Managing Marketing Channels For High-Technology Products: A Behaviour Based Approach

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Introduction

Marketing channels essentially consist of interacting groups of interdependent organisational entities enjoying varying degrees of autonomy from each other. The political economy concept provides the basis for analysis the interactions between different entities in the channel systems as well as the interactions of the channel system with the environment. This framework visualizes the environment in terms of the opportunities and constraints it represents for the internal decisionmakers. The "relations to the environment" concept which links the external environmental variables and the internal polity of a channel system was formulated by Arndt (1983) based on the political economy framework. A variety of research in sociology, organisational behaviour and marketing (Filly, House and Kerr 1976, Stern and Brown 1969) lend additional support to the

This paper focuses on the behavioural aspects of managing marketing channels dealing in high-technology products. High-technology products are distinguished in terms of product attributes like incidence of frequent technological innovations, shorter product life cycle, high levels of customer uncertainty etc. The paper conceptualises the connection between these product attributes and channel management variables so as to present a normative model for managing marketing channels in the high-tech context. The model incorporates important behavioural variables associated with marketing channel management.

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view that the context or situation has an important effect on the nature and functioning of exchange relationships.

High-technology contexts present an extraordinary external political-economy for channel systems as they are characterised by highly uncertain decision environments. Based on Wholey and Brittian's (1989) classification scheme, the task environments associated with high-technology products can be conceived as displaying high variations in terms of the frequency, amplitude and predictability dimensions. Several authors (Dill 1958; Emery and Trist 1965; Lawrence and Lorsch 1967; Terreberry 1968 etc.) have highlighted the decision maker's need to both assimilate and anticipate environmental conditions in order to undertake strategic actions. These processes entail an assessment of the complexity of environmental elements and their rate of change. Under conditions of extreme uncertainty decision making thus becomes a difficult task as the complexity and dynamics of the environment are difficult to assess. Further, it is difficult to implement those decisions until all the channel members are convinced about the rationale of the decision and agree to abide by it. To operate in environments characterised by extraordinarily high levels of uncertainty, it is thus imperative for marketing channels to follow approaches and practices that are different from those followed by channels operating in relatively placid environments. These approaches should enable a channel system to operate like a single unit capable of adjusting to the ever-changing environment by taking decisions fast, and implementing it efficiently. The study putsforth a model that suggests specific behavioural strategies which will enable channel systems to effectively deal with the uncertainties associated with the marketing of high-tech products.

Rangan, Menzes and Maier (1992) classified distribution channel research into channel design research and channel management research. Channel design research deals with the organisation and structuring of intermediaries, their roles and functions. Channel management research, in contrast, examines

how channel systems can be managed once they are in place. The proposed model belongs to the channel management research stream. The rationale for a distinct approach in marketing high-technology products is sufficiently supported in theory (Lynn et. al. 1999, Weiss and Heide 1993, Smith et. al. 1999). The impact of the high-tech attributes on the task environment of a channel is discussed first to bring out the need for a distinct approach in managing marketing channels that deal in high-technology products.

Effects of High-Technology Attributes

For the purpose of the present study high-tech products are defined as product categories which possess certain high-tech attributes. These distinguishing attributes are instrumental in transforming the external political economy of the channel system. The five high-tech attributes were derived from the extant literature in high-technology marketing. A survey of high-tech literature provided a long list of such attributes. However, several attributes that appear in this list were interrelated and hence effectively represent the same dimensions. Since the objective was to generate a list of attributes that will be as parsimonious and as exhaustive as possible, an extensive content analysis was carried out on the initial list. This threw up five high-tech attributes, which more or less captured the various dimensions appearing in the literature. Each of these attributes in fact subsumes several sub-attributes that are interrelated. The five high-tech attributes considered in this study are explained below.

Shorter Product Life Cycle

High-tech products are defined to have a characteristic life cycle curve (Ryans and Shanklin 1984, Rosenau 1988). Such products typically go through the life-cycle stages in shorter periods of time compared to an ordinary product. Thus the sales volume of a particular product category will peak within a short interval of time before descending in an equally short period of time. In several ways this is a reflection of the constant and rapid technological changes that characterise high-tech products.

