significant positive influence of talent retention on task performance in the Jordanian telecommunication organisations. As can be seen in Table 10.13, the seventh null hypothesis was rejected. This was demonstrated through the p-value being less than 0.05 and the CR value being greater than 1.96. Thus, the impact of

talent retention on task performance was significant due to the p-value < 0.001. The estimate (β) value was 0.549, which meant that an increase of one unit of talent retention would lead to an increase of 0.549 of task performance. Therefore, these results confirmed the positive influence of talent retention on task performance in the Jordanian telecommunication organisations, and allowed the null hypothesis to be rejected.

The eighth null hypothesis was as follows: there is no significant positive influence of talent retention on contextual performance in the Jordanian telecommunication organisations. As can be seen in Table 10.13, the eighth null hypothesis was rejected. This was demonstrated through the p-value being less than 0.05 and the CR value being greater than 1.96. Thus, the impact of talent retention on contextual performance was significant owing to the p-value < 0.001. The estimate (β) value was 0.425, which meant that an increase of one unit of talent retention would lead to an increase of 0.425 of contextual performance. Therefore, these result confirmed the positive influence of talent retention on contextual performance in the Jordanian telecommunication organisations, and allowed the null hypothesis to be rejected.

The ninth and final null hypothesis was as follows: there is no significant negative influence of talent retention on counterproductive performance in the Jordanian telecommunication organisations. As can be seen in Table 10.13, the ninth null hypothesis was rejected. This was demonstrated through the p-value being less than 0.05 and the CR value being greater than 1.96. Thus, the impact of talent retention on counterproductive performance was significant owing to the p-value < 0.001. The estimate (β) value was 0.267, which mean that an increase of one unit of talent retention would lead to a decrease of 0.71 of counterproductive performance. Therefore, these results confirmed the negative influence of talent retention on counterproductive performance in the Jordanian telecommunication organisations, and allowed the null hypothesis to be rejected.

10.6 Chapter summary

This chapter has addressed the quantitative data analysis part B. The first section provided an overview of the chapter. Types of SEM are the main part of the introduction section. SEM is a more powerful alternative to regression analysis and other reasons were the justifications for adopting SEM in this current study project. Measurement model for all talent management variables and employees' performance variables were outlined in section 10.4. Based on

multivariate data analysis in structural model analysis, all the null research hypotheses were rejected. finally, a summary of the chapter is provided in section 10.6.

Chapter 11: The results discussions

11.1 Chapter overview

In Chapter Six, Eight and Nine, the results of qualitative data and quantitative data were outlined. These results related to the first and second research objectives and questions of the current research. This chapter discusses the qualitative and quantitative results of this study. The structure of the discussion chapter is as follows. Section 11.1 provides an overview of the chapter. The next section discusses the qualitative results obtained from semi-structured interviews. The subsequent section, 11.3, discusses the quantitative results of chapter Nine (quantitative result part A) and chapter Ten (quantitative results part B). A summary of chapter 11 is provided in section 11.4. Thus, this chapter has four sections which are depicted in the figure 11.1.
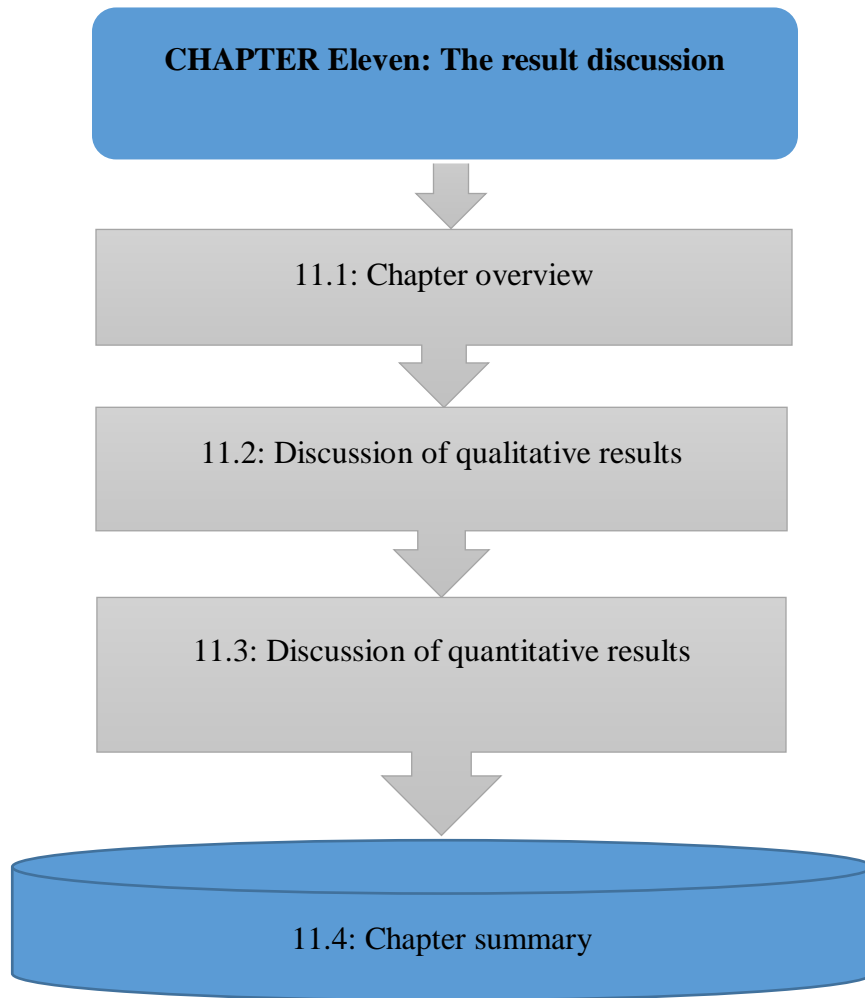
Figure 11.1: A graphical layout of Chapter Eleven
 Source: created by the researcher

11.2 Discussion of the qualitative results

The first research question in this study was: How dose talent management carried out in the Jordanian telecommunication industry?. Similarly, the first objective focused on exploring talent management in the Jordanian telecommunication industry. Thus, semi-structured interviews were conducted in order to address the first question and first objective in this research. These interviews were analysed through thematic analysis to extract the themes that represented the data set of the study. The qualitative results were used to develop a questionnaire to measure the impact of talent management on employees' performance in the quantitative stage of this study.

Seven main themes were extracted from the data set: fit approach, talent management philosophy, acquisition, learning and development, and retention for talent management practices, humanistic/competitive, competitive, appropriate approach, talent management as human resource, and the continuous cycle. The discussion of these themes is structured based on the order of interviews questions.

11.2.1 Discussion of the fit approach theme

The starting point to explore talent management in a specific context is to consider what is the definition of talent in this context?. As was outlined in the qualitative analysis chapter section, 6.5.1, there is no distinctive talent definition that could be generalised to Jordanian telecommunication organisations. Thus, the first theme was extracted from the data set around what the talent definition, was the fit approach. Based on the evidence, organisation A interviewees defined talent based on exclusive, high potential, high performance, and objective view. Similarly, organisation B interviewees defined talent based on an inclusive, acquired and objective view, while organisation C defined talent based on an exclusive, high performance, talent as mastery and objective view. The fit approach theme refers to organisations adopting talent definitions based on their needs rather than adopting universal talent definitions or ones similar to those found in the talent definition literature. Therefore, this theme represents the data set of the first interview question of organisation A, B and C.

This discussion is focused on the fit approach theme of talent definition, rather than the talent definition views provided by the interviewees. The talent management literature exhibits a lack of consensus pertaining to talent definitions (Ansar & Baloch 2018; Collings

& Mellahi 2013; Gallardo-Gallardo & Theunissen 2016, Mcdonnell et al. 2017; Tansley 2011; Thunnissen & Arensbergen 2015). Thus, different views of talent definitions are found in the talent management literature, such as inclusive versus exclusive, input versus output, subjective versus objective, and innate versus acquired (Festing, Schafer & Scullion 2013; Gallardo-Gallardo, Dries & Gonzalez-Cruz 2013; Mensah 2016). Similarly, this lack of agreement was the case in the three organisations where they defined talent based on what they needed rather than accepting a universal definition (Li et al. 2011; Lumme-Tuomala 2019; Mayo 2018; Son et al. 2018, Tansley 2011). The fit approach theme aligned with previous studies, thereby highlighting that the talent definition was specific to the respective organisation, industry and country contexts and it was difficult to come up with a single definition to fit all organisations (Ansar & Baloch 2018; Bjorkman et al. 2013; Gallardo-Gallard, Dries & Gonzales-Cruz 2013; Gelens et al. 2013; Gonzalaez-Cruz, Martinez-Fuentes & Pardo-del-Val 2009; Iles 2013; Li et al. 2018; Lumme-Tuomala 2019; Ross 2013; Wiblen & Mcdonnell 2020; Zhang & Bright 2012). The justification of this alignment could be interpreted based on all these previous studies conducted in emerging economies' contexts, which were similar to the context of this study. In addition, there were similarities in research objectives between this research and these previous researches, which in this case was to investigate talent management in an underexplored area. Thus, the ways in which talent was defined and operationalised inside the organisation was relative to the context of the organisation. In addition, as was shown by different interviewees in the same organisation in the Jordanian telecommunication sector, they did not agree about specific talent definitions. This also aligned with other research (Iles 2013; Tansley 2011; Wiblen & McDonnell 2020), demonstrating that most organisations do not agree about particular talent definitions in the same organisation.

The fit theme's basic assumption was that the organisation adopted a preferred talent definition based on its context, which would be more effective than another definition that did not take into account the context. This could be explained theoretically in light of contingency theory. Contingency theory provides the term of fit, which is considered to be a central part of contingency theory (Van De Ven & Drazin 1985). The term fit in contingency theory is seen in terms of three concepts: selection, interaction and system approach (Van De Ven & Drazin 1985). This study has borrowed the selection concept to

explain the fit approach theme theoretically. For the selection concepts, the organisations selected the design and practices that fitted with their contexts (Ewerlin & Sub 2016; Harney 2016). Similarly, the fit approach theme extracted from the Jordanian telecommunication organisations supported this selection concept where Jordanian telecommunication organisation selected talent definitions based on their characteristics and context.

The new in the fit approach theme is discussed theoretically in the light of contingency theory. Gallardo-Gallardo & Thunnissen (2016) concluded that in their critical review of empirical talent management research, contingency theory was not used in the empirical talent management research. Recently, King and Viaman (2019) have borrowed contingency theory to discuss effective talent management. Thus, the explaining of fit approach theme enhanced this talent management researcher's understanding of contingency theory in terms of how organisations select prefered talent management systems. In addition, the fit approach theme supported the fit approach in talent management rather than the universal approach. Therefore, this theme novelty relied on supporting the fit approach and how to explain it theoretically in light of contingency theory.

11.2.2 Discussion of talent management philosophy theme
The second question in the interviews was: What is the definition of talent management? The importance of this question is that the definition of talent management encompasses in-depth aims and processes of talent management (Bolander, Werr & Asplund 2017). Thus, the definition of talent management provides an overview of talent management practices, strategic levels of talent management, and how talent management is applied in the organisation. Accordingly, the answers to this question helped to address the first research question.

All interviewees' definitions of talent management were categorised into three categories: practice perspective, people perspective and pool perspective. The talent management philosophy theme represented all these categories because all these definitions provided an overview of the talent management philosophy in the Jordanian telecommunication organisations. However, it is worth mentioning that the strategic or position perspective

did not capture in the interviewees' definitions of talent management. This perspective relied on positions and the organisational level rather than on the human resources management level or people orientation (Jones et al. 2012; McDonnell, Collings & Burgess 2012).

Similar to the talent definition, there is no consensus about the definition of talent management. Generally, such a definition is grouped into different perspectives (Lewis & Hekman 2006; Nilsson & Ellstorm 2012; Sparrow 2014). In the same vein, this appeared to occur based on the interview data set related to talent management definition, which is aligned with previous studies (e.g. Cooke, Saini & Wang 2014; Iles, Chuai & Preeece 2010) that have explored talent management and considered talent management definitions as an important area in order to explore talent management in these contexts. Thus, this matched with these studies' results about talent management definitions and was based on these studies conducted in emerging economies similar to Jordan and in underexplored areas of talent management. The interviewees did not highlight the positions or the strategic approaches in their talent management definitions. This could be discussed in light of talent management in Jordan still being in its infancy and/or Middle Eastern organisations not adopting strategic talent management. This evidence by organisations was ignoring the strategic talent management philosophy, as shown by the talent management definition data set results. This is aligned with previous research that has explored talent management in Middle Eastern countries (e.g., Biygautane & Yahya 2014; Hafez, Neel & Elsaid 2017; Hejase et al. 2016; Hejase et al. 2012, Hejase et al. 2012; Raheem 2016; Sidani & Al-Ariss 2014).

The new evidence from the talent management definition theme in this study has accentuated that talent management is still seen largely through the eyes of human resource management, and generally does not operate on a strategic organisational level. This evidence is based on the idea that talent management is still a function of human resource management only, whereas it is proposed to be built through incorporating all department directors in formulating a more holistic talent management strategy. Similarly, this was also the case when the interviewees responded to interview questions of whether they saw talent management as part of the human resources department. Therefore, talent

management is implemented midway between management fashion and clearly identified strategic needs, and it requires further investigation in order to advance effective talent management in Middle Eastern countries, including Jordan.

11.2.3 Discussion of talent management practice theme

The third question in the interviews was: What are the talent management practices in your organisation?. This question data set aimed to address the first sub-question of what are the talent management practices in the Jordanian telecommunication organisations are. Thus, analysing the interviewees' responses to this question helped the researcher to address the first question and first objective of this study.

The talent management practices in the context of this study were talent acquisition, talent learning and development, and talent retention. Generally, all interviewees had consensus on these as being the dominant talent management practices in their organisations. These dominant practices were similar to the talent management practices worldwide (Ewerlin & Sub 2016; Gallardo-Gallardo & Theunissen, 2016). However, Gallardo–Gallardo and Thunnissen (2016), in their critical review article, found that the dominant practice in Middle Eastern countries was talent identification. This mismatch between this study's findings and Gallardo-Gallardo and Thunnissen's (2016) study, related to talent management practices, could signify a significant step forward in talent management practices theory. This mismatch could also be explained by the time difference between this study and Gallardo-Gallardo and Thunnissen's (2016) critical review. In addition, this study's findings aligned with recent studies in Middle Eastern countries examining talent management practices (Nasser 2019; Obeidat, Yassin & Maasadeh 2018). Therefore, in relation to talent management practice, it could be argued that talent management practice is evolving in the Middle Eastern countries (in Jordan as an example). This evolving is due to talent management practices being conducted at the operational level or in the daily activities associated with human resource management. This justification is based on, and aligned with, interviewees' responses to the second and fifth interview questions by highlighting that talent management in the Jordanian telecommunication industry is still considered to be part of human resource management and is still seen through the eyes of human resource management.

11.2.4 Discussion of appropriate talent management approach theme
The fourth question in the interview question was: What are the challenges facing your organisation in applying talent management? Why?. This interview question helped in exploring talent management in Jordanian telecommunication organisations. Thus, the data set of this question helped the researcher to answer the first research question.

The interviewees highlighted that their organisation did not face any challenges in applying talent management. All the reasons were provided by interviewees incur on they applied the decentralisation management style in building and implementing talent management. Thus, the appropriate approach theme represents this data set because of Jordanian telecommunication organisations building and implementing talent management that appropriate with their organisational context.

There are two competing approaches in implementing talent management in the talent management literature: the universal approach and the appropriate approach. However, recently most talent management scholars have stated the importance of the fit approach, which is strengthened by the results of empirical studies that have concluded that talent management is being contextualised based on industry, culture and organisational size (Gallardo-Gallardo et al. 2015; Gallardo-Gallardo, Thunnissen & Scullion 2020; Thunnissen, Boselie & Fruytier 2013). The appropriate approach theme extracted from this study regarding talent management challenges is aligned with significant research that is attentive to local characteristics in implementing talent management (Latukha 2015; Schober 2010; Skuza, Scullion & McDonnell 2013; Sidani & Al-Ariss 2014). Thus, this study supports the notion that talent management has to adapt in relation to the context of the organisation.

