Will Mass Customization of Apparel Work in China? An Empirical Examination

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Abstract
We examined the positive and negative effects of mass customization and price on Chinese consumers’ perceived value and the effects of perceived value on behavioral intentions and the influence of two Chinese cultural values, relational orientation and man-nature orientation, on these effects.

Keywords
mass customization, culture, Chinese

Disciplines
Fashion Business | International Business | Marketing

Comments
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Introduction
Mass customization has been developed to satisfy consumers in increasingly individualized Western markets (Gilmore & Pine, 1997) with varying degrees of success. Implementing interactive and manufacturing technologies, mass customization involves consumers in product design decisions and provides individualized products with prices close to those of mass produced products. Apparel mass customization allows consumers to create an apparel product according to personal preferences or needs by selecting from style, colors, fabric, and size options. It provides a) unique designs that satisfy personal tastes and preferences, b) products that fit better, and c) enjoyable consumption experiences (Fiore, Lee, Kunz, & Campbell, 2001) leading to positive consumer responses including willingness to pay higher prices (Franke & Piller, 2004), enhanced perceived utility of products (Dellaert & Stremersch, 2005), higher satisfaction with the shopping process (Kamali & Loker, 2002), and positive behavioral intentions (Fiore, Lee, & Kunz, 2004).

However, all of these studies have tapped responses of Western consumers who value individual needs, rights, and preferences. Generalization of the results of these studies to non-Western markets (i.e., Asian markets) may not be warranted because unique cultural factors in these markets such as cultural values may impact consumers’ responses towards mass customization. For example, it is reasonable to expect that the emphasis on conformity to group norms in many Asian societies may undermine the desire to show individuality in consumption and diminish the interest in using mass customization to create unique products. Therefore, it is necessary to examine how consumers in non-Western markets may respond to apparel mass customization.

Using an experimental design, we examined the positive and negative effects of mass customization and price on Chinese consumers’ perceived value and the effects of perceived value on behavioral intentions. Additionally, we examined the influence of two Chinese cultural values, relational orientation and man-nature orientation, on these effects. Due to page limitation, this paper will report only part of the findings from the original study. For the treatment variables, we will only report hypotheses relevant to customization level. For cultural value variables, we will only report hypotheses relevant to relational orientation.

Hypotheses
We used Mathwick, Malhotra, and Ridgdon’s (2001)’s Experiential Value Model (EVM) to capture the experiential and utilitarian dimensions of value applicable to apparel mass customization. Review of past research (e.g., Franke and Piller, 2004; Fiore, Lee, and Kunz, 2004; Dellaert & Stremersch, 2005) with Western consumers has supported that apparel mass customization may positively affect consumers’ perceptions of economic value, enjoyment, escapism, and quality and may negatively affect efficiency that consumers perceive during shopping. Although research (e.g. Leek & Kun, 2006; McEwen, Fang, Zhang, & Bukholdser, 2006) implies that these effects may hold true for Chinese consumers, there is lack of direct empirical support for these effects in the Chinese market. In the present study, we tested the hypothesized positive effects of customization level on economic value (H1),...
enjoyment (H2), escapism (H3), and quality (H4) and the hypothesized a negative effect on efficiency (H5) as illustrated in Figure 1. In addition, we hypothesized that perceived value will positively affects behavioral intentions (H6, 7, and 8).

Research indicates that cultural values may moderate (1) the relationships between marketing attributes and perceived value (Overby, Gardial, & Woodruff, 2004; Tse, Wong, & Tan, 1988) and (2) relationships between perceived value and behavioral intentions (Malhotra & McCort, 2001; Overby et al., 2004). We adopted Yau’s (1994) profile of Chinese cultural values and used relational orientation and man-nature orientation as potential moderators. In this paper, we will focus on hypotheses relevant to relational orientation, which are illustrated in Figure 1.

Figure 1.

