

TRUST: A DETERMINANT OR THE CONSEQUENCE OF A LONG-TERM BUYER-SELLER RELATIONSHIP?

Peter J. Batt
Senior Lecturer Horticulture
Curtin University of Technology
GPO Box U1987
PERTH 6845
Email: batt@muresk.curtin.edu.au

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Abstract

Satisfaction with the relationship between Filipino potato farmers and their preferred seed supplier is derived from the seed supplier's offer quality and the extent to which investments made by the seed supplier support and assist the farmer. However, while satisfaction leads to trust, the relationship between trust and the farmer's long-term commitment to the relationship is more tenuous. These relationship specific investments have a direct impact on the farmer's desire to maintain a long-term relationship which, in turn, results in greater trust between the farmer and their most preferred seed supplier. Whereas the majority of authors conceptualise trust as a determinant of a long-term buyer-seller relationship, it would appear, at least in this study, that trust between potato farmer's and their most preferred seed supplier is the principal outcome of the relationship.

1. Introduction

With increasing turbulence and greater uncertainty in the market, more firms are moving towards relationship marketing as a means for sustaining a long-term competitive advantage. More firms are realising that customer retention is more cost effective than customer creation (Han, Wilson and Dant 1993; Kalwani and Narayandas 1995; Varva 1995).

Firms are establishing relationships with their suppliers because it enables them to become more efficient and more effective (Sheth and Sharma 1997). By developing relationships with their suppliers, customers can anticipate improved access to markets and more reliable market information (Low 1996); a more reliable supply of production inputs (Hakansson 1982); improved product quality and performance (Landeros and Monczka 1989); and a higher level of technical interaction in the form of information exchange, potential product adaptations and technical assistance (Cunningham and Homse 1982). However, the greatest benefit of a long-term relationship is the reduction in uncertainty (Arndt 1979, Dwyer, Schurr and Oh 1987; Hakansson 1982, Noordewier, John and Niven 1990, Oliver 1990).

When exchange between a buyer and seller takes place in such a manner that the supplier's offer quality exceeds the buyer's expectations, the buyer's satisfaction with the transaction increases (Anderson and Narus 1990). Satisfaction with the exchange relationship reflects the partner's cognitive state of feeling adequately rewarded for the effort they have expended in facilitating the relationship (Frazier 1983). Furthermore, satisfaction with past outcomes indicates equity in the exchange. Equitable outcomes provide confidence that neither party has been taken advantage of in the relationship and that both parties are concerned about the other's welfare (Ganeson 1994). High levels of satisfaction have positive consequences for the relationship (Frazier 1983). Satisfaction encourages greater loyalty and a longer-term working relationship (Anderson and Narus

1990). Customer satisfaction usually results in more repeat purchases, referrals to other customers and lower transaction costs (Evans and Laskin 1994). Satisfaction generally results in increased moral and greater cooperation (Ganeson 1994). Furthermore, since satisfaction is inversely related to channel conflict (Gaski 1984) and the use of non-coercive power (Frazier 1983), it is widely accepted that satisfaction leads to trust. Trust is the critical determinant of a good relationship (Dwyer, Schurr and Oh 1987; Han, Wilson and Dant 1993; Ganeson 1994; Morgan and Hunt 1994). However, trust between firms does not occur automatically (Hakansson and Wootz 1979). Decision makers must first convince themselves of their partners ability, reliability and their integrity. Experience with the channel partner breeds trust (Dwyer, Schurr and Oh 1987), and, over time, the accumulation of trust leads to better communication between the respective firms (Anderson and Narus 1990) and the development of cooperative behaviours that are more conducive to the long-term success of the relationship (Morgan and Hunt 1994). A buyer's trust in their supplier reduces the perception of risk associated with opportunistic behaviour, it increases the buyer's confidence that short-term inequities will be resolved and it reduces the transaction costs in an exchange relationship (Ganeson 1994).

Firms that trust their partner are more committed to their relationship (Anderson and Narus 1990; Morgan and Hunt 1994; Gundlach, Achrol and Mentzer 1995; Kumar 1996). Trust and commitment encourages firms to work at preserving relationship investments by cooperating with exchange partners, to resist short-term alternatives in favour of expected long-term benefits and to view potentially high risk actions as being prudent because of the belief that partners will not act opportunistically (Morgan and Hunt 1994). Moorman, Deshpande and Zaltman (1993) define commitment as an enduring desire to maintain a valued relationship. Morgan and Hunt (1994) propose that a firm will commit to an exchange partner when the relationship is considered so important as to warrant maximum effort to maintain it. Such implies that the relationship is important and that there is a desire to continue the relationship well into the future (Wilson 1995).