Greater Risk of Discontinuous Change in Product Technology

Tushman and Rosenkopf (1992) define technological discontinuities as "those rare, unpredictable innovations which advance a relevant technological frontier by an order of magnitude and which involve fundamentally different product or process design and that command a decisive cost, performance or quality advantage over prior product forms". Among high-technology products, abrupt and unprecedented changes occur more frequently than in ordinary products (Moore 1990). This is a direct consequence of the shortened time interval between technology development and commercialisation in high-tech industries. Moreover, high-tech industries give greater emphasis on research and development activities. A discontinuous change is explained as one that will create a total change in the consumption patterns, customer profile etc. High-tech products may become technologically obsolete within short periods of time due to a greater possibility of discontinuous change occurring in product technology domain. Several authors (eg., Weiss and Heide 1993) have associated the attribute 'unpredictability' with high-tech contexts. This can also be considered as a direct consequence of the high probability for discontinuous innovation to happen in high-technology contexts.

Indispensability of Associated Infrastructure

High-Technology products are incapable of existing in isolation. It is widely acknowledged that the ability of the supporting infrastructure to keep pace with the rapid and dynamic changes happening in high-tech products is a key factor determining the success of a high-tech product launch. For example, Mac Innis and Heslop (1990) and Moriatry and Kosnik (1990) consider the existence of a well-established service network to be a vital component in the marketing mix of high-tech products. The "network externality" concept mentioned by Arthur (1996) supports the need for developing the associated infrastructure. The supporting infrastructure will typically include complementary products vitally needed for the functioning of the product, essential supplies and spares, well trained service executives who can install and repair the products etc. Being technology advanced, high-tech products

will require complementary products that are compatible with the technology employed. For example, a server's prowess in accommodating ever-increasing workloads is of little value if it lacks supporting applications written by independent software vendors. Unless such technologically products are widely available users will find it difficult to adopt high-tech products.

Lack of Well Established Industry Standards

A basic characteristic of high-technologies is their evolutionary nature. As a result of their constant state of evolution, products that are meant to satisfy the same needs operate with different standards. At no point of time will there be a universally accepted standard that can benchmark the order offers. The idea is encapsulated in the 'dominant design' concept in technology management literature. According to Utterback (1994), "a dominant design is the one that wins the allegiance of the market place, the one that competitors and innovators should adhere to if they hope to command significant market share". In high-tech markets, dominant designs generally have a relatively shorter life. In a particular product category, when it will appear as if a dominant design is emerging, a new design is introduced to challenge that

Uncertainty About Product Functionality

From a consumers' point of view, high-technology products are associated with a high level of functionality related uncertainty. Labeled as 'market related uncertainty' (Moriatry and Kosnik, 1990) these uncertainties are basically linked to the customers' unfamiliarity with the products. To start with, consumers tend to face difficulty in matching their needs to the benefits the high-tech products might offer. Added to this is the risk due to the high switching-costs generally associated with high-tech products. Difficulty in anticipating changes, which could occur in the market place, adds another dimension to this uncertainty.

The impact of the high-tech attributes on the task environment of channel systems is quite significant. However, to understand the total impact of the high-tech attributes, it is necessary to look at the different ways in which

each of the five high-tech attributes affect the task environment of a channel set-up.

Effects Due to the Shorter Product Life-Cycles

A shorter product life-cycle significantly affects the various factors related to channel management. Associated with the product life-cycle concept is the diffusion of innovation curve. As the product passes through each stage in the life-cycle, it is being adopted by different consumer segments. Each segment in the curve consists of groups of customers whose responses to marketing stimuli are different. When the product passes through each stage in the life-cycle very rapidly, there is an accompanying change in the profile of the customers whose responses to marketing stimuli are different. When the product passes through each stage in the life-cycle very rapidly, there is an accompanying change in the profile of the customers (Butaney and Wortzel 1988). To target each customer segment in the diffusion of innovation curve, a different marketing approach becomes necessary (Etgar 1977; Moore 1991). This is because, different consumer characteristics like expectancies and risk acceptabilities of each consumer segment. Thus, the distributors who maintain contact with the consumer segments on behalf of the supplier ought to continuously change their orientations. At the inroductory stage when the early adopters constitute the prime customer base, the sales pitch should address their concerns with greater emphasis on the innovative technical features. When the product moves to the growth phase, the early majority needs to be influenced by a different approach with far lesser emphasis on the innovative features. Such constant and continuous change in the marketing approaches involve consistently adjusting to the shorter product cycle time by grasping the technological and market related characteristics of the product rapidly by the entire channel. Shorter product life-cycles also have serious implications for the channel system from the pricing point of view. Since the performance to price ratio will show a declining trend (Smith et. al. 1999), the issues related to sharing of marketing costs, margins etc. will have to be sorted out in a regular basis. This is possible only with greater levels of cooperation and trust between the supplier and the distributor. Normal levels of trust and cooperation are inadequate to achieve the required amount of agility and synchronisation in the behaviour of the distributor because the entire channel system comprising several independent organisational entities should have to act in perfect unison like a single organisation.

