Constituent Market Orientation and Virtual Organisations

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ABSTRACT

This paper applies the understandings about Constituent Market Orientation gained by research undertaken by Tellefsen to the six organisational types of the taxonometric model of Virtual Organisation developed in the School of Management Information Systems at Edith Cowan University to identify the most effective distribution of resources and management attention in combinations of real and virtual e-business scenarios.

Keywords: Virtual, e-Business, Management, Learning, Theory, Markets, Orientation

INTRODUCTION

When constructing a business solution, many constituencies and stakeholders determine the idea's market value, effectiveness, and efficiency. These include labour markets, downstream markets, collaborative markets, upstream markets including suppliers, market regulators such as industry associations, governments, and general influencers like the media and the public. Market oriented leaders direct their attention and efforts towards these constituent markets to maximise a business unit's competitiveness. In total, the above distribution of attention forms the 'constituent market orientation' of an organisation.

Tellefsen (1995, 1999) has undertaken extensive research justifying a top management led programmatic and natural learning based on feedback from the constituents ('market-back') theory of Constituent Market Orientation. The research findings are based on information provided by 235 CEOs, 244 market managers, 188 purchasing managers, 163 personnel managers, 179 union representatives, 154 PR managers, and 175 lobbying managers. Tellefsen's original hypotheses were aimed at conventional larger organisations. His findings, however, indicated that this Constituent Market Orientation theory is applicable more broadly.

This paper applies Tellefsen's Constituent Market Orientation theories and findings to the forms of virtual organisations commonplace in the e-commerce arena categorised in terms of the taxonometric model developed at the School of Management Information Systems, Edith Cowan University (see, for example, Burn and Barnett, 1999, Burn et al., 1999, Burn and Tetteh, 2000, Lethbridge, 2001, Marshall et al., 2001).

OVERVIEW OF TELLEFSEN'S CONSTITUENT MARKET ORIENTATION FINDINGS

Market orientation is essentially a theory of market-driven organizational learning and innovation. An individual learns through interacting with its environment. The closer the interaction with a particular part of the environment, the more the individual learns about that part. If an individual has no direct interaction with a part of his or her environment, that part will become unknown and invisible. Commonly, the constituent market orientation of an individual becomes unbalanced and results in increased focus on some constituents and partial ignorance of other constituents.

The configuration of an individual's group membership is the most important factor in their

orientation. We are social beings. Intense learning occurs primarily in face-to-face groups. Groups with frequent contacts and internal double and triple-loop learning establish a strong culture with common beliefs, values, goals, priorities, language, habits and recognition patterns. In larger group contexts, they form a sub-culture. The number, type and heterogeneity of an individual's cultural traits (often referred to as the individual's personality) depends on the number and type of social groups he or she belongs to. Each individual's consciousness is limited, tending to routinize behavior, and result in focusing on a limited set of social relations. When an individual is preoccupied with something — due to habits or previous learning of beliefs, values, priorities and goals — other things are unattended, invisible or not comprehended.

Crossan et al (1999) say the same limitations apply to groups sharing mental frames, paradigms, observations and experiences. These limitations, combined with group wise double-loop learning; result in many groups developing distinct sub-cultures that are often homogenous and stable. These factors interact with other organisational, management and leadership factors in significant ways. An organization institutionalizes what tasks are to be carried out by whom, who works with whom, and the rules and intensity of interactions. The nature and structure of the institutionalization has a profound impact on the emergence of distinct sub-cultures within industrial clusters, networks of cooperating firms, single firms, and inter- and intra-organizational work-groups. The tighter group-internal relations are, and the looser the group-external relations are, the stronger the sub-cultures of individual groups become.