This paper seeks to empirically test a linear model where we hypothesize that:

1. there will be a positive relationship between offer quality and satisfaction
2. there will be a positive relationship between satisfaction and trust; and
3. there will be positive relationship between trust and commitment.

2. Methodology

During January to July 1999, as an integral part of a much larger study, 235 potato farmers in the Philippines were asked to respond to 101 statements which sought to measure the nature of the relationship between farmer's and their most preferred seed supplier(s). Farmers were selected from one of five municipalities in proportion to the total area of potatoes planted in Benguet and Mountain Provinces (Gayao et al 1997).

The questionnaire was divided into 12 separate sections containing multiple item measures for each of the relationship building variables and moderating variables being considered. Farmers were asked to respond to each statement on a 7 point scale from 1 (I disagree a lot) to 7 (I agree a lot). Given that the majority of farmers spoke English, the survey instrument was written in English and the interviews were conducted in English, although farmers often responded in their native dialect. The interviews were conducted in the farmer's homes by a research officer employed by the Highland Agriculture and Resources Research and Development Consortium, Benguet State University, who was fluent in both languages.

Offer quality was measured by 14 items which sought to assess the ability of the preferred seed supplier to deliver good quality of seed, in the quantities required and at a competitive price. Since the majority of small farmers require crop finance, several of the measures were developed from the literature reported by Tagarino, Cungihan and Paday-

os (1998). Other measures were developed from the literature reported by Anderson, Chu and Weitz (1987), Campbell (1985), Cunningham and White (1973), Dempsey (1978), Hakansson and Wootz (1975) and Lehmann and O'Shaughnessy (1974).

Satisfaction was evaluated by 17 items. With minor modifications to reflect the nature of the industry and the participants, the measures were adapted from previous research reported by Anderson and Narus (1990), Anderson and Weitz (1992), Ford (1984), Frazier (1983) and Ganeson (1994). Trust was assessed by 8 items based on the literature reported by Anderson and Narus (1990), Anderson and Weitz (1992), Doney and Cannon (1997), Ganeson (1994), Kumar (1996), Moorman, Deshpande and Zaltman (1993) and Morgan and Hunt (1994). Commitment was measured by 10 items, developed from the literature reported by Anderson and Weitz (1992), Dwyer, Schurr and Oh (1987), Ganeson (1994), Gundlach, Achrol and Mentzer (1995), Morgan and Hunt (1994) and Noordewier, John and Niven (1990).

The data was analysed using principal component analysis (with varimax rotation and Kaiser normalisation). Those items with factor loadings below 0.5 or with cross-loadings greater than 0.4 were excluded. Further clarification of the items contributing to each factor was achieved by applying the reliability coefficient (Cronbach's alpha). Where the alpha coefficient was below 0.5, that factor was excluded from further analysis (Nunnally 1978). Using the resultant factor scores, the hypothesis were empirically tested using linear regression. Finally, the resultant model was tested in its entirety using Amos (version 4.01)(Arbuckle 1997).

3. Results

Offer quality was comprised of three factors (Table 1). Competitive pricing was comprised of five items which demonstrated the need for a preferred supplier to offer a competitive price and favourable terms of repayment. However, this factor also evaluated the seed supplier's financial strength and their capacity to provide other farm inputs (including fertilisers and chemicals). Seed quality captured three items which collectively measured the ability of the seed supplier to provide seed which was consistently good and which substantially improved the productivity of the potato crop. Reliable delivery captured three items which measured the ability of the seed supplier to deliver seed when the farmer required it, but also demonstrated a preference for proximal seed suppliers who could meet the farmer's immediate needs.

Satisfaction was captured by four factors which explained 67% of the variance. Factor One (stability) captured the ability of the farmer's relationship with the seed supplier to reduce the uncertainty in the exchange transaction, and, as a result of the relationship, to reduce the costs of production. Factor 2 (adequate reward) evaluated the farmer's feeling of being adequately rewarded by the seed supplier in terms not only of the quality of the seed purchased, but also of the prices received for the ware potato crop. This factor was also a measure of the extent to which farmer's searched for alternatives (dissatisfaction) and the extent to which satisfied farmer's rejected other suppliers offers. Factor 3 (expectations) captured four variables which collectively best describe satisfaction in terms of the extent to which the seed supplier met the farmer's expectations, the benefits that the farmer obtained from the relationship, cooperation between the farmer and seed supplier and the extent to which maintaining the relationship reduced risk. Factor 4 was comprised of two items which indicated how quickly the seed supplier addressed the farmer's complaints (Ford 1984) and how often farmer's referred their seed supplier to other farmers (Blois 1996).