Effects Due to the Greater Risk of Discontinuous Change in Product Technology

High-tech product categories not only witness dynamic change in their product technologies, the change is often totally unpredictable and sudden. The effects of such changes are not just limited to the products. Most often, there is an accompanying shift in the consumption patterns, user profile, complementary products, demand curve etc. (Robertson 1971). Such abrupt and drastic shifts in the decision variables can have a debilitating impact on the channel constituents. Operating with a particular set of market variables that either remain constant or are predictable in their pattern of change over a considerably long period of time, channel members can be expected to develop some among of expertise in the markets they serve. This expertise may be in the form of possessing grass-roots level knowledge about the purchase decision making process, consumption pattern, personal contacts or specialised selling skills. Such expertise gathered over a period of time is a vital asset for distributors in their dealings with the supplier. Occurrence of discontinuous changes can render such expertise virtually obsolete (Tushman and Anderson 1986, Eisenhardt 1989, Von Hippel 1986). On the other hand, the supplier runs the risk of loosing the confidence of the market. Such extreme situations demand rapid adoption of survival tactics like phasing out of product lines or aggressive pricing. As Achrol, Reve and Stern (1983) say "changes in the macro environment cannot usually be acted upon pro actively with much success and adaptive strategies like withdrawal provide the only effective response". Further, as Glazer and Weiss (1993) argue, in highly turbulent markets, formal planning is sub-optimal since it slows down the process and interferes with the environmental requirement of faster, "realtime" decision making. The adoption of such drastic measures requires the full cooperation and trust of all the channel components.

Effects Due to the Lack of Well Established Industry Standards

Existence of well accepted industrial standards makes it easy for both the supplier as well as the distributor to convince the customer since it could reduce buyer uncertainty (Moriatry and Kosnik 1989). In the absence of such well-established standards, customers tend to spend more time and effort in the search process (Cyert and March 1963). The marketing task will consequently involve greater customer education (Ryans and Shanklin 1984) which in turn requires greater willingness to acquire information about the product technology in the associated fields. As Moriatry and Kosnik (1989) say "the minimum acceptable breadth and depth of knowledge is greater in high-tech settings than in low-tech settings". Besides the process of purchasing high-tech products have been found to be a complex process, which involves seeking, and analysing information at every stage (Patterson and Dawes 1999). The distributors' willingness to learn and gather knowledge is thus a crucial factor in the successful marketing of high-tech products. Only a climate of cooperation and trust can foster this.

Effects Due to the Indispensability of Supporting Infrastructure

Successful customer adoption of high-technology products is significantly affected by the development of associated infrastructure (Mc Intyre 1988). High-tech products often get rejected by the markets when they are launched prematurely. Described as the 'market adoption process'; (Olleros 1986, Venkatesh and Vitalari 1986) in high-tech strategy literature, the rate of development of the supporting infrastructure is considered to be a crucial factor in the rate of adoption of high-tech products. The rate of development of the supporting infrastructure may be uneven across market segments. Distributors, being in close contact with the customers, will be in a better position to gauge the availability and accessibility of such supporting infrastructure in the market. Further, installation and servicing assume special significance in the case of high-tech products (Moriatry and Kosnik 1989; Mac Innis and Heslop 1990). If the supplier depends on the distributor for these functions, the distributors' willingness and cooperation in employing a network of highly trained servicemen becomes crucial in the successful

marketing of high-tech products. Moreover, since the product technology is constantly changing, the service force should be trained regularly (Abrat 1986). The distributors should recruit skilled servicemen, motivate them to enhance their skill set, assess the training needs from time to time and cooperate with the supplier in training programms. Thus, unless the dyadic relationship is characterised by high-levels of cooperation the ability of the channel set-up to market high-technology products will be affected.