Institutional theory (DiMaggio & Powell 1991) can help in understanding how organisations adopt and implement talent management and in some cases, why organisations fail to establish and implement talent management. Institutional theory highlights the term "isomorphism", which means that multinational enterprise branches become similar to other organisations in the same context (Gallardo-Gallardo et al. 2015). Thus, organisations have to respond to three types of isomorphism: coercive, cognitive-

cultural and normative isomorphism. In light of this study, institutional theory explained theoretically why Jordanian telecommunication organisations did not face challenges in building and implementing talent management. From the coercive isomorphism perspective, employees who build and implement talent management have a background in government rules and legislation. Therefore, they will not break these rules and legislation. This similarly applies to normative and cognitive-cultural elements, as the employees responsible for talent management are from the Jordanian context. Accordingly, they were considered normative and cognitive cultural in relation to their talent management program. Thus, institutional theory explained theoretically why Jordanian telecommunication organisations did not face any challenges in applying talent management.

All the interviewees in this study demonstrated a consensus view that their organisations did not face any challenges in implementing talent management. This could refer to a decentralised management style having been adopted in creating talent management (as the interviewees said), and the balance between local Jordanian context characteristics and the global strategy of the mother company. This balance was based on the integrative relationship between a multinational enterprise (MNE) and their Jordanian telecommunication branches. The MNE shared its knowledge and experience about building and implementation talent management while the Jordanian telecommunication organisation shared its knowledge about the specificity of the Jordanian context. The aligning talent management code extracted from the current study data set emphasised this integrative relationship. The effective translation of a multinational enterprise strategy to its Jordanian telecommunication branches is aligned with Skuza, Scullion and McDonnell's (2013) conclusion that multinational enterprise branches were facing fewer challenges in implementing talent management than locally owned organisations. Overcoming the challenges in implementing talent management will lead to the successful implementation of a talent management strategy (Schuler, Jackson & Tarique 2011; Sidani & Al-Ariss 2014).

Overall, the new understanding gleaned from this study is that this theme provides a theoretical and empirical contribution to the effective implementation of talent

management. In addition, it supports the fit approach in talent management rather than the universal approach.

11.2.5 Discussion of humanistic/competitive and humanistic theme

The second sub-question of the main first question in this study was how talent management practices were applied in the Jordanian telecommunication industry. Thus, in order to fulfil this research question, the researcher asked the interviewees what the procedures of talent management adopted in their organisation were. Two themes were extracted from the procedures of talent management practices: the humanistic/competitive approach, and the humanistic approach. This typology was built on the seminal work of Bolander, Werr and Asplund (2017) with minor adjustments. The findings of Bolander, Werr and Asplund's (2017) research were provided a typology of talent management practices that functioned in the organisations. These typologies of talent management practices were based on the empirical exploration of talent management in organisations. In addition, this typology was based on a data set of talent definition view, talent management definition and procedure in each organisation's talent management practices.

Talent management practices are the most commonly discussed topic in empirical research in the talent management literature (Gallardo-Gallardo & Thunnissen 2016). However, how these practices have been implemented in the respective organisations has not received major attention in that literature (Bolander, Werr & Asplund 2017). The humanistic and humanistic/competitive theme aligned with the results of Bolander, Werr and Asplund's (2017) study. However, the merging of the humanistic and competitive theme into one theme for organisation A and C was done because the organisation A and C data sets had some similarities in relation to these two typologies of talent management practices provided by Bolander, Werr and Asplund (2017). This could be because these organisations had adopted a hybrid approach to talent management, which was reflected in their talent management practices. In addition, in practice, there was not a distinct view of talent management; for example, only one exclusive or only one inclusive. Thus, the organisation adopted preferred talent management practices based on what they found, thus fulfilling its objectives and aligning with its context. The learning and development categories of the humanistic and humanistic/competitive theme in this study were program-

based and experience-based, which aligned with Garavan et al.'s (2012) categories of talent learning and development. Talent retention procedures in the Jordanian telecommunication industry, in terms of tangible and intangible elements, were aligned with a range of previous studies (Hadi & Ahmed 2018; Ibrahim, Hashim & Rahman 2018; Lockwood 2007; Matongolo, Kasekende & Mafabi 2018; Stahel et al. 2007; Thunnissen, Boselie & Fruytier 2013).

As far as the author is aware, no previous study has examined the procedures of talent management in Middle Eastern countries, and in particular not in Jordan. Thus, the results of this study about the procedures of talent management practices provide an empirical contribution as they expand the understanding of how talent management practices are applied in Jordanian telecommunication organisations. This kind of exploration is important in that it presents well-grounded results to advance talent management research in underexplored areas such as Middle Eastern countries. Accordingly, it helps to move the talent management field from a phenomenon that relies on assumptions and hypotheses to theoretical talent management that is based on what talent management is carried out throughout the world of organisations.

11.2.6 Discussion of talent management being similar to the human resource theme
The fifth question in the interview was: Did you see talent management as part of human resource management? Why?. This question aimed to investigate the talent management perspectives in Jordanian telecommunication organisations. This investigation helped the researcher to address the first research question. Interestingly, all interviewees saw talent management as typically related to human resource management. Thus, talent management was seen as merely an add-on to human resource management. In addition, interviewees showed consensus on human resource employees being able to deal with talent management and talent management practices, which they saw as similar to human resource management practices.

The talent management being similar to human resource management theme was similar to previous studies that have investigated talent management in Middle-Eastern countries (e.g. Gallardo-Gallardo & Thunnissen 2016; Raheem 2016, Sidani & Al-Arisi 2014). These similarities were based on these studies concluding that talent management is still lagging

behind and in its infancy in Middle-Eastern countries. Thus, talent management was seen as similar to human resource management. Within a wider scope, when comparing this theme with previous studies, talent management in emerging economies has been explored. The talent management similar to human resource management theme is aligned with Illes' (2010) study. In addition, this theme was correlated with a data set around talent management definitions in this study. This correlation was based on a talent management definition data set in which the interviewees did not highlight the strategic definition of talent management, which was still seen through the lens of human resource management. Therefore, talent management in Jordanian telecommunication organisations does not have many differences from human resource management.

The talent management as similar to human resource management theme provided an understanding of how talent management was seen in the Jordanian telecommunication organisations. Thus, this theme aligned with the first perspective of talent management, as outlined in the literature review chapter. This perspective relied on considering talent management as largely identical to human resource management (Cooke 2014; Iles 2010; Lewis & Hekman 2006). Therefore, the new insight related to this theme points to the status of talent management in Jordanian telecommunication organisations.

11.2.7 Discussion of continuous cycle theme

The final question in the interview was: What is the role of human resource management staff and other directors in building and implementing talent management?. This question aimed to shed light on employees responsible for talent management, and by doing so, capturing if talent management was an organisation's responsibility or the human resource departments' only. This helped the researcher to address the first research question in the current study. The continuous cycle theme was extracted from the data set. This theme represented the collaboration between human resource departments and other departments' directors in building talent management. However, while all interviewees highlighted this collaboration at the beginning of building talent management, it appeared to decline as time went on.

This theme was aligned with previous studies that have investigated talent management in underexplored locations (Iles, Chuai & Preece 2010; Oosthuizen & Nienaber 2010).

Similarly, this theme fitted with previous studies that have explored talent management through the view of employees responsible for talent management (e.g, McCraken et al. 2016; Skuza, Scullion & McDonnell 2013; Stahel et al. 2010). Thus, this theme fits with previous studies that have interviewed employees responsible for talent management in organisations that contained both human resources and other departments' directors. Accordingly, this collaboration emphasised the healthy status of building talent management in organisations. However, interviewees from the Jordanian telecommunication organisations noted that this interaction with other departments' directors declined after the initial talent management building. Again, this highlighted the infancy stage of talent management in the context of this study, which was echoed by the talent management philosophy and talent management as being similar to human resource management themes in this study. Therefore, this theme supported previous studies' conclusions about talent management in Middle-Eastern countries (Jordan for example) in terms of it being an underexplored area and still in its infancy (Gallardo-Gallardo & Thunnissen 2016; Rheem 2016).

In conclusion, the themes extracted from the data set of this study do not only contribute to talent management in Jordanian telecommunication organisations. In addition, they will help to enhance the talent management literature in underexplored areas, such as Middle-Eastern countries. Therefore, exploring and highlighting emerging talent management trends and issues from the context of this study will enhance talent management theory. Accordingly, this will help to inform future research in this area and strengthen the theoretical and empirical ground of talent management in Middle-Eastern countries.

11.3 Discussion of quantitative results

This study has developed an initial conceptual model and revised it based on qualitative data analysis. This model aimed to measure the impact of talent management practices (talent acquisition, talent learning and development and talent retention) on employees' performance (task performance, contextual performance, and counterproductive performance). This measurement was based on quantitative data, gathered through questionnaires, in Jordanian telecommunication organisations. Thus, this section discusses

the quantitative results outlined in chapter Nine and chapter Ten. The quantitative results discussion covers the results of descriptive statistics and multivariate analysis, which included composite of Pearson correlation, simple regression, and SEM.

11.3.1 Discussion of descriptive statistics

11.3.1.1. Mean-variance via study participants' characteristics

Tables 9.2 and 9.3 in chapter Nine had shown the results of the ANOVA analysis of demographic variables with talent management practices and employees' performance. The results of ANOVA, as presented in Table 9.2, indicated that there were no significant differences in responses regarding talent management within age, gender, department and experience groups. This means that all age groups, gender groups, department groups, and experience groups were not affect by the respondents' views regarding talent management. Thus, all current study participants, despite their demographic characteristics, understood talent management practices in their organisations. This understanding could be seen as referring to the human resources department in all Jordanian telecommunication organisations, which clarified and demonstrated talent management practices in the organisation in a way that all employees understood it. These results align with previous studies that have indicated that there is no significant relation between demographic characteristics and views on talent management practices (Anjali 2019; Barkhuizen 2014; Harun et al. 2019; Ibrahima & AlOmaria 2020; Kiragu, Kipkebut & Kipchumba 2020). The justification of this alignment may relate to all these previous studies conducted in emerging economies and underexplored areas of talent management.

As presented in Table 9.3, there was a significant relationship between demographic characteristics and employee performance. However, age groups did not have a significant relationship with employees' performance. The lack of significant relationship between age groups and employees' performance could be explained in terms of the researched organisations being services organisations and that there was no requirement for physical work, which differed significantly based on employees' age. In addition, Jordanian telecommunication organisations' employees believed that their products (services) were the results of the merging of multiple employees' performance from different age groups. This non-significant relationship aligns with Hedge and Borman (2012), who argued that

age could not be considered as a predictor or as being decisive in employees' performance. Moreover, organisations and employees will benefit from diversity in the workforce in terms of several employees from different age groups contributing to any organisation's products or services (Hedge & Borman 2011). In terms of work experience, the significant relationship could be explained by the notion that employees with more work experience can deal more effectively with job performance based on the utilisation of their experience in practice, which aligns with previous studies (Rugi & Agih 2008; Ugwu 2017). As for gender, the significant relationship may be seen as related to female employees having further duties in their house, because in Jordanian culture, a wife must handle these responsibilities more than her husband. In addition, a working mother may have maternity leave which affects her career path. This aligns with previous studies' results about the significant relationship between gender and employees' performance (Abdulrahamon 2014; Ugwu 2017). The significant relationship between department and employees' performance could be discussed in terms of all departments that are considered as business units, and they all contribute to the overall organisation's performance, as each department has its specificity in terms of employees' performance. Thus, employees from each department had a different view of their performance and what the priorities were in their performance. For example, the department focused on innovation considered adaptive performance as their top priority. Another example was that a department such as human resources focused on enhancing communication, discipline, and interpersonal behaviour, which then improved the social and psychological environment inside the overall organisation. This significant relationship is aligned with these previous studies (Alawamleh et al. 2018;Yusuf, Eliyana & Sari 2012;)

11.3.1.2 Univariate analysis discussion

The current study tested Six variables: talent acquisition, talent learning and development, talent retention, task performance, contextual performance, and counterproductive performance. This section has discussed these variable in terms of their importance based on the respondents' views of these Six variables. Firstly, talent management variables are discussed and then employees' performance variables.

11.3.1.2.1 Univariate analysis discussion of talent management variables

As presented in Table 9.4 in chapter Nine, talent acquisition was the first talent management practice and the most important, based on the respondents' views. Overall, all talent acquisition items mean was more than Four out of Five, while the fifth item was the highest with 4.48. Talent acquisition received the highest rating, which indicated that the Jordanian telecommunication organisations had the ability to acquire talented employees. In addition, the results of the qualitative part in this study demonstrated that talent acquisition procedures were similar in all Jordanian telecommunication organisations. Thus, it was expected that talent acquisition would be the highest rated practice among talent management practices. With regards to the fifth item, which was the highest rated among the talent acquisition items, it could be discussed in terms of researched organisations relying on internal and external acquisition to maintain the supply of talent from the talent pool. Similarly, this linked with talent management definitions provided by the respondents in this study when they were highlighting the pool perspective in their talent management philosophy. Within a wider scope, this fits with Bidwell's (2011) systematic review of characteristics of internal and external acquisitions. Internal acquisition has some advantages such as low salary, familiarity with organisational culture and interpersonal communication inside the organisation (Bidwell 2011). On the other hand, external acquisition also has some advantages, for example new skills and experiences, and new innovative ideas (Mensah 2015). Thus, to attain these advantages, organisations should establish their talent pools from both external and internal acquisitions. In this way, the organisation can reach an equilibrium between its demand and supply of talented employees (Al-Arisis et al. 2014; Capelli 2008). The importance of talent acquisition as measured through this study's items aligns with previous studies (Dutta 2014; Sahay 2014; Singh & Sharma 2015). Sahay (2014) has highlighting the strategic role of talent acquisition in organisations, while Dutta (2014) and Singh and Sharma (2015) have pointing to new ways of talent acquisition, for example, utilising social media.

The respondents in this study rated talent retention as the second most important talent management practice. This importance was represented by five items: employees'

motivation, social life, training opportunity, organisational image, and organisational goals. These results indicated that Jordanian telecommunication organisations provided talented employees with flexible work hours, activities focused on talented employees' social life, and that they clarified the organisational goals and strategies to talented employees, identified employee career development, and maintained an organisational image as important factors in retaining talented employees. Previous research has demonstrated the current study's talent retention results; for example, Hina et al. (2014) concluded that flexibility in work hours played a vital role in retaining talented employees by keeping them motivated as they worked in the time they preferred. Butler (2020) highlights the importance of training opportunities provided by the organisations in order to enhance talent career development, which plays a vital role in talent retention. In the same vein, Marinakou and Giousmpasoglou (2019) and Lima et al. (2017) have indicated that one talent retention strategy is to enhance talented employees' careers by facilitating a training program for them. Thus, a training program that links with career development was deemed as an effective approach in retaining talented employees (Ott, Tolentino & Michailova 2018).

However, according to the current study's respondents, there are some areas of talent retention that require further attention, for example social activities for talented employees. It is apparent that the Jordanian telecommunication organisations have to invest more in social activities for their talented employees. This limited attention to social activities refers to the idea that Jordanian organisations did not take into account the importance of social activities in talent retention. In addition, it may be that the researched organisations did not consider the generational preferences of social activities and/or that social activities did not build on research about what social activities are preferred by talented employees. This evidence from past research by Festing and Schäfer (2014) and D'Amato and Herzfeldt (2008), which had highlighted the challenges and different preferences of generation X, Y, and the baby boomer generation for social activities. The importance of social activities aligns with previous research; for example, Powell (2009) highlighted that social activities and interactions inside the organisation were considered as determinant factors in talent retention decisions for talented employees. Additionally, Pandita and Ray (2018) and Steven-Huffman (2011) ascertained that the social life of talented employees played a vital

role in a healthy work environment, which consequently encouraged talent to retain in their organisations.

On the other hand, respondents rated organisational image as the most important talent retention factor that applied in Jordanian telecommunication organisations. This may refer to all Jordanian telecommunication organisations are branch of MNCs that have a focus on organisational image within the telecommunication industry. MNCs do their best to build their organisational image, which then will strengthens the trust relationship with their stakeholders (employees, clients). Thus, talented employees in the Jordanian telecommunication organisation trusted in their organisation, which affected their decision to remain in their organisation. This evidence from previous research has shown the significant role of organisational image in talent retention (Saraswathy& Balakrishnan 2017; Wallace et al.2014).

According to the study's participants, talent learning and development occupied the third level of importance in talent management practice. Generally, all talent learning and development items were merely equally rated by the study's respondents. These results demonstrate that all researched organisations provided learning and development procedures. However, this needs more attention in Jordanian telecommunication organisations. This relates to some challenges in providing learning and development procedures, for example identifying the talent targeted in these learning and development and learning procedures architecture. An example of these challenges, as indicated in the qualitative results in this study, is the unclear talent definition inside the Jordanian telecommunication industry, which makes it confusing as to who exactly is the talent targeted in talent learning and development programs. Another possible reason is that talent learning and development is considered as part of most talent management practices as being connected to talented employees and occurring on a daily basis. Thus, they judged themselves if talent learning and development procedures were less than they expected. At the organisation level, the organisations usually faced difficulties in implementing talent learning and development procedures. This claim is in accordance with Deoitte's (2015) finding of organisational challenges in talent learning and development. These results are aligned with previous literature highlighting the importance of talent learning and

development and its challenges (Claussen et al. 2014; Garvan, Carbery & Rock 2012; Muyia, Wekullo & Nafukho 2018).