Trust was captured by a single factor which explained over 57% of the variation in farmer's responses. Trust was found to be a measure of the extent to which the farmer believed their most preferred seed supplier had the necessary expertise to produce good quality seed, the farmer's confidence in their seed supplier, the seed supplier's reputation, the extent to which the seed supplier kept their promise and the belief the farmer had in the information provided by the seed supplier.

Commitment was captured by two factors that explained 82% of the variation. The first of these factors, support, captured the various investments seed suppliers made with the farmers to help them grow potatoes, to share the risk of growing potatoes and to provide financial assistance during difficult times (Ford 1984). The second factor, continuity, was a measure of the farmer's expectation that the relationship would continue.

As predicted, there was a positive relationship between the seed supplier's offer quality and the potato farmer's relationship satisfaction (Table 2).

As seed quality improved, relationship satisfaction improved for each of the four measures of satisfaction. However, for two factors (adequate reward and referral), price competitiveness was observed to decrease as satisfaction increased. This would suggest that while farmers sought to obtain more competitive seed prices and more competitive loans from suppliers, there was very little difference between alternative credit offers, hence potato farmers felt increasingly less rewarded and less likely to refer other farmers to their preferred seed supplier. A negative relationship between the reliability of delivery and relationship satisfaction was also observed, suggesting that most seed suppliers were unable to meet farmer's immediate needs or to deliver seed when the farmer required it.

A significant positive relationship was observed to arise between the farmer's relationship satisfaction and the trust the farmer placed in their most preferred seed supplier. However, the relationship was significant for only two dimensions of satisfaction and positive for only one. The more often the seed supplier met the farmer's expectations, the greater the cooperation between the seed supplier and the farmer, and, the greater the benefits that the farmer could obtain by maintaining their relationship with their seed supplier, the greater the amount of trust the farmer placed in their seed supplier. Conversely, when trust between the farmer and the seed supplier deteriorated, aggrieved farmer's spoke about their unfavourable experience with other farmers. Such behaviour is generally supported by the consumer behaviour theory.

While a positive relationship between trust and commitment was expected, a significant positive relationship was found for only one dimension; the amount of support the seed supplier provided the farmer. There was no indication of any relationship between trust and the farmer's long-term commitment to the seed supplier. Given that the standard error for continuity exceeded the standard deviation, it was apparent there was some error in the model. Consequently, it was proposed that commitment might lead to trust, rather than trust leading to commitment as initially proposed. A re-examination of the model demonstrated a reduction in the standard error for trust and support to 0.356 and between trust and continuity to 0.378, even although there no significant relationship between continuity and trust could be detected. If trust was dependent on commitment, then satisfaction might lead to commitment directly; an examination of this relationship provided an $R^2 = 0.516$, $SE = 0.626$, $F = 61.341$ for support and $R^2 = 0.480$, $SE = 0.371$, $F = 53.059$ for continuity, suggesting and confirming that an alternative model might better predict the relationship between Filipino potato farmers and their seed suppliers.

The alternative model (Figure 1) proved not only to be significant (chi-square 4.411, $Df = 2$, probability level 0.110), but to satisfy the major empirical tests ($RMR = 0.006$, $GFI = 0.993$, $PGFI = 0.132$).

To our surprise, there was a strong negative relationship between offer quality and the potato farmer's relationship satisfaction, therefore rejecting H1. Such would suggest that the farmer's most preferred seed supplier was currently unable to satisfy the farmer's requirements in terms of the seed quality dimensions (seed size, physiological age, seed sanitation and variety), delivery intent and price competitiveness. However, there was a strong positive relationship between the seed supplier's offer quality and the farmer's desire to maintain the relationship, suggesting that while the seed suppliers were unable to satisfy the farmer's ideals, the potato farmer sought to maintain a relationship with that seed supplier who could best meet their needs. Given that there was a negative relationship between satisfaction and the farmer's desire to continue the relationship, farmer's were constantly looking for better alternative seed offers.

As predicted there was a positive relationship between satisfaction and trust,

therefore H2 was supported. However, H3 could not be supported, for it was found that commitment led to trust, rather than trust to commitment as initially proposed. A very strong positive relationship between satisfaction and the extent to which the seed supplier committed resources to the relationship was evident. This commitment of resources led not only to the farmer's desire to maintain the relationship, but had a strong positive impact on the trust farmers placed in their seed supplier.

