

## **Why dissatisfied customers still desire long-term relationships**

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### **Abstract.**

A model of long-term relationships between potato farmers and their seed suppliers in the highlands of the Northern Philippines reveals that while farmers are generally dissatisfied with the nature of their relationship with their most preferred seed supplier, they nevertheless seek to maintain that relationship. The desire to maintain the relationship is derived directly from the seed supplier's offer quality and the various commitments the preferred seed supplier makes to share the risks of growing potatoes in a highly unpredictable environment. The farmer's dissatisfaction is derived primarily from the seed supplier's inability to deliver good quality seed cost effectively and to adequately reward the farmer for their efforts in growing and harvesting the potato crop.

### **Introduction.**

In the absence of any formal seed certification system, Filipino potato farmers must either produce their own seed, obtain it from other farmers, or purchase seed tubers from the fresh market. However, in so doing, there is no guarantee that the seed obtained will be free from disease, for a disease infected tuber is often indistinguishable from a healthy tuber. Farmers therefore experience considerable uncertainty and risk in their decision to purchase seed.

Uncertainty is the key dimension affecting organisations, inter-organisational relationships and the costs of transacting (Achrol, Reve and Stern 1983). Uncertainty prompts firms to establish and manage relationships in order to achieve stability, predictability and dependability in their relationships with others (Oliver 1990). Performance is thought to improve when more relational market structures are introduced in response to high levels of uncertainty (Noordewier, John and Nevin 1990).

Anderson, Chu and Weitz (1987) suggest that industrial buyers often reduce perceived risk by purchasing from well-known preferred suppliers, who may be either reputable market leaders or firm's from whom the company has previously purchased. While Jackson (1985) suggests that buyer's can reduce risk by sharing a proportion of their business among multiple suppliers, given that the majority of small potato farmers in The Philippines are severely cash constrained, the lack of capital often restricts a farmer's ability to choose between alternative seed suppliers (Crissman and Hibon 1996). With very little collateral, most potato farmers are forced to borrow the money to finance their potato crop, often at very high rates of interest from various informal sources, the majority of whom are input suppliers or vegetable traders (Tagarino, Cungihan and Paday-os 1998).

Input suppliers extend credit to farmers with the express intention of securing the farmer's crop at harvest and therefore availing themselves of the benefits of marketing the crop. Credit is extended to farmers on the basis of long-standing personal relationships in which trust between the parties overcomes the need for formal contracts (Crissman 1989).

### **Developing the conceptual model.**

Marketing theory has been traditionally built on the marketing mix model where the key problem facing the marketing manager is to most cost effectively allocate the organisation's limited resources to the different elements of the marketing mix so as to maximise customer response (Hakansson 1982). Implicit in the Four P's approach is the concept that the customer is passive and only reacts to the supplier's offer by deciding to purchase or not to purchase. While it is generally accepted that the concept of the Four P's was developed during the 1950's in the North American mass market for consumer packaged goods (Gronroos 1995), in industrial markets, both the buyer and seller are active participants. Each may engage in the search for suitable exchange partner's, the preparation of specifications and manipulate or attempt to control the transaction process (Hakansson 1982). Industrial marketing is therefore an interactive process where relationship building and management is fundamental.

Gronroos (1995) defines relationship marketing as the means of establishing, maintaining and enhancing relationships with customers and other partners, at a profit, so that the objectives of the parties involved in the relationship are met. This is achieved by mutual exchange and the fulfilment of promises. A firm must not only attract customers, but it must also build relationships with the customer if the goals of the relationship are to be achieved. A firm that is pre-occupied with giving promises may attract new customers and build relationships, but if promises are not kept, the relationship cannot be maintained and enhanced. By its very nature, relationship marketing seeks to enhance profitability in the long term through building enduring relationships with customers.

A firm pursuing a relationship marketing strategy will attempt to create more value for its customers than that which is provided by the core product itself (Gronroos 1995). Christopher, Payne and Ballantyne (1991) view relationship marketing as a concept that adds customer service and quality to the traditional marketing mix. However, the exact meaning of the term service varies with the nature of the product and the requirements of the buying organisation (Hutt and Speh 1995). Service may include such variables as reliable delivery, technical assistance, innovative suggestions, credit arrangements, support for special needs and advance notice of impending price changes or shortages in supply. Customer service emphasises the general quality of the interaction between a supplier and a customer rather than the quality of the specific core offering.