As the study respondent reported, the participation of talented employees in their promotion system is an area that needs further attention in the Jordanian telecommunication industry. This could relate to the researched organisations did not providing transparent talent career promotion. In addition, it could refer to all Jordanian telecommunication organisations having restricted rules in terms of talented employees' career promotion. This reason also related to all Jordanian telecommunication organisations being branches of MNCs, while one of the organisations was 51% owned by the Jordanian government. Thus, these organisations applied the mother company's rules around talented employees' career promotion. The importance of clear transparent talented employees career promotion aligns with previous studies (Bashir & Mehreen 2019; Kaleem 2019; Permarupan, Saufi & Mahmud 2013). On the other hand, determining training needs was one of the highest items rated by the study's respondents. This relates to the researched organisation having a sophisticated tool to determine a suitable training program based on talented employees' needs. In addition, the current study's participants in the qualitative stage from all the Jordanian telecommunication organisations outlined how they determined their training needs. For example, organisation A relied on psychometric analysis; organisation B relied on talented employees deciding for themselves, while organisation C relied on a presentation provided by talented employees in front of a panel to determine the training needs of talented employees. Thus, the Jordanian telecommunication organisation implemented clear procedures to determine talented employees' training needs.

11.3.1.2.2 Univariate analysis discussion of employees' performance variables
As presented in Table 9.6, task performance was the first and highest variable rated by study respondents among employees' performance variables. Generally, all task performance items mean was more than Four. This indicated that talented employees in the researched organisations fulfilled the core activities that were mentioned in their job descriptions. The reason why task performance occupied the first place amongst the employees' performance variable may be related to employees understanding clearly what job task they had to do. Another reason from an organisational perspective is that Jordanian

telecommunication organisations outlined clearly in their job descriptions the duties required from its employees. On the other hand, some of the contextual and counterproductive performance tasks are usually implicitly outlined by the organisations. These results fit with previous literature highlighting that task performance is the most important in the employees' performance framework (Becton et al. 2017; Koopmans et al. 2011). All task performance items had similar means. This reflects that all Jordanian telecommunication organisations' employees cover core work tasks quantitatively and qualitatively. The justification for this may be related to employees, and Jordanian telecommunication organisations having a major focus on these core work tasks. In addition, it could relate to the fact that all factors affecting task performance are present in Jordanian telecommunication organisations, for example emotional intelligence, job satisfaction and employees' personality. Thus, employees in Jordanian telecommunication organisations put their effort into fulfilling these core work tasks. This aligns with previous research which highlighted that task performance is based on formally recognised job tasks and influenced by several factors (Borman & Motowidlo 1993; Miao et al. 2017; Miao, Humphrey & Qian 2018; O'Boyle et al. 2011).

According to current study respondents, contextual performance occupied the second place of importance among employees' performance variables. Generally, all contextual performance items were rated higher than Four and their means were equal. This indicated that employees in the researched organisations understood that employees' performance goes beyond formalised or prescribed job descriptions. The reason for this understanding could be related to the cultural background of Jordanian telecommunication organisations employees. In this sense, the collectivist cultural background of Jordan creates an imperative for Jordanian individual (employees) to look after new colleagues as if they were guests or previous colleagues as their friends. Accordingly, this enhances the organisation's social and psychological environment. Similarly, this support is considered to be the basic premise of contextual performance. The understanding of contextual performance's importance and its relationship with cultural background aligns with a range of previous studies (Hartini, Fakhrorazi & Islam 2019; Hu, Jiang & Li 2015; Wang et al. 2012). All contextual performance items had equal ratings except the third items. This indicated that all Jordanian telecommunication organisation employees focus and fulfil all

aspects of contextual performance. This could be related to Jordanian telecommunication employees realise that their contextual performance behaviour is significant to fulfil the core activities of their work. In addition, the researched organisations' employees were from Jordan, which is considered a collectivist culture. Thus, they were used to interacting and coordinating with other people in the same place, which is considered the main behaviour within contextual performance behaviours. This fits with previous studies that highlight the main premise of contextual performance behaviour (Franco & Franco 2016; Kahya, & Oral, 2018; Tufail, Mahesar, & Pathan 2017).

The counterproductive performance variable had the lowest mean according to the study's participants. Generally, the means of counterproductive performance ranged from 1.27-2.28. This indicated that Jordanian telecommunication organisations avoided the behaviours that harm performance in their organisations. This could be related to employees of research organisation keeping away from behaviours that detract from work performance, in particular in the context of this study, in which counterproductive performance was deemed to be unacceptable behaviour inside the workplace. In addition, counterproductive performance contradicts task and contextual performance. As Jordanian telecommunication employees rated task performance and contextual performance above Four, it can logically be expected that counterproductive performance would decrease. In this sense, fulfilling the task performance and contextual performance were considered as a reason for low levels of counterproductive performance behaviour in Jordanian telecommunication organisations. These results were in accordance with previous literature that ascertained the contradictory relationship between task and contextual performance and counterproductive performance (Mansour 2020; Mensah, Bawole & Wedchayanon 2016; Mensah 2015). Counterproductive performance needs further attention from Jordanian telecommunication organisations, in particular the area of complaining about unimportant matters in the organisation. This could be related to the researched organisations did not having strict rules about counterproductive performance and/or not applying these rules. In addition, it could be related to a shortage of training programs that shed light on the simultaneous harm of counterproductive performance on organisations and employees. Jordanian telecommunication organisations should investigate the causes of counterproductive performance and how to prevent them. This aligns with previous

research, which pointed out the harm of counterproductive performance on the well-being of organisations (Bilal, Farooq & Hayat 2019; Krings & Bollman 2011; Priesemuth, Arnaud & Schminke 2013).

11.3.2 The relationship between talent management variables and employee performance variables in Jordanian telecommunication organisations

This subsection covers the discussion of statistical analysis used to investigate the relationship between the independent and dependent variables of this study. Thus, it addresses the second research objective and second research question about measuring the impact of talent management practices on employees' performance in Jordanian telecommunication organisations. These statistical analyses utilised in this study were Pearson correlation, simple regression analysis and SEM, as presented in chapter Nine and chapter Ten. The result of the Pearson correlation demonstrated a relationship between talent management practices and employees' performance variables in the Jordanian telecommunication organisations. This suggested that any changes (increase /decrease) in talent management practices led to changes (increase/decrease) in employees' performance variables. This correlation analysis result aligns with previous research by Bibi (2019), Dang, Nguyen and Ha (2020), and Luna-Arocas and Morley (2015) who have all concluded that talent management has a correlation with employees' performance.

Simple regression analysis and SEM were deployed in order to test the study hypotheses and measure the relationship between talent management practices and employees' performance variables, thus addressing the second research objective and question. Regression analysis is an analysis technique conducted to comprehend the relationship between study variables (Gefen et al. 2000; Jeon 2015). SEM was conducted as a second wave of analysis to confirm and provide an improved comprehension of the relationship between talent management practices and employees' performance in the Jordanian telecommunication organisations. Thus, SEM confirmed the results of the regression analysis by providing further investigation into the relationship between talent management practices and employees' performance in the Jordanian telecommunication organisations.

The justification for combining the simple regression analysis and SEM in the same research projects was based on several reasons. Firstly, utilising regression analysis and

SEM in the same study provides the researcher with great flexibility in investigating the relationship between independent and dependent variables of the study (Chin 1998; Hair et al. 2011). Secondly, using regression analysis and SEM in the same study to achieve the same objective maximises the reliability of the quantitative findings (Hair et al. 2011; Jeon 2015). Finally, as pointed out by Schumacker and Lomax (2010) and Musil et al. (1998), SEM can be conducted as the second wave of analysis to assist in examining to what extent the study has met the recognised standard of highly qualified statistical analysis.

The results of a simple regression analysis were explained in chapter Nine, section Six. These results indicated a significant positive relationship between talent management practices and task and contextual performance, while a significant negative relationship existed between talent management practices and counterproductive performance in the Jordanian telecommunication organisations. These results were consistent with previous studies that have identified a positive relationship between talent management practices and task and contextual performance, and a significant negative relationship between talent management practices and counterproductive performance (Hitu & Baroda 2018; Mangusho, Murei & Nelima 2015; Mary, Enyinna & Ezinne 2015). Despite simple regression analysis and SEM showing similar results in terms of the significant relationship between talent management practices and employees' performance, the value of estimate β and $R^{2)}$ was different for regression analysis and SEM. This difference is related to the algotherim used in SEM, which is different from regression analysis. Jeon (2015) has stated that SEM applies multiple statistical analysis, for example, CFA, path analysis, correlation analysis and regression analysis. In addition, all endogenous and exogenous variables are included in the structural model and measurement model, as well as their errors (Gefen et al. 2000).

With regards to this study, the discussion of the hypotheses testing results relied on the results of SEM. Accordingly, the conclusion and recommendations relied on the results of SEM. This adoption of SEM results stems from the SEM results being more accurate in terms of the relationship between talent management practices and employees' performance in Jordanian telecommunication organisations. In addition, this adoption is supported by previous SEM literature (Byrne 2016; Jeon 2015; Tarka 2018).

11.3.2.1 Discussion of the First hypothesis

The first null hypothesis was that there was no significant positive influence of talent acquisition on task performance in the Jordanian telecommunication organisations. This hypothesis was rejected based on the results of SEM, as presented in chapter Ten, table 10.13. This indicated that talent acquisition had a significant positive influence on task performance. To clarify, following objective criteria in talent acquisition, using a different tool in talent acquisition, focusing on internal and external acquisition, and treating all job applicants similarly all have a positive influence on employees' performance in terms of finishing work tasks on time, setting priorities in work tasks, carrying out work productively and ability to finish work tasks without much supervision. These results could be related to acquisting talented employees effectively in ways that align with and are based on core jobs tasks, which in turn will lead to fulfilling the job task performance by a job applicant in the future. Another significant point in this result was that talent acquisition had the lowest impact on task performance among talent management practices. This may be due to talent learning and development and talent retention having a major link with talented employees' daily task performance activities, while talent acquisition is considered as a process to select the talented employee from an applicants' pool. Thus, talent learning and development and talent retention are concurrent with talented employees' lives inside the organisation, while talent acquisition only applies temporarily. Therefore, Jordanian telecommunication organisations have to invest more in talent learning and development and talent retention to enhance employees' task performance. Another recent issue relates to a new perspective to acquire talent, which is based on big data, skills-based acquisition and artificial intelligence (Pillai & Sivathanu 2020; Russell & Bennett 2015). It is expected that these new talent acquisition techniques are more effective than the previous ones (C.V, interview), and may be adopted in the researched organisations as outlined in the results of qualitative data in this study. Thus, the adoption of these new talent acquisition techniques will help the Jordanian telecommunication organisations to enhance their employees' task performance.

This result is in accordance with previous research that has investigated the relationship between talent management and task performance (Atoom 2018; Dang, Nguyen & Ha

2020; Kaleem 2019; Mensah, Bawole & Wedayanon 2016). These previous studies have investigated the relationship between talent management (acquisition) and task performance and pointed out the significant positive relationship between these two variables. In addition, these results fit with social exchange theory. Social exchange theory can be applied to talent management by conceiving of the notion that organisations invest in talented employees (i.e. talent management practices), and that employees reciprocate the organisation's gesture through work outcomes (performance) (Glenns et al. 2014). Therefore, the actions and reactions between the organisations and the employees are contingent upon the characteristics of what the other party provides (Festing & Schafer 2014; Shapiro, Jacqueline & Parzefall 2008). Therefore, in the context of this study, Jordanian telecommunication organisations invested in their employees through talent management practices and the employees reciprocated through their performance in a mutual relationship.

11.3.2.2 Discussion of the Second hypothesis

The second null hypothesis was that there is no significant positive influence of talent acquisition on contextual performance in Jordanian telecommunication organisations. As presented in chapter Ten, table 10.13, this hypothesis was rejected. This means that talent acquisition has a significant positive impact on contextual performance. To explain, following objective criteria in talent acquisition, using a different tool in talent acquisition, focusing on internal and external acquisition, and treating all job applicants similarly have a positive impact on employees' contextual performance in terms of taking initiative to solve a problem, starting a new task, accepting colleagues' suggestions, communicating effectively with co-workers, and guiding new colleagues. This result could be related to contextual performance as it is dependent on personality and the motivation of the employees or candidates. As indicated by respondents of the qualitative part of this study, the job interview is essential in talent acquisition. Thus, in job interviews, the personality and motivation of the candidate could be ascertained. Thus, after hiring the candidate their motivation and appropriate personality will be reflected in their job in terms of contextual performance. Another issue that needs to be discussed is that talent acquisition has a significant positive impact on contextual performance, more than on task performance. This could be related to the fact that contextual performance is strongly linked with the

employees' culture and constitutes on of the tenets on which the person relies. All employees were from the Jordanian culture and they were all raised on that central tenet of Jordanian culture, which strongly encourages employees to cooperate with each other, to help each other and to communicate effectively with each other. Thus, this cultural background contributes to contextual performance in Jordanian telecommunication organisations.

This result fits with previous studies that have measured the impact of talent acquisition on contextual performance (Bibi 2018; Mensah, Bawole & Wedchayanon 2016; Praise & Kah 2016). This fit is based on these studies concluding that talent management has a significant positive impact on contextual performance. Again, this result could be discussed theoretically in light of social exchange theory. When the organisation invests in talent management practice, talented employees will feel obligated to respond to this investment through their contextual performance. However, in contrast to these previous studies, this study measured talent management and employees' performance from a multi-dimensional perspective. For example, Bibi (2018) and Praise and Kah (2016) measured employees' performance within one dimension, while Mensah, Bawole & Wedchayanon's (2016) study measured employees' performance from multiple dimensions, but measure talent management only from one dimension. By contrast, the study results in this study were based on measuring talent management and employees' performance from a multi-dimensional perspective.

11.3.2.3 Discussion of the Third hypothesis

The third null-hypothesis was that there is no significant negative impact of talent acquisition on counterproductive performance in the Jordanian telecommunication industry. This null hypothesis was rejected based on the results of SEM presented in chapter Ten, table 10.13. This indicated that talent acquisition decreases counterproductive performance in the Jordanian telecommunication industry. To verify, following the objective criteria in talent acquisition, using a different tool for talent acquistion, focusing on internal and external acquisition, and treating all job applicants similarly decreases employees' complaining about unimportant matters, focusing and speaking about negative aspects of the organisation, maximising problems, and behaving rudely toward colleagues in Jordanian telecommunication organisations. These results could be related to the fact

that in the talent acquisition process the candidate (talent) identifies the restricted rules of the organisation regarding behaviour that harm the organisation, which is counterproductive performance. This covers the first distinct dimension of counterproductive performance, which is directed towards organisations. The second distinct dimension of counterproductive is directed towards colleagues. Talent acquisition decreases counterproductive interpersonal performance through examining to what extent the applicant (talent) fits with an organisational culture, which is mainly based on Jordanian culture. Thus, checking the fit between candidate and organisation culture during talent acquisition will lead to a decrease in counterproductive interpersonal performance.

This study result aligns with previous studies' results. For example, this study result replicates Mansour and Shehadeh's (2020) results whose study was conducted in Jordan and concerned the significant negative impact of talent acquisition on counterproductive performance. However, this study was conducted in a different industry and built on a mixed-methods approach. Similarly, Dang, Nguyen and Ha (2020), Kaleem (2019), and Mensah, Bawole and Wedayanon (2016) have all pointed out the significant negative impact of talent management on counterproductive performance. However, this study measured talent management and employees' performance from a multi-dimensional perspective while these studies followed a mono-dimensional perspective consisting of one construct, i.e. talent management or employees' performance. Additionally, the questionnaire in this study was developed in accordance with the qualitative results of this study. Similar to the first and second hypothesis result, social exchange theory explains the significant negative impact of talent management on counterproductive performance theoretically. Social exchange theory's premise is based on whether, if an organisation invests in talent through its talent management practices, the talented employees will compensate the organisation for this investment. In the case of the third hypothesis result, if the organisation invested in talented employees through talent acquisition, the talented employees would decrease their counterproductive performance for their part in this mutual relationship.

