Strategizing for mass customization by playing the business networking game

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Abstract

This paper introduces a multi-player simulation game to let players experience how the trend of mass customization and product personalization changes stable business networks into dynamic networks. The game, called Business Networking Game, simulates the changing dynamics of business networks and stimulates the players’ thinking on whether and how to develop a strategy to cope with the mass customization trend within their own businesses. The game can be tailored to a specific context. In this paper, we introduce the game by means of an application within the insurance industry. This paper describes the theoretical background, the design of the game, how it is played and how students of business administration and professionals from the insurance industry evaluated it.

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1. Introduction

This paper introduces a multi-player simulation game to let players, both students of business administration as well as business managers, experience how the trend of mass customization and product personalization changes stable business networks into dynamic networks. The game aims to encourage business managers to start strategizing the opportunities and threats within their own changing business network environment.

Stable business networks consist of a stable set of organizations that collectively produce and deliver goods and services to the market. Forced by changes in customer demand (e.g., customers ask for more service and more personalized products) and the rise of enabling internet technologies, organizations have the opportunity to redesign their business networks and form new alignments with those parties that are needed to fulfill personalized customer requirements. This is called dynamic business networking: forming temporary alignments with those parties that are qualified to produce and deliver customized goods and services [11].

The move towards dynamic business networks demands from its members – the individual organizations – a clear strategy on how to survive the change, or even on how to benefit from it. Upfront there is no
single clear answer and it is difficult to assess which courses of action will have which kinds of outcome. In the literature, many stress the strength of gaming-simulation to enhance the understanding of complex systems (see for instance [5,10,17]). Therefore, we have developed a game, which should offer a safe experimental environment to teach and test alternative courses of action. It should enhance a comprehensive understanding of the move towards more dynamic networks and how a sound strategy to cope with this move could look. In this respect, the game should serve as a Decision Support System to enable the thinking and decision-making of business managers, regarding their strategy, cope better with the move towards dynamic business networks.

The game, called Business Networking Game, serves two specific aims: (1) to support the teaching of students on how dynamic networks will arise and what kind of strategies can be developed to win in a dynamic network; and (2) to provide a safe learning environment to business managers in order for them to experiment with those strategies.

This paper discusses the theoretical background of the game, the design of the game, how it is played and how a first set of 64 students (during 6 playing sessions) and 60 managers from a large Dutch insurance firm (during 5 playing sessions), evaluated the game. Finally, we draw conclusions and identify directions for further research.

2. The rise of modular dynamic networking

Mass customization forces organizations and business networks to move from a market-push towards a market-pull situation: the customer is no longer the last party in the value chain to consume what has been produced, but the first party in the value chain to formulate his or her requirements. Pre-formed stable business networks of organizations are less suitable since an actually formulated customer order determines which organizations are required to fulfill this order. As Jarvenpaa and Ives [9] stated, organizations should ‘think in reverse’, meaning that they first should determine individual customer demand, and then organize a chain through the network of organizations for order fulfillment and delivery. In doing so, the participants form temporary alignments dedicated to the fulfillment of a single customer order by engineering the required customer value (see also [16]). After order fulfillment, the temporary alignment often dissolves again, with the participating organizations being ready to form other, new alignments [11].

The rise of dynamic networking challenges organizations to develop sound strategies to mobilize their networks in such a way that they become part of the right temporary alignments and/or start up the right temporary alignments (see also [8]). Many examples are described in the literature of how business networks are reconfigured to more dynamic ones that focus on better serving the end-customer, such as IKEA [13], Benetton [2], and the Media and Communications Market [18].

The three strategies as defined by Treacy and Wiersema [14] could be considered as potentially interesting strategic options available to dynamic networking organizations. They propose that organizations that have taken leadership positions within their industries or business networks have focused on “... delivering superior customer value in line with one of three value disciplines – operational excellence, customer intimacy, or product leadership” (p. 84). Operational excellence refers to providing reliable products and services to customers against competitive prices and convenience. Customer intimacy refers to the ability to meet customized demand by tailoring production to the exact requirements of individual customers or market niches. Product leadership refers to the offering of innovative, leading-edge products and services to customers that enhance the use or application of the product or service; this should offset the value of the competitors’ products and services.

Depending on the position and relations within a network, all three strategies are potentially interesting in order to create a sustainable and valuable business model for a dynamic business network situation. For instance, by specializing production, an organization could become a main node within the network and be part of virtually every temporary alignment formed within the network (operational excellence). Another focus could be to approach the end-customer and act as a network coordinator to fulfill its customized demand by forming the right temporary alignment (customer intimacy). Yet another option could be to innovate and develop new capabilities to meet the customers’ demand for state-of-art products and services (product leadership).

All three strategies contribute to the efficient and effective forming of temporary alignments to fulfill customized demand and therefore support dynamic networking. One specific task in a dynamic network is the coordination of the formation and execution of these temporary alignments. The network coordinator is the organization that receives the customer order and is responsible for the forming of the right temporary
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