### ***Offer quality***

While the supplier needs to find an optimal combination of products and services to both attract and retain potential customers, it is widely accepted that the most important factors that influence a potential customer's decision to purchase are product quality, competitive price, technical capabilities and delivery capabilities (Cunningham and White 1973, Lehmann and O'Shaughnessy 1974, Dempsey 1978). Leuthesser and Kohli (1995) describe offer quality as a function of the supplier's product quality, price and reliable delivery. According to Liljander and Strandvik (1995), offer quality will directly influence both the customer's satisfaction with the exchange and the customer's desire to maintain the relationship.

In relation to seed potatoes, four variables influence seed tuber quality; seed size, seed purity, seed sanitation and the physiological age of the seed (Beukema and van der Zaag 1990). However, other than being able to determine seed size and to select those tubers which are not true-to-type, rotten or shrivelled, a potato farmer is unable to accurately ascertain seed quality prior to planting by simply looking at the tuber. Because potatoes are vegetatively propagated, with each successive crop, the productivity of the seed will generally decline, due to the accumulation of various diseases. Generally, those plants which become infected, produce infected tubers, which, when replanted, produce infected plants which provide a potential source of infection for other plants.

However, a farmer's decision to purchase seed may also be expressed in rational economic terms as either value-for-money (Kool, Meulenberg and Broens 1997) or as value-in-use (Hutt and Speh 1995). Seed which is substantially free of pathogens costs more to produce and therefore it will cost more to purchase (Beukema 1990). Improved seed, however, is generally more productive (Monares 1981). However, the benefits arising from the increased productivity will decline progressively as the seed degenerates (Crissman and Hibon 1996). What constitutes an adequate return on the farmer's investment will be determined by the farmer's tolerance to risk, their expectation of prices in the ware market and the cost of credit.

All buyers emphasise the importance of reliability of delivery (Lehmann and O'Shaughnessy 1974; Hakansson, Johanson and Wootz 1977; Ellram 1990). Most buyers prefer to purchase from local sources (Hakansson and Wootz 1975). Local suppliers are generally less expensive and offer more dependable service than those located at a distance. Delivery may be more prompt because the distance is shorter and there is less likelihood of transport delays. More importantly, local suppliers may gain a greater knowledge of their customer's needs and are more flexible in responding to their needs (Leenders and Fearon 1993).

### ***Satisfaction.***

Satisfaction has been defined as the extent to which the exchange transaction meets the performance expectations of the partner (Wilson 1995). According to the disconfirmation of expectations model, customer satisfaction is the result of a comparison between the firm's performance and customers expectations (Oliver 1980, Fornell 1992). Whenever performance exceeds expectations, satisfaction will increase. Conversely, whenever performance falls below expectations, customers will become dissatisfied.

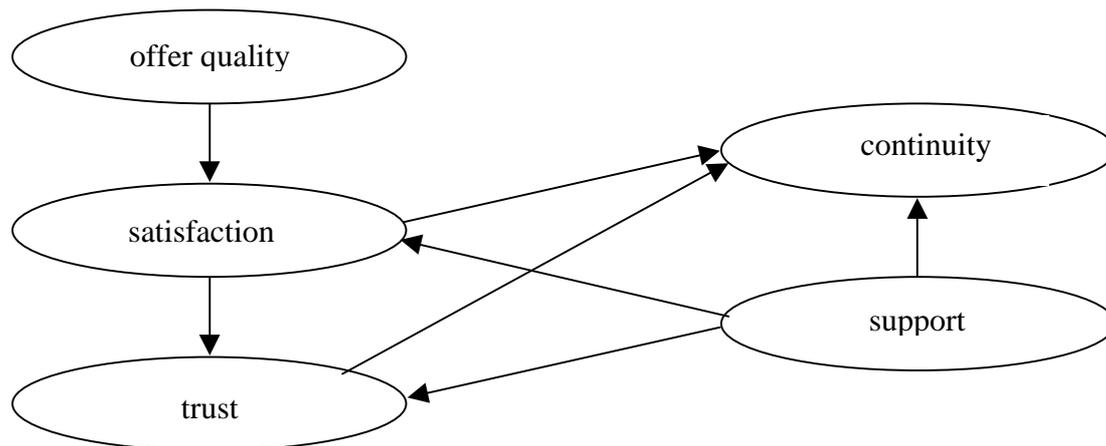
Expectations are beliefs about the likelihood that a product will provide certain attributes, benefits or outcomes (Spreng, MacKenzie and Olshavsky 1996). Prior to purchase, Tse and Wilton (1988) indicate how a customer's expectations may be based on the ideal product performance, the expected product performance or equitable product performance. While Halstead (1999) introduces a fourth dimension, which she describes as the minimum tolerable, expectations are often modified by the post-purchase experience. In the case of seed potatoes, since it is not possible to ascertain seed quality at the time of purchase, farmers will evaluate seed quality at emergence and throughout the growing season, making a final evaluation at harvest when it is possible to assess the productivity of the seed.

