

Identifying Factors that Facilitates Functioning of Virtual Teams in Supply Chain with Differing Strategy Orientation

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Abstract

This paper is an attempt to draw a map which allows a Virtual Team to be utilized efficiently in different organizations in consideration with types of personalities, which facilitates deployment of the same. Virtual teams and e-collaborations are a suggested substitute to traditional formats of bulk working style and enables to remove constraints like physical space and time. Virtual teams if driven by meticulous planning, able leadership, interpersonal trust and effective utilization of ICT will help in achieving efficiency in the supply chain for different type of organizations. In general ICT, organizational functions and traits of supply chain participants must synchronize in a way which creates an environment of a lean process and thus helps the supply chain to compete with the other existing supply chains of different organizations. This study focuses mainly on the best fit of the discussed vital factors which are somehow neglected or were not considered in the previous researches.

Keywords

Virtual Team, Personality styles, Organizational Strategy, Supply chain strategy, ICT (Information and communication Technology) in supply chain management.

1. Introduction

The concept of a “team” is described as a small number of people with complementary skills who are equally committed to a common purpose, goals, and working approach for which they hold themselves mutually accountable. Google throws up the following definition of a Virtual Team:

A Virtual Team – also known as a Geographically Dispersed Team (GDT) – is a group of individuals who work across time, space, and organizational boundaries with links strengthened by webs of communication technology.

There are many examples of the core groups collaborating across topographical distances for completion of the tasks (Tormanen, 2017). With the miracle of Internet mapping the globe into a cocoon of electronic information and communication media, distributed work has become, faster and super-efficient. The term “virtual” denotes distributed work that is dominantly based on IC Tools.

Globalization of world economy brought about the emergence of Virtual teams to facilitate the presence of the successful organizations in every nook and corner of the globe. (Ebrahim, et. al., 2009). Team work in the organization started gaining trend with the emergence of groups in the Late 1960s.

Virtual teams are a powerful structure which plays a major role in development of a contemporary organizational environment, and are known for extensive use of information and communication technologies (ICTs). In a global market scenario, VT’s represent the immediate answer for complex organizational problem and cost-effective solutions. (Watkins, 2012)

VT’s are a perfect platform for working with talent pools barring the topographical differences on a designated project. As an effective and talented workforce seeks the opportunity to live in one part of the planet and work for his chosen area of specialization in another part, VT is the only solution. With changes in organizational setup design, and deployment of a multicultural specialized team(s) a virtual team can be roped in to implement large strategic, operational or commercial projects involving various concurrent and sequential activities by team members across various geographical localities. Virtual teams are also known for enabling organizations to pool in the talents of their own employees, and employees of trading partners to meet the demands of today's competitive global environment, however, the natural evolution of virtual teams in a dynamic environment can leave many organizations grappling with multiple problems, including: the formalization of virtual team work processes and strategies, the role of technology in a virtual team environment. (Hertel et. al., 2005)

Our work is an attempt to propagate and support the use of virtual teams and collaboration technology, using critical success factors derived from the literature. The study of which will allow to examine virtual teams in an organizational environment, as opposed to a highly structured, artificial, setting in controlled environment and potential strategies for the organization with regard to using of virtual teams will be explored.

1.1 Understanding Virtual Teams in an Organization

The term 'virtual team' is defined to cover a wide range of technology-supported activities, with the terms 'distributed' or 'dispersed' teams being used interchangeably to explain it. Virtual teams extend across geographical, temporal and organizational boundaries, whose members are spread over geographic and/or organizational boundaries but are linked together via computer and communication technologies. Virtual teams are technology-enabled, and consist of members who can span different organizations, time zones, geographic locations, and cultures with the use of predominantly computer-mediated communication infrastructures (Lipnack and Stamps, 1999).

A global Virtual team study focuses on Virtual Teams based on task execution in a different type of organizational structures led by the leaders in different fluctuating environments. This conceptual study aims to explain the various phases in the formation of a virtual team in a Prospector, Analyzers and Defender organizational setup along with the influence of thought perception of participants, strategy formulation and implementation of the same for achievement of organizational goals (Tarricone and Luca, 2002).

2. Literature Review

2.1 Organizational strategy

2.1.2 Cost Leadership Strategy

Cost leadership is a term used when a company projects itself as the cheapest manufacturer or provider of a particular product or commodity in a competition. Cost leadership does not mean that a company produces goods which are of inferior quality at comparatively cheaper rates, that strategy will ultimately lead to failure. The cost leadership strategy usually targets a broad market. Some of the ways that firms acquire cost advantages are by improving process efficiencies, gaining unique access to a large source of lower cost materials, making optimal outsourcing and vertical integration decisions, or avoiding some costs altogether. Miles et. al. (1978) called them Defenders.

2.1.3 Differentiation Strategy

A differentiation strategy calls for the development of a product or services that offers unique attributes valued by customers and are perceived to be better/customized from the products of the competition. The value added by the uniqueness of the product may allow the firm to charge a premium price for it, if suppliers increase their prices the firm may be able to pass along the costs to its customers who cannot find substitute products easily. Miles et. al. (1978) called them the Prospectors.