Organizations that consist of heterogeneous groups with strong sub-cultures become extremely difficult to govern and lead. Common language, perceptions, values, experiences, goals and habits are weak. Performance and behavior become unpredictable for the organization as a whole, and the organization will not be able to develop a common identity and image. The challenge to the leadership, therefore, is to establish learning loops that are programmatic and led from the center of power. The purpose of these programmatic learning loops, is to establish common purpose, values, and objectives. They must also result in, a common understanding of language, facts, and the environment, with its internal processes and structure, constituents and stakeholders. From a strategic point of view, it is also essential to establish definition between 'us' and 'others': the limits and borders of the organization and its competition. To establish a strong common culture in the organization, the common elements established by the leadership must be communicated to all members of the organization, and be implemented in all decisions regarding leadership style, organizational architecture, structures and processes, strategies, operations, services and products, and be reflected in all external communication with the constituents. An alternative, to this organizational approach to producing and exchanging values in the sub-groups of an organisation, is the market solution of distance and freedom of choice among the actors. Resource-based and agent-based theories of networks have explored the feasibility and economics of these alternatives: administrative versus market solutions of exchange (Conner, 1991, Dahlstrom and Nygaard, 1999, Heide, 1994).

Knowledge management is a key factor in the above issues (see, for example, Prusak, 1997). Learning theory distinguishes between tacit and explicit knowledge. Explicit knowledge can be communicated through a common language, which includes the meaning and feelings attached to body language, pictures, sound, and any form of symbols including written language. Knowledge can also be tacit, and this can occur at several levels: individual, work group, network, firm, industry, language group, etc. In the context of e-business, a prerequisite for an e-based business solution is that knowledge received via an electronic network is explicit between the senders and the receivers. This implies that tacit knowledge cannot become part of the e-commerce systems interface with users, although it has a role in developing and understanding the non-visible parts of an e-commerce solution.

FOUR KEY PROCESSES IN BUSINESS IDEA IMPLEMENTATION

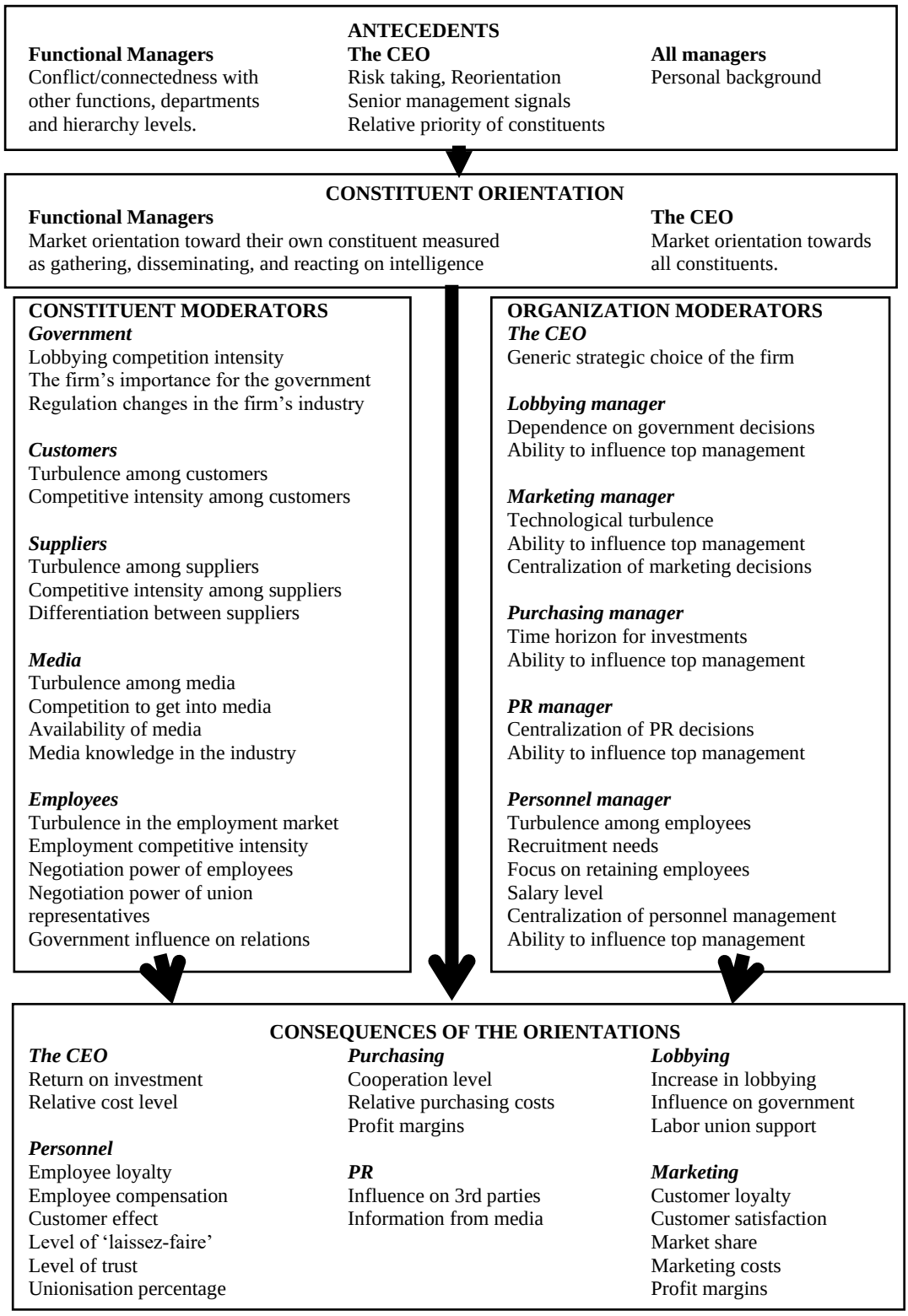
E-systems have advantages in generating and distributing data, but limitations in interpretation of the data necessary for generating learning that can lead to adaptive and generative innovation. E-networks, as system enablers for gathering and disseminating information, have limited usefulness in governance