In addition to customer expectations, Fornell *et al* (1996) believes that customer satisfaction is also influenced by perceived quality and perceived value. Perceived quality or performance is the customer's evaluation of their most recent consumption experience. Products must not only perform adequately on various instrumental dimensions (technical quality), but

customers must also be satisfied by the manner in which they receive those products (functional quality) (Gronroos 1982). When exchange between the buyer and supplier takes place in such a manner that the supplier's offer quality exceeds the buyer's expectations, satisfaction will increase (Anderson and Narus 1990). Therefore, it is proposed that:

*P1 there will be a significant positive relationship between the seed supplier's offer quality and the farmer's relationship satisfaction (Figure 1).*

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



However, in the context of long-term buyer-seller relationships, it is important to appreciate that satisfaction is a cumulative experience, derived from an overall evaluation of the total purchase and consumption experience over time (Fornell 1992). Satisfaction will depend not only upon whether the current product and services meet customers needs, but the supplier's ability to meet the buyer's future needs. Satisfaction is therefore an active, dynamic process from which satisfaction will emerge as the result of continual interactive negotiation between the customer and the product (Fournier and Mick 1999).

Furthermore, firms that are able to lower the overall level of conflict in their relationship generally experience greater satisfaction (Anderson and Narus 1990). Since most conflict in channel relationships occurs over economic issues (Geyskens, Steenkamp and Kumar 1999), channel members who receive economic rewards commensurate with their input will experience greater satisfaction.

Satisfaction also increases when non-coercive sources of power are employed (Frazier 1983). When a channel partner frequently pressures or coerces the focal firm into taking some action that it would not otherwise have taken or forces it to forgo some positive outcome, the focal firm is expected to feel tension and frustration because its decision autonomy is constrained (Frazier and Summers 1984). Satisfaction has thus been defined as the buyer's cognitive state of feeling adequately rewarded for the sacrifices they have undergone in facilitating the exchange (Frazier 1983). Although an evaluation of the purchase decision usually involves multiple dimensions, economically, performance can be viewed as the key reward and price as the key sacrifice associated with the exchange (Voss, Parasuraman and Grewal 1998). Such then introduces the concept of equity in the exchange.

## ***Trust***

Equity generally refers to the fairness or rightness of something in comparison to other entities (Halstead 1999). Both Frazier (1983) and Anderson and Narus (1990) suggest that 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 their mutual welfare (Ganesan 1994).

Over many transactions, where both parties believe they have been treated equitably and there is accumulated evidence of non-renegeing behaviour, both parties may learn to trust one another. With trust, both parties believe that even in the face of unanticipated contingencies, the rewards will be distributed in a fair and equitable manner (Lohtia and Krapfel 1994). Anderson and Narus (1990) view trust as the belief that a partner will perform actions that will result in positive outcomes for both firms and not to take unexpected actions that may result in negative outcomes. Moorman, Deshpande and Zaltman (1993) define trust as the willingness to rely upon an exchange partner in whom one has confidence. Both of these definitions view trust as a behavioural intention that reflects reliance on the other partner.