11.3.2.4 Discussion of the Fourth hypothesis
The fourth null hypothesis was that there is no significant positive impact of talent learning and development on task performance in Jordanian telecommunication organisations. As

presented in chapter Ten, table 10.13, this hypothesis was rejected. This means that talent learning and development have a positive impact on task performance in Jordanian telecommunication organisations. To explain, determining training needs of talented employees, identifying the area needed to develop, learning based on specified tools, involving talented employees in their promotion and identifying the competencies that are required to develop have a significant positive impact on employees' task performance in terms of finishing work tasks on time, setting priorities in work tasks, carrying out work productively and ability to finish work tasks without much supervision. The reason for this result may relate to talent learning and development programs being aligned with and aiming to help talented employees to fulfil their task performance effectively. Thus, it is logical that task performance is enhanced through talent and learning programs offered by the organisation. Another reason, as presented in the learning and development questionnaire items, was that the Jordanian telecommunication organisations build their learning and development program based on the needed areas of talented employees. Accordingly, improving these areas will be reflected in contributing to the satisfactory task performance of these talented employees. Another interesting result from this hypothesis was that talent learning and development have a major impact on task performance among other talent management practices. This result could be related to a direct link between talent learning and development and employees' performance. On the other hand, talent acquisition and talent retention activities did not directly link with employees' performance as talent learning and development.

This result is in accordance with previous studies that have measured the impact of talent management on employees' performance (Al-Majroob, Raggad & Al-Abadi 2020; Ei & Abubakar 2019; Wadhwa & Tripathi 2018). These studies concluded that talent management had a positive impact on employees' task performance. However, these studies measured employees' performance from a mono-dimension perspective and they were conducted in a context different from this study's context. This study borrows social exchange theory to discuss the significant positive impact of talent learning and development on task performance. Social exchange theory describes the mutual relationship between two parties. In the case of this hypothesis result, when organisations

applied talent learning and development to talented employees, they would provide payback in the form of their task performance.

11.3.2.5 Discussion of the Fifth hypothesis
The fifth null hypothesis was that there is no significant positive impact of talent learning and development on contextual performance in the Jordanian telecommunication industry. As can be seen in chapter Ten, table 10.13, this hypothesis was rejected due to P-value < 0.05. This means that talent learning and development have a significant positive impact on contextual performance. To verify, determining the training needs of talented employees, identifying the areas needed to develop and learn based on specified tools, involving talented employees in their promotion, and identifying competencies that are required to develop have a significant positive impact on employees' contextual performance in terms of taking initiative to solve a problem, starting a new task, accepting colleagues' suggestions, communicating effectively with a co-worker, and guiding new colleagues. This result could be related to some learning and development programs covering some areas of contextual performance. An example of this is as communication skills learning program, which is considered an important part of contextual performance. Another indirect reason is that during a learning program, the interpersonal relationships between talented employees become stronger. Accordingly, enhancing the social environment inside the organisation is considered a basic aim of contextual performance. Another important result derived from the fifth hypothesis results is that talent learning and development have the highest impact on contextual performance among talent management practices. This could be caused by the direct link between talent learning and development and contextual performance, whereby learning and development programs help employees to accomplish their work. Thus, talented employees become less anxious and frustrated. Accordingly, communicating effectively with co-workers and becoming motivated to start a new work task reflects positively on contextual performance.

These outcomes fit with previous studies that have investigated the relationship between talent learning and development and contextual performance (Dang, Nguyen & Ha 2020; Kaleem 2019; Luna-Arocas & Morley 2015). For example, Dang, Nguyen and Ha (2020) conducted a study in the Vietnamese banking sector and concluded that talent management had a significant positive impact on contextual performance. However, the current study

measures talent management from a multi-dimensional perspective through talent management practices (talent acquisition, talent learning and development and talent retention). By contrast, Kaleem (2019) and Luna-Arocas and Morley (2015) did not measure employees' performance from a multi-dimensional perspective. Social exchange theory provides a platform to explain the significant positive relationship between talent learning and development and contextual performance theoretically. In regard to this relationship, when the organisation provides a learning and development program for talented employees, they will feel obligated to compensate for this learning and development program in the form of contextual performance.

11.3.2.6 Discussion of the Sixth hypothesis

The sixth hypothesis was that there is no significant negative impact of talent learning and development on counterproductive performance in Jordanian telecommunication organisations. As presented in chapter Ten, table 10.13, this hypothesis was rejected due to P-value <0.05. This means that talent learning and development had a significant negative impact on counterproductive performance. To explain, determining training needs of talented employees, identifying areas needed to develop and learn based on specified tools, involving talented employees in their promotion, and identifying the competencies required to develop decrease employees complaining about unimportant matters, focusing on and speaking about negative aspects of the organisation, maximising problems and behaving rudely toward colleagues in the Jordanian telecommunication organisations. This result could be related to talent learning and development aimed to enhance employees' performance. Thus, it is logical that counterproductive performance, which is considered a negative effect will be decreased. As discussed in section 11.3.2.5, the reason for the positive impact of talent learning and development on contextual performance is that talent learning and development enhance the interpersonal relationships between employees, thus decreasing counterproductive behaviour toward colleagues and counterproductive performance.

This outcome is in accordance with previous studies that have measured the significant negative impact of talent management on counterproductive performance (Dang, Nguyen & Ha 2020; Mansour & Shehadeh 2020; Mensah, Bawole & Wedchayanon 2016). In contrast to this study, Dang, Nguyen and Ha (2020) and Mensah, Bawole and

Wedchayanon (2016) measured talent management from a mono-dimensional perspective, while Mansour and Shehadeh (2020) measured the impact of talent management practices on counterproductive performance only. Social exchange theory provides a theoretical basis for the significant negative impact of talent learning and development on counterproductive performance. Based on social exchange theory, when Jordanian telecommunication organisations provided their talented employees with learning and development programs, the talented employees would compensate for this provision in terms of decrease counterproductive performance.

11.3.2.7 Discussion of the Seventh hypothesis

The seventh null hypothesis was that there is no significant positive impact of talent retention on task performance in the Jordanian telecommunication industry. As can be seen in chapter Ten, table 10.13, this hypothesis was rejected. This means that there is a significant positive impact of talent retention on task performance in the Jordanian telecommunication industry. To explain, retaining talented employees, ensuring organisational image at all times, having flexible work hours that motivate talented employees, and providing activities that enhance the social life of talented employees have a positive impact on employees' task performance in terms of finishing work tasks on time, setting priorities in work tasks, carrying out work productively and ability to finish work tasks without much supervision. This result could be related to talent learning and development playing a vital role in talent retention and having a significant positive impact on task performance. Hence, logically, talent retention will have a positive impact on task performance. Another possible reason is that implementing talent retention activities enhances employees' motivation. Thus, talented employees become more engaged in fulfilling core job activities which are part of task performance.

This result fits with previous studies that have highlighted the positive impact of talent retention on task performance (Ei & Abubakar 2019; Luna-Arocas & Morley 2015; Mangusho, Murei & Nelima 2015). In contrast to these previous studies, this research measured talent management and employees' performance from a multi-dimensional perspective and in a context different from these studies. Again, this result could be seen through a social exchange theory lens. When Jordanian telecommunication organisations

implemented talent retention activities, the talented employees would pay them back for these activities in terms of task performance.

11.3.2.8 Discussion of the Eighth hypothesis
The eighth hypothesis was that there is no significant positive impact of talent retention on contextual performance in the Jordanian telecommunication industry. As explained in chapter Ten, table 10.13, this hypothesis was rejected. This means there was a positive impact of talent retention on contextual performance. To verify, retaining talented employees, ensuring organisational image at all times, having flexible work hours that motivated talented employees, and providing activities that enhanced the social life of talented employees had a positive impact on employees' contextual performance in terms of taking initiative to solve a problem, starting a new task, accepting colleagues' suggestions, communicating effectively with a co-worker, and guiding new colleagues. This result may be related to talent retention activities enhancing social life inside Jordanian telecommunication organisations, which is considered the core aim of contextual performance. Similarly, another reason is that talent retention activity enhances the communication between co-workers, which is again considered an important factor in contextual performance.

This result is in accordance with previous studies (Ei & Abubaker 2019; Mangusho, Murei & Nelima 2015; Wadhwa & Tripathi 2018). In contrast to these previous study, Wadhwa and Tripathi's (2018) study measured employees' performance from mono-dimensional perspective. In contrast to Ei and Abubaker's (2019) study, this study adopted different variables to measure employees' performance and was conducted in the Jordanian telecommunication organisation, while their study was conducted in a research institution in Qatar. As in the previous hypothesis result, this hypothesis result can be discussed in light of social exchange theory. Social exchange theory provides a mutual relationship between two parties. With regards to this hypothesis result, when Jordanian telecommunication organisations invested in talented employees through talent retention, the talented employees would compensate for this investment through their contextual performance.

11.3.2.9 Discussion of the Ninth hypothesis

The ninth null hypothesis was that there is no significant negative impact of talent retention on counterproductive performance in the Jordanian telecommunication industry. As presented in chapter Ten, table 10.13, this null hypothesis was rejected. This means that talent retention has a negative impact on counterproductive performance in Jordanian telecommunication organisations. To explain, retaining talented employees, ensuring organisational image at all times, having flexible work hours that motivate talented employees, and providing activities that enhance the social life of talented employees all have a negative impact on employees complaining about unimportant matters, focusing on and speaking about negative aspects of the organisation, maximising problems and behaving rudely towards colleagues in Jordanian telecommunication organisations. This result could be related to talent retention activities enhancing and strengthening positive behaviours among co-workers. Accordingly, counterproductive performance, which is a negative behaviour of employees toward their colleagues, will decrease. Another reason is that talent retention activity boosts talented employees' engagement and belonging in the Jordanian telecommunication organisations. Therefore, talented employees would not behave in a way that harms the organisation, such as theft and production deviance.

This result fit with previous studies that have measured the negative impact of talent retention on counterproductive performance (Dang, Nguyen & Ha 2020; Mansour & Shehadeh 2020; Mensah, Bawole & Wedchayanon 2016). These previous studies have pointed to the negative impact of talent retention on counterproductive performance. In contrast to Dang, Nguyen and Ha's (2020) and Mensah, Bawole and Wedchayanon's (2016) studies, this study measured talent management from a multi-dimensional perspective and it was conducted in a context different from these studies. The contrast between this study and Mansour and Shehadeh (2020) is based on this study measuring the impact of talent management practices in terms of three variables of employees' performance. Again, this study borrows from social exchange theory to discuss the result of the ninth hypothesis. Thus, in light of social exchange theory, when Jordanian telecommunication organisations invested in talented employees through talent retention,

talented employees would reciprocate this investment in terms of a decrease in counterproductive performance.

The novelty of the current quantitative study results can be found in different dimensions. Firstly, previous studies have investigated the relationship between talent management and employees' performance through measuring talent management from one dimension (e.g. Dang, Nguyen & Ha 2020; Mensah, Bawole & Wedchayanon 2016) or employees' performance form one dimension (e.g. Bibi 2018; Luna-Arocas & Morley 2015; Mangusho, Murei & Nelima 2015; Praise & Kah 2016). However, the current study examines talent management and employees' performance from a multi-dimensional perspective, as previous scholars have identified that talent management and employees' performance are multidimensional constructs (Jammu 2014; Schiemann 2014). Therefore, this study has measured talent management and employees' performance and their relationships more accurately. Secondly, in contrast to previous studies, the quantitative data was collected through a questionnaire, which was based on the results of an exploration study of talent management in Jordanian telecommunication organisations. Thus, this improved the quality of the questionnaire which was subsequently reflect in high-quality results. In addition, a mixed-method approach in the current study allowed the researcher to combine the advantages of qualitative and quantitative data in terms of generalisability and transferability of study results. Thirdly, this study fills a gap in talent management and employees' performance in that it was conducted in an under-explored area, and in an industry different from previous studies. Finally, the tenets of social exchange theory were discussed as part of the analysis of the results of this study, which will support social exchange theory on the one hand. On the other hand, it will help to move talent management from being a phenomenon-driven field to a theory-driven field.

11.4 Chapter summary

This chapter has covered the qualitative results and quantitative results discussion. it is structured into Four sections. after providing an overview of the chapter, all themes extracted from qualitative data analysis were discussed. The discussion of these themes were based on to what extent fit with existing literature and theory. contingency theory and institutional theory were borrowed to discuss the fit approach theme and appropriate approach theme respectively.

Chapter 12: Conclusions and recommendations

12.1 Chapter overview

This study has explored talent management and its impact on employees' performance in the Jordanian telecommunication organisations. This chapter presents the conclusions and recommendations that emerged based on the study results.

Chapter One provided introductory information about the study. This chapter covered the motivation and justification for the research. Then the research settings and audience were presented, followed by a discussion of the statement problem of the study. The research objectives and research questions were presented, as well as the structure of the thesis

Chapter Two provided a critical literature review about the constructs and variables of the study. The literature review chapter started with mapping the talent management field. Then it discussed talent management (talent definition, talent management definitions, talent management practices, talent management challenges and talent management perspectives). This was followed by addressing the employee performance definition and the employee performance dimensions. Finally, the gap in the literature was discussed.

In Chapter Three, measurement and theoretical underpinnings were covered. This chapter highlighted the measurement of talent management practices and employees' performance variables. Then, the theory underpinning this study was discussed.

Chapter Four covered the methodological approach adopted in the current study. A general explanation about the research philosophy adhered to by the researcher in this study was presented. Then, the chapter addressed the research approach, which included deductive, inductive, and abductive approaches. In addition, a mixed methods research design was adopted in this study, and the associated qualitative and quantitative methods were discussed. Finally, the study population and participant sampling were clarified.

Chapters Five and chapter Six covered the collection and analysis of qualitative data. Chapter Five focused on the data collection instruments, the qualitative pilot study, and the procedure for conducting the semi-structured interviews. Chapter Six presented the themes that emerged from the qualitative data analysis (fit approach theme, talent management philosophy, appropriate talent management, talent management practices,

humanistic/competitive and humanistic themes), and the trustworthiness of the thematic analysis.

Chapter Seven discussed the conceptual model development of this study, which started with an overview of the initial conceptual model, and then, based on the qualitative data results, the initial model refined. Then the research hypotheses were outlined.

Chapter Eight covered the quantitative data collection process. The justification for adopting the quantitative methodology, the development of the quantitative data collection instrument, and the method adopted to analyse the quantitative data were discussed.

Chapters Nine and chapter Ten presented the quantitative data analysis of the descriptive and inferential statistics. Chapter Nine discussed the descriptive statistics, correlation and regression, while Chapter Ten covered the second wave of inferential statistics analysis through structural equation modelling. The results indicated a positive relationship between talent management practices and employee performance dimensions.

Chapter Eleven discussed the study's qualitative and quantitative results in relation to existing literature and theory. Chapter Twelve highlights the conclusions and recommendations based on the study's results and the limitations of the study.

