The influence of relational orientation on Chinese consumers' responses towards apparel mass customisation

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Abstract: This study examined the impact of a Chinese cultural value, relational orientation, on Chinese consumers' responses towards mass customisation of apparel. Relational orientation, which stresses the conformity to group norms, was found to moderate the relationships between mass customisation and several aspects of consumers' perceived value. Specifically, relational orientation negatively affected perceived economic value and enjoyment from apparel mass customisation by Chinese consumers. It also negatively affected the impact of several aspects of perceived value on consumers' behavioural intention towards a marketer. The research suggests the need for differentiated marketing strategies based on consumers' relational orientation when implementing mass customisation of apparel in the People's Republic of China.

Keywords: mass customisation; mass production; apparel; website; interaction; consumer responses; perceived value; behavioural intention; Chinese consumers; People's Republic of China; cultural value; relational orientation; China.

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1 Introduction

Mass customisation processes were developed in response to increasingly fragmented markets and diversified preferences of consumers in Western societies, specifically North America and Western Europe (Gilmore and Pine, 1997; Mueller-Heurmann, 1992; Pine, 1993). The goal of mass customisation is to provide consumers with customised products on a large scale. Using interactive websites and flexible manufacturing technology, manufacturers allow consumers to configure products according to their personal preferences and at the same time produce on a large scale.

Implementation of mass customisation is often considered because it provides the firm an innovative marketing method to interact with its customers. A number of European (e.g., Anna Ruohonen, Selve) (Piller, 2009) and US apparel and footwear brands (e.g., Ann Taylor, Nike, Timberland) have implemented mass customisation that involves consumers in the product design process via interactive websites. These websites usually allow consumers to create products by selecting from an array of pre-determined design options for certain features of the products. Unlike traditional e-commerce websites that offer standard products, these mass customisation websites provide products unique to individual consumers based on a consumer's own specifications. This type of offering makes sense for consumers in Western societies, where personal goals, needs, and preferences are greatly valued. Numerous studies [i.e., Dellaert and Stremersch (2005), Fiore et al. (2004), Franke and Piller (2004), Franke and Schreier (2006) and Kamali and Loker (2002)] in Western settings have found apparel mass customisation to offer superior value for consumers.
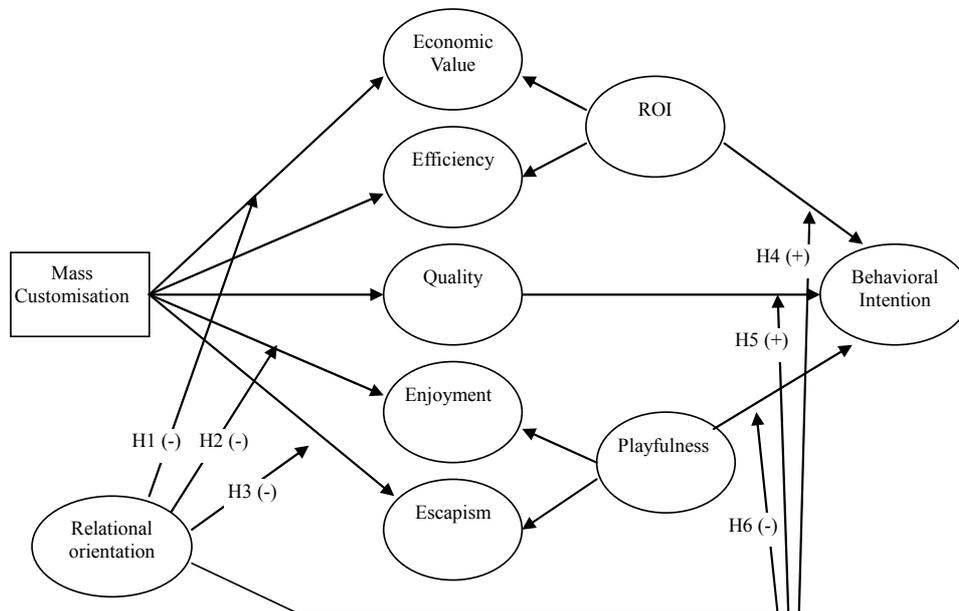
However, consumer response to mass customisation in non-Western markets has been rarely studied, with a few exceptions [e.g., Igbal et al. (2006), Kurniawan et al. (2006), Moon et al. (2008) and Song and Fiore (2008)]. Consumers in non-Western cultures (i.e., Asian cultures) may not respond to mass customisation in the same way as their counterpart in Western markets due to different market conditions and consumer values. Generalising from the response of consumers in Western markets is not

warranted. Copying the business strategies used in these markets for use in other markets may not provide desirable results.