Trust results from the expertise, reliability or intentionality of the partner (Moorman *et al* 1993). Swan, Trawick and Silva (1985) indicate how competence, customer orientation, honesty, dependability and likeability are the key dimensions in developing trust between sales representatives and their customers. Moorman, Deshpande and Zaltman (1993) argue that the interpersonal factors that most affect trust include perceived expertise, sincerity, integrity, tactfulness, timeliness and confidentiality. Parke (1993) suggests that the better the match between customer's expectations and past outcomes, the more confident the firm's decision makers will become in believing that a partner will follow through on its promises. Achrol (1997) considers trust to be the critical determinant of many factors related to the firm's performance including the more open exchange of relevant ideas and emotions, greater clarification of goals and problems, more extensive search for alternative courses of action and greater satisfaction with efforts. Consequently, it is proposed that;

*P2 there will be a significant positive relationship between the farmer's relationship satisfaction and the farmer's trust in their most preferred seed supplier.*

## ***Commitment.***

Firms that trust their partner are generally more committed to their relationship (Anderson and Narus 1990; Morgan and Hunt 1994; Gundlach, Achrol and Mentzer 1995; Kumar 1996). Trust and commitment encourage 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 efforts to maintain it. Such implies that the relationship is important and that there is a desire to continue the relationship into the future (Wilson 1995). Consequently, it is proposed that;

*P3 there will be a significant positive relationship between the farmer's trust in their most preferred seed supplier and the farmer's desire to maintain the relationship.*

However, commitment is comprised of at least two components; an attitudinal component and an instrumental component (Gundlach, Achrol and Mentzer 1995). Commitment is most often seen as an attitudinal construct described in terms of affective commitment, psychological attachment, identification, affiliation and value congruence (Achrol 1997). This type of commitment represents a partisan affective attachment to the goals and values of an organisation.

However, attitudinal commitments alone are a precarious quantity. Commitments that are not supported by investments lack staying power (Achrol 1997). Such investments have been described variously to include pledges, credible commitments, idiosyncratic investments and the dedicated allocation of resources (Anderson and Weitz 1992). Such credible commitments act as powerful self-interest stakes in exchange relationships and are expected to lead to a desire to maintain the relationship. In the context of the Filipino seed potato industry, farmers are expected to seek to maintain their relationship with those seed suppliers who are prepared to make credible commitments to help them grow potatoes and to share the risk of growing potatoes. Consequently, it is proposed that:

*P4 there will be a significant positive relationship between the credible commitments the seed supplier makes to help the farmer grow potatoes and the farmer's desire to maintain the relationship.*

The credible commitments are also expected to provide a powerful signal to the other party. Observing the other party's pledges may cause the focal firm to become more confident in the other party's commitment to the relationship, because the other party will sustain significant loss if the relationship is terminated (Heide and John 1988; Anderson and Weitz 1992; Lohtia and Krapfel 1994). Credible commitments offer tangible evidence that the partner can be believed, that it cares for the relationship and is willing to make sacrifices having made such investments (Ganesan 1994). In this regard, the making of credible commitments in the relationship can provide strong signals of the channel partner's trustworthiness. Consequently, it is proposed that:

*P5 there will be a significant positive relationship between the credible commitments the seed supplier makes to help the farmer grow potatoes and the farmer's trust in their most preferred seed supplier.*

Since satisfaction is a feature of a good relationship, each party involved in the exchange should be happy and satisfied with the performance of the other. While a supplier must be satisfied with such things as the customer's payment procedures, the buyer must be happy with the quality of the goods delivered (Han, Wilson and Dant 1993). Since relationships are based on some kind of match between the operations of two firms, one or both firms may find it necessary to adapt to the needs and capabilities of the other (Hallen, Johanson and Seyed-Mohamed 1991). Adaptations can be seen most clearly by such things as the supplier's modification of a product to suit a customer, delivering to meet the buyer's production schedules rather than the supplier's, or, the joint establishment of a stock-holding facility (Ford 1984). The supplier may also modify production processes, use alternative logistical systems such as just-in-time and adopt various systems, including quality management, to meet the demands of a customer (Ganesan 1994).