This chapter is structured into five sections. The first section provides an overview of the chapter, followed by the conclusions based on the results of the qualitative and quantitative analysis. The subsequent section discusses the research contributions. Section 12.4 covers the recommendations of the study. The research limitations and future research suggestions are outlined in the final section. Figure 12.1 shows a graphical layout of Chapter 12.
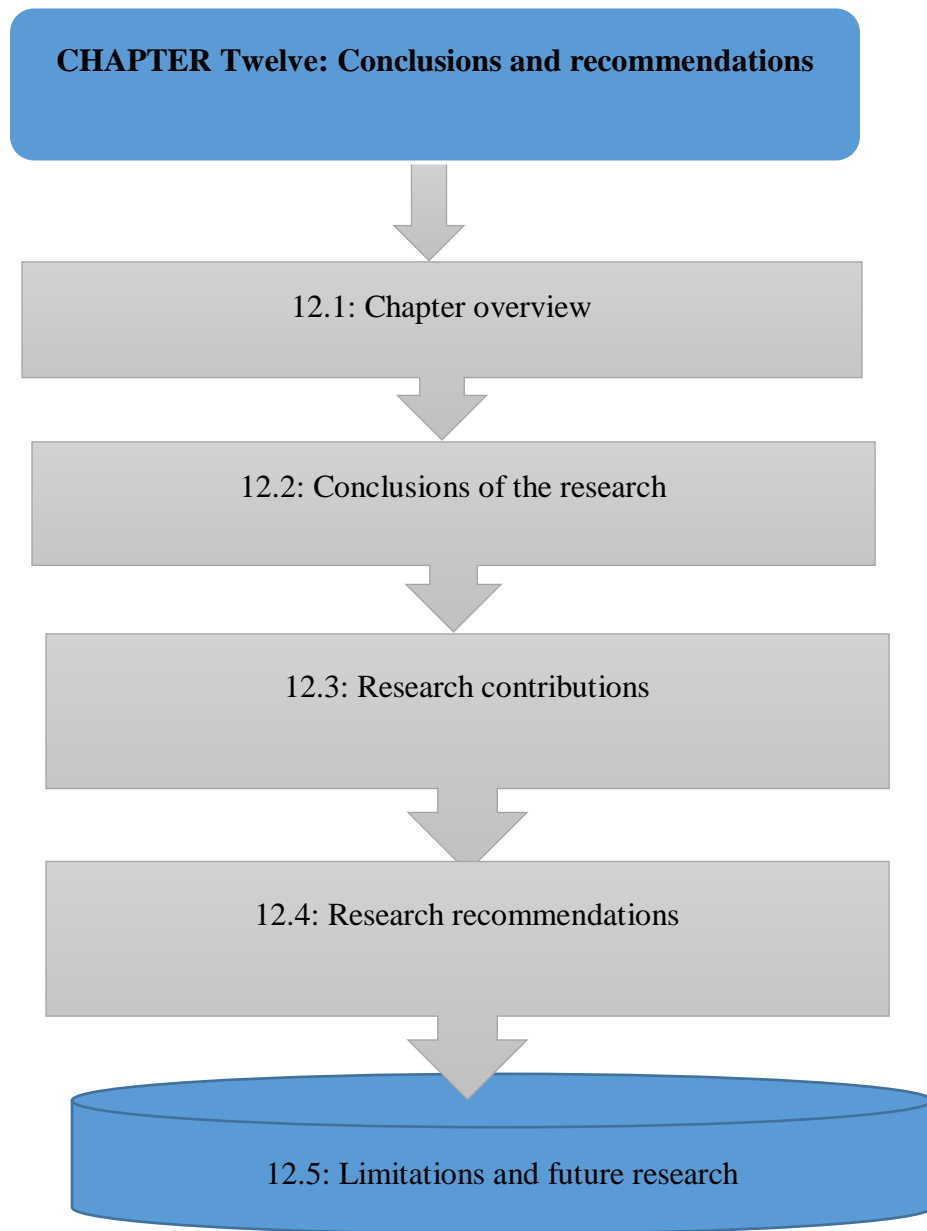
Figure 12.1: A graphical layout for Chapter Twelve

Source: created by the researcher

12.2 Conclusions of the research

This section presents the conclusions drawn from the qualitative and quantitative results and the existing literature. Accordingly, recommendations and suggestions for future research in this area are presented. Thus, this section outlines the theoretical conclusions of the study, which are covered in the first sub-section, while the pragmatic conclusions are outlined in the second sub-section.

12.2.1 The theoretical conclusions

A critical review of the literature has revealed some conclusions regarding talent management and employee performance. Hence, the philosophical, theoretical and analytical conclusions of this study are presented as follows:

1- Talent definition is deemed as a starting point for talent management. This due to talent conceptualisation is crucial for building talent management in organisations. However, there remains a lack of consensus on defining talent in the talent management literature, in which exclusive versus inclusive, innate versus acquired, input versus output and objective versus subjective were the dominant dichotomies in talent definitions.

2- Talent management definition is one of the hot topics discussed in talent management. The reason for this attention relates to the conceptualisation of talent management encompasses the aims and processes of talent management. Generally, pool perspective, practice perspective, people perspective and strategic perspective are the major perspectives of talent management definitions.

3- Talent management has received considerable attention in the past two decades. Academics and practitioners have attempted to investigate the practices, outputs of and the relationships inherent in talent management. The talented employees' importance stems from the fact that they are scarce, and that organisations realise that they are the main source of competitive advantage, in particular with ongoing shifts in economies from product-based to knowledge-based.

4- Employees' performance has received greater attention from researchers and practitioners alike. This attention is due to the success of the organisations is measured by employees' contributions.

5- Employees' performance is a multi-dimensional construct. Task performance, adaptive performance, contextual performance and counterproductive performance are the most common dimensions of employees' performance.

6- Talent management has a positive impact on employees' performance. However, many black boxes in the relationship between talent management and employee performance need further attention.

12.2.2 The pragmatic conclusions

12.2.2.1 The pragmatic conclusions about the first research question and objective

The first research question asked how talent management was applied in Jordanian telecommunication organisations. Accordingly, the first research objective was to explore talent management in Jordanian telecommunication organisations. Thus, an analytic inductive approach was followed to explore talent management in the study's context. The fit approach theme, talent management philosophy theme, talent acquisition, talent learning and development, and talent retention were the dominant talent management practices, the appropriate talent management approach theme, the humanistic/competitive and humanistic theme, the talent management similar to human resources theme and the continuous cycle theme were the key themes of the qualitative stage of this study. The core conclusion is that talent management is applied in Jordanian telecommunication organisations; however, it is still in its infancy and needs further attention from researchers and practitioners alike. The reason for this conclusion is that there is no distinct and clear definition of talent management. Additionally, talent management is still seen through the eyes of human resource management rather than with a strategic lens. On the other hand, there is a step towards talent management in Jordanian telecommunication organisations in terms of implementing talent management practices and building talent management programs based on organisational context rather than on translating the mother company's strategy.

12.2.2.2 The pragmatic conclusions related to descriptive statistics

-The Jordanian telecommunication organisation employees understood talent management regardless of their demographic characteristics (gender, age, experience, and department).

-The demographic characteristics of the study's respondents influenced their ratings of employees' performance dimensions (task performance, adaptive performance, contextual performance, and counterproductive performance). However, the age variable did not have a significant relationship with employees responding to employees' performance items.

-Talent acquisition was the talent management practice most commonly rated among study respondents. Additionally, talent learning and development and talent retention occupied second and third places respectively.

-Employees of Jordanian telecommunication organisations showed an understanding of employees' performance dimensions where task performance occupied the first place and adaptive performance, contextual performance and counterproductive performance were ranked in the second, third and fourth place respectively.

12.2.2.3 The pragmatic conclusions related to the second research question and objective

1- Based on the results of the statistical analysis, there was a significant influence of talent management practices (talent acquisition, talent learning and development, and talent retention) on employees' performance dimensions (task performance and contextual performance). However, there was a negative influence of talent management practices on counterproductive performance in the context of the study. This means that talent management practices have a major role to play in employee performance in Jordanian telecommunication organisations.

2- Talent learning and development and talent retention had a higher positive impact on employees' task performance. Thus, talented employees should be continuously developed and retained in Jordanian telecommunication organisations.

3- Talent learning and development needs further attention as it received the lowest rate in the talent management practices. Hence the researched organisation should reconsider the learning and development program.

4- Talent acquisition was seen as the weakest positive influence on employees' performance dimensions. This reflected an insufficient focus on talent acquisition strategies adopted in the context of the study as it focused on traditional tools of talent acquisition. Further attention is recommended to deploy other tools in talent acquisition such as big data, behavioral interviews and artificial intelligence.

12.3 Research contributions

This research has made theoretical, practical, policy and methodological contributions. The theoretical contributions relied on enhancing the understanding of talent management, in particular in emerging economies such as Jordan, and the impact of talent management practices on employees' performance. Thus, the study contributes to the body of knowledge of these significant constructs. This theoretical contribution is summarised as follows:

1- As far as the author is aware, no previous study has examined the procedures of talent management in the Middle Eastern countries – in particular, in Jordan. Thus, the results of this study about the procedures of talent management practices provide a theoretical contribution as they expand the understanding of how talent management practices are applied in Jordanian telecommunication organisations.

2- Adopting the contingency theory to discuss theoretically the fit approach theme, which was extracted from the data set around what the definition of talent is. Thus, this will supports contingency theory through expanding its use to the talent management literature. In the same vein, institutional theory is supported by it being used to explain how organisations define talent management in light of institutional factors.

3- This study provide a conceptualisation for talent and talent management based on current study empirical results in partcular in emering econmies. Thus, advance talent and talent management theory.

4- The final theoretical contribution lies on emphasising the previous literature about talent management, which still needs for further investigation in emerging economies. However, in the context of this study, there is a minor advancement in talent management practices in comparison with previous literature.

The methodological contributions rely on enhancing the adoption of a mixed-methods design in talent management research, and also on providing a scaffolding design to collect study data from the Jordanian context, based on the researcher's knowledge of the context and culture of the study sample. The policy contribution is that the Jordanian government will be able to transfer the results and recommendations of this study to another public sector; this policy contribution is strengthened by the fact that the Jordanian government owns 51% of the Orange organisation. The practical contribution is based on the research recommendations, which are in turn based on the study results regarding talent management practices, and how to apply these talent management practices. Additionally, the positive impact of talent management practices on employees' performance through talent learning and development may have a big impact on employees' performance.

12.4 Recommendations

Organisations should adopt new talent management measures and strategies that focus on talented employees' indicators, and to develop organisational talent, rather than following the traditional employment system. Additionally, retaining talented employees is a key priority for telecommunication orgnaisation particularly with increased competition between organisations and the shortage of talented employees. In this respect, talent management implementation is deemed as a fundamental base for organisations' success. Accordingly, talent should be seen as a source of competitive advantage and innovation. Therefore, organisations should have a rigorous talent acquisition strategy, effective talent learning and development policies and the capacity to retain talented employees. Overall, the following recommendations are based on the research conclusions in the current research project:

1. Jordanian telecommunication organisations should build and implement talent management as the strategic priority rather than on at the practice level only. In this respect, distinct talent and talent management definitions and perceiving talent management as different from human resource management should be seen a business necessity rather than a management fad.

2. The researched organisations should pay more attention to talent management practices (talent acquisition, talent learning and development, and talent retention) - in particular, talent acquisition. This attention should take the form of adopting new tools in talent acquisition such as big data, artificial intelligence and behavioral interviews, rather than using only traditional tools. Additionally, talent learning and development programs and retention tools should be improved. In this respect, Jordanian telecommunication organisations can benefit from researchers who have focused on talent learning programs and talent retention strategies.

3. According to the descriptive statistics in this study, Jordanian telecommunication organisations should be aware of demographic characteristics such as department, experience and gender in building and implementing employee performance strategies.

4. There are further recommendations as follows:

- The researched organisations should be aware of organisational image as it plays a critical role in talent retention.

- Jordanian telecommunication organisations should pay more attention to talent learning and development and talent retention as they were less rated by the study's respondents.

- Further focus should be placed on the needs of employees' contextual and adaptive performance as these played a significant role in expanding the understanding of employees' performance through talent learning programs and identifying their importance in job descriptions.

5. As talent management practices have a positive influence on employee performance, the researched organisations should enhance these practices in terms of building talent management practices and how to implement it.

6. Jordanian telecommunication organisations should invest in talent learning and development as it has a major impact on employees' performance. This investment could be in terms of improving training programs, developing talent career paths and identifying the areas needed to develop in talented employees.

7. The researched organisations should be focused more on talent acquisition to increase their influence on employees' performance, as talent acquisition has the weakest positive influence on employees' performance dimensions. This further attention could be directed at adopting advanced talent acquisition strategies. Examples of these advanced strategies are big data and artificial intelligence

8. Similarly, talent retention needs further attention by conducting research to explore the factors that influence talent retention in organisations' contexts.

12.5 Limitations and future research

The current study explored talent management and its impact on employees' performance in Jordanian telecommunication organisations. This section covers the limitations of this research and suggestions for future research based on these limitations. Thus, this section is divided into two subsections: the first part is the limitations of the research; and the second part is the suggestions for future research.

12.5.1 The limitations of the study

1- The first limitation of this study is related to its scope. It targeted only one country (Jordan) and one industry (telecommunication organisations). As talent management is contextualised based on culture, organisation size and industry, it is difficult to generalise these results to another context.

2- Respondents' bias could be seen as the second limitation of this study. During the qualitative stage, the researcher attempted to acquire rich data from interviewees, but maybe some interviewees did not provide in-depth data about talent management in their organisations. The reason for this could be that talent management is a sensitive concept and that much strategic information in the organisation is connected with it. This claim is strengthened by previous research that has highlighted this point (Al Haidari 2015;

Piansoongnern & Anurit 2010). During the quantitative stage, some respondents may be ticked the options in the questionnaire without reading them carefully. This is considered a general problem of collecting study data from questionnaires (Sedgwick 2013).

12.5.2 Suggestions for future research

Based on the study's conclusions, recommendations and limitations, the suggestions for future research are as follows:

1- Investigate talent management in other contexts – in particular, in emerging economies – as the results of the study cannot be generalised to other contexts, and talent management in emerging economies needs further attention.

2- Explore talent management in another industry in Jordan because maybe each industry has specific characteristics different from other industries.

3- Conduct another study that measures other variables of talent management outcomes such as employees' empowerment, knowledge management and the quality of the product.

4- It would be useful to add another source of study data – for example, organisations' documentation or organisations' performance appraisal results to reduce respondents' bias.

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Appendices

Appendix A: Ethics approval letter from USQ

Dear Dergam Amin Mohammad

I am pleased to confirm your Human Research Ethics (HRE) application has now been reviewed by the University's Expedited Review process. As your research proposal has been deemed to meet the requirements of the National Statement on Ethical Conduct in Human Research (2007),

ethical approval is granted as follows:

USQ HREC ID: H19REA149

Project title: The impact of talent management on employees performance in the Jordanian telecommunication industry.

Approval date: 09/08/2019

Expiry date: 09/08/2022

USQ HREC status: Approved

The standard conditions of this approval are:

a)   responsibly conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal.

(b)   advise the University (email:ResearchIntegrity@usq.edu.au) immediately of any complaint pertaining to the conduct of the research or any other issues in relation to the project which may warrant review of the ethical approval of the project;

(c)   promptly report any adverse events or unexpected outcomes to the University (email: ResearchIntegrity@usq.edu.au) and take prompt action to deal with any unexpected risks;

(d)   make submission for any amendments to the project and obtain approval prior to implementing such changes;

(e)   provide a progress 'milestone report' when requested and at least for every year of approval.

(f)   provide a final 'milestone report' when the project is complete;

(g)   promptly advise the University if the project has been discontinued, using a final 'milestone report'.

The additional conditionals of approval for this project are:

(a) Nil.

Please note that failure to comply with the conditions of this approval or requirements of the Australian Code for the Responsible Conduct of Research, 2018, and the National Statement on Ethical Conduct in Human Research, 2007 may result in withdrawal of approval for the project.

Congratulations on your ethical approval! Wishing you all the best for success!

If you have any questions or concerns, please don't hesitate to make contact with an Ethics Officer.

Kind regards

Human Research Ethics

University of Southern Queensland

Toowoomba – Queensland – 4350 – Australia

Phone: (07) 4631 2690

Email: human.ethics@usq.edu.au

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Appendix B:

Activity checklist for close reading of the interview protocol

Aspects of an Interview Protocol	Yes	No	Feedback for Improvement
Interview Protocol Structure		×	
Beginning questions are factual in nature		×	
Key questions are majority of the questions and are placed between beginning and ending questions Questions at the end of interview protocol are reflective and provide participant an opportunity to share closing comments		×	
A brief script throughout the interview protocol provides smooth transitions between topic areas		×	
Interviewer closes with expressed gratitude and any intents to stay connected or follow up		×	
Overall, interview is organized to promote conversational flow		×	
Writing of Interview Questions & Statements			
Questions/statements are free from spelling error(s)	×		How do you see talent management
Only one question is asked at a time		×	
Most questions ask participants to describe experiences and feelings		×	
Questions are mostly open ended		×	
Questions are written in a non-judgmental manner		×	
Length of Interview Protocol			
All questions are needed		×	
Questions/statements are concise		×	
Comprehension			

Questions/statements are devoid of academic language		×	
Questions/statements are easy to understand		×	

Appendix C: Aconset form of indindual interview

	University of southern queensland
	Conse form for USQ research project **Individual interview**
Research details	
Title of project	Exploring talent management and its relationship with employees' performance in the Jordanian telecommunication organisations
Research team contact details	
Principle reseacher	Mr. Dergam Etomm Email: u1110059@umail.usq.edu.au
Supervisor details	Prof. Raj Guruajan Email: Raj.Gururajan@usq.edu.au
Stamen of conset	

By signing below, you are indicating that:

1- understand the information about this reseah project in term of its objective and significance.
2- you can contact the research team for any additional information or the results of the research.
3- understand that you can withdrwal at any stage of this research.
4- you contact the unvesrity of southern queenslkand for any concer or complaint.

partipant name:

date:

signitaure:

please return this document to the principle researcher

Appendix C: An information sheet form of individual interview and quantitative questionnaire.