Effects Due to the Uncertainty in Product Functionality

Uncertainty related to the functioning of the product has been highlighted very prominently in high-tech literature (Weiss and Heide 1993, Moriatry and Kosnik 1989, Mc Innis and Heslop 1990, Moore 1991, Ryans and Shanklin 1984, Dunn, Friar and Thomas 1992). Since the products are technologically very advanced, customers are dependent on highly trained technicians for installation and maintenance. Further, several issues like the threat of obsolition of technology, switching costs associated with the replacement of products, the ability of the technology to perform to the promised levels etc are matters of concern for the customer. To command the confidence of the customer in the face of such uncertainty, marketing must refocus away from selling products towards creating relationships (Mc Kenna 1991). This is only possible if the supplier and the distributor work like a single organisation sacrificing short-term losses for long term gains. Mutual trust is a vital factor in achieving this level of integration. Table 1 summarises the implications of high-technology attributes and the suggested channel member behaviour

Conceptual Model

The model has as its focus, supplier-distributor dyads dealing in high-technology products. Because of their peculiar characteristics, high-tech products are associated with a highly uncertain environment. Under such extreme uncertainties, the effectiveness of a channel dyad depends on the degree of success it achieves in adapting to the environment. The adaptation process in the context of channel dyads have two basic characteristics:

(i) the adaptation process is 'symbiotic' which implies that the adaptation

Table 1

High Technology Attributes, Their Effects on Channels and the Responses Sought

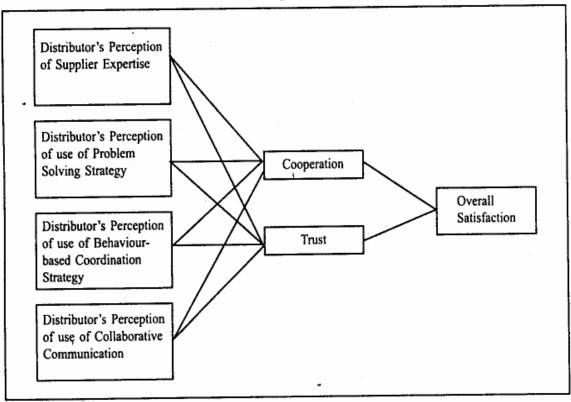
High-Technology Attributes	Major Effect	Behavioural Response Sought
Shorter Product Life-Cycle	Reduced cycle time leading to constant and rapid changes in the customer/market profile	Timely absorption and adjust- ment to the technological/market trends by providing continuity in change
Greater probability of discontinuous change in product technology	Greater risk of obsolescence of the technological and marketing skills acquired by the distributor	Quick adoption of drastic measures like reduction in prices or phasing out of product whenever required
Lack of well established industry standards	Comparison of alternatives based on a well defined criteria becomes impossible for the consumer and information asymmetry becomes a crucial factor in the consumers' decision making process	Greater thrust on educating the customer after acquiring knowledge about a wider breadth of topics
Indispensability of supporting infrastructure	Greater importance for a well established service network. Greater need for closely observing the market adoption process	Providing regular training to the service force and encouraging them to improve their skill set
Uncertainty about product functionality	Difficulty in gaining the confidence of the customer	Focus to shift from selling the product to creating relationships

takes place between two units that are dependent on each other, (ii) the adaptation process is 'ongoing' in the sense that it takes place under changing business conditions. To facilitate this adaptation process it is necessary that (i) both the parties should indulge in similar or complementarily coordinated actions to achieve mutual outcomes or similar outcomes with expected reciprocation i.e., they should cooperate and (ii) both the parties should believe that the actions performed by the other party will result in positive outcomes and that the unexpected decisions taken by the other party will not harm the relationship i.e., mutual trust should be maximum. Hence the model

is based on the premise that to achieve efficiency and effectiveness in operation, channel dyads dealing in high-technology products must adopt explicit behavioural patterns that will manifest in greater trust and cooperation between the channel members. This is because, to successfully adapt to an extremely dynamic and uncertain environment, the channel system must function like a single unit. This view is consistent with the one putforth by Morgan and Hunt (1994) that considers close inter firm relationships as an uncertainty absorption mechanism. Further, according to Alderson (1965) only those channel dyads which possess greater degrees of mutual cooperation and trust can function as a single unit. This assumption is also broadly supported by Chipello (1989) and Zachary (1990).