The extent to which the firm is prepared to invest the time and resources to develop its relationship with another is a measure of its commitment to the relationship (Ford 1984). Commitment is exemplified by such factors as a supplier favouring certain customers in times of product shortage, following up on product usage or servicing existing customers perhaps at the expense of generating new ones. Consequently, it is proposed that;

*P6 there will be a significant positive relationship between the credible commitments the seed supplier makes to help the farmer grow potatoes and the farmer's relationship satisfaction.*

High levels of satisfaction will have positive consequences for the relationship, encouraging greater loyalty and a longer-term working relationship (Anderson and Narus 1990). Customer satisfaction usually creates bonds and a commitment between interacting firm's which inevitably increases customer retention. Customer satisfaction usually results in increased loyalty from current customers, insulation of current customers from competitive efforts, lower costs in attracting new customers and an enhanced reputation (Fornell 1992). Maximising customer satisfaction creates barriers to exit and establishes switching costs, thereby minimising customer turnover (or maximising customer retention). Such makes it more expensive for competitors to attract potential customers. Satisfied customers are likely to buy more frequently and in greater volumes and to purchase other goods and services offered by the firm (Anderson, Fornell and Lehmann 1994). Satisfied customers are also less likely to engage in damaging negative word-of-mouth and are both more willing to pay for the benefits they receive and are more likely to tolerate increases in price. Therefore it is proposed that;

*P7 there will be a significant positive relationship between the farmer's satisfaction with the exchange and the farmer's desire to maintain the relationship with their most preferred seed supplier.*

### **The research setting.**

During January to July 1999, 235 potato farmers in the highlands of Northern Luzon (The Philippines) were asked to respond to a comprehensive questionnaire which sought to investigate the nature of the farmer's relationship with their most preferred seed supplier. As the unit of analysis was the relationship between the potato farmer and their most preferred seed supplier, and since it was the farmer who made the ultimate decision to purchase from a particular supplier, it was anticipated that the farmer's attitudes towards the relationship would be the determinant influence.

Potato production in the highlands of Northern Luzon generally occurs within a permanent upland vegetable production system. Most farms are small, averaging only 1.3 hectares and are often comprised of several small parcels of land, often at different elevations (Crissman 1989). Almost all cultivation practices are done manually as the mountainous terrain limits mechanisation. Family labour plus hired labour is utilised to assist in land preparation, planting, harvesting and hauling the ware potato crop to the roadside where it is available for the traders to collect (Gayao *et al* 1997).

Given that the majority of potato farmers in Northern Luzon speak 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. Farmers were asked to respond to the various statements on a 7 point scale from 1 (I disagree a lot) to 7 (I agree a lot).

In order to refine the scale items, a small pilot test with 52 farmer respondents was conducted. The inclusion of a number of open-ended questions provided an opportunity to assess whether the item measures, as developed from the literature, were adequately capturing the key determinants of the farmer's relationship with their most preferred seed supplier. Results indicated that no major amendments to the survey instrument were required.

Farmers were selected from one of five municipalities in proportion to the total area of potatoes planted in Benguet and Mountain Province (Gayao *et al* 1997). However, in order to approach farmers, it was first necessary to seek permission from the headman in the village who also provided contact names and addresses of suitable respondents. Contact names and addresses for additional respondents were sought during the interviews with farmers. In the absence of any reliable list of potential respondents, such methods of data collection are not uncommon in the developing countries (Della Vedova and Brieva 1995), and, in the absence of any reliable mail or telephone system, provide the only method of contacting respondents.

### ***The measures.***

Offer quality was measured by 11 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 required 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).

Submitting the items to principal component analysis (with varimax rotation and Kaiser normalisation) resulted in three factors being extracted. 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, the factor was excluded from further analysis (Nunnally 1978)(Table 1).

Competitive pricing was comprised of five items which not only demonstrated a need for the preferred supplier to offer a competitive price and favourable terms of repayment, but 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 not only 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.