	University of Southern Queensland
	Participant information for USQ project of individual interview
Research details	
Title of project	Exploring talent management and its relationship with employees' performance in the Jordanian telecommunication organisations
Research team contact details	
Principle reseacher	Mr. Dergam Etomm Email: u1110059@umail.usq.edu.au
Supervisor details	Prof. Raj Guruajan Email: Raj.Gururajan@usq.edu.au
Description	

This project is part of PhD study. this research aims to explore talent management and measure its impact on employees' performance in the Jordanian telecommunication industry. As a result, the significance of this based on to provides recommendation toward effective building and implementation in the researched organisations.

The rsearch tem requests your valuable assistance to provide informations about talent management in your organisations.

Participation

your participation will involve providing your idea and oponions about talent management in a interview which will takes about 30 minutes of your time.

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your participation in this research project is entirely volountry and can withdrawal at any time. your descion to take part or not in this research will no way impact your carrer and your relationship with your organisation.

Expected benifits

it is expected that this research will benefit you from:

1- the recommendations about effective talent management based on the study results.
2- provide the partcipants with new talent managemt ideas and program.

Risks

there are minimal risks ssociated with your participation in thius research project. theseinclude a minor tme imposition.

Privacy and confindentiality

all comments, responses and name of the participant will be remain confident. these responses and comments will be used for academic purpose.

Conset to particiapte

we would liketoask you to sign a wtitten conset form to confirm your participtation in this research project. please return this signed form to a member of research team.

Thank you for taking the time to participate in this research project.

	University of Southern Queensland
	Participant information for USQ project of survey questionnaire
Research details	
Title of project	Exploring talent management and its relationship with employees' performance in the Jordanian telecommunication organisations
Research team contact details	
Principle reseacher	Mr. Dergam Etomm Email: u1110059@umail.usq.edu.au
Supervisor details	Prof. Raj Guruajan Email: Raj.Gururajan@usq.edu.au
Description	

This project is part of PhD study. this research aims to explore talent management and measure its impact on employees' performance in the Jordanian telecommunication industry. As a result, the significance of this based on to provides recommendation toward effective building and implementation in the researched organisations.

The rsearch tem requests your valuable assistance to provide informations about talent management in your organisations.

Participation

your participation will involve providing your idea and oponions about talent management in responding to a questionnaire which will takes about 15 minutes of your time.

your participation in this research project is entirely volountry and can withdrawal at any time. your descion to take part or not in this research will no way impact your carrer and your relationship with your organisation.

Expected benifits

it is expected that this research will benefit you from:

1-the recommendations about effective talent management based on the study results.

2-provide the partcipants with new talent managemt ideas and program.

Risks

there are minimal risks ssociated with your participation in thius research project. theseinclude a minor tme imposition.

Privacy and confindentiality

all comments, responses and name of the participant will be remaining confident. these responses and comments will be used for academic purpose.

Conset to particiapte

we would liketoask you to sign a wtitten conset form to confirm your participtation in this research project. please return this signed form to a member of research team.

Thank you for taking the time to participate in this research project.

Appendix D: Peer review questionnair

Exploring talent management and its relationship with employees' performance in the Jordanian telecommunication organisations

I am a PhD student at USQ under the supervision of *Prof. Raj Gururajan and Prof. Patrick Danaher*. The following questionnaire is intended to *investigate the impact of talent management on employees' performance in the Jordanian telecommunication industry.* The results of the study will explore talent management and measure its impact on employees' performance in the Jordanian telecommunication industry. Your participation is very valuable and will involve contributing to explore talent management and measure its impact on employees' performance. The questionnaire will take approximately 10-20 minutes of your time. Your participation in this research is purely voluntary and research team appreciates your support and time. The outcome of this research study contributes and helps to improve talent management system in your organization and measure its impact on employees' performance. The motivations to conduct this research are that talent is the main source of competitive advantage. So that, attracting, acquisition and retaining talent can maintain organization competitive advantage. In addition, the primary source of measuring orgnisational performance is the employees' performance.

For further information about this research, contact to the research team:
dirghamatoom@yahoo.com   0778454629
Raj.Gururajan@usq.edu.au
Patrick.danaher@usq.edu.au

Part one:

Demographic data

Please tick or fill to provide your information:

Age	Experience	Gender	Department
☐ ≤ 29 years	☐ > 2yaers	☐ Male	Marketing
			Finance
☐ 30 – 39 years	☐ 2-5 years	☐ female	
			Human resource
☐ 40 – 49 years	☐ 5-10 years		
			Other: please fill
☐ 50 – 59 years	☐ 10–20 years		…………………
☐ ≥ 60 years			

Part Two:

x	Variables of talent management					
X1	**Talent acquisition** is an activity designed to hire talented applicants by adopting appropriate tools to appoint the most talented applicants. *(SD □ Strongly Disagree, D □ Disagree, N □ Neutral, Agree □ A, SA □ Strongly Agree)*					
		SD	D	N	A	SA
1	My orgnisation Uses objective criteria to select talented candidates.					
2	My orgnisation Depends on depth interviews to select skilled candidates.					
3	The interview process in my organization for potential candidates when a vacancy arises is a fair process.					
4	My organisation uses different tools to acquisit talented employees.					
5	My organisation usually depend on the internal acquisition					
6	My organisation usually depend on the external acquisition					
X2	**Talent learning and development**: focus on organizational activities that aim to nurture talent and to enhance their abilities, experience, and knowledge **SD □ Strongly Disagree, D □ Disagree, N □ Neutral, Agree □ A, SA □ Strongly Agree**					
		SD	D	N	A	SA
1	My organisation Determines training needs accurately					
2	My organisation Appraises the performance of existing employees accurately to discover their strengths and weakness.					
3	My organisation Introduces enough opportunities to develop talented employees .					
4	My organisation always plans on employee career growth					

		SD	D	N	A	SA
5	Career development policy is clearly outlined and known to all employees					
6	My organization has an employee development strategy which is clearly understood by all the employee .					
X3	**Talent retention**: defined as organizational activities designed to prevent talent from turn- over. **SD □ Strongly Disagree, D □ Disagree, N □ Neutral, Agree □ A, SA □ Strongly Agree**					

		SD	D	N	A	SA
1	My organisation Retains the talent needed to achieve orgnaisation goals.					
2	I think that my position in the organisation is secure.					
3	My organisation ensures our organisation image remains good all the time in order to retain our talented employees. .					
4	My organisation has a competitive compensation system in comparison to other organizations in the same industry which is a motivating factor for our employees.					
5	My organisation flexible working hours is a motivating factor for our employees					
6	My organisation offers training opportunities to enhance career growth hence retain talented employees.					
7	My organisation ensures employees are satisfied and motivated all the time.					
x	**Variables of employees performance**					
X1	**Task performance**: deals with behaviors that are related to the job's core activities in organisations. *(SD □ Strongly Disagree, D □ Disagree, N □ Neutral, Agree □ A, SA □ Strongly Agree)*					

		SD	D	N	A	SA
1	I was able to plan my work so that I finished it on time.					
2	I kept in mind the work result I needed to achieve.					
3	I was able to set priorities in my work.					
4	I was able to carry out my work efficiently.					
5	I use to maintain a high standard of work.					
6	I managed my time well.					
7	I am capable of handling my assignments without much supervision.					
X2	**Adaptive performance:** focus on employees' ability to adjust to a job assignment particularly in dynamic work situations, in which the techniques and tools rapidly change. **SD □ Strongly Disagree, D □ Disagree, N □ Neutral, Agree □ A, SA □ Strongly Agree**					
		SD	D	N	A	SA
1	I could manage the change in my job very well whenever the situation demands.					
2	I can handle effectively my work team in the face of change.					
3	I am very comfortable with job flexibility.					
4	I worked at keeping my job knowledge up-to-date.					
5	I worked at keeping my job skills up-to-date					
6	I recovered fast, after difficult situations or setbacks at work.					
7	I came up with creative solutions to new Problems.					
X3	**Contextual performance** lies in employees' behaviors enhancing the organisational, social and psychological environment.					

	SD ☐ Strongly Disagree, D ☐ Disagree, N ☐ Neutral, Agree ☐ A, SA ☐ Strongly Agree	SD	D	N	A	SA
1	I took the initiative when there was a problem to be solved.					
2	I started new tasks myself when my old ones were finished. .					
3	I was open to criticism of my work.					
4	I use to maintain good coordination among fellow workers.					
5	I communicate effectively with my colleagues for problem-solving and decision making.					
6	I used to extend help to my co-workers when asked or needed.					
7	I use to guide new colleagues beyond my job purview.					
X4	**Counterproductive performance:** refers to the negative consequence of employees' undesired behaviors for individuals and organisations. **SD ☐ Strongly Disagree, D ☐ Disagree, N ☐ Neutral, Agree ☐ A, SA ☐ Strongly Agree**					
		SD	D	N	A	SA
1	I complained about unimportant matters at work.					
2 .	I made problems greater than they were at Work.					
3	I focused on the negative aspects of a work situation, instead of on the positive aspects.					
4	I spoke with colleagues about the negative aspects of my work.					
5	I spoke with people from outside the organization about the negative aspects of my work.					
6	I purposely worked slowly.					

7	I behaved rudely towards my colleagues at work					

Appendix E: The final version of the survey questionnaire

Exploring talent management and its relationship with employees' performance in the Jordanian telecommunication organisations

I am a PhD student at USQ under the supervision of ***Prof. Raj Gururajan*** and ***Prof. Patrick Danaher***. The following questionnaire is intended to *investigate the impact of talent management on employees' performance in the Jordanian telecommunication industry.* The results of the study will explore talent management and measure its impact on employees' performance in the Jordanian telecommunication industry. Your participation is very valuable and will involve contributing to explore talent management and measure its impact on employees' performance. The questionnaire will take approximately 10-20 minutes of your time. Your participation in this research is purely voluntary and research team appreciates your support and time. The outcome of this research study contributes and helps to improve talent management system in your organization and measure its impact on employees' performance. The motivations to conduct this research are that talent is the main source of competitive advantage. So that, attracting, acquisition and retaining talent can maintain organization competitive advantage. In addition, the primary source of measuring orgnisational performance is the employees' performance.

For further information about this research, contact to the research team:
dirghamatoom@yahoo.com   0778454629
Raj.Gururajan@usq.edu.au
Patrick.danaher@usq.edu.au

Part one:

Demographic data

Please tick or fill to provide your information:

Age	Experience	Gender	Department
☐ ≤ 29 years	☐ > 2yaers	☐ Male	Marketing
☐ 30 – 39 years	☐ 2-5 years	☐ female	Finance
☐ 40 – 49 years	☐ 5-10 years		Human resource
☐ 50 – 59 years	☐ 10–20 years		Other: please fill
☐ ≥ 60 years			…………………

Part Two:

X1	*(SD ☐ Strongly Disagree غير موافق بشده , D ☐ Disagree,غير موافق N ☐ Neutral محايد, A ☐ agree موافق, SA ☐ Strongly Agree(موافق بشدة)* (SD غير موافق بشد					
	Talen Management – Talent Acquisition	SD غير موافق بشدة	D غير موافق	N محايد	A موافق	SA موافق بشدة
1	My orgnisation uses objective criteria (such as C.V filteration) to select talented candidates. تقوم منظمتي باستخدام معايير موضوعية مثل(تصفية السير الذاتية) عند اختيار الموظفين الموهوبين.					
2	My orgnisation conducts in- depth interviews to select skilled candidates. تستخدم منظمتي مقابلات عميقة عند اختيار المرشحين المهارين للوظيفة					
3	The interview process in my organization is a fair process by treating all intervwees in the same maner. ان المقابلات في منظمتي عادله وذلك عن طريق المساواه في معاملة كل المرشحين للوظيفة					

		SD غير موافق بشدة	D غير موافق	N محايد	A موافق	SA موافق بشدة
4	My organisation uses different tools to acquire talented employees (adviretement, employees relations, social media). تستخدم منظمتي طرق متعدده لاستقطاب المو الاعلانات علاقات الموظفين, وسائل التواصل الاجتماعي)					
5	My organisation uses both internal and external acquisition to acquire talent تستخدم منظمتي التعيين الداخلي والخارجي					
Talent Management – Learning & Development		SD غير موافق بشدة	D غير موافق	N محايد	A موافق	SA موافق بشدة
1	My organisation determines training needs accurately تقوم منظمتي بتحديد الاحتياجات التدريبية بدقة					
2	Talented employees partcicipate in determine his/her training courses يشارك الموظفين الموهوبين في تحديد احتياجاتهم التدريبية					
3	I regularly receive sufficient coaching انا استقبل تدريب بانتظام					
4	My organisation identifies competencies needed to develop talents تقوم منظمتي بالتعرف على الجدارات المطلوبة لتطوير المواهب .					
Talent Management – Talent retention		SD غير موافق بشدة	D غير موافق	N محايد	A موافق	SA موافق بشدة
1	The talented emloyees retain in my organization because the job is secure. يوجد امان وظيفي في منظمتي وذلك يساعد على ادامة المواهب					
2	My organisation ensures the organisation image remains good all the time in order to retain our talented employees. تحرص منظمتي على ابقاء صورتها جيدة دائما من اجل المحافظة على المواهب					

		SD غير موافق بشدة	D غير موافق	N محايد	A موافق	SA موافق بشدة
	.					
3	My organisation's flexible working hours is a motivating factor for our talented employees فى منظمتي ساعات عمل مرنة حيث تعتبر عامل محفز لادامة الموظفين الموهوبين					
4	My organisation offers training opportunities to enhance career growth in order to retain talented employees. تقدم منظمتي فرص تدريبية من اجل تعزيز المسار المهني من اجل المحافظة على الموظفينى الموهوبين					
5	My organisation ensures employees are satisfied in all level (social, economic) and motivated all the time. تحرص منظمتي على التاكد من ان الموظفين الموهوبين راضين على المستوى الاجتماعي والاقتصادي ومحفزين دائما					
	Employee Performance – Task Performance	SD غير موافق بشدة	D غير موافق	N محايد	A موافق	SA موافق بشدة
1	I am able to plan my work so that I finished it on time. انا قادر على التخطيط لعملي ولذلك انهيه على الموعد المحدد					
2	I kept in mind the work task I needed to achieve. ابقي في عقلي دائما الواجبات المطلوبة مني لانجازها					
3	I am able to set priorities in my work. انا قادر على وضع الاولويات في عملي					
4	I am able to carry out my work productively (fewer resources, fewer errors…). انا قادر على اداء عملي بانتاجية (استخدام مصادر اقل, اقل اخطاء)					
5	I maintain a high standard of work. انا احافظ على معايير عالية في تنفيذ عملي					
6	I am capable of handling my tasks without much supervision. انا قادر على التعامل مع واجباتي في العمل بدون اشراف					
Employee performance – Adaptive performance		SD	D	N	A	SA

		غير موافق بشدة	غير موافق	محايد	موافق	موافق بشدة
1	I could manage the change in my job very well whenever the situation demands. انا قادر على التعامل مع التغيرات في العمل جيدا حينما يتطلب ذلك					
2	I can handle effectively my work team in the face of change. انا قادر على التعامل بفعالية مع فريق العمل عند مواجهة التغيرات					
3	I am very comfortable with job flexibility. انا مرتاح جدا مع مرونة العمل					
4	I work at keeping my job skills up-to-date انا اعمل على ابقاء مهاراتي محدثة في العمل					
5	I recover quickly after difficult situations or setbacks at work. انا اتعافى بسرعة بعد اي صعوبات في العمل					
Employee performance – Contextual performance		SD غير موافق بشدة	D غير موافق	N محايد	A موافق	SA موافق بشدة
1	I take initiative when there was a problem to be solved. انا اقوم بالمبادرة لحل اي مشكلة في العمل					
2	I start new tasks myself when my old ones were finished. اقوم باداء مهمة جديدة بنفسي عند الانتهاء من المهمة القديمة .					
3	I am open to criticism at my work. انا منفتح لاستقبال النقد في العمل					
4	I maintain good coordination among fellow workers. انا احافظ على تنسيق جيد مع زملائي في العمل					
5						

		SD غير موافق بشدة	D غير موافق	N محايد	A موافق	SA موافق بشدة
	I communicate effectively with my colleagues for problem-solving and decision making. انا اتواصل بفاعلية مع زملائي من اجل حل المشاكل واتخاذ القرارات					
6	I guide new colleagues beyond my job purview. انا اوجه الزملاء الجدد حتى وان هذا خارج نطاق عملي					
Employee performance – Counterproductive performance		SD غير موافق بشدة	D غير موافق	N محايد	A موافق	SA موافق بشدة
1	I did not complain about unimportant matters at work. انا لا اتذمر من الامور الغير مهمة في العمل					
2 .	I give an impression that problems are as it is. انا اعطي انطباع بان المشاكل كما هي عليه					
3	I focuse on the positive aspects of a work situation, instead of the negative aspects. انا اركز على الجانب الايجابي في العمل بغض النظر عن الجوانب الايجابية					
4	I speak about positive aspects of my work outside the organisation. انا اتكلم عن الجواني الايجابية في عملي خارج العمل					
5	I behave respectly towards my colleagues at Work انا اتصرف باحترام باتجاه زملائي في العمل					