The importance of trust and cooperation in facilitating channel member adaptation finds moderate support in the extant literature. Kumar (1996) points to the role of trust in ensuring greater adaptability among channel members. According to Kumar, "When both sides trust each other, they are able to share confidential information, to invest in understanding in each other's business and to customise their information systems or dedicate people and resources to serve each other better". Moreover, trust is believed to "create a reservoir of goodwill that helps preserve the relationship when, as will inevitably happen, one party engages in an act that its partner considers destructive". Morgan and Hunt (1994) link greater amounts of trust among channel members to a reduction in decision-making uncertainty. Narus and Anderson (1996) highlight the importance of cooperative arrangements in developing adaptive channels. Cooperation places emphasis on the sharing of capabilities and joint efforts (Cannon and Perreault 1997). As early as in 1963, Mallen had concluded that "the channel must cooperate and act as a unit for the maximisation of channel profits". Guiltinan et al (1980) had found a positive association between cooperation and uncertainty reduction. Anderson, Lodish and Weitz (1987) have found empirical support linking a 'transaction climate' characterised by mutual trust and goal compatibility to enhanced dealer involvement in the relationship. The model is depicted in Fig. 1.

Figure 1
The Conceptual Model



The exogenous constructs in the model are all defined in terms of the distributors' perception. This is so because attitudinal change is considered to occur mainly in the perceptual domain. Further, there is empirical support in channels theory for the contention that behaviour is based on perceptions rather than any objective measures of interaction (Anderson, Lodish and Weitz 1987).

Hypotheses

The following hypotheses can be stated from the pattern of relationships between the constructs presented in the conceptual model.

Distributors' Perception of Supplier Expertise

Sources of channel power and their application have been considered to be immensely important in channel management theory. A body of research has

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been based on Stern's (1969) pioneering notion that appropriate role behaviour can be specified and maintained in inter firm relationships by the exercise of power and influence. (Lusch 1976; Lusch and Brown 1982; Stern and El-Ansary 1982). Moreover, the exercise of different types of social power has been hypothesised to have different effects on the target party's beliefs, attitudes and behaviour (Raven and Krugalski 1970). The appropriateness of the different power sources under different situations have also received significant attention (Johnson et al 1993; Kale 1986). Expertise as a source of power has been considered as a non-coercive approach for influencing channel members which could build up trust and solidarity in the relationship (Keith, Jackson and Crosby 1990; Busch and Wilson 1976).

Since the distinguishing features of the high-technology products render their associated environment very uncertain, distributors can be expected to look forward to their suppliers as leaders who could provide them the required information and advice to reduce the uncertainty. The amount of expertise possessed by the supplier, both technical as well as market related will be of immense value to the distributor. Referent power and legitimate power cannot elicit the same level of trust or cooperation under such circumstances as they are incapable of contributing positively towards reducing decisionmaking uncertainty. Coercive sources of power on the other hand have always been found to be associated with such negative attitudes like dissatisfaction (Wilkinson 1979), opportunism (John 1984), negative relationships (Frazier and Summers 1986) etc. Further, Skinner, Gassenheimer and Kelly (1992) has found empirical evidence to prove the negative impact of coercive sources of power on channel cooperation. In a highly uncertain environment it becomes absolutely necessary for a channel system to work in perfect harmony and a negative attitude will have the effect of destabilising the process. Hence coercive sources of power are unsuitable in a high-technology context. The following interlinkages can therefore be hypothesised in the context of high-technology products:

H₁: Distributors' perception of supplier expertise leads to the attainment of higher levels of cooperation in the dyad

H₂: Distributors' perception of supplier expertise leads to the attainment of higher levels of trust in the dyad