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

	Factor mean	SD	No. of items	% variance	Alpha coeff.
<b>Offer quality:</b> 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
<b>Satisfaction:</b> 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
Referent power	5.99	0.338	2	8.25	0.726
<b>Trust</b>	5.87	0.377	5	57.22	0.795
<b>Commitment:</b> Support	4.34	0.892	4	52.78	0.882
Continuity	6.89	0.510	2	29.79	0.984

Satisfaction was evaluated by 14 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 Ganesan (1994). Factor analysis produced four factors, which collectively explained 67% of the variance. The first factor (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. Support for this construct, which seldom appears in the satisfaction literature, was drawn from Anderson, Fornell and Lehmann (1994) and Wilson and Moller (1995). Anderson, Fornell and Lehmann (1994) describe cumulative satisfaction as an overall evaluation based on the total purchase and consumption experience over time. Wilson and Moller (1995) indicate that a relationship will not endure unless the supplier is able to consistently meet the buyer's expectations. In an industry where farmers experience much uncertainty, repeat purchasing from preferred suppliers is anticipated to reduce uncertainty and thereby increase satisfaction.

The second factor (adequate rewards) evaluated the farmer's feeling of being adequately rewarded by the seed supplier (Frazier 1983), in terms not only of the quality of the seed purchased, but also of the prices received for the ware potato crop. This factor also provided a measure of the extent to which farmer's actively searched for alternatives (dissatisfaction) and the extent to which (satisfied) farmer's rejected other suppliers offers.

The third factor (expectations) captured four variables which collectively best describe satisfaction in terms of the extent to which the most preferred seed supplier met the farmer's expectations, the benefits that the farmer obtained from the relationship and the extent to which there was cooperation between the farmer and their most preferred seed supplier.

Factor Four (referent power) 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 most preferred seed supplier to other farmers (Christopher, Payne and Ballantyne 1991).

Trust was assessed by 8 items based on the literature reported by Anderson and Narus (1990), Anderson and Weitz (1992), Doney and Cannon (1997), Ganesan (1994), Kumar (1996), Moorman, Deshpande and Zaltman (1993) and Morgan and Hunt (1994). While it was expected that both credibility and benevolence would be captured (Ganesan 1994), factor analysis initially revealed only one factor, comprised of five items, which explained over 57% of the variance 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 preferred 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 measured by 10 items, developed from the literature reported by Anderson and Weitz (1992), Ganesan (1994), Gundlach, Achrol and Mentzer (1995), and Morgan and Hunt (1994). Factor analysis revealed two factors that together explained almost 83% of the variance. The first of these factors (support) (53%) was comprised of 4 items which captured the various commitments the seed supplier made to the farmer 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) (30%) was comprised of 2 items, which measured the farmer's expectation that the relationship would continue.

### Evaluating the model.

To analyse the impact of offer quality, satisfaction and trust on the farmer's commitment to maintain a relationship with their most preferred seed supplier, each of the propositions were initially tested using linear regression (Table 2).

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

Independent	Dependent	SE	R <sup>2</sup>	Beta	Sign
Offer quality	Satisfaction	0.298	0.475		0.000
Seed quality				0.620	0.000
Delivery				-0.232	0.000
Competitive price				-0.019	0.720
Satisfaction	Trust	0.338	0.211		0.000
Stability				-0.151	0.024
Reward				0.076	0.221
Expectations				0.477	0.000
Referent power				0.019	0.752
Trust	Continuity	0.511	0.001	0.028	0.671
Satisfaction	Continuity	0.371	0.480		0.000
Stability				0.490	0.000
Reward				-0.485	0.000
Expectations				-0.185	0.001
Referent power				0.347	0.000
Support	Satisfaction	0.286	0.512	0.715	0.000
	Trust	0.356	0.112	0.335	0.000
	Continuity	0.502	0.037	0.193	0.003

It was apparent that as seed quality improved, relationship satisfaction improved. However, there was a significant negative relationship between the reliability of delivery and relationship satisfaction. Such would suggest that the more farmers expected seed suppliers to deliver seed when they needed it, the less able they were to do so. While it was also apparent that most farmers were dissatisfied with the high prices they were paying for seed and the high rates of interest they were paying on their loans, there was no significant relationship between price and satisfaction.