2.1.4 Innovation

The process of translating an idea or an invention into a service or a commercial product that creates value. An idea to be innovative should be produced at an economical cost and specify a designated need. Innovation is the process which includes the implementation of initiative, information and resources by which ideas are converted into products. Innovation is mainly manifested through an engineering process. Innovation and new product or service development is risk taking preposition.

2.2 Personality types:

2.2.1 Sensing(S)

Sensing refers to how a person observes an information and uses it for practical purpose, persons who sense things are practical people, they are factual and use all the five senses to process the information and arrive at a decision.

2.2.2 Thinking (T)

People with thinking personality traits make a decision based on the pros and cons of the situation with consistent logic without any external or internal factor disturbing the decision.

2.2.3 Feeling (F)

Feeling is a personality trait, which makes a larger use of heart with respect to the brain for coming to a decision, values and emotions of the team members is given upper crest while arriving to a conclusion. It has been observed that in the feeling type of decision making, hard facts of the situation are not communicated owing to reaction of the team member.

2.2.4 Intuition (N)

Intuition is the ability of a person to access knowledge, information without proof, evidence or conscious reasoning.

Myers and McCaulley (1985), and Cano and Garton (1994) have defined MBTI as a scale to measure personality types. This helps in determining the preferences on four scales: extraversion-introversion, sensing-intuition, thinking-feeling and judging-perceiving. The four types of leadership personalities reviewed in our study are, ST, SF, NT, and NF (Isaksen et. al., 2003)

2.2.5 ST (Sensing Thinking)

Leaders rely on sensing for purposes of perception and on thinking for purposes of judgment. They focus on day-to-day tasks, managing and controlling the team and associates (Hellriegel et. al., 1992) (Pittenger, 1993). These types of leaders remember facts rather than looking for possibilities.

2.2.6 SF (Sensing Feeling)

Comprises of the Leaders relying on sensing for purposes of perception and on feeling for purposes of judgment. They primarily focus on support, members of the teams, and relationships. Since feeling is the main component of judgment, they tend to define and solve the problems with a personal touch. *Hellriegel et al. (1992) and Lok and Crawford (1999)* suggested that the SF leaders tend to give high importance for interpersonal relations and are comfortable in dealing with complex problems in a systematic way. Gallen (1997) adds that SF leaders will prefer working in a harmonious, familiar, and a predictable situation.

2.2.7 NT (Intuition Thinking)

Leaders relying on intuition come under the umbrella of NT. Using Intuition for purposes of perception and thinking for purposes of judgment is their characteristics. Their area of concentration will focus on results, organizational growth, and achievement. They use intuition too, but depend more on thinking while making important judgments. *Hellriegel et al. (1992)* asserts that an efficient NT participant can be deemed as an architect of progress and ideas within an organization.

2.2.8 NF (Intuition Feeling)

Leaders relying on intuition for purposes of perception and on feeling for purposes of judgment come under the umbrella of NF leaders. These leaders focus on individual development, freedom, and personal growth. *Hellriegel et al. (1992)* suggested that an NF Manager gives importance to personal charisma and commitment; in other words, they are the so called “cheerleaders” of the organization.

3. Theory Development

This research framework is developed in accordance with the literature review. Every organization which plans and implements the concept of a Virtual Team has different requirements, our work on VT tries to identify the (a) best fit of the leadership and organization type. *Iqbal and Sharma (2012)* gave a theoretical framework for analyzing the ways in which organizations interact with their environment, it was also indicated that strategic types of organizations (Innovators, prospectors and defenders) chose unique strategies in adapting to their environments and then followed the organization’s technology and structure which was influenced by these strategic choices.

Defender organizations have a tendency to follow a safer and stable domain amongst the competitors by avoiding competition in the most aggressive manner. Defender strategy includes adapting a less aggressive, low entrepreneurial style of management and choosing to protect market share by emphasizing efficient production, supply and customer satisfaction.

Prospectors are organizations that follow innovation as the cornerstone of their competitive advantage (*Thomas and Ramaswamy, 1996*). They have on their cart a large array of state-of-the-art products that are targeted at varied area of market segments. Technological flexibility is a key aspect of this strategy which is followed by the prospectors because it permits a rapid response to changes in the marketplace, the technology used is current and product development is not restricted to one domain and goes beyond the organizations with present technological capabilities (*Miles et. al., 1978*).

Innovators: Organizations which follow the Innovator type of strategies, maintain their current domain steadily and try to be innovative in a new business. They attempt to balance efficient production for current lines along with the creative development of a new product. Innovators follow a tight accounting, financial control, high flexibility, efficient production, customized products, creativity and uniqueness.

