Analyzing Factors Effective on the Development of Relationship Commitment

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Abstract

Due to the important role of commitment and trust in the relationship marketing, the factors which can directly result in a committed relationship along with the factors which can influence the commitment through influencing trust, according to the model of commitment and trust by (Morgan & Hunt, 1994) have been introduced and their level of importance has been investigated here. The article uses fuzzy cognitive maps (FCMs) in the proposed model to find the most important paths leading to relationship commitment. The FCM analyzes the responses of a group of 30 people including general practitioners in dentistry, managers of dental departments in some of the public clinics and hospitals who are the direct customers of 3 distributers of dentistry equipments in Iran to find the most important paths. Also the influence of coercive power, which was not concluded in previous researches, has been examined. The result of this inquires, then, has been provided along with its managerial implications and the impacts of prioritizing antecedents and factors of trust and commitment in relationship marketing.

1. Introduction

It's been suggested that "successful relationship marketing requires relationship commitment and trust." (Morgan & Hunt, 1994) The literature, also, suggests that understanding relationship marketing requires distinguishing between the discrete transaction, which has a "distinct beginning, short duration, and sharp ending by performance," and relational exchange, which "traces to previous agreements [and] ... is longer in duration, reflecting an ongoing process" (Dwyer, Scburr, & Oh, 1987). Hence Relationship marketing refers to all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges.

In this article we, first, conduct a comprehensive literature review on commitment and trust and the respective constructs in section 2. In the next section we will introduce Fuzzy Cognitive Maps and the way we utilize them to find the most important paths leading to trust and commitment. Finally, conclusions regarding the results along with the managerial implications and future studies are presented.

2. A Review of Trust and Commitment

The literature is rife with researches that point to the fact that in the global economy one has to be a trusted competitor to be an effective one, which emphasizes the importance of relational marketing. As the presence of relationship commitment and trust is central to successful relationship marketing (Shelby & Hunt, 1994), and given the importance of relational marketing in today's competitive world and its bearing on CRM, a concept that has seen a great boom over the past two decades (Payne & Frow,

2005), it is important to know the antecedents that affect trust and commitment in relational marketing. When both commitment and trust—not just one or the other—are present, they produce outcomes that promote efficiency, productivity, and effectiveness. In short, commitment and trust lead directly to cooperative behaviors

Relationship commitment is defined as an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it; that is, the committed party believes the relationship is worth working on to ensure that it endures indefinitely. (Moorman, Deshpande, & Zaltman, 1993): "Trust is defined as a willingness to rely on an exchange partner in whom one has confidence." The literature on trust suggests that confidence on the part of the trusting party results from the firm belief that the trustworthy party is reliable and has high integrity, which are associated with such qualities as consistent, competent, honest, fair, responsible, helpful, and benevolent (Rotter, 1971; Altman & Taylor, 1973; Larzelere & Huston, 1980; Dwyer & LaGace, 1986). (Anderson & Narus, 1990) focus on the perceived outcomes of trust when they define it as "the firm's belief that another company will perform actions that will result in positive outcomes for the firm as well as not take unexpected actions that result in negative outcomes." Indeed, we would expect such outcomes from a partner on whose integrity one can rely confidently.

Trust is so important to relational exchange that (Spekman, 1988) postulates it to be ' 'the cornerstone of the strategic partnership." Why? Because relationships characterized by trust are so highly valued that parties will desire to commit themselves to such relationships (Hrebintak, 1974) Shelby and Hunt (1994) propose that (1) relationship termination costs and relationship benefits directly influence commitment, (2) shared values directly influence both commitment and trust, and (3) communication and opportunistic behavior directly influence trust (and, through trust, indirectly influence commitment).

2.1. Termination Cost
A common assumption in the relationship marketing literature is that a terminated party will seek an alternative relationship and have "switching costs," which lead to dependence (Jackson, 1985; Heide & George, 1988). Termination costs are, therefore, all expected losses from termination and result from the perceived lack of comparable potential alternative partners, relationship dissolution expenses, and/or substantial switching costs. These expected termination costs lead to an ongoing relationship being viewed as important, thus generating commitment to the relationship.