4. Implications

It would appear that the farmer's commitment to an on-going relationship is derived directly from the seed supplier's offer quality and the extent to which the seed supplier is prepared to help the farmers grow potatoes, to share the risk of growing potatoes and to provide financial assistance during difficult times, rather than via trust as initially predicted. By definition, commitment involves the desire or intention to maintain a valued relationship into the future (Moorman, Zaltman and Deshpande 1992). Ganeson (1994) demonstrates how satisfaction with the outcomes of a relationship has a significant positive influence on the level of commitment to the relationship. Frazier (1983) suggests that satisfaction will have positive consequences for the relationship and Anderson and Narus (1990) indicate how satisfaction has been found to lead to the long-term continuation of relationships. Thus there is both theoretically and empirical support for our finding that satisfaction leads to commitment.

Commitment has been defined variously to include credible commitments, idiosyncratic investments and the dedicated allocation of resources (Anderson and Weitz 1992). Wherever a supplier makes a strong credible commitment to a relationship, customers perceive their partner as being more trustworthy (Ganeson 1994). The pledging of credible commitments cultivates trust and the development of social norms which, in turn, work to maintain the relationship (Gundlach, Achrol and Mentzer 1995). Thus, in part, there is theoretical support for our conclusion that trust is the consequence of the relationship, rather than a determinant. While Ganeson (1994) also concluded that trust could be the consequence of a relationship rather than a determinant, unfortunately, he failed to empirically test the reverse relationship.

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Tables

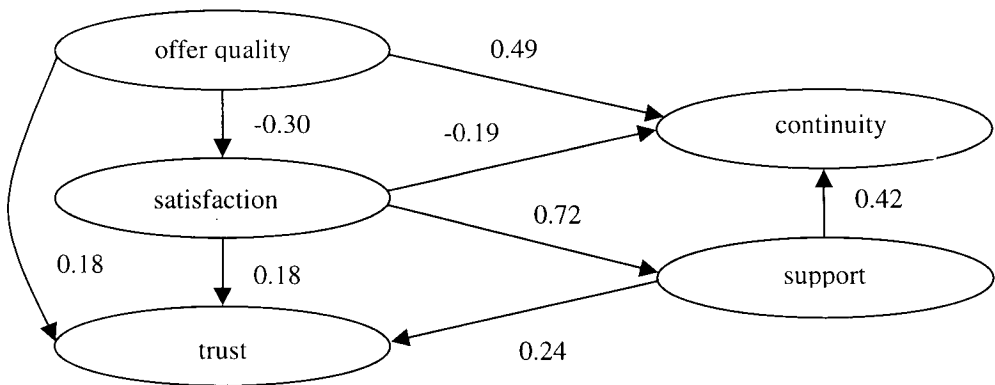
1. Relationship building factors in the Filipino seed potato market.

	Mean	SD	No. of items	% variance	Alpha
Offer quality: Competitive pricing	6.73	0.347	5	29.23	0.728
Seed quality	5.78	0.516	3	19.21	0.759
Reliable delivery	5.61	0.527	3	12.02	0.664
Satisfaction: Stability	5.33	0.660	4	32.59	0.822
Adequate reward	2.80	0.928	4	15.16	0.805
Expectations	5.66	0.473	4	10.85	0.700
Referable	5.99	0.338	2	8.25	0.726
Trust	5.87	0.377	5	57.22	0.795
Commitment: Support	4.34	0.892	4	52.78	0.882
Continuity	6.89	0.510	2	29.79	0.984

2. Relationship building behaviour in the Filipino seed potato market.

Independent	Dependent	Serror	R ²	F	Sign
Offer quality	Satisfaction (stability)	0.505	0.421	55.975	0.000
	(reward)	0.771	0.318	35.926	0.000
	(expectation)	0.370	0.395	50.330	0.000
	(refer)	0.309	0.175	16.383	0.000
Satisfaction	Trust	0.338	0.211	15.343	0.000
Trust	Commitment (support)	0.842	0.112	29.481	0.000
	(continuity)	0.511	0.001	0.181	0.671
Satisfaction	Commitment (support)	0.626	0.516	61.341	0.000
	(continuity)	0.371	0.480	53.059	0.000
Commitment (support)	Trust	0.356	0.112	29.48	0.000
(continuity)		0.378	0.001	0.181	0.671

Figures



1. Model of buyer-seller relationships in the Filipino seed potato industry