Method
The present study used a 2x2 between subjects experimental design with two levels of price (25 and 95 RMB) (S3 and S12) and two levels of customization (mass produced apparel and mass customized apparel). The stimuli were t-shirt websites created by the researchers. The mass customization websites allowed users to customize t-shirts by selecting from the options of 12 colors, 28 images each with several color variations, customer-created slogan, two necklines, and four types of sleeves. The mass production websites offered 12 standard designs for either female and male consumers and these designs could not be modified. The stimulus websites were created based on the findings of a pre-test, which assessed Chinese consumers’ preferences for styles, colors, and graphic images.
The 344 respondents were obtained from three sources: students of a university in South East China, students of a university in Middle China, and participants directed to the research websites by the student participants. Participant incentive was an opportunity to win one of the ten 100 RMB ($12.5) cash prizes. The instrument was an online questionnaire in Chinese, which included measures for perceived value, behavioral intentions, Chinese cultural values, a manipulation check question, and demographic information. All of the measures were adopted from previous research (Dodds et al., 1991; Kim’s 2004; Mathwick et al., 2001; Singelis, 1994) and translated into Chinese using a “translation and back translation” procedure.

Hypotheses 1 through 8 were tested using structural equation modeling (SEM) with maximum likelihood procedure. Hypotheses 9 through 15 were tested using a multi-group SEM approach suggested by Jöreskog and Sörbom’s (1993).

Results and Discussion

We found that Chinese consumers perceived higher enjoyment (H2), escapism (H3) and quality (H4) from shopping for mass customized apparel than for mass produced apparel. Mass customization did not reduce perceptions of efficiency for Chinese consumers (H5), which may be seen as an advantage for marketers wishing to implement apparel mass customization in China. Chinese consumers did not perceive higher economic value from apparel mass customization (H1). Expressing one’s creativity may not provide added economic value to Chinese consumers due to the great emphasis on interpersonal relations and in-group harmony of the Chinese society. Results relevant to hypothesis 9 and 10 confirmed that relational orientation decreases Chinese consumers’ interest in using apparel mass customization. Chinese consumers with higher relational orientation were less likely to perceive economic value and enjoyment from mass customization of apparel than those with lower relational orientation.

The results supported all hypothesized effects of perceived value on behavioral intentions (H5, 7, and 8). Perceived value accounted for a large amount of the variance (87%) of behavioral intentions, suggesting the power of perceived value to explain behavioral intentions for Chinese consumers. Support of hypothesis 12 indicated that relational orientation influenced consumers’ perception of quality of mass-customized apparel. Consumers with higher relational orientation were more likely to perceive mass customized apparel as higher quality compared with those with lower relational orientation. This finding confirmed Schutte and Ciarlante’s (1998) proposition that relation-oriented consumers are more likely to use external cues (e.g., brand name, price, and country of origin) to make quality assessments in order to reduce the risk of disapproval by peer group members.

Results for hypotheses 13 and 14 were unexpected because the effects were directionally reversed to what were hypothesized. Unexpectedly, ROI and quality were more important for consumers with lower relational orientation than those with higher relational orientation. This might be because (a) consumers with higher relational orientation tend to be motivated by enhanced social value that high prices signify and/or (b) higher relational orientation consumers may be more likely to receive financial cushioning from family and relatives, which makes them less averse to financial risks compared to individualistic consumers.

Conclusions

In summary, mass customization may enhance some, but not all, aspects of perceived value for Chinese consumers. Because of higher managerial and production cost involved in mass customization, firms often charge marginally higher prices for mass customized products than mass produced products. Marketers of mass customization may focus on promoting an image of superior quality of mass

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customized apparel and enjoyable and absorbing shopping experiences fostered by mass customization in order to offset the negative influence of higher prices.

It is clear that companies wishing to implement mass customization in the Chinese market must take into consideration the influence of relational orientation on consumers’ value perceptions and decision-making. Consumers with higher relational orientation are less likely to derive enhanced economic value and enjoyment from mass customization compared to those with lower relational orientation. Yet, consumers with higher relational orientation are more likely to perceive enhanced quality from mass customization than those with lower relational orientation. Campaigns that stress enhanced economic value and enjoyment may be more effective with lower relational orientation consumers whereas campaigns that stress enhanced quality may be more effective with higher relational orientation consumers.

We also found that relational orientation influenced the relative importance of perceived value dimensions in relation to behavioral intentions. Marketers may use relational orientation for market segmentation and use differentiated marketing strategies to target consumers with different cultural values.

**Limitations and Future studies**
The non-probability sample was appropriate to test theoretical hypotheses regarding the potential influence of cultural values of Chinese consumer behaviors. But the results should not be generalized to the entire population of China or Asia given the vast geographic and socio-cultural diversity within China and Asia. Further studies should include consumers from other regions as well as from other non-Western cultures to test for similarities and differences among cultures. Moreover, our studies are based on a single type of product, t-shirts. Further study may include additional product types and different modes of mass customization.

**References**