Distributors' Perception about the use of Problem Solving Strategy for Conflict Resolution

Problem solving strategy is defined as an approach for resolving conflicts by developing solutions that integrate the requirements of both the parties (Walton and Mckersie 1965). This strategy involves searching for alternative solutions and assessing the outcomes to both the parties from all such alternative actions. Information exchange is central to this approach. Other types of non-institutionalised conflict-resolution approaches like avoidance, persuasion, competiting etc. relies less on sharing information. Achrol, Reve and Stern (1983) predict greater use of problem solving approaches when environmental uncertainty is high. Clopton (1984) associates use of problem solving strategy with higher levels of trust and cooperation in buyer seller relationships. Mohr and Spekman (1994) find empirical support to consider the use of problem solving strategy as a primary characteristic of successful partnerships between firms. In channel dyads, to cultivate cooperation and trust it is imperative that both the parties should not get the impression that they are getting a 'raw-deal'. Thus when conflicts arise, the resolution process must address the concerns and desires of both the parties. When problemsolving strategy is employed, the parties to the conflict could obtain a better insight about the goals, constraints, beliefs and attitudes of each other. The antecedents to each decision can be easily traced and motives appreciated. Such a state of affairs can be expected to foster cooperation and trust that will enable dyads to face the challenges of marketing high-technology products. Hence:

H₃: Increasing use of the problem solving approach to resolve conflicts can lead to greater cooperation in a channel dyad

 H_4 : Increasing use of the problem solving approach to resolve conflicts can lead to greater trust between the members of the dyad

Distributor's Perdception about the use of Behaviour-Based Coordination Efforts

Over the years there has been a discernible shift in emphasis from control to coordination in channels literature. Coordination implies the alignment of activities of the channel members to achieve the desired outcomes. Coordination is defined as the degree to which the manufacturer and dealer activities are well organised and synchronised (Guiltinan, Rejab and Rodgers 1980). From a microeconomic perspective, a channel-dyad is said to be coordinated when all managerial control variables are set at the values that maximise the sum of manufacturer plus retailer profits (Igene and Parry 1995). To achieve the desired levels of coordination, considerable effort is required from the part of the supplier. Celly and Frazier (1996) suggest two distinct types of coordination efforts which could be used by the supplier to coordinate the activities of the channel namely outcome-based coordination efforts and behaviour-based coordination efforts.

Outcome-based coordination efforts imply placing greater emphasis in 'bottom-line' results like sales growth, market share, target achievement etc. in the personal communication with the distributor personnel. Behaviourbased coordination efforts on the other hand places emphasis on tasks and activities like customer education, sales person training, selling techniques etc. Celley and Fraizer (1996) in their empirical study conducted among industrial product distributors find strong association between environmental uncertainty and the use of behaviour based coordination efforts. Outcomebased coordination efforts are characterised by high levels of 'cause' effect' ambiguity from the distributor's point of view as the relationship between the efforts and performance cannot be easily determined especially when the environmental uncertainty is very high (Merchant 1985). Under conditions of environmental uncertainty, an emphasis on outcomes is equivalent to holding the distributor responsible for uncontrollable factors (Jaworski and Mac Innis 1989). Moreover, since a focus on outcomes under high uncertainty might transfer excessive risk to the distributor (Eisenhardt 1989; March and Shapiral 1987; Oliver and Weitz 1991), distributors will not be interested to cooperate with the strategies adopted by the supplier.

On the other hand, since, behaviour-based efforts involve a greater deal of information exchange (Frazier and Summers 1984) and a general emphasis on sharing expertise, the distributor will be better inclined to cooperate with the supplier in response to such efforts. Further, behaviour-based coordination efforts imply greater accountability for the actions that in turn can lead to greater levels of trust in the ongoing relationship.