In the present study, we are particularly interested in how cultural values (i.e., inherited and shared beliefs about desirable behaviours within a culture) in non-Western markets may influence a consumer's response towards mass customisation. Many Asian cultures place a great emphasis on conformity to group norms (Triandis, 1995). It is reasonable to deduce that such an emphasis may discourage showing one's individuality in consumption and consequently reduce the interest in using mass customisation to create unique products.

The People's Republic of China (PRC) is often labelled by anthropologists [e.g., Cohen (2005) and Hsu (1981)] and social psychologists [e.g., Hofestede (1980) and Triandis (1995)] as a collectivist society. Chinese society is characterised by tightly knitted webs of in-groups, often based on kinship. Maintaining harmonious relationships and being loyal to the in-group are of great value to the Chinese (Hsu, 1981; Yau, 1994). Although drastic social changes have been observed in the latest several decades in the PRC, an orientation towards inter-personal relations remains a clear thread in contemporary Chinese society (Gold et al. 2002). This relational orientation may affect consumption behaviours and lead to distinctive consumption patterns (Gong, 2003; Schutte and Ciarlante, 1998; Yau, 1994).

Figure 1 Hypothesised moderating effects of relational orientation on the relationships between mass customisation (vs. mass production) and perceived value and between perceived value and behavioural intention

In the present study, we propose that the relational orientation of Chinese consumers may affect their responses to apparel mass customisation in two ways. First, it may affect Chinese consumers' perceived value from the shopping experience associated with apparel mass customisation. Second, relational orientation may influence how perceived

value drives favourable intentions towards the brand. Based on Song and Fiore's (2008) model for apparel mass customisation, which interconnects mass customisation (vs. mass production), perceived value and behavioural intention, we propose that relational orientation will moderate the relationships between mass customisation and perceived value, and between perceived value and behavioural intention. Figure 1 illustrates these proposed moderating effects.

In recent years, mass customisation received considerable attention from both marketers and scholars in the PRC. Researchers have recognised the importance of studying Chinese consumers (Kurniawan et al., 2006; Song and Fiore 2008). Using a Chinese consumer sample, Kurniawan et al. (2006) found that allowing consumers to configure products by themselves increased consumer's decision quality (e.g., satisfaction with the process) than letting them choose from standard offerings. Similarly, Song and Fiore (2008) found mass customisation of apparel enhanced enjoyment of the shopping process for Chinese consumers.

Manufacturers in several business sectors in the PRC including electronics, automotive, and apparel have attempted to implement mass customisation (Piller, 2005). A leading domestic men's wear brand, Youngor has made mass customised men's suits available in its retail stores. Apparel manufactures in the PRC have also been reported to supply for mass customised apparel brands in the US and European markets, suggesting technological readiness in the PRC. The need for understanding how Chinese consumer would respond to mass customisation has never been greater.

2   Perceived Value from Apparel Mass Customisation

Song and Fiore (2008) summarised that apparel mass customisation may affect three aspects of perceived value, which in turn lead to favourable intentions towards the marketer (e.g., buying their products, returning to the website, recommending to others). These three aspects of perceived value include return on investment (ROI)[1], quality, and playfulness. ROI implies that consumers may rationally assess the trade-off between returns and costs of a purchase. Economic value and efficiency are two distinct dimensions of ROI. Economic value concerns the monetary cost of a purchase whereas efficiency concerns the temporal cost for completing a shopping task. Apparel mass customisation may positively affect economic value because it provides products that better fit a consumer's individual preferences. It may, at the same time, negatively affect efficiency because consumer involvement in the product design process can be considered time-consuming.

Apparel mass customisation is also expected to affect consumer perception of the quality of the products. Perceived quality is often affected by extrinsic cues unrelated to the performance of the products such as brand name, price and store (Dawar and Philip, 1994; Dodds et al., 1991). Providing mass customisation challenges a company's managerial and manufacturing capability. Firms need to invest greatly in technologies and dramatically change their managerial systems when implementing mass customisation (Pine, 1993). Offering mass customisation signals the technological capabilities of a company and thus may lead to higher perceived quality of the products.

Playfulness refers to consumer appreciation of a shopping experience for its own sake, regardless of the utilitarian benefits of the products to be purchased. Playfulness of a shopping experience includes enjoyment from interactions with the shopping

environment as well as the opportunity to escape from the day-to-day pressure-filled world. The shopping process for apparel mass customisation is filled with rich interactions with the online environment; consumers choose from arrays of design options, watch the creation take shape on the computer screen, and manipulate the creation. These activities may be stimulating and absorbing and thus lead to an enhanced level of enjoyment and escapism of an online shopping experience.