and leadership processes, and those exchange processes that involve physical products and services requiring problem-solving or the use of tacit knowledge. Tellefsen's findings indicate that the leadership of an e-business therefore has to construct and manage four parallel systems in addition to the system for current operations. To establish and maintain a holistic business idea the leadership group needs to use:

1. The power system: Ownership that establishes who 'we' are, social legitimacy, authority to make decisions, risk-taking, the distribution of values gained and consumed (including financing of investments, distribution of revenues and costs, liquidity and profits)
2. Internal driving forces: Common beliefs, purpose, values and objectives of the organization
3. Strategy making processes: The processes and systems for developing organization-wide agreement on who 'we' are, our image, who we want to relate to and exchange values with (the stakeholders), who the 'others' are (competition and other constituents), how to compete (defining moral and wanted behavior) and with what (technology and know-how).
4. Operative management and systems: Management processes and procedures, including methods for task delegation, solving disputes, accountability, value production, value distribution, delegated risk-taking, Development and integration of real-world and virtual systems of operations.

How organization-internal factors influence the extent of market-driven learning, and how the resulting constituent market orientation influences various organizational outcomes is illustrated in figure 1.

FIGURE 1: A model of constituent orientation



All e-commerce and 'virtual' organisations contain, in some form, the roles listed in Figure 1: just like any real-world organization. In addition to internal management factors, the history, culture and competitive climate of the industrial cluster influence the degree of market-driven learning that takes place within all members of a cluster. Three factors influence the profitability, and therefore the strength of market-driven learning towards each separate constituency:

- The intensity of competition
- The differentiability of the competing firms in the eyes of the constituents
- The rate of change in the market place (turbulence in both the supply and the demand constellations in the market) (Tellefsen, 1995).

DIFFERENT FORMS OF VIRTUAL ORGANISATION

A 'virtual organisation' is a group of otherwise unconnected organisations that act together. Virtual organisations have adopted many forms. Research undertaken at the School of MIS, ECU has resulted in the identification of a six-element taxonomy of forms of virtual organisation (Burn and Barnett, 1999, Burn et al., 1999, Burn and Tetteh, 2000, Lethbridge, 2001, Marshall et al., 2001). These are:

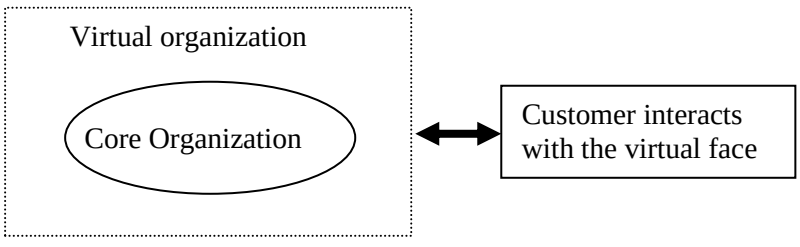
- Virtual Face
- Star Alliance
- Market Alliance
- Co-Alliance
- Value Alliance
- Parallel Alliance

These classifications have been used by the above authors for a number of different purposes in formulating theory and strategy in the development of e-business networks. They offer a useful way of structurally relating the spectrum of 'virtual organisations' to the underlying real organisations. This is the basis of the way that these models have been reworked for use in the analyses described in this paper. The diagrams below include slight modifications to the details of the above models of virtual organisation to expose additional detail, and to correct minor structural flaws. For example, the virtual face model below emphasises that the customer relates to the virtual face rather than the underlying organisation. The value chain model below has also been amended to show that customers usually interact only with one end of the value chain.

Virtual face

The virtual face virtual organisation is an alternative representation of a conventional organisation. In most cases of interest, this is an Internet-enabled organisation that works closely with the conventional organisation that underpins it, e.g. Internet banking organisations are commonly 'virtual faces' closely associated with traditional banks. In such an operative systems solution, the traditional core organization carries the whole burden of extending the above four processes of holistic business idea implementation to the virtual space. The two key questions are: 'to what extent programmed internal and market learning can turn tacit knowledge into electronic automation of services and build them into the e-system', and ' to what extent can expert tacit knowledge be reduced to explicit knowledge simple enough to enable network members to use the virtual systems solution. Those who will not or cannot learn what is needed to use the e-solution will be served by the traditional system. In order to maintain a unitary brand, the virtual and the traditional organizations have to share all cultural traits connected to the personality of the brand.

Figure 2: Virtual Face

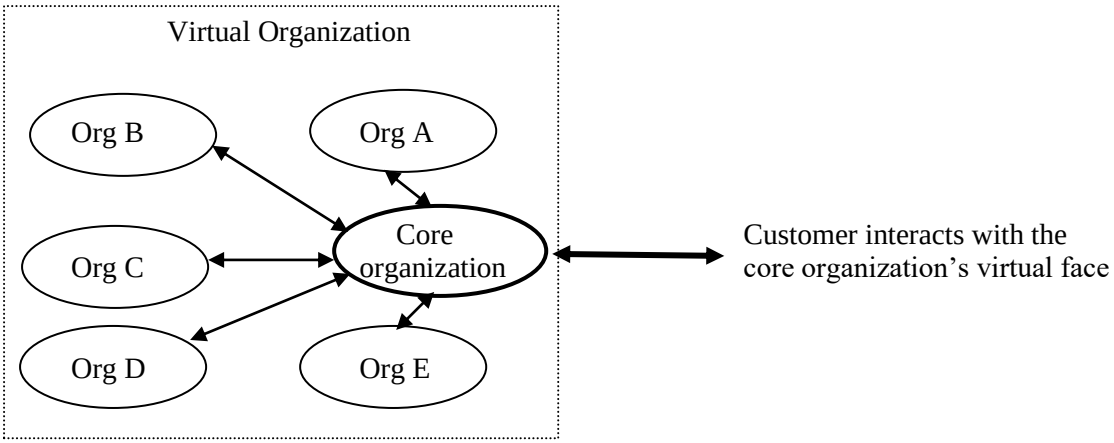


Star Alliance

Star alliances occur when a group of otherwise independent organisations are clustered around a single key organisation (the star). This is common in many fields that have a tradition of main contractors and subcontractors.

In a Star Alliance, the core organization carries the whole burden of implementing the four processes of business idea implementation. The star builds the personality and image of the corporate brand, as well as the various branded products and services offered to the customers. The star will gain supplier power if its leadership is able to customer-orient its sub-contractors. That requires the star to have a broad constituent orientation that as a minimum contains strong up- and down-stream market-driven learning. It is not important to encourage the development of common cultures between the sub-contractors and the star. Such an effort may in fact be detrimental to the network's ability to produce generative learning needed for proactive behavior and break-through innovation as seen by the customers. The star must put a lot of effort into using the data generated by the e-solution for interpretation and feedback to the sub-contractors to ensure customer orientation of the sub-contractors.