2.2. Relationship Benefits
Competition—particularly in the global marketplace—requires that firms continually seek out products, processes, and technologies that add value to their own offerings. Relationship marketing theory suggests that partner selection may be a critical element in competitive strategy. Because partners that deliver superior benefits will be highly valued, firms will commit themselves to establishing, developing. and maintaining relationships with such partners
it is, therefore, proposed that firms that receive superior benefits from their partnership—relative to other options—on such dimensions as product profitability, customer satisfaction, and product performance, will be committed to the relationship (Shelby & Hunt, 1994).

2.3. Shared Values
Shared values, the only concept that we posit as being a direct precursor of both relationship commitment and trust, is the extent to which partners have beliefs in common about what behaviors, goals, and policies are important or unimportant, appropriate or inappropriate, and right or wrong (Dwyer, Scburr, & Oh, 1987) theorize that shared values contribute to the development of commitment and trust. Moreover, the organizational commitment literature often distinguishes between two kinds of commitment: (1) that brought about by a person sharing, identifying with, or internalizing the values of the organization and (2) that brought about by a cognitive evaluation of the instrumental worth of a continued relationship with the organization, that is by adding up the gains and losses, pluses and minuses, or rewards and punishments. Consistent with the organizational behavior literature, we posit that when exchange partners share values, they indeed will be more committed to their relationships, but our definition of commitment is neutral to whether it is brought about by instrumental or identification/internalization factors.

2.4. Communication
Communication can be defined broadly as the formal as well as informal sharing of meaningful and timely information between firms. Communication, especially timely communication (Moorman, Deshpande, & Zaltman, 1993) fosters trust by assisting in resolving disputes and aligning perceptions and expectations.

Shelby and Hunt (1994) propose that a partner's perception that past communications from another party have been frequent and of high quality—that is relevant, timely, and reliable— will result in greater trust. Anderson & Narus (1990) find that from both the manufacturer's and distributor's perspectives, past communication was positively related to trust. Anderson & Weitz (1989) also find that communication was positively related to trust in channels.

2.5. Opportunistic Behavior

The concept of opportunistic behavior from the transaction cost analysis literature is defined as "self-interest seeking with guile." The essence of opportunistic behavior is deceit-oriented violation of implicit or explicit promises about one's appropriate or required role behavior (John, 1984)

Shelby and Hunt propose that when a party believes that a partner engages in opportunistic behavior, such perceptions will lead to decreased trust. Rather than positing a direct effect from opportunistic behavior to relationship commitment, we postulate that such behavior results in decreased relationship commitment because partners believe they can no longer trust their partners.

3. Fuzzy Cognitive Maps

Fuzzy Cognitive Maps are used here to delineate the order of importance of the paths leading to trust and commitment. In this section, for the purpose of the reader's deeper understanding, an introduction to the concept of FCM is given. It is assumed that the reader is familiar with the fundamental notions underlying the Fuzzy theory, yet this familiarity does not bear upon the understanding of the methodology used in this article.

Cognitive Maps (CMs) were proposed and applied to ill-structured problems by (Axelrod, 1976).

The approach used by Axelrod is to develop CM's, i.e. signed digraphs designed to capture the causal assertions of a person, with respect to a certain domain and then use them in order to analyze the effects of alternatives, e.g. policies, business decisions, etc. upon certain goals. A cognitive map has only two basic types of elements Concepts and Causal Beliefs. The concepts are represented as variables and the causal beliefs as relationships among variables. Causal relationships link variables to each other and they can be either positive or negative. Variables that cause a change are called *Cause Variables* while those that undergo the effect of the change in the cause variable are called *Effect Variables*. If the relationship is positive, an increase or decrease in a cause variable causes the effect variable(s) to change in the same direction. If the relationship is negative, then the change which the effect variable undergoes is in the opposite direction. Fig. 1 is a graphical representation of a cognitive map, where variables (X, W, etc.) are represented as nodes, and causal relationships as directed arrows between variables, thus constructing a signed digraph (Nasserzadeh, Jafarzadeh, Mansouri, & Sohrabi, 2008). A famous example is cited by (Vasantha Kandasamy & Smarandache, 2003) where an expert spells out the five major concepts relating to the unemployed graduated engineers as:

E1 – Frustration

E2 – Unemployment

E3 – Increase of educated criminals

E4 – Underemployment

E5 – Using drugs, etc.

