The impact of price satisfaction on supplier commitment in the Australian wine supply chain

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Abstract

Commitment is an important relational dimension of any business to business relationship. While many studies have investigated the antecedents and effects of commitment on business to business relationships, the impact of price satisfaction on suppliers' commitment has not been investigated. As a result, the aim of this study was to investigate the effect that price satisfaction has on suppliers' commitment in a business to business relationship utilising the Australian wine industry as a context. The results of the study show that price reliability and relative prices have a strong affect on suppliers' commitment and these aspects of price satisfaction should be heeded by buyers of business to business good and services.

Introduction

The importance of enhancing mutual commitment between supply chain actors has been discussed extensively in relationship marketing literature. For example, Dwyer, Schurr and Oh. (1987, p19) define commitment as "...an implicit or explicit pledge of relational continuity between exchange partners". Others also refers to attitudes such as a desire for stable relationships, willingness to make short-term sacrifice for the sake of maintaining the relationship and the belief in relationship stability; which can be linked to commitment (Anderson and Weitz, 1989; Batt and Wilson, 2000; Gyau and Spiller, 2008; Morgan and Hunt, 1994). Commitment, and therefore long-term relationships, have benefits such as reductions in transaction costs, improvement in the level of information flow and product quality (Batt and Wilson, 2000) and efficiency in the supply chain (Gyau and Spiller, 2008; Kalwani and Narayandas, 1995). Therefore, relational continuity and longevity (commitment) is important in business to business relationships.

The development and enhancement of supplier commitment is of particular relevance in the Australian wine industry where some relationships between wineries and their suppliers of grapes have become strained and adversarial leading to transactional and short term relationships (Somogyi et al. 2010). This action has subsequently affected the smooth supply/purchase of grapes. It is reported that some Australian wineries continue to look for alternative opportunities to purchase grapes without being committed to specific suppliers, due to an oversupply of grapes in the industry and resultant relational power asymmetry issues favouring wineries (Somogyi et al. 2010). This has the potential to create instability in the industry. In order to avoid long term instability in the wine industry and to ensure regular and uninterrupted supply/purchase of grapes to wineries, grape grower-winery commitment needs to be engendered. Whereas the literature (e.g. Dwyer, Schurr and Oh, 1987; Kalwani and Naranyas, 1995 ; Morgan and Hunt, 1994) has identified many factors which can enhance the level of commitment in industrial marketing relationships, little emphasis has been placed on the concept of price satisfaction and how it affects relational commitment particularly from the suppliers' perspective (Somogyi and Gyau, 2009). Price satisfaction and issues related to price is particularly relevant to the Australian wine industry due to the lowering of grape prices in recent years whereby prices have dropped by approximately 50% over in the last 10 years (ABARE, 2010). Furthermore, grape grower commitment to wineries may become important in the future as grape supply levels may balance and the industry is focussing marketing to consumers highlighting quality and regionality in wine products; all of which are grape grower derived (Domine, 2000; Deloitte and WFA, 2006). As such, wineries may need to commit to grape growers to gain these attributes in their products.

To the best of our knowledge, there is no research which extensively analyses the impact of price satisfaction on the level of relational commitment, especially from the Australian grape growers and winery perspective. This paper attempts to fill the gap in the literature by building on and empirically validating the price satisfaction model developed by Somogyi and Gyau (2009), and determining its influence on supplier commitment in the context of the Australian grape grower-winery relationships.

The paper proceeds in the following way. Firstly, a discussion of relational commitment and the dimensionality of price satisfaction in business to business (B2B) relationships is made. Secondly, the methodology used to test the effect of price satisfaction dimensionality on commitment is discussed, followed by a discussion of the results. The paper concludes with recommendations for further research and the limitations of the study.

Literature review and formulation of hypotheses

Commitment is described by Morgan and Hunt (1994, p 23) in relation to the value of the relationship, as "...the exchange partner believes the relationship to be so important as to warrant maximum efforts to maintain it" and without commitment no actor has the ability to ascertain the duration of the relationship and therefore the long-term viability of their firm (Batt and Wilson, 2000). There is much discussion in the literature regarding the effects that long term commitment has on B2B relationships. These benefits include reduced transaction cost, improvement in the level of information flow and product quality and performance (Batt and Wilson, 2000; Gyau and Spiller, 2008; Kalwani and Narayandas, 1995). While much literature has been focussed on the effect that other relational variables have on commitment, no attention has been paid to the effect that price satisfaction has on commitment, particularly the effect that the dimensionality of price satisfaction have on commitment.