Appendix F: Qualitaive data analysis on A3 sheet

Talent management definition: linear

① collection of typical human resource ~~dept~~ | ② talent pools or flows of | ③ a generic perspective on
department practices or function | employees into job | talent that focuses on

orgA: I1
① process of Tmp and create
is being right (right ~~talent~~ in the right place)

② is being right (the best person for bot place at the best time) | Knowing what you have
and what you want

I3 start with identification, acquisition, Learning, and development
and finally retention.

orgB: I1
| | is the process of discovering potential
talent and give him/her opportunity
to add value

I2
| Fulfill organisation need currently | discover talented employees
and in the future | (high-potential)

org: C I1
TM is a process of attraction, acquisition, Learning
and development and retention

talent definition   Objective   Subjective

Organisation A I_1
(inclusive (all employees have talent) $\}$ ③ inclusive/
acquired (the importance How to create   developable
and develop this talent)

I_2
inclusive (its include in all employees)
① obj (Talent is collection of Competencies or Personal
skill
I_3
② obj (Competencies, Knowledge, skill, ability)

Organisation B I_1
exclusive (there are few employees can be talent)
← High Potential (expand his or her potential)

Hi
I_2
ive (to do complicated task)
(exclusive (who owns (not all))
Subjective/exclusive

Organisation C
I_1
obj
(Talent is combination of Knowledge, motivation)
and skill
Lead to) to Superior performance (to do the work
in the best way)

TMP:	T Attraction	T acquisition	T Learning & Development	T Retention
org1: I1		X	X	X
I2		X	X	X
I3		X	X	X
org2: I1		X	X	X
I2		X	X	X
org3: I1	X	X	X	X

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Challenge of TM program

Theme: fit approach

would it
I_3
mother company
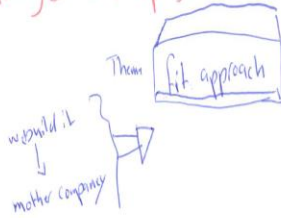
most important TM practices Focus	all the Same	acquisition Identification / L&Development	L&D
Org1 $\bar{I}_1$	X (Integrative Cycle)		
$\bar{I}_2$		X	
$\bar{I}_3$	X (Integrative Cycle)		
			X
Org2 $\bar{I}_1$			
$\bar{I}_2$		X	
Org3 $\bar{I}_1$	X (Integrative Cycle)		

what is the role of the H.R manager and employees in TM process?

HR only responsibl.   HR with other Director

                                              we
                              after build Share TM program X
                              brainstorming with other director to build TM program

org₁   I₁

                              brainstorming / build TM program / keep director
                              of all departments with TM process.

       I₂

       I₃

                              brainstorming workshop, recieve feedback.
                              However, after that the role of TM process is done
                                     by H.R. D
org₂   I₁

                              brainstorming between H.R Comitee and directors
                              of other department. However, after that
                              their role descreaed until disappeared.

       I₂

org₃   I₁

                              Sharing between H.R manager and employees with
                              other department manager to recieve their
                              feedback.

Appendix G: SPSS outputs for descriptive statistics, reliability testing, ANOVA, correlations and regression analysis

Talent acquisition SPSS results

Case Processing Summary

		N	%
Cases	Valid	301	100.0
	Excluded[a]	0	.0
	Total	301	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.836	.836	5

Item Statistics

Item Statistics

	Mean	Std. Deviation	N
tq1	4.05	.786	301
tq2	4.09	.708	301
tq3	4.06	.794	301
tq4	4.29	.708	301
tq5	4.48	.625	301

Inter-Item Correlation Matrix

	tq1	tq2	tq3	tq4	tq5
tq1	1.000	.603	.535	.485	.349
tq2	.603	1.000	.696	.546	.461
tq3	.535	.696	1.000	.485	.420

tq4	.485	.546	.485	1.000	.469
tq5	.349	.461	.420	.469	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.193	4.047	4.475	.429	1.106	.035	5
Inter-Item Correlations	.505	.349	.696	.347	1.996	.009	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
tq1	16.92	5.136	.623	.415	.808
tq2	16.87	5.064	.756	.595	.770
tq3	16.90	4.934	.684	.520	.790
tq4	16.67	5.428	.620	.394	.808
tq5	16.49	6.004	.516	.289	.834

Talent learining and development SPSS result

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.96	7.975	2.824	5

Case Processing Summary

		N	%
Cases	Valid	301	100.0
	Excluded[a]	0	.0
	Total	301	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.867	.866	4

	Mean	Std. Deviation	N
tld1	3.88	.720	301
tld2	3.84	.907	301
tld3	3.78	.889	301
tld4	3.75	.985	301

Inter-Item Correlation Matrix

	tld1	tld2	tld3	tld4
tld1	1.000	.592	.423	.592
tld2	.592	1.000	.647	.749
tld3	.423	.647	1.000	.699
tld4	.592	.749	.699	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.812	3.748	3.880	.133	1.035	.003	4
Inter-Item Correlations	.617	.423	.749	.326	1.770	.012	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
tld1	11.37	6.187	.601	.403	.874
tld2	11.41	4.883	.787	.623	.800
tld3	11.47	5.263	.689	.525	.841
tld4	11.50	4.491	.815	.668	.788

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
15.25	8.861	2.977	4

Talent retention results

Case Processing Summary

		N	%
Cases	Valid	301	100.0
	Excluded[a]	0	.0
	Total	301	100.0

a. Listwise deletion based on all variables in the
procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.823	.825	5

Item Statistics

	Mean	Std. Deviation	N
tr1	3.84	.860	301
tr2	4.15	.798	301
tr3	4.04	.830	301
tr4	4.02	.768	301
tr5	3.69	.943	301

Inter-Item Correlation Matrix

	tr1	tr2	tr3	tr4	tr5
tr1	1.000	.657	.369	.388	.511
tr2	.657	1.000	.448	.518	.423
tr3	.369	.448	1.000	.527	.478
tr4	.388	.518	.527	1.000	.532
tr5	.511	.423	.478	.532	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.949	3.688	4.153	.465	1.126	.034	5
Inter-Item Correlations	.485	.369	.657	.288	1.778	.007	5

Task performance SPSS results

Case Processing Summary

		N	%
Cases	Valid	301	100.0
	Excluded[a]	0	.0
	Total	301	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.860	.863	6

Item Statistics

	Mean	Std. Deviation	N
tp1	4.11	.744	301
tp2	4.35	.623	301
tp3	4.31	.689	301
tp4	4.27	.624	301
tp5	4.35	.595	301
tp6	4.31	.709	301

Inter-Item Correlation Matrix

	tp1	tp2	tp3	tp4	tp5	tp6
tp1	1.000	.483	.576	.567	.507	.470
tp2	.483	1.000	.548	.576	.448	.508
tp3	.576	.548	1.000	.576	.577	.362
tp4	.567	.576	.576	1.000	.659	.445
tp5	.507	.448	.577	.659	1.000	.384
tp6	.470	.508	.362	.445	.384	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.282	4.113	4.349	.236	1.057	.008	6
Inter-Item Correlations	.512	.362	.659	.298	1.822	.006	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
tp1	21.58	6.331	.670	.460	.834
tp2	21.35	6.860	.657	.463	.836
tp3	21.39	6.538	.676	.501	.832
tp4	21.43	6.652	.731	.572	.823
tp5	21.35	6.975	.657	.501	.836

tp6	21.38	6.877	.542	.337	.858

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.69	9.393	3.065	6

Adaptive performance SPSS results

Case Processing Summary

		N	%
Cases	Valid	301	100.0
	Excluded[a]	0	.0
	Total	301	100.0

a. Listwise deletion based on all variables in the
procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.788	.792	5

Item Statistics

	Mean	Std. Deviation	N
ap1	4.18	.642	301
ap2	4.23	.660	301
ap3	4.13	.760	301
ap4	4.31	.624	301
ap5	4.04	.679	301

Inter-Item Correlation Matrix

	ap1	ap2	ap3	ap4	ap5
ap1	1.000	.630	.562	.387	.395
ap2	.630	1.000	.388	.395	.514
ap3	.562	.388	1.000	.318	.274
ap4	.387	.395	.318	1.000	.456
ap5	.395	.514	.274	.456	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.177	4.043	4.312	.269	1.067	.010	5
Inter-Item Correlations	.432	.274	.630	.356	2.302	.011	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ap1	16.71	4.008	.676	.523	.713
ap2	16.66	4.013	.646	.484	.722
ap3	16.76	4.058	.497	.329	.775
ap4	16.57	4.446	.503	.274	.768
ap5	16.84	4.221	.528	.341	.760

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.88	6.156	2.481	5

Contexual performance SPSS results

Case Processing Summary

		N	%
Cases	Valid	301	100.0

Excluded[a]	0	.0
Total	301	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.767	.779	6

Item Statistics

	Mean	Std. Deviation	N
cp1	4.18	.603	301
cp2	4.16	.601	301
cp3	4.03	.830	301
cp4	4.21	.599	301
cp5	4.20	.596	301
cp6	4.22	.648	301

Inter-Item Correlation Matrix

	cp1	cp2	cp3	cp4	cp5	cp6
cp1	1.000	.518	.229	.429	.527	.501
cp2	.518	1.000	.391	.222	.235	.251
cp3	.229	.391	1.000	.316	.291	.260
cp4	.429	.222	.316	1.000	.664	.317
cp5	.527	.235	.291	.664	1.000	.409
cp6	.501	.251	.260	.317	.409	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.168	4.030	4.223	.193	1.048	.005	6

Inter-Item Correlations	.371	.222	.664	.443	2.998	.018	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
cp1	20.82	5.019	.624	.516	.706
cp2	20.85	5.417	.461	.359	.745
cp3	20.98	4.876	.410	.238	.773
cp4	20.80	5.202	.550	.465	.724
cp5	20.80	5.085	.605	.530	.711
cp6	20.78	5.217	.483	.296	.740

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.01	7.067	2.658	6

counterproductive performance SPSS results

Case Processing Summary

		N	%
Cases	Valid	301	100.0
	Excluded[a]	0	.0
	Total	301	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.770	.767	5

Item Statistics

	Mean	Std. Deviation	N
ccp1	3.68	1.031	301
ccp2	4.08	.839	301
ccp3	4.26	.751	301
ccp4	4.23	.894	301
ccp5	4.71	.584	301

Inter-Item Correlation Matrix

	ccp1	ccp2	ccp3	ccp4	ccp5
ccp1	1.000	.587	.457	.420	.206
ccp2	.587	1.000	.519	.447	.161
ccp3	.457	.519	1.000	.522	.293
ccp4	.420	.447	.522	1.000	.361
ccp5	.206	.161	.293	.361	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.191	3.684	4.708	1.023	1.278	.136	5
Inter-Item Correlations	.397	.161	.587	.425	3.634	.019	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ccp1	17.27	5.226	.582	.392	.719
ccp2	16.88	5.832	.616	.440	.701
ccp3	16.70	6.150	.623	.399	.703
ccp4	16.72	5.714	.590	.372	.710
ccp5	16.25	7.654	.322	.150	.788

Scale Statistics

Mean	Variance	Std. Deviation	N of Items

20.96	9.035	3.006	5

ANOVA results: Talent management with age

Descriptives

avgTalentM

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum
					Lower Bound	Upper Bound	
less thn 29	88	4.1364	.67051	.07148	3.9943	4.2784	1.75
30-39	105	4.1000	.64076	.06253	3.9760	4.2240	1.75
40-49	80	4.2094	.48464	.05418	4.1015	4.3172	3.00
50-59	28	3.9107	.61695	.11659	3.6715	4.1499	2.25
Total	301	4.1221	.61258	.03531	4.0526	4.1916	1.75

The number is equal in each group 301(Pallant).

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
avgTalentM	Based on Mean	1.231	3	297	.298
	Based on Median	1.306	3	297	.273
	Based on Median and with adjusted df	1.306	3	276.543	.273
	Based on trimmed mean	1.256	3	297	.290

ANOVA

avgTalentM

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.930	3	.643	1.727	.162
Within Groups	110.646	297	.373		
Total	112.576	300			

ANOVA results: Talent management with department

Descriptives

avgTalentM

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		
					Lower Bound	Upper Bound	
marketing	37	4.1824	.55480	.09121	3.9975	4.3674	
finance	31	4.0000	.40311	.07240	3.8521	4.1479	
human resource	63	4.1905	.57452	.07238	4.0458	4.3352	
customer care	48	4.2083	.71148	.10269	4.0017	4.4149	
enginering	62	4.0161	.65109	.08269	3.8508	4.1815	
IT	38	4.1974	.56100	.09101	4.0130	4.3818	
project coardenator	2	4.6250	.17678	.12500	3.0367	6.2133	
quality assurance	3	3.7500	.25000	.14434	3.1290	4.3710	
sales	7	3.7143	.92903	.35114	2.8551	4.5735	
digital transformation	7	4.2143	.68357	.25836	3.5821	4.8465	
retail	3	3.8333	1.04083	.60093	1.2478	6.4189	
Total	301	4.1221	.61258	.03531	4.0526	4.1916	

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
avgTalentM	Based on Mean	1.646	10	290	.093
	Based on Median	1.206	10	290	.286
	Based on Median and with adjusted df	1.206	10	252.497	.287
	Based on trimmed mean	1.535	10	290	.126

ANOVA

avgTalentM

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.555	10	.455	1.223	.276
Within Groups	108.021	290	.372		
Total	112.576	300			

ANOVA results: Talent management with experience

Descriptives

avgTalentM

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minim
less than 2 years	26	4.1538	.56159	.11014	3.9270	4.3807	
2-5	61	4.0328	.65903	.08438	3.8640	4.2016	
5-10	73	4.0411	.63467	.07428	3.8930	4.1892	
10-20	141	4.1968	.58463	.04923	4.0995	4.2941	
Total	301	4.1221	.61258	.03531	4.0526	4.1916	

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
avgTalentM	Based on Mean	.318	3	297	.812
	Based on Median	.244	3	297	.866
	Based on Median and with adjusted df	.244	3	282.570	.866
	Based on trimmed mean	.245	3	297	.865

ANOVA

avgTalentM

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.779	3	.593	1.589	.192
Within Groups	110.797	297	.373		
Total	112.576	300			

ANOVA results: Talent management with gender

Descriptives

avgTalentM

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maxim
male	170	4.0735	.61996	.04755	3.9797	4.1674	1.75	
femail	131	4.1851	.59935	.05237	4.0815	4.2887	1.75	
Total	301	4.1221	.61258	.03531	4.0526	4.1916	1.75	

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
avgTalentM	Based on Mean	.028	1	299	.866
	Based on Median	.043	1	299	.836
	Based on Median and with adjusted df	.043	1	296.303	.836
	Based on trimmed mean	.017	1	299	.897

ANOVA

avgTalentM

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.921	1	.921	2.467	.117
Within Groups	111.654	299	.373		
Total	112.576	300			

ANOVA results: Employee performance with department

Descriptives

avg_ep

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
marketing	37	4.1462	.40218	.06612	4.0121	4.2803
finance	31	4.1642	.33988	.06104	4.0396	4.2889
human resource	63	4.2431	.49276	.06208	4.1190	4.3672
customer care	48	4.2955	.40871	.05899	4.1768	4.4141
enginering	62	4.1650	.39363	.04999	4.0650	4.2649
IT	38	4.2249	.31367	.05088	4.1218	4.3280
project coardenator	2	4.7273	.25713	.18182	2.4171	7.0375
quality assurance	3	4.1970	.35307	.20384	3.3199	5.0740
sales	7	4.2532	.29206	.11039	3.9831	4.5234
digital transformation	7	3.8896	.39527	.14940	3.5240	4.2552
retail	3	4.1061	.22878	.13209	3.5377	4.6744
Total	301	4.2064	.40505	.02335	4.1605	4.2524

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
avg_ep	Based on Mean	1.255	10	290	.256
	Based on Median	1.191	10	290	.296
	Based on Median and with adjusted df	1.191	10	271.599	.297
	Based on trimmed mean	1.284	10	290	.239

ANOVA

avg_ep

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.065	10	.207	1.270	.247
Within Groups	47.155	290	.163		
Total	49.221	300			