Thus:

H₅: Use of behaviour-based coordination efforts can lead to higher levels of cooperation between the members in the dyad

H₆: Use of behaviour-based coordination efforts can lead to higher levels of trust between the members in the dyad

Use of Collaborative Communication Strategy

Mohr and Nevin (1990) proposed a classification of communication strategies to be applicable to channel management contexts based on the various combinations of communication facets. A collaborative communication strategy entails frequent, bi-directional, formal and non-coercive communication between channel members and as opposed to this, autonomous communication involves infrequent, uni-dimensional and coercive communication. In fact, inter-channel communication in this sense has been visualised as a continuum anchored between collaborative communication and autonomous communication. According to Mohr, Fischer and Nevin (1996), collaborative communication places emphasis on shared interests and common goals and thus leads to volitional compliance between partners. Empirical studies have associated the use of collaborative communication with greater levels of channel member satisfaction (Keith, Jackson and Crosby 1990; Mohr, Fischer and Nevin 1996) and coordination (Guiltinan, Rejab and Rodgers 1980). Morgan and Hunt (1994) associate collaborative communication with cooperative attitudes, which creates an atmosphere of mutual support and respect. Kumar (1996) advocates the use of bilateral communication to create trust between channel members. Further,

bi-directional flow of communication becomes absolutely necessary while dealing with high-technology products since information about the market adaptation process is very crucial in the decision making process of the supplier. Greater frequency of communication between the members of the channel dyad will lead to a greater appreciation of the operational tactics and will thus result in better cooperation. Anderson, Lodish and Weitz (1987) underline the importance of direct and frequent communication in enhancing mutual trust and goal compatibility. Hence, for marketing high-technology products:

 H_7 : Greater use of collaborative communication will lead to greater cooperation between the members of the dyad

H₈: greater use of collaborative communication will lead to greater trust between the members of the dyad

Cooperation, Trust and Satisfaction

The primary objective of the model is to suggest behavioural approaches that will enable channel dyads to successfully adapt to the uncertain environments associated with the marketing of high-tech products. Success of the adaptation process in turn is considered to be a function of the levels of trust and cooperation prevalent among the members of the channel dyad. Overall satisfaction with the relationship is portrayed as the indicator of the channel dyad's success in adapting to the uncertain environment. Performance is not considered as an end in itself, this is because in a highly evolving environment, conceptualisation of performance is a difficult task. Several studies (Anderson and Narus 1990; Siguaw, Simpson and Baker 1998; Mohr and Spekman 1994; Skinner, Gassenheimer and Kelly 1992) consider satisfaction rather than performance to be the focal consequence of channel relationships. Besides, there is theoretical evidence to show that satisfaction results from perceptions of past performance (Schul, Lamb and Little 1981).

The association between trust, cooperation and satisfaction has been featured in several studies in channels literature (Andaleeb 1995; Anderson and Narus

1990; Childers et al 1984; Ganesan 1994; John and Revel 1982; Skinner, Gassenheimer and Kelly 1992). Geyskens et. al. (1998) conducted a meta-analysis of trust in the context of channels research. After a comprehensive review of about twenty-four studies in which trust is employed as a variable they concluded that trust is strongly related to satisfaction. Based on a laboratory study, Dwyer (1980) found satisfaction to be positively correlated to the perceived cooperativeness of the firms. In the model, achievement of greater levels of trust and cooperation are portrayed to facilitate the channel member adaptation process and a successful adaptation process is hypothesised to lead to satisfaction. Thus, in the context of marketing channels dealing with high-technology products

H₉: High levels of trust will lead to greater satisfaction in the relationship

 H_{10} : High levels of cooperation will lead to greater satisfaction in the relationship

Summary

High-technology product categories are distinguished in terms of certain attributes they possess. The marketing environment associated with high-tech product categories comes to exhibit high levels of dynamism and uncertainty due to the impact of these attributes. Consequently, channel systems involved in the marketing of such high-tech products are forced to adapt their behaviour to successfully operate in such dynamic and uncertain environments. A normative conceptual model is proposed aimed at facilitating the adaptation process in channel dyads dealing in high-technology products. The model suggests the adoption of specific behavioural practices that will result in greater cooperation and trust among the channel members. Extant theories suggest that a climate of cooperation and trust fosters greater unity among the channel members. To successfully adapt to the ever changing, uncertain external environment, it is necessary that channel systems should work like a single unit. Achieving greater levels of trust and cooperation between the channel members is thus considered as a prerequisite for a successful adaptation process. The focal outcome of the model is overall satisfaction

with the relationship that results from the successes achieved in the operation of the channel.

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