The dimensionality of price satisfaction has been highlighted in the literature from a business to business (B2B). For example, information access and completeness of information is important. Industrial suppliers of some commodities especially agricultural products are often concerned about the price formula that is used by their buyers. Most price formulae take factors such as quality, quantity supplied, geographical location, length of relationship and nature of contracts into consideration (Schroeder et al, 1998; Somogyi and Gyau, 2009). Suppliers are therefore more likely to commit to a relationship if they are provided with clear and transparent information on how buyers determine the price that will be paid for their product. Thus, higher levels of price transparency are therefore more likely to result in a higher level of suppliers' commitment and therefore:

H1: Price transparency will positively affect suppliers' commitment

Related to the above discussion is the dimension of price-quality ratio. From a B2B suppliers' perspective, the price satisfaction the partner receives is a trade off between the benefits and the cost of the product. In commodity markets where grading of produce based on quality is a common practice, suppliers must be satisfied that the prices that they receive from their buyers reflects the quality of their product (Schroeder et al, 1998) and this notion is further linked to the concept of value of money (VFM) (Somogyi and Gyau, 2009). For example, a high price obtained for a lower quality product will increase the suppliers' perception of the price quality ratio and their commitment to the relationship. Therefore:

H2: Price- quality ratio will positively affect suppliers' commitment

Matzler, Würtele and Renzl, (2006) postulate that in a B2C context, customers make price comparisons during the purchasing decision making processes. The price comparison refers to relative prices and is affirmed by a body of literature that identifies the effect of comparative price claims on consumer perceptions of price (see Compeau and Grewal, 1994; Grewal, Marmorstein and Sharma, 1996). Therefore a relative price of a product directly influences consumer satisfaction and, from the business suppliers' point of view, effects of relative prices may also influence the suppliers' commitment to the relationship. This is a result of the fact that suppliers' often compare prices which are offered by various buyers. Such comparisons may lead to reduced commitment if the suppliers' feel they could have obtained a better price from other buyers even when the absolute price that they receive is high (Somogyi and Gyau, 2009). The opposite also holds for the suppliers when the price comparison is favourable. Not only do suppliers compare prices with other buyers but also

with the highest prices that they have received from the same buyer. Thus, relative prices are therefore likely to influence the suppliers overall price satisfaction and commitment to the relationship. Based on this discussion, we hypothesise that:

H3: Relative prices will positively affect suppliers' commitment

Another dimension of price satisfaction is price reliability. The notion of price reliability relates to confidence in the price that is received and is linked to price expectations and whether they are met or not (Diller, 1997; Matzler, Würtele and Renzl, 2006). Price reliability also relates to the notion that prices do not change unexpectedly and that the suppliers are informed of price changes in a timely manner. Reliable prices would enable suppliers to plan their activities and reduce the risk of financial loss when the prices they receive are relatively stable. Therefore, reliable prices will aid suppliers in committing to a relationship and as a result we hypothesise that:

H4: Price reliability will positively affect suppliers' commitment

Price fairness will also determine whether the supplier will commit to the relationship. Diller (1997, 2000) also postulates that consumers gain satisfaction from a price of a product if they believe that the offered price is favourable and fair, and therefore it can be surmised that in a B2B relationship if the price offered is fair, the supplier will commit. Therefore:

H5: Price fairness will positively affect suppliers' commitment

Five hypotheses have been defined. The next section of the paper will discuss the methodology employed to test the hypotheses.

Methodology

In order to test the hypotheses, empirical data was collected. The context for testing the hypotheses was the Australian wine industry. A questionnaire was designed based on a review of the literature on price satisfaction and commitment, with scale items sourced from Dwyer et al. 1987, Matzler, Würtele and Renzl, 2006 and Gyau and Spiller, 2008. The questionnaire was administered to Australian grape growers through an online survey with the assistance of wine industry bodies. In all 396 valid responses (out of 444 electronic invitations, including reminder invitations) were obtained from grape growers (suppliers) residing in all states of Australia distributed across 34 different wine regions. Overall there was a good regional, state and production (quality of grape production focus) representation in the final sample. All questionnaire items were measured on a 5 point Likert scale. The scale items in the survey were modified numerous times to improve the efficacy and content of the questions used and involved pilot testing of the instrument with grape growers including testing of the instrument in its online format.

To test for the hypotheses, structural equation modelling (SEM) was performed using Partial Least Squares (PLS) regression via the software program SmartPLS. This technique allowed for the understanding of the relationship between the constructs and was considered appropriate for the study due to the ability of PLS to handle structural equation modelling of smaller sample sizes and uses less strict distributional assumptions that LISREL or AMOS would use (Chin, 1998; Gyau & Spiller, 2009; Joreskog and Wold, 1982; Ringle, Wende and Will, 2005). The main justification for the PLS usage lay in the ability of the method to test as little as 2 manifest variables to measure the latent variable (Dibben and Chin, 2005; Gyau and

Spiller, 2009; Herath and Rao, 2009). A bootstrapping technique with 500 iterations was then performed to gain t-values for the paths between latent variables which allowed for significance testing of the path coefficients.