ANOVA results: Employee performance with age

Descriptives

avg_ep

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum
less thn 29	88	4.1663	.50191	.05350	4.0600	4.2727	2.59
30-39	105	4.2009	.36275	.03540	4.1307	4.2711	3.23
40-49	80	4.2653	.38102	.04260	4.1805	4.3501	3.18
50-59	28	4.1851	.25200	.04762	4.0874	4.2828	3.77
Total	301	4.2064	.40505	.02335	4.1605	4.2524	2.59

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
avg_ep	Based on Mean	6.650	3	297	.000
	Based on Median	6.534	3	297	.000
	Based on Median and with adjusted df	6.534	3	274.302	.000
	Based on trimmed mean	6.667	3	297	.000

ANOVA

avg_ep

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.435	3	.145	.883	.450
Within Groups	48.785	297	.164		
Total	49.221	300			

ANOVA results: Employee performance with experience

Descriptives

avg_ep

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minim
					Lower Bound	Upper Bound	
less than 2 years	26	4.2622	.35310	.06925	4.1196	4.4049	
2-5	61	4.1371	.48713	.06237	4.0123	4.2619	
5-10	73	4.1681	.35010	.04098	4.0864	4.2498	
10-20	141	4.2460	.39946	.03364	4.1795	4.3125	
Total	301	4.2064	.40505	.02335	4.1605	4.2524	

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
avg_ep	Based on Mean	2.398	3	297	.068
	Based on Median	2.394	3	297	.069
	Based on Median and with adjusted df	2.394	3	283.523	.069
	Based on trimmed mean	2.432	3	297	.065

ANOVA

avg_ep

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.702	3	.234	1.432	.234
Within Groups	48.519	297	.163		
Total	49.221	300			

ANOVA results: Employee performance with gender

Descriptives

avg_ep

| | N | Mean | Std. Deviation | Std. Error | 95% Confidence Interval for Mean | | Minimum | Maxim |
					Lower Bound	Upper Bound		
male	170	4.2134	.39351	.03018	4.1538	4.2729	3.00	
femail	131	4.1974	.42092	.03678	4.1247	4.2702	2.59	
Total	301	4.2064	.40505	.02335	4.1605	4.2524	2.59	

Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
avg_ep	Based on Mean	.125	1	299	.724
	Based on Median	.093	1	299	.761
	Based on Median and with adjusted df	.093	1	294.938	.761
	Based on trimmed mean	.117	1	299	.732

ANOVA

avg_ep

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.019	1	.019	.114	.736
Within Groups	49.202	299	.165		
Total	49.221	300			

Univariate data analysis

Descriptive statistics of the talent acquistion construct (N = 301)

Statistics

talent acquistion

N	Valid	301
	Missing	0

Mean	4.05
Std. Deviation	.786
Minimum	0
Maximum	5

Statistics

		talent acquistion	tq2	tq3	tq4	tq5
N	Valid	301	301	301	301	301
	Missing	0	0	0	0	0
Mean		4.05	4.09	4.06	4.29	4.48
Std. Deviation		.786	.708	.794	.708	.625
Skewness		-1.326	-1.092	-.752	-.940	-1.020
Std. Error of Skewness		.140	.140	.140	.140	.140
Kurtosis		3.841	2.899	.852	1.482	1.168
Std. Error of Kurtosis		.280	.280	.280	.280	.280
Minimum		0	1	1	1	2
Maximum		5	5	5	5	5

talent acquistion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	.3	.3	.3
	strongly disagree	3	1.0	1.0	1.3
	disagree	8	2.7	2.7	4.0
	neutral	34	11.3	11.3	15.3
	agree	178	59.1	59.1	74.4
	strongly agree	77	25.6	25.6	100.0
	Total	301	100.0	100.0	

tq2

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.7	.7	.7
	disagree	9	3.0	3.0	3.7
	neutral	24	8.0	8.0	11.6
	agree	191	63.5	63.5	75.1
	stongly agree	75	24.9	24.9	100.0
	Total	301	100.0	100.0	

tq3

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.7	.7	.7
	agree	8	2.7	2.7	3.3
	neutral	50	16.6	16.6	19.9
	agree	151	50.2	50.2	70.1
	strongly agree	90	29.9	29.9	100.0
	Total	301	100.0	100.0	

tq4

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.3	.3	.3
	agree	4	1.3	1.3	1.7
	neutral	26	8.6	8.6	10.3
	agree	145	48.2	48.2	58.5
	strongly agree	125	41.5	41.5	100.0
	Total	301	100.0	100.0	

tq5

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	3	1.0	1.0	1.0
	neutral	12	4.0	4.0	5.0
	agree	125	41.5	41.5	46.5
	strongly agree	161	53.5	53.5	100.0
	Total	301	100.0	100.0	

Descriptive statistics of the talent learning and development construct (N = 301)

Statistics

		talent learning and devloment	tld2	tld3	tld4
N	Valid	301	301	301	301
	Missing	0	0	0	0
Mean		3.88	3.84	3.78	3.75
Std. Deviation		.720	.907	.889	.985
Skewness		-.948	-1.101	-.939	-.868
Std. Error of Skewness		.140	.140	.140	.140
Kurtosis		1.970	1.644	1.234	.604
Std. Error of Kurtosis		.280	.280	.280	.280
Minimum		1	1	1	1
Maximum		5	5	5	5

talent learning and devloment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly dis agree	2	.7	.7	.7
	disagree	13	4.3	4.3	5.0
	neutral	47	15.6	15.6	20.6
	agree	196	65.1	65.1	85.7
	strongly agree	43	14.3	14.3	100.0
	Total	301	100.0	100.0	

tld2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly dis agree	10	3.3	3.3	3.3
	disagree	13	4.3	4.3	7.6
	neutral	53	17.6	17.6	25.2
	agree	165	54.8	54.8	80.1

		Frequency	Percent	Valid Percent	Cumulative Percent
	strongly disagree	60	19.9	19.9	100.0
	Total	301	100.0	100.0	

tld3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	2.7	2.7	2.7
	disagree	16	5.3	5.3	8.0
	neutral	62	20.6	20.6	28.6
	agree	162	53.8	53.8	82.4
	strongly disagree	53	17.6	17.6	100.0
	Total	301	100.0	100.0	

tld4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	11	3.7	3.7	3.7
	disagree	22	7.3	7.3	11.0
	neutral	61	20.3	20.3	31.2
	agree	145	48.2	48.2	79.4
	strongly agree	62	20.6	20.6	100.0
	Total	301	100.0	100.0	

Descriptive statistics of the talent retention construct (N = 301)

Statistics

		talent retention	tr2	tr3	tr4	tr5
N	Valid	301	301	301	301	301
	Missing	0	0	0	0	0
Mean		3.84	4.15	4.04	4.02	3.69
Std. Deviation		.860	.798	.830	.768	.943
Skewness		-.993	-.718	-1.069	-.428	-.469
Std. Error of Skewness		.140	.140	.140	.140	.140
Kurtosis		1.423	.071	1.595	-.209	-.331

Std. Error of Kurtosis	.280	.280	.280	.280	.280
Minimum	1	2	1	2	1
Maximum	5	5	5	5	5

talent retention

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	6	2.0	2.0	2.0
	disagree	17	5.6	5.6	7.6
	neutral	51	16.9	16.9	24.6
	agree	171	56.8	56.8	81.4
	strongly agree	56	18.6	18.6	100.0
	Total	301	100.0	100.0	

tr2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	11	3.7	3.7	3.7
	neutral	43	14.3	14.3	17.9
	agree	136	45.2	45.2	63.1
	strongly agree	111	36.9	36.9	100.0
	Total	301	100.0	100.0	

tr3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.0	1.0	1.0
	disagree	16	5.3	5.3	6.3
	neutral	31	10.3	10.3	16.6
	agree	166	55.1	55.1	71.8
	strongly agree	85	28.2	28.2	100.0
	Total	301	100.0	100.0	

tr4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	9	3.0	3.0	3.0
	neutral	59	19.6	19.6	22.6
	agree	151	50.2	50.2	72.8
	strongly agree	82	27.2	27.2	100.0
	Total	301	100.0	100.0	

tr5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.0	1.0	1.0
	disagree	35	11.6	11.6	12.6
	neutral	72	23.9	23.9	36.5
	agree	134	44.5	44.5	81.1
	strongly agree	57	18.9	18.9	100.0
	Total	301	100.0	100.0	

Descriptive statistics of the task performance construct (N = 301)

Statistics

		tp1	tp2	tp3	tp4	tp5	tp6
N	Valid	301	301	301	301	301	301
	Missing	0	0	0	0	0	0
Mean		4.11	4.35	4.31	4.27	4.35	4.31
Std. Deviation		.744	.623	.689	.624	.595	.709
Skewness		-.820	-.577	-.861	-.591	-.676	-.984
Std. Error of Skewness		.140	.140	.140	.140	.140	.140
Kurtosis		1.213	.260	.936	1.022	1.548	1.222
Std. Error of Kurtosis		.280	.280	.280	.280	.280	.280
Minimum		1	2	2	2	2	2
Maximum		5	5	5	5	5	5

tp1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.3	.3	.3
	disagree	9	3.0	3.0	3.3
	neutral	35	11.6	11.6	15.0
	agree	166	55.1	55.1	70.1
	strongly agree	90	29.9	29.9	100.0
	Total	301	100.0	100.0	

tp2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	2	.7	.7	.7
	neutral	18	6.0	6.0	6.6
	agree	154	51.2	51.2	57.8
	strongly agree	127	42.2	42.2	100.0
	Total	301	100.0	100.0	

tp3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	6	2.0	2.0	2.0
	neutral	21	7.0	7.0	9.0
	agree	148	49.2	49.2	58.1
	strongly agree	126	41.9	41.9	100.0
	Total	301	100.0	100.0	

tp4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	4	1.3	1.3	1.3
	neutral	17	5.6	5.6	7.0
	agree	175	58.1	58.1	65.1

		Frequency	Percent	Valid Percent	Cumulative Percent
	strongly agree	105	34.9	34.9	100.0
	Total	301	100.0	100.0	

tp5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	4	1.3	1.3	1.3
	neural	7	2.3	2.3	3.7
	agree	171	56.8	56.8	60.5
	strongly agree	119	39.5	39.5	100.0
	Total	301	100.0	100.0	

tp6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	8	2.7	2.7	2.7
	neutral	19	6.3	6.3	9.0
	agree	145	48.2	48.2	57.1
	strongly agree	129	42.9	42.9	100.0
	Total	301	100.0	100.0	

Descriptive statistics of the adaptive performance construct (N = 301)

Statistics

		ap1	ap2	ap3	ap4	ap5
N	Valid	301	301	301	301	301
	Missing	0	0	0	0	0
Mean		4.18	4.23	4.13	4.31	4.04
Std. Deviation		.642	.660	.760	.624	.679
Skewness		-.786	-.841	-.766	-.754	-.567
Std. Error of Skewness		.140	.140	.140	.140	.140
Kurtosis		1.960	2.606	.846	1.534	.844
Std. Error of Kurtosis		.280	.280	.280	.280	.280
Minimum		2	1	1	2	2

		Frequency	Percent	Valid Percent	Cumulative Percent
Maximum		5	5	5	5	5

ap1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	8	2.7	2.7	2.7
	neutral	16	5.3	5.3	8.0
	agree	192	63.8	63.8	71.8
	strongly agree	85	28.2	28.2	100.0
	Total	301	100.0	100.0	

ap2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.7	.7	.7
	neutral	27	9.0	9.0	9.6
	agree	171	56.8	56.8	66.4
	strongly agree	101	33.6	33.6	100.0
	Total	301	100.0	100.0	

ap3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.3	.3	.3
	disagree	8	2.7	2.7	3.0
	neutral	40	13.3	13.3	16.3
	agree	155	51.5	51.5	67.8
	strongly agree	97	32.2	32.2	100.0
	Total	301	100.0	100.0	

ap4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	5	1.7	1.7	1.7

		Frequency	Percent	Valid Percent	Cumulative Percent
	neytral	11	3.7	3.7	5.3
	agree	170	56.5	56.5	61.8
	strongly agree	115	38.2	38.2	100.0
	Total	301	100.0	100.0	

ap5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	8	2.7	2.7	2.7
	neutral	39	13.0	13.0	15.6
	agree	186	61.8	61.8	77.4
	strongly agree	68	22.6	22.6	100.0
	Total	301	100.0	100.0	

Descriptive statistics of the contextual performance construct (N = 301)

Statistics

		cp1	cp2	cp3	cp4	cp5	cp6
N	Valid	301	301	301	301	301	301
	Missing	0	0	0	0	0	0
Mean		4.18	4.16	4.03	4.21	4.20	4.22
Std. Deviation		.603	.601	.830	.599	.596	.648
Skewness		-.377	-.171	-1.077	-.583	-.290	-.474
Std. Error of Skewness		.140	.140	.140	.140	.140	.140
Kurtosis		.858	.055	2.297	2.432	.498	.302
Std. Error of Kurtosis		.280	.280	.280	.280	.280	.280
Minimum		2	2	1	1	2	2
Maximum		5	5	5	5	5	5

cp1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	3	1.0	1.0	1.0
	neutral	23	7.6	7.6	8.6

		Frequency	Percent	Valid Percent	Cumulative Percent
	agree	191	63.5	63.5	72.1
	strongly agree	84	27.9	27.9	100.0
	Total	301	100.0	100.0	

cp2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	.3	.3	.3
	neitral	31	10.3	10.3	10.6
	agree	188	62.5	62.5	73.1
	strongly agree	81	26.9	26.9	100.0
	Total	301	100.0	100.0	

cp3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	7	2.3	2.3	2.3
	disagree	1	.3	.3	2.7
	neutral	54	17.9	17.9	20.6
	agree	153	50.8	50.8	71.4
	strongly agree	86	28.6	28.6	100.0
	Total	301	100.0	100.0	

cp4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.3	.3	.3
	disagree	1	.3	.3	.7
	neutral	20	6.6	6.6	7.3
	agree	191	63.5	63.5	70.8
	strongly agree	88	29.2	29.2	100.0
	Total	301	100.0	100.0	

cp5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	2	.7	.7	.7
	neutral	23	7.6	7.6	8.3
	agree	188	62.5	62.5	70.8
	strongly agree	88	29.2	29.2	100.0
	Total	301	100.0	100.0	

cp6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	3	1.0	1.0	1.0
	neutral	28	9.3	9.3	10.3
	agree	169	56.1	56.1	66.4
	strongly agree	101	33.6	33.6	100.0
	Total	301	100.0	100.0	

Descriptive statistics of the counterproductive performance construct (N = 301)

Statistics

		ccp1	ccp2	ccp3	ccp4	ccp5
N	Valid	301	301	301	301	301
	Missing	0	0	0	0	0
Mean		3.68	4.08	4.26	4.23	4.71
Std. Deviation		1.031	.839	.751	.894	.584
Skewness		-.366	-.656	-.791	-1.179	-2.677
Std. Error of Skewness		.140	.140	.140	.140	.140
Kurtosis		-.779	-.143	.253	1.011	9.835
Std. Error of Kurtosis		.280	.280	.280	.280	.280
Minimum		1	2	2	1	1
Maximum		5	5	5	5	5

ccp1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	1.0	1.0	1.0
	disagree	44	14.6	14.6	15.6
	neutral	72	23.9	23.9	39.5
	agree	108	35.9	35.9	75.4
	strongly agree	74	24.6	24.6	100.0
	Total	301	100.0	100.0	

ccp2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	15	5.0	5.0	5.0
	neutral	50	16.6	16.6	21.6
	agree	133	44.2	44.2	65.8
	strongly agree	103	34.2	34.2	100.0
	Total	301	100.0	100.0	

ccp3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagre	7	2.3	2.3	2.3
	neutral	35	11.6	11.6	14.0
	agree	133	44.2	44.2	58.1
	strongly agree	126	41.9	41.9	100.0
	Total	301	100.0	100.0	

ccp4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	.7	.7	.7
	disagree	17	5.6	5.6	6.3
	netral	30	10.0	10.0	16.3

		Frequency	Percent	Valid Percent	Cumulative Percent
	agree	112	37.2	37.2	53.5
	strongly agree	140	46.5	46.5	100.0
	Total	301	100.0	100.0	

ccp5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	.3	.3	.3
	disagree	4	1.3	1.3	1.7
	neutral	2	.7	.7	2.3
	agreee	68	22.6	22.6	24.9
	stronglyagree	226	75.1	75.1	100.0
	Total	301	100.0	100.0	

Explorotary factor analysis results EFA:

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.839
Bartlett's Test of Sphericity	Approx. Chi-Square	5771.949
	df	630
	Sig.	.000