As proposed there was a significant positive relationship between the farmer's satisfaction with the relationship 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. Furthermore, 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, the more stability farmer's experienced in their relationship with their most preferred seed supplier, the more the farmer's trust in their seed supplier deteriorated. Here it would seem that the key dimension adversely affecting the farmer's trust in their most preferred seed supplier was the seed supplier's inability to consistently produce good quality seed. In the absence of any formal seed certification system, seasonal variations will have a significant impact on both the quality and quantity of seed available.

While a significant positive relationship between trust and the farmer's desire to maintain a relationship with their most preferred seed supplier was expected, there was no evidence of any such relationship. Although the vast majority of literature indicates that trust is a key determinant in the building and maintenance of long-term buyer-seller relationships (Dwyer, Schurr and Oh 1987; Morgan and Hunt 1994; Wilson 1995), in established relationships, it is quite conceivable that, as proposed by Anderson and Narus (1990) and Ganesan (1994), trust could lead to satisfaction. Such would then provide additional support for a direct relationship between satisfaction and the farmer's desire to maintain their relationship with their most preferred seed supplier.

However, quite unexpectedly, while all four dimensions of satisfaction were significantly related to continuity, two were found to be negative. The more stability farmer's experienced in their relationship with their most preferred seed supplier, the more farmers were committed to the relationship. Since the development and maintenance of long-term relationships has been shown to improve access to a more reliable supply of production inputs (Hakansson 1982) and to improve product quality and performance (Han, Wilson and Dant 1993), such is not unexpected. Similarly, the more quickly the most preferred seed supplier addressed the farmer's complaints and the more often farmer's referred their most preferred seed supplier to other farmers, the more committed farmers were to the relationship.

Conversely, the major reasons for farmer's not wishing to maintain their relationship with their most preferred seed supplier were derived from the inability of the seed supplier to adequately meet the farmer's expectations and the farmer's feelings of being inadequately rewarded for their efforts. Farmer's were most dissatisfied by the price at which the seed supplier purchased their ware potato crop. Since it was the seed supplier who took the crop to market and it was the seed supplier who determined, after the repayment of the loan, how much money was to be paid to the farmer, farmer's felt they were being exploited.

Since there was no significant relationship between trust and the farmer's desire to maintain a long-term relationship and given that the relationship between satisfaction and continuity was negative, the farmer's desire to maintain a long-term relationship could only be derived from the various commitments the seed supplier made to facilitate the relationship or directly from the seed supplier's offer quality.

A significant positive relationship was found between the various commitments the seed supplier made to help the farmer grow potatoes and the farmer's desire to maintain a long-term relationship. Anderson and Weitz (1992) demonstrate how when large and significant investments are made to a relationship, the presence of those commitments cultivates trust. As proposed, a significant positive relationship was found between the support the seed supplier provided to the farmer and the farmer's trust in that supplier. As expected, there was a significant positive relationship between the various commitments made by the seed supplier to help the farmer grow potatoes and the farmer's relationship satisfaction.

Although not proposed in the initial model, a significant positive relationship between offer quality and the farmer's desire to maintain the relationship was found for all three dimensions of offer quality, suggesting that farmer's were most committed to those seed suppliers who could provide good quality seed at planting time and at a competitive price (Table 3).

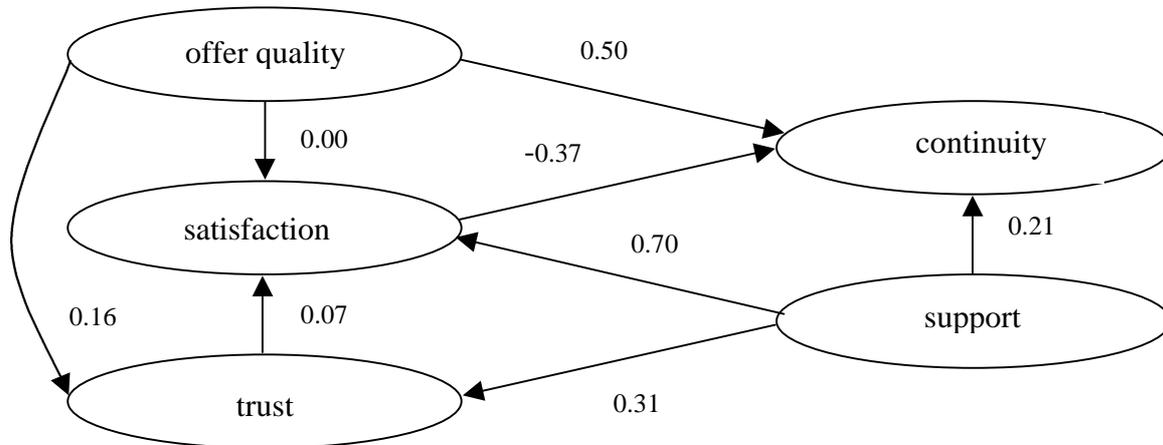
**Table 3. Relationship building behaviour in the Filipino seed potato market.**