Figure 3: Star Alliance



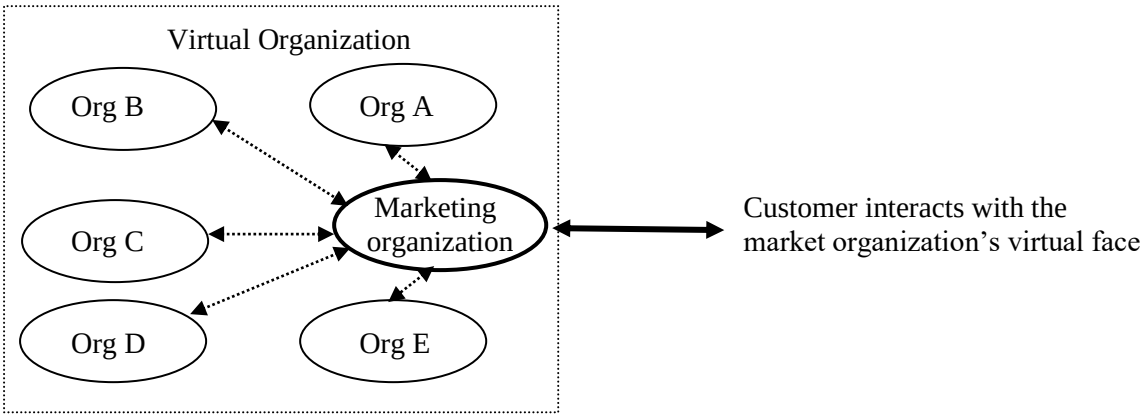
Market Alliance

Market alliances occur when a single organisation manages the relationships with customers. Market alliances are significantly different from star alliances regardless of their apparent structural similarity. The main difference is the 'star' of a star alliance is responsible for managing the whole of the virtual organisation, whereas the focus organisation in a market alliance only undertakes sales and marketing activities. A farm produce marketing association is an example of a market alliance: different farmers coordinate their production under the guidance of the marketing association, which also acts as an intermediary to customers.

In this situation, the ownership structure has a profound impact on the network's ability to become downstream market oriented. If control rests with the producers, the tendency is to make strategic and operative decisions that make life easy for the alliance members, while customers receive inferior service, products, and variety to choose from. Strategies tend toward forced membership of upstream suppliers in order to achieve monopoly powers. The e-system tends to exploit economies of scale, rationalization, and competition on price rather than value-added, differentiation and segmentation. Product and service innovation tends to be stifled, while administrative and production process innovations tend to be overly supported. The e-system tends to become control-oriented. If several market alliances compete, the alliance that manages to remain most downstream market oriented will normally become the customers' choice, but not necessarily the most profitable or competitive. The

outcome depends on the heterogeneity and bargaining power of the customers relative to the same factors among the alliance members.