The resulting graph elicited using the expert's opinions and representing variables and corresponding relationships among them is as follows (Figure 1)
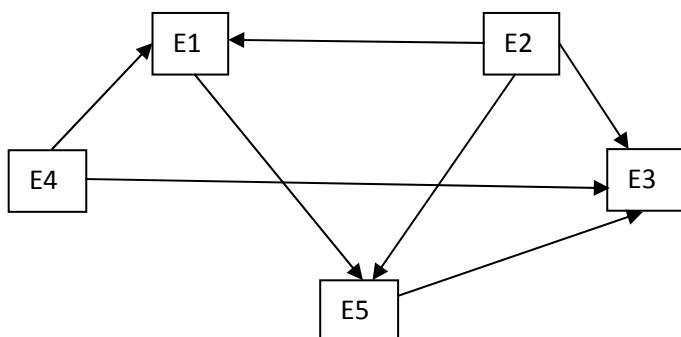

Figure 1-Causal Graph

Cognitive maps were developed in simulation, organizational strategies modeling, support for strategic problem formulation and decision analysis,

knowledge bases construction, managerial problems diagnosis, failure modes effects analysis, modeling of social and psychological processes, modeling virtual worlds and analysis of their behavior, requirements analysis and systems requirements specification (Kardaras & Karakostas, 1999). (Kosko, 1986) introduces FCM, i.e. weighted cognitive maps with fuzzy weights. It is argued, that FCM eliminates the indeterminacy problem of the total effect. Since its development, fuzzy set theory has been advanced and applied in many areas such as expert systems and decision making, control engineering, pattern recognition, etc (Zimmermann, 1991). It is argued that people use fuzzy data, vague rules, etc. and fuzzy sets as a mathematical way to represent vagueness. Fuzzy sets are characterized by a membership function, which is also called the degree or grade of membership.

Different approaches were proposed for the specification of the fuzzy weights in an FCM. One suggestion is to ask the experts to assign a real number from the interval (0, 1) for each relationship and then calculate the average. However, it is difficult for the experts to assign a real number in order to express their beliefs with regard to the strength of relationships. This is the reason why partially ordered linguistic variables such as weak < moderate < strong, etc. are preferred to real number.

It is assumed that a concept in an FCM can be represented by a numerical vector (V), whereas each element (v) of the vector represents a measurement of the concept. Another way of representing a cognitive map is made possible through an adjacency matrix where one can clearly observe the sign of the relationship, while keeping in mind that in case of an absence of relationship between these two factors, the corresponding entry will be empty:
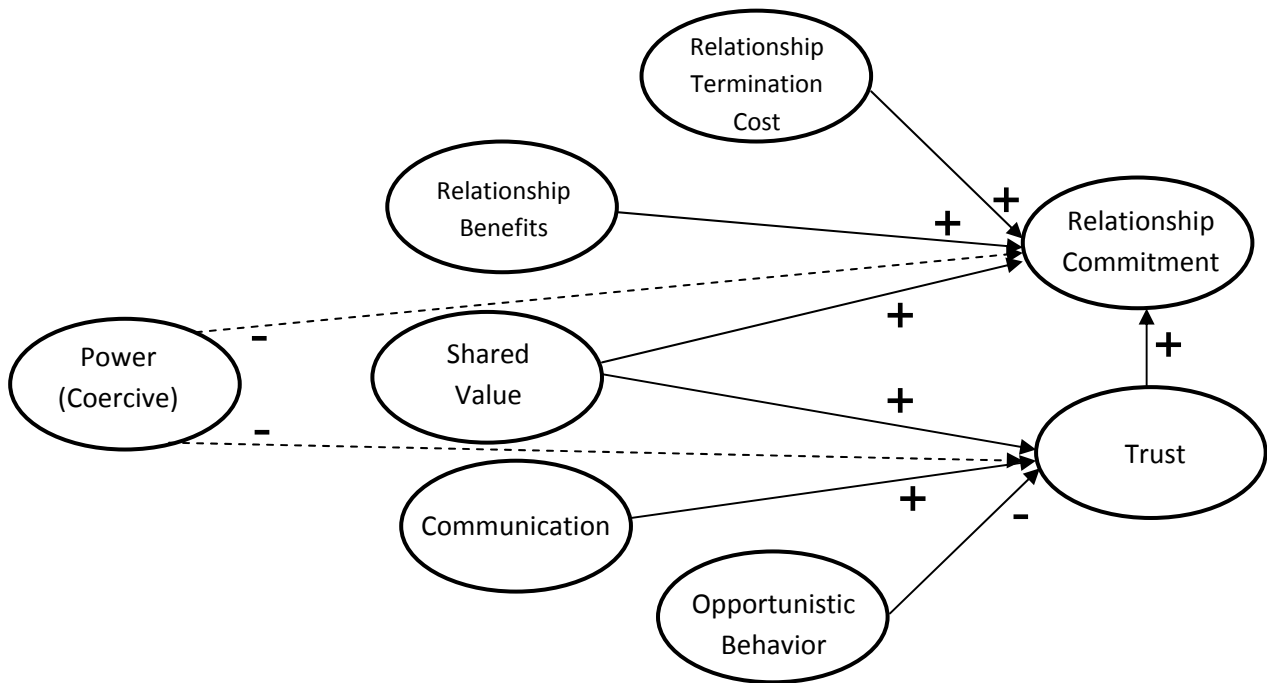