The dependent variable in the model was commitment which was operationalised with ten statements. The independent variables were the dimensions of price satisfaction which include price transparency (measured with four statements), relative price satisfaction (measured with four statements) and price fairness (measured with three statements. Price reliability and price quality ratio was measured with two statements each.

Results

Table 1 illustrates the results of the structural equation model.

Table 1: Results of the structural equation model

Hypothesis	Constructs & Affect	Expected Sign	Beta coefficients	T-Statistic
H1	Price transper→commit	+	0.027	0.329
H2	Price qual ratio→commit	+	0.005	0.082
H3	Relative price→commit	+	0.352**	2.855
H4	Price reliability→commit	+	0.213**	3.695
H5	Price fairness→commit	+	0.059	0.814

** $p<0.05$, $r^2=0.49$

The model showed good fit with convergent validity over 0.4 (Hair et al. 2006), average variance extracted over 0.5 (Bagozzi and Yi, 1988), Cronbach alphas over 0.7 (Cronbach, 1970) and composite reliability over 0.7 (Werts, Linn and Jöreskog, 1974) for all constructs and construct items.

Discussion and conclusion

The results of the SEM illustrated in Table 1 show that relative price and price reliability have a statistically significant positive effect on commitment. These results may be related to market conditions in the Australian wine industry. Prices have been rapidly declining in the wine industry over the past years (50% reduction in ten years) (ABARE, 2010) and therefore if a grape grower receives a price that is reliably stable over a period of time and price changes are informed in a timely manner, they will commit to the relationship; evident in the result of H4. If a grape grower compares the prices offered by other wineries and those prices are comparable to the price offer then they will commit to the relationship, which is evident in the results of H3. The basis for the results of H4 and H3 is that if price expectations are met, based on price stability and comparability, grape growers will commit to the relationship.

Hypotheses H1 and H2 are not significant. This may be a further manifestation of market issues in the Australian wine industry. Price determination of the quality of grapes by

wineries (buyers) has been noted as subjective (Smart, 2004). As a result, a fully objective measure of grape quality has not been devised therefore grape growers are possibly believing that the quality of their product is not being appreciated in term of the price they receive and is influencing their decision to stay committed or not. Furthermore, the oversupply of grape in the industry has lead to decreased prices to the extent where the true quality of the grape product may not be taken into account when determining prices. Grape growers may perceive that this price level is not fair and issues such as power asymmetry (favouring the winery as a result of wine industry grape oversupply) may be allowing wineries to offer prices that are not fair which is evident in the result of H5 (Somogyi and Gyau, 2009).

In conclusion, the price of a product received by a supplier or paid by a buyer is an important facet of a business relationship. The results of this study, albeit from suppliers' perspectives, allude to the notion that it is not enough for buyers to offer high prices to gain the commitment of a supplier and they must offer prices for the product that are reliable (over a period of time) and relative to the prices offered by other buyers. Furthermore, if wineries are not able to offer higher grape prices, due to issues such as cost pressures from distributors/ retailers further down the supply chain, they can gain grape grower commitment by offering prices that are comparable to offerings from other wineries or by notifying grape growers of price changes in a timely manner. In doing so, wineries would be gaining more grape grower commitment for less money; i.e. gaining more for less, which is related to the theme of this conference.

Study implications and areas for further research

This study has highlighted a number of concepts regarding the dimensionality of price satisfaction and its effect on relational commitment utilising the Australian grape grower and winery relationship as a research context. The results have shown that price reliability and relative prices have a positive effect on grape grower commitment to the relationship. The main implication is that wineries need to provide more stable prices to the grape growers in order to win their commitment and enhance uninterrupted supply of grapes.

Like many studies, this research has its own limitations which can be addressed in future research. For instance, price reliability is based on the notion of prices remaining stable over periods of time. A study incorporating time series data regarding the price of grapes will provide a more complete measure of price reliability. This study has focused on the suppliers' perspective of price satisfaction and its effect on commitment. However, in other industries, prices of product may be determined by the supplier (as opposed to the buyer) and it would be of interest to observe the buyers' perspective of this effect. Furthermore, research could be performed from both the supplier and buyer perspective giving an overall model of the effect that the dimensionality of price satisfaction has on commitment to a relationship. The concept of price satisfaction mediating the effect that the dimensionality of price satisfaction has on commitment could also be examined.

The context used for this study was the Australian wine industry which has experienced economic upheaval in recent times. Further research performed from a generic industry context or an industry context not in such economic upheaval would therefore confirm the results from this study. Until then, the results from this study cannot be generalised for other industries and therefore must be considered as tentative.

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