Figure 4: Market Alliance

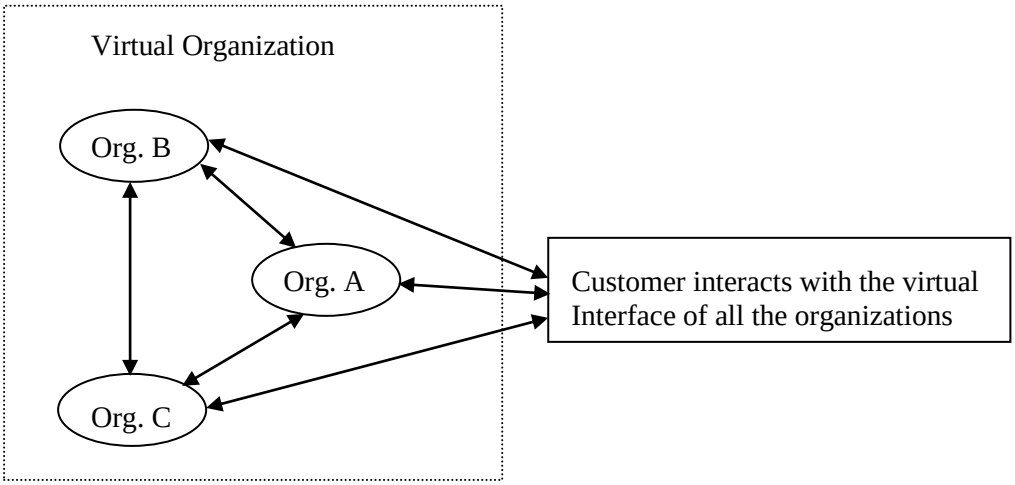


The dotted arrows signify that communication in the virtual operative network is only related to marketing and customer intelligence.

Co-Alliance

Co- alliances occur where organisations participate equally in managing the virtual organisation and interacting with customers. Examples of co- alliances are when businesses manufacturing different goods within the same market collaborate to gain economies of scale, scope and coordination. In this case the leaders of the cooperating organizations either have to establish a governance and leadership organization over and above the co-alliance members, with some form of inter-organizational operational teams, or have one of the organizations take the lead on defining and developing the common elements and systems. Such alliances are inherently unstable, and tend towards full integration or revert to market solutions (Lorange and Roos, 1992).

Figure 5: Co-alliance



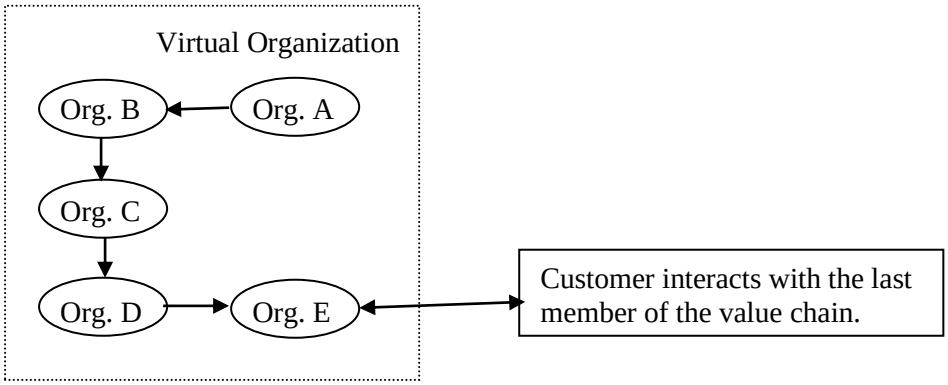
Value Alliance

Organisations form themselves into a value alliance where there are benefits in integrating their value/supply chain. Value alliances are characterised by each member of the alliance adding value

sequentially. The customer submits their order to the value chain, their order results in a flow of product through the value alliance. They are supplied from the organisation at the end of the value alliance chain. The value alliance & supply chain is jointly managed and individual order management is sequential passed from one member of the value alliance to another as the product passes along the value chain.

A common form of value alliance is the organisation of businesses into a virtual market, e.g. for the manufacture of raw materials into goods. The end-of-the-chain organization carries the main burden of creating a corporate image and brands, and must be highly up- and downstream market oriented in order to play its leading role. The end-of-the-chain organization must ensure that the upstream organizations become sufficiently customer-oriented, and take interest in developing the suppliers to become sufficiently integrated and competitive in the activities they undertake. Learning processes and e-solutions have to be integrated along the value chain through cooperative research and development. The e-system must allow for quick data throughput for value chain coordination. This type of network is inherently unstable, and will tend towards full merger or pure market-solutions at each stage of the value chain. The deciding factor is often whether the alliance manages to produce superior learning for adaptive and generative innovation in each critical activity. If superiority is achieved, merger normally follows. If one member organisation fails, it is often replaced.