Figure 2- Model of Commitment and trust by (Morgan & Hunt, 1994)

4. Methodology

Fuzzy Cognitive Maps (FCMs) have been used to determine two things. First, the strength of the relationships described in the original Shelby and Hunt paper (1994) (Figure 2).
Second, to determine if there is a strong relationship between "power and commitment," and "power and trust and commitment" as proposed for further study in the Shelby & Hunt paper (1994).

For the purpose of determining the strength of each path in the following fuzzy diagram, the mamdani fuzzy operator has been used.

Based upon paths above a questionnaire has been developed on Likert scale of 1-5, which each of the questions refers to one of the defined relationships. These questionnaires have been responded by general practitioners in dentistry, managers of dental departments in some of the public clinics and hospitals who are the direct customers of 3 distributers of dentistry equipments in Iran. The sample group was composed of 45 people including 20 general dentists, 10 oral surgeons, 8 clinic managers, and 8 managers of dental departments of hospitals.
The questionnaire has been submitted personally to each of the members of sample group, and has been explained to them directly. It has been given one week to each respondent to reply and a reminder telephone call has been scheduled for the 6th day of the week.

The group of respondents is composed of 16 general dentists, 4 oral surgeons, 7 clinic managers and 3 managers of dental departments in 3 different hospitals. (Respondent rate is 67%)

After collecting the responses, using the above function, the linguistic labels corresponding to each of the paths shown in figure 3 are quantified. The aim is to find the path with the greatest impact on the final variable – purchase satisfaction.
Assuming:

C1: power (coercive)
C2: relationship termination cost
C3: relationship benefits
C4: shared value
C5: communication
C6: opportunistic behavior
C7: trust
C8: relationship commitment

The paths are as follows:
$I_1 = \{C1,C8\}$
$I_2 = \{C1,C7,C8\}$
$I_3 = \{C2,C8\}$
$I_4 = \{C3,C8\}$
$I_5 = \{C4,C8\}$
$I_6 = \{C4,C7,C8\}$
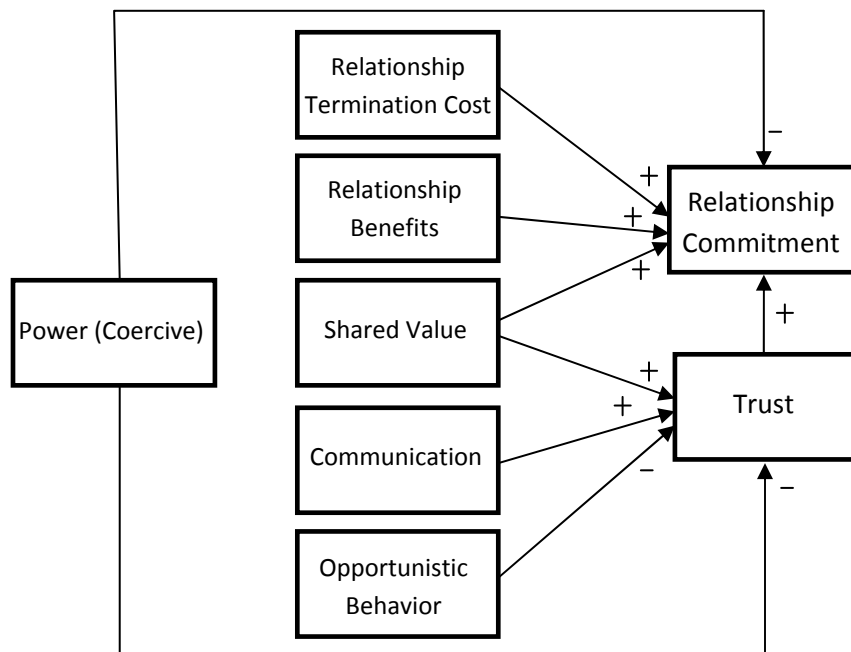$I_7 = \{C5,C7,C8\}$
$I_8 = \{C6,C7,C8\}$