<b>Independent</b>	<b>Dependent</b>	<b>SE</b>	<b>R<sup>2</sup></b>	<b>Beta</b>	<b>Sign</b>
Offer quality	Continuity	0.424	0.317		0.000
Seed quality				0.239	0.000
Delivery				0.168	0.005
Competitive price				0.447	0.000
Offer quality	Trust	0.354	0.130		0.000
Seed quality				0.248	0.000
Delivery				-0.124	0.068
Competitive price				0.302	0.000

Furthermore, in the absence of a formal seed certification system and because of the informal nature of the credit arrangements made between potato farmers and their seed suppliers, it was proposed that there could be a significant direct relationship between offer quality and trust. Indeed, a significant positive relationship between offer quality and the farmer's trust in their most preferred seed supplier was identified. However, the relationship was found to be significant for only two dimensions; seed quality and competitive price.

Having determined the nature of the proposed relationships, a revised relationship model was developed and tested using the structural equation program Amos 4.01 (Figure 2). The model proved not only to be significant (chi-square 10.691, Df = 2, probability level = 0.005), but to satisfy the major empirical tests (RMR = 0.016, GFI = 0.982, CFI = 0.971) (Bentler 1990).

**Figure 2. Revised model of buyer-seller relationships in the Filipino seed potato industry**  
(standardised regression weights)



### Conclusions and implications.

It would appear that the farmer's commitment to maintain an on-going relationship with their most preferred seed supplier was derived directly from the seed supplier's offer quality and the extent to which the seed supplier was prepared to help the farmer grow potatoes, rather than via trust and satisfaction as initially predicted.

The farmer's desire to maintain their relationship with their most preferred seed supplier was derived from the ability of the seed supplier to deliver good quality seed cost effectively, at the time the farmer required it for planting. Since the majority of farmers required finance to establish the crop and were dependent upon their seed supplier to provide the source of credit, it was important to choose a seed supplier who offered favourable terms of repayment and who was financially strong, for, in the event of crop failure, the farmer would be unable to repay the loan and would be forced to borrow again to re-finance any subsequent crop.

In this regard, seed suppliers, however reluctant they might be, were often required to share the risks of growing potatoes and to provide financial assistance during difficult times. It was also in their best interests to help the farmer grow potatoes. However, the majority of farmers were dissatisfied in their relationship with their preferred seed supplier. The main source of dissatisfaction was the perceived inequity in the distribution of profits, for, under the terms of the credit arrangement, the seed supplier provided the seed and the majority of other inputs with the express intention of marketing the farmer's ware potato crop. Because of the farmer's lack of equity and the high risk of growing potatoes in The Philippines, the rates of interest charged by the seed suppliers were inordinately high. Consequently, most potato farmers felt that they were inadequately compensated for the risks they undertook in growing the crop.

While such a situation might suggest that farmers were becoming increasingly dependent on their preferred seed supplier, farmers did not actively look for alternative seed suppliers, but neither did they reject alternative seed supplier's offers. While numerous alternative seed suppliers were available, in the absence of any formal seed certification system, farmer's had no guarantee that the seed they purchased would prove to be substantially free of pests and diseases.

Furthermore, because of the nature of the credit arrangements negotiated between the potato farmer and their preferred seed supplier, farmer's could not gain any assurance from unfamiliar seed suppliers that they would not be taken advantage of. Consequently, potato farmer's preferred to purchase seed from those seed suppliers with whom they have dealt in the past and with whom they had developed some degree of trust.

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