

Personality of leaders of mass customization firms

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Abstract

In this paper we describe characteristics of mass customization firms and use it to draw inferences about its leaders by using theories of personality. This paper lists hypotheses related to companies following mass customization. Based on the analysis of theoretical propositions, we conclude that leaders of mass customization firms are intuitive, thinking, and perceptive. Also leaders of mass customization firms are high on extroversion, openness to experience, neuroticism and conscientiousness; and low on agreeableness.

Keywords

mass customization, leadership style

1. Introduction

Unable to ignore the buyers' market, many industries are now changing their orientation from mass production to mass customization. When homogeneous market system broke down and market monopoly has been started to be wiped out, buyers' need has been becoming the utmost priority of the market. Manufacturing systems has become more and more flexible and information sharing has become easier. At this point, Mass Customization has become the key to satisfy the exact customer needs and to make higher profit margin.

2. Literature review

The term "mass customization" was anticipated by Stan Davis in the book, "Future Perfect": "the same large number of customers can be reached as in mass markets... and simultaneously they can be treated individually as in the customized markets of pre-industrial economies" (Davis 1987). Mass customization is a new competitive paradigm that companies adopt to customise products in response to individual customer orders, while retaining their operational performance (Davis 1987). Pine in 1993 introduced an industrial perspective in the new-born concept and defined mass customization as "providing tremendous variety and individual customization, at prices comparable to standard goods and services" to enable the production of products and services "with enough variety and customization that nearly everyone finds exactly what they want" (Pine and Davis 1993). Mass customization aims at producing goods and services catering to individual customers' needs with near mass production efficiency (Tseng and Jiao 2001).

Mass customization is generally described as a process by which firms apply technology and management methods to provide product variety and customization at a low cost through flexibility and quick responsiveness (Davis 1987, Pine et al. 1993, Kotha 1995). The foundation of mass customization is the ability to achieve customer responsiveness, cost efficiency, and high-volume production, simultaneously (Q Tu et al 2001). Hayes and Wheelright (1979) through their four-point parsimonious framework (job shop, batch, assembly line, and continuous flow) established that there is a systematic connection between a firms' strategy, manufacturing tasks, and characteristics of production systems.

According to Kumar (2004), two common threads can be traced in most definitions of MC:

- the product delivered to the customer is close to what (s)he wants (the product has high level of customization)
- the price for such a product is not commensurate with the level of customization: the price is much less

MC strategy allows efficiencies of mass production through distribution of demand over a few levels/options while allowing high level of customization through modular design of products (Kumar, 2004). Kotha (1996) found that an optimal combination of mass customization and mass production strategies would perform better than any one of them individually in a rapidly changing dynamic market environment. The customization literature has established a concave behavior of the level of customization with that of price.

Strategies for achieving mass customization:

According to Feitzinger and Lee (1997), the three organizational design principles of a firm following mass customization are:

- Modular product design: The product consists of independent modules that be assembled into different forms of product easily and inexpensively. Product modularity is a key element of mass customization strategy (Pine, 1993; Durray, 2002; Tu et al., 2004). But according to Kumar (2004), modularity may not always be must for implementing MC.
- Modular process design: Manufacturing processes should also be so designed to consist of independent modules that can be moved or rearranged easily to support different distribution-network designs. Modular process design is based on three principles:
 - Process postponement
 - Process resequencing
 - Process standardization
- The supply network should be designed to deliver two capabilities:
 - Must be able to supply basic product to facilities performing customization in a cost-effective manner
 - Must have flexibility and responsiveness to take individual customer orders' and deliver the finished, customized goods quickly

Tu, Vonderembse, Ragu-Nathan and Bhanu Ragu-Nathan (2004) define modularity-based manufacturing processes (MBMP) and based on a sample of 303 companies demonstrate that MBMP have a positive relationship with customer closeness and mass customization capabilities. Gilmore and Pine (1997) have identified four distinct approaches to customization: collaborative (customer involvement in design is a requirement for product customization), adaptive, cosmetic, and transparent.

Product families offer a variety of options, but do not necessarily allow consumers to make decisions as to what the product variants are – the corporation determines the variants to satisfy different areas of the market. Simpson identifies a clear distinction between variety and customization, stating that "...customers must be involved at one or more points in the product realization process in order for the product to be truly customized...". In other words, a firm may be having variety in its product line but not necessarily following MC.

According to Kumar (2004), mass customization strategy provides competitive advantage in all five competitive dimensions: price, quality, flexibility, delivery, and service simultaneously. Mass customization firms typically have lot size of one.

III. CONTRIBUTIONS MADE

Personality types of leaders of mass customization firms:

Personality Types:

According to Yung (1923), the different forms in which people perceive data are Sensing (S), Intuition (N). The other types of personalities is defined by how people process data: Thinking (T) and Feeling (F). There are four types of personalities. Sensing refers to perceptions observable through one or more of the five human sense organs. Sensation dominant people prefer precise and specific data; they see themselves as realists concerned with immediate problems. In contrast, intuition dominant people seek holistic information that describes possibilities; their decisions use data that are more general. Jung also catalogued thinking and feeling as two dominant ways of reaching decisions. Thinking oriented people use the logical decision making. The feeling type relies on understanding values and is more subjective than the thinking type.