Figure 3 – Investigated Paths

5. Results

5.1. Phase I:

For the original Shelby and Hunt model, the strength of each of the paths leading to commitment has been computed. Based on the mathematics behind fuzzy cognitive maps, the importance weights of each of the paths are computed as follows:

$\Phi^1 = 0.9$ (strong)

$\Phi^2 = \min(0.94, 0.97) = 0.94$ (strong)

$\Phi^3 = 0.86$ (strong)

$\Phi^4 = \underline{0.95}$ (strong)

$\Phi^5 = 0.65$ (medium)

$\Phi^6 = \min(0.63, 0.97) = 0.63$ (medium)

$\Phi^7 = \min(0.71, 0.97) = 0.71$ (medium)

$\Phi^8 = \min(0.93, 0.97) = 0.93$ (strong)

$\Delta = \max \{ \Phi^1, \Phi^2, \Phi^3, \Phi^4, \Phi^5, \Phi^6, \Phi^7, \Phi^8 \} = 0.95 =$ strong

5.2. Phase II:

For the relationship between "power and commitment," and "power and trust and commitment," (paths I^1 and I^2) the strength for both of the paths was found to be strong.

6. Conclusion

With the increased penetration of Relationship Marketing philosophies and Relationship Commitment in businesses and organizations and the concomitant rise in spending of people and products to implement them, it is clear that the importance of developing the knowledge about the effective factors in creating such commitment will rise consequently. Each business and organization should be aware of the importance of the factors to be monitored, developed or modified in order to nurture a committed relationship with the customers. It is obvious that knowing the level of influence each factor has can help the managers not spend their priceless resources on unnecessary factors which have little influence on increasing the commitment.

The result of our research has shown that the most positive relationship can be seen when the parties of the relationship find the relationship more beneficial. The findings of this research lead to a series of managerial implications for managers to increase the commitment and trust of the firm's customers. According to these results, although having shared values and communication can be a great motive for customers to initiate a relationship with the firm, it will not guarantee an increase in the commitment the customer might feel toward the firm. This conclusion can guide the managers to put their best attempts to reduce the feeling of coercive power a customer will have about the firm through communication and modification of agreement conditions and terms and several other alternatives. In addition, the managers should be very clear in terms of communicating relationship benefits for the customer and put most of their time, money and energy on emphasizing more and more on these benefits for the customers to grow their sense of trust and commitment.

This research has been conducted on a relatively small sample group specializing mostly in medical equipment distribution and retailing. Although we are confident, to some extent, that sense of trust and commitment in the business relationships are more or less independent of the type of industry, this claim should be tested on various businesses in order to find a general pattern on how to prioritize the influential factors on developing commitment and trust. Furthermore, in the model of trust and commitment by (Morgan & Hunt, 1994) some interrelationships between the constructs have been presumed (i.e., the relationship between relational benefit and coercive power); these interrelations could be explored using the same methodology as the one used here, or using more complex Fuzzy functions. Moreover, this model has an outcome side which shows the influence of commitment and trust on several outcomes such as conflict, acquiescence, propensity to leave, cooperation and uncertainty. These outcomes are the most important reason for the firms to attempt to increase their customers' commitment to the firm.

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