3   Relational orientation

Relational orientation reflects the collectivistic nature of Chinese culture. An essential attribute of a collectivist culture is that individuals are induced to subordinate their personal goals to the goals of some in-groups (Triandis et al., 1988). A Chinese person from birth onwards is integrated into these strong, cohesive, stable in-groups. Throughout a person's lifetime, these in-groups provide protection and resources to the individual and, in exchange, require unquestioning loyalty from him/her (Hsu, 1981). Maintaining harmonious relationships with the members of the in-groups is vital for proper functioning of an in-group and thus is a duty of all its members.

Because of relational orientation, a Chinese person is likely to feel obligated to conform to the norms imposed by the in-groups and suppress the desire to express uniqueness and individuality. Expressing uniqueness in consumption may be seen as a deviation from the group norms, where the individual may risk being treated as an outsider who does not know how to adjust to the group (Schutte and Ciarlante, 1998). Yamaguchi (1994) found interdependent (collectivistic) self-construal to be negatively correlated with individuals' need for uniqueness. The key deliverable of apparel mass customisation is an individualised product that signals a unique self-concept. Such a product may not be highly desirable if consumers are predisposed to suppress expression of uniqueness and individuality due to relational orientation. Therefore the unique product from mass customisation will be less valuable to consumers with a high than low level of relational orientation. Thus we expect a negative impact of relational orientation on consumers' perceived economic value from mass customisation.

An additional expected consequence of relational orientation is reduced experiential values (i.e., enjoyment, escapism) from the creative process of apparel mass customisation. Due to a suppressed desire to express a unique self-concept, a consumer with a high level of relational orientation may become less motivated to engage in creative activities. Goncalo and Staw (2005) found that collectivistic individuals are less engaged than individualistic individuals in creative activities. They found that collectivistic individuals created fewer ideas that depart from the pre-existing solutions than individualistic individuals. Moreover, in many Asian cultures, people are encouraged to suppress their hedonic desires (Kacen and Lee, 2002) and to pursue utilitarian benefits such as durability [e.g., Xiao and Kim (2009)]. Thus, consumers with a higher level of relational orientation may perceive less utility from the unique product, experience less enjoyment, and feel less absorbed in the shopping experience with apparel mass customisation compared with consumers who have a lower level of relational orientation. Based on the above discussion, we hypothesised:

H1 Relational orientation will negatively moderate the effect of mass customisation on economic value.

H2 Relational orientation will negatively moderate the effect of mass customisation on enjoyment.

H3 Relational orientation will negatively moderate the effect of mass customisation on escapism.

Research has shown that cultural value influences a consumer's consumption decision-making style (Karahanna et al., 2005; Kim et al., 2002; Malhotra and McCort, 2001; Overby et al., 2004; Wong and Ahuvia, 1998). Cultural values influence the importance placed on various aspects of perceived value. We anticipated that ROI and quality play more important roles for Chinese consumers who are more relation-oriented than those who are relatively more independent. To be in line with expectations and requirements of in-group members, those with high levels of relational oriented levels are likely to be concerned with practical reasons of a purchase such as good economic value and high product quality. These reasons may be justifiable among in-group members for making a purchase. Le Claire (1992) found that utilitarian factors such as price, quality and convenience were more important in consumption decisions for consumers with stronger than weaker Chinese cultural values. On the other hand, relational orientation seems to discourage hedonic consumption. Wong and Ahuvia (1998) showed that collectivistic, interdependent consumers' are less likely than individualistic, independent consumers to make consumption decisions based on their own pleasure. Based on the above discussion, we hypothesised:

H4 Relational orientation will positively moderate the relationship between ROI and behavioural intention.

H5 Relational orientation will positively moderate the relationship between perceived quality and behavioural intention.

H6 Relational orientation will negatively moderate the relationship between playfulness and behavioural intention.

4 Methodology

4.1 Respondents

The sample for the main study consisted of 344 students from a university in a metropolitan area in South East China and a university in a medium-sized city in Middle China. The students were encouraged to participate in the study by an opportunity to win one of the ten cash prizes (100 RMB, $12.5) randomly drawn from the respondents completed the study.

4.2 Stimuli

The present study used an experimental design that involved the development of two stimulus websites with different marketing approaches (mass customisation or mass production). We created two t-shirt websites selling mass-customised and mass-produced products, respectively. The two websites shared a similar layout, which

resembled the layout of an existing mass customisation website selling t-shirts (customink.com). The researchers also included two price levels [25 and 95 RMB ($3 and $12)] for each website to reflect vast price variation of the product in the researched market. The price levels were randomly presented to the respondents who participated in the study.

The price levels and the apparel design options for the websites were determined based on a pre-test survey using 20 subjects with demographic characteristics similar to the subjects of the main study. For the pre-test, respondents were shown a variety of options of colour, print, neckline and sleeve types for a t-shirt and were asked to rate each option using a five-point scale anchored with unfavourable (1) and favourable (5). Options with an average rating of 4 and above were selected for site development. The respondents were also asked to assess the highest and lowest reasonable price of a t-shirt from several price level options. The price levels of the experimental website were determined based on the most selected options by the respondents.