Based on these modes, Jung (1923) has proposed two ways in which people receive data and two ways in which they evaluate it to define four personality types: sensing-thinking (ST), intuition-thinking (NT), sensing- feeling (SF) and intuition –feeling (NF). Sensing-Thinking (ST) type personalities needs and remembers facts rather than looking for possibilities and are usually found to be functional specialists for example, engineers, chartered accountants, lawyers, doctors and so on. Sensing-Feeling (SF) type managers, according to Hellriegel et al. (1992), give high importance to interpersonal relations and feel comfortable with dealing with concrete problems in a systematic way. Gallen (1997) adds that they prefer working in harmonious, familiar and predictable situations. Trade Union leaders are usually sensing- feeling (SF) type. According to Hellriegel et al. (1992), intuitive-feeling (NF) people rely on intuition for purposes of perception and on feeling for purposes of judgment. Hellriegel et al. (1992) suggests that a NF manager gives high importance to personal charisma & commitment, in their words they are the 'cheerleaders' of the organization. Gallen

(1997) suggests that NF people have the personal warmth equivalent to the SF people because of their preference for intuition to sensing rather than their judgment based on feeling. NF persons are known to take undue risks. Intuitive-Thinking (NT) people rely on intuition for purposes of perception & on thinking for purposes of judgment. They use intuition too, but depend on thinking while making judgments. Leader is thinker is fine, but also they need to be feeling type which is indicative of creativity & imagination; we may like to say that here leaders need to be Ambidextrous.

Perceptive persons tend to collect more information for every decision they make. They are prone to decision paralysis in an extreme case. Judgemental persons collect limited data and are known to make quick decisions. This is part of Myers-Briggs Type Indicator (Myers and Briggs, 1980). Leaders for Mass Customisation be transformative (they give tailor made attention to their subordinates) and reflective (they frequently evaluate themselves).

Hence we propose the following:

H 1: Leaders of mass customization (MC) firms are mostly intuitive.

H 2: Leaders of mass customization (MC) firms are mostly thinkers.

H 3: Leaders/managers of mass customization (MC) firms are mostly perceptive due to increased information processing load (than judgmental).

H 4: Leaders who are judgemental are not suitable for leading mass customization (MC) firms.

H 5: Leaders who are feeling are not suitable for leading mass customization (MC) firms.

Big Five factor theory and leaders of mass customization firms:

Based on factor analysis approach to personality in which personality items have principal loadings on one or another of the highest-level factors, a consensus among personality psychologists emerged consisting of five basic personality factors (Digman and Takemoto-Chock, 1981; Fiske, 1949; Goldberg, 1992; John and Srivastava, 1999; McCrae & Costa, 1999; Norman, 1963; Wiggins and Trapnell, 1997).

According to Hogen et al. (2002), Industrial psychologists often focus on the “big five” personality dimensions: extraversion, emotional stability/neuroticism, agreeableness, conscientiousness, and openness to experience.

Extraversion represents a tendency to be sociable, assertive, active, and to experience positive effects, such as energy and zeal. Extraversion reflects an “energetic approach to the social and material world” and is characterized by such traits as assertiveness, activity, positive emotionality, and sociability (John and Srivastava, 1999, p.121). Conscientiousness refers to the extent that an individual is dependable, careful and responsible, organized and has a high will to achieve (Wehrli, 2008). Conscientiousness is comprised of two related facets: achievement and dependability (Judge et al., 2002).

Agreeableness is the tendency to be trusting, compliant, caring, and gentle. Agreeable persons tend to be courteous, kind, flexible, trusting, forgiving and are inclined to cooperate but known to avoid conflict (Wehrli, 2008). McCarty & Green (2005) report that agreeableness and conscientiousness are most highly correlated with personal network structure. Neuroticism represents a tendency to exhibit poor emotional adjustment and experience negative effects, such as anxiety, insecurity, and hostility. Neuroticism is negatively related with status in male social groups (measured by in degree) and the number of peer relationships (Anderson et al. 2001). Openness to experience is the disposition to be imaginative, nonconforming, unconventional, and autonomous. McCrae (1996) suggested that openness to experience may have the strongest influence on social and interpersonal phenomena among all the five factors.

Based on the above analysis of Big Five factor theory, the following hypotheses is proposed:

H 6 : Leaders of mass customization (MC) firms have low level of agreeableness.

H 7: Leaders of mass customization (MC) firms have high level of openness to experience.

H 8: Leaders of mass customization (MC) firms mostly extroverts.

H 9: Mass Customization will require leaders who are low on NEUROTIC.

Kanter (2010) mentions three big tasks as:

Institutional work to deal with uncertainty; Integrative work to deal with complexity; Identity work to deal with diversity. The term identity work refers to the process of negotiating and regulating identity (Ainsworth, 2001; Alvesson & Willmott, 2002; Beech, 2008; Rounds, 2006; Svenningsson & Alvesson, 2003; Watson, 2008). The term strategies for

identity work refers to the actual decisions and actions taken for regulating identity (Iedema & Scheeres, 2003; Kornberger & Brown, 2007; Kreiner, Hollensbe & Sheep, 2006; Rothbard & Edwards, 2003).

So, the following hypothesis is proposed.

H 10: The Mass Customisation Company leaders will require all three: integrative; identity and institutional.

While this paper is being written, additive manufacturing has emerged that is in its infancy, and hence did not get attention here.

IV. CONCLUSION

In this paper, we have given several theoretical propositions related to companies following mass customization. We conclude that leaders of mass customization firms are intuitive, thinking, and perceptive. Also leaders of mass customization firms are high on extroversion, openness to experience, neuroticism and conscientiousness; and low on agreeableness. We propose to undertake an empirical investigation shortly.

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Biography

Dhananjay Singh is a Gold Medalist in PGDM-RM from Xavier Institute of Management,Bhubaneswar,Odisha.He has graduated in Mechanical Engineering from the University of Kerala.He has published a number of articles in national newspapers of India and has also presented research papers in National & International Conferences.

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