Figure 6: Value Alliance



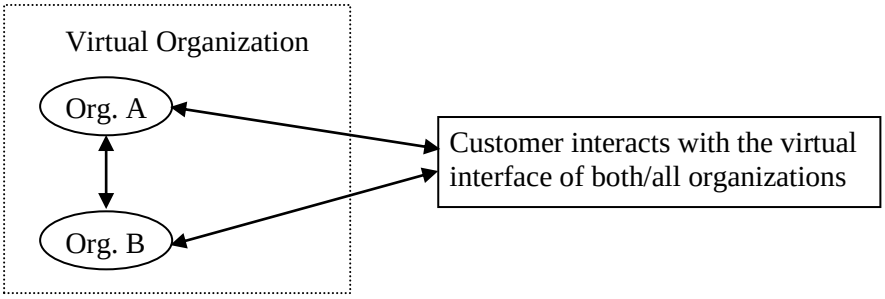
The arrows signify the main flow of goods and services. In terms of communication the arrows would be interactive, but only along the value chain.

Parallel Alliance

Parallel alliances occur when two or more organisations must work together because their output is interdependent. This arrangement is common in computer software and hardware fields where, for example, an operating system is written specifically to utilise facilities provided by a particular central processing unit chip. In this case, the customer must be taught that the alliance partners are cooperating and ensuring that the solutions work together.

The network needs horizontal links between the cooperating organizations at all activity levels, including in the market place that is visible to the consumer. The two or more cooperating organizations do not, however, have to establish any leader or a common culture. Each party can also make arrangements with any number of competitors to their alliance partner. If, however, the cooperation between the alliance partners leads to learning and innovations that are consistently superior to other cooperative arrangements the two have, the alliance will tend towards full merger, and the exclusion, for both parties, of other horizontal alliances.

Figure 7: Parallel Alliance



Summary

This paper has brought together Tellefsen's theories and findings about Constituent Market Orientation and the taxonomy of virtual organisations developed at the School of MIS at Edith Cowan University. Combining these two theory streams enables the analysis of virtual organisations typical of e-commerce arrangements through the use of well-justified market orientation theories.

Undertaking these analyses points to the fact that:

- E-commerce is most often an extension of business that also takes place in the real world
- The real and virtual solutions have to work together, i.e. promote a common image, provide synergies etc.
- The extent of e-based solutions is dependent on the ability to convert tacit knowledge to automated e-systems and/or explicit knowledge at all user interfaces. Value creation that cannot be automated because of tacit knowledge has to be taken care of through real world exchange and production methods.
- The virtual e-commerce has to be supported by other real-world processes of leadership, cultural harmonization, and learning for innovations in administration, technology, know-how, systems, products, services, etc.
- The virtual solutions provide the real world actors with faster and new data that may both support organizational learning as well as operations. The virtual systems can only in a limited way interpret the data in the process of converting the data to knowledge, understanding, problem solving and innovation.
- The need for one organization to take the on the leadership of the alliance depends on the nature of the alliance. The prime factor is the need to control and coordinate the interface with the customers, to provide a branding of the alliance in the minds of the consumers. This factor is independent of the degree of virtuality of the organization.
- The alliances are inherently unstable, and will tend toward totally administered solutions through mergers, or towards pure market solutions. The relative efficiency of learning and innovation within the alliance versus freedom of choice and competitive learning and innovation efficiency will often decide the outcome. The future competitiveness of any e-commerce solution is dependent on these learning and innovation processes that can only be supported by the data stream from the virtual system.

The approach presented here has practical benefits in the ways that it enables the use of well-established and practically useful theories that support managing real world complex organisations in the development of theories about e-networking technologies and organisational structures:

- It establishes an improved context for successfully creating e-spaces (virtual organisations) and using them in real situations.
- It helps CEOs decide which virtual organisational structures are likely to be more successful in business terms.

- It offers a foundation for using the properties of e-networks

The paper draws attention to two interface issues important to virtual organisations:

1. The interface whose purpose is the creation and governance of the virtual organisation.
2. The placement of the e-system with respect to the other production and transactional systems in organisational clusters.

The above practical and theoretical features imply that this approach to choosing virtual organisational structure supersedes prior methodologies whose predominant focus is on facilitating information management processes or providing technologically elegant solutions.

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