4. Hypothesis Development

Management of a culturally diverse team involves communication among the team members (*Natatmadja and Dyson, 2006*). Intercultural communication is always a barrier among the team members with face-to-face interaction. Culture will affect the way individuals communicate with each other as the dominant culture and beliefs affect the way people communicate and predict the effect of their behavior on others. Virtual teams rely heavily on ICT to enable the members in collaborating through different time zones across topographical locations. ICT can reduce the chance of cultural diversity related conflict. *Beise (2004) and Jarvenpaa and Leidner (1999)* suggested that electronically

mediated communication may help in making the cultural differences less significant. Lack of non-verbal cues in written media decreases the cultural differences. ICT improves the intercultural communication by providing asynchronous technologies like discussion forums which allow non-native speakers more time to study information, process and respond to messages, thus reducing language error. By deploying intranets, groupware tools and collaborative systems information can be disseminated to all team members of the organization

H1: Supply chain of a Prospector and innovator organization will have Virtual Teams that will require rich ICT (Information and communication Technology) in general.

Economic Times (*"Definition of 'Cost Leadership'"*) defines Cost leadership as a term used when a company projects itself as a competitive manufacturer or provider of a particular product or competition. This type of organizational strategy gels with the group polices practiced by the Innovator type of organizations, they maintain market share and strive to be innovative, this is done by the process of protecting the base operations and create new market opportunities. Analyzers imbibe the strategies of both defenders and the prospectors stated by Miles et. al. (1978) and Iqbal and Sharma (2012). Innovators try to reduce risk and maximize the profits at the same time. Innovators tend to explore and exploit new market opportunities and maintain their core products and customers at the same time. Innovators stay in the competition by maintaining equilibrium between conflicting demands for technological flexibility and for technological stability. Here the ST type of leaders play a major role with their sensing and thinking capabilities. ST Leaders rely on sensing for purposes of perception and on thinking for purposes of judgment (Kumar and Sharma, 2017), they focus on day-to-day task of managing and controlling. According to Hellriegel et al. (1992), these leaders remember facts rather than looking for possibilities.

H2: Virtual Teams of Cost Leader supply chain will be predominantly composed of ST)Sensing and Thinking(type of participants.

In dynamic business level, the most important component of strategy is competitive advantage, which they define as 'the unique position an organization maintains vis-a-vis its competitors, to position itself as an introvert or a judgmental firm which acts as per the prevailing market environs that may be obtained through the investment of time and resources in assets that yield a competitive advantage (Buzzell et. al., 1975) (Anderson, 1982). Therefore, in the course of implementing its chosen generic strategy, the firm is continuously making decisions on the type, timing, quantity, and pace of its resource deployment in order to build assets such as cost leadership, which indeed is a smart move for the sustainability of the organization in fierce competitive culture (Hofer and Schendel, 1978).

H3: Supply chain of Cost Leader organizations will have low uncertainty and the composition of such Virtual teams will comprise of judgmental type of participants.

Prospector organization will have high flexibility and uncertainty in general which requires people with open mind headed by SF type of Leadership and adaptive in nature, the participants need to be more perspective and extrovert in nature and not be judgmental in their initial decisions (Hellriegel et. al., 1992). The followed organizational setup and participants help in making the supply chain more lean and efficient with time. The inherent traits of these organizations will help their supply chain to compete and get an advantage over the organizations having judgmental type of thinking.

H4: Virtual Team of Prospector type of Organization will be predominantly composed of NT/NF types of Participants.

Organizations following Differentiator type of strategy will have high flexibility and uncertainty in general which requires people with open mind headed by NT type of Leadership and adaptive in nature, the participant need to be more perspective and extrovert in nature and not be judgmental in their initial decisions. (Hellriegel et al., 1992). The followed organizational setup and participants help in making the supply chain more lean and efficient with time. The inherent traits of these organizations will help their supply chain to compete and get a advantage over the organizations having judgmental type of thinking.

H5: Supply chain of Differentiator Organizations will have will have high flexibility, uncertainty and depicting complexity of work flow on a higher side, and the composition of such Virtual teams will comprise of judgmental type of participants.

5. Conclusion

This paper conveys potential scope of research in the field of Virtual Teams demanding different leaderships for different kinds of organizational setup strategy. Through extensive review of literature, it is suggested that the Virtual Teams of Prospector organizations who are Innovator in nature will have rich ICT (Information and Communication Technologies) in their operations which allows VTs implementation. The study proposes that ST type of participants will be dominant in the firms with Cost leader strategies and it is also evident that the Differentiators in a supply chain depicts high uncertainty along with an extrovert (perspective) behavior which presents an advantageous position for the consumer with reducing inclination towards substitutes. On the other hand, Cost Leader types of organization are more introverts (judgmental) These parameters will be further proved and verified through empirical data. This study holds good potential for accessing and building up a background for literature on implementation of Virtual Teams in different types organization, structure and able use of ICT. In this research we have pointed out the following hypothesis which will be empirically tested for further confirmation of theory.

6. Discussion and Future Scope of Research

The concept of Semantic Network or Semantic Priming has been proposed for as a tool that could be used by Managers of Virtual Teams. It is not known as of now, how to use it for Virtual Teams with different strategic Orientation. Semantic Network plays a vital role in channelizing teams/virtual teams in different strategy types of Organizations.

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