The mass customisation website allowed users to customise a t-shirt by selecting options from 12 colours, 28 prints, two types of neckline, and four types of sleeve. The mass production website, on the other hand, offered 12 standard products for both female and male consumers, which consisted of design features with average ratings above 4. Respondents could select a size, but could not change any design features in the mass production site. The products for this site were created by an experienced apparel designer using the design options on the mass customisation website.

4.3 Instrument

After viewing a stimulus website, respondents completed an online survey that consisted of the research constructs, demographics and past internet shopping experience. In terms of the research constructs, economic value, efficiency, enjoyment and escapism were measured using seven-point Likert scales adopted from Mathwick et al. (2001) study (see Table 1). The Cronbach alpha values of these scales were greater than 0.70 in the original study, which supports that they were internally consistent (Nunnally, 1978). The original measure of perceived value in Mathwick's et al. (2001). study was not used because it includes only two items, and does not fully capture aspects of apparel product quality. Instead, perceived quality was measured using a seven-point, five-item Likert scale adopted from Dodds et al. (1991) (Chronbach *alpha* = 0.88). Behavioural intention was measured using a seven-point Likert scale adopted from Kim's (2004) study (Chronbach *alpha* = 0.81). Relational orientation was measured using a seven-point Likert scale from Singelis' (1994) study (Chronbach *alpha* = 0.73). The demographic variables included gender, age, education level and income. Internet shopping experience was indicated by frequency of internet shopping in the past.

The respondents were checked for manipulation of mass customisation and price. The manipulation check question for mass customisation was "The extent to which this website allows me to customise my product was…" (seven-point scale: 1 = very low, 7 = very high). The manipulation check question for price was "The price on this website is…" (seven-point scale: 1 = very low, 7 = very high). The respondents were also asked whether they have been to a website similar to the experimental website to control for previous experience with mass customisation apparel website.

The questionnaire was initially developed in English and was translated into Chinese using a translation and back-translation procedure. The English questionnaire was first translated into Chinese by a bilingual expert. A second bilingual expert, who had not read the English questions, proofread the Chinese questions and improved the flow in Chinese. A third bilingual scholar then back translated the revised Chinese questions into English. Finally the three experts worked together to resolve inconsistencies between the original, translated and back-translated questionnaires. The final Chinese questionnaire was based on consensus of all three experts.

4.4   Procedure

The participants first viewed a webpage that briefly explained the purpose of the research and the opportunity to win a cash prize. The next webpage explained the procedure, rights and costs associated with participation. They were informed of the right to end participation at any time during the study. They entered into the survey voluntarily by pressing the hyperlink to the survey. When entering into the experiment, the participants were randomly assigned to one of the stimulus websites. They were instructed to use the website for three to five minutes before completing an online survey hyperlinked from the website. Respondents using the mass customisation website were able to customise a t-shirt by selecting from the design options of colours, prints, necklines and sleeves, whereas respondents on the mass production website could only look at images of the 12 standard products. Within two days of completion of the study, the participants received an e-mail thanking them for the participation and asking them to help recruit more participants by forwarding the e-mail to their friends.

4.5   Analysis

The moderating effects were tested using a multi-group structural equation modelling procedure developed by Jöreskog and Sörboms (1993). First, the respondents were divided into two groups (high or low relational orientation) using the median value of relational orientation as the dividing point. Second, a multi-group structural equation model was estimated including both groups and restricting all paths to be equal between the two groups. Third, this model was estimated again, this time allowing separate coefficients for a particular path corresponding to the moderating effect tested. Because the second model has one less degree of freedom, a significant model improvement is achieved when the change (usually drop) in *Chi*-square is greater than 3.84 ($p \leq 0.05$). This two-group test was repeated for each moderator path.

The overall model in Figure 1 was separated into four sub-models (Figure 2) to avoid the problem of insufficient cases for the number of parameters to be estimated following Kline's (1998) recommendation of no less than ten cases per parameter. This approach is appropriate because the focus of the research is to test the moderating effects on specific relationships rather than on validating the overall model. For the first three models, which focused on the relationship between approach and perceived value, we entered price, demographic variables and internet shopping experience as covariates to control for the effects of these variables and increase the power of statistical test. Past research

has shown that price and demographic factors (age, income, education) are relevant factors affecting perceived value during a consumption experience [e.g., Petrick and Backman (2002) and Zeithaml (1988)]. We controlled for the effect of past internet shopping experience on perceived value, because those with more experience using the internet may feel more confident, and thus receive more enjoyment and efficiency, when using the e-commerce websites.

Figure 2 Sub-models for testing the moderating effects of relational orientation on the relationships between mass customisation (vs. mass production) and perceived value and between perceived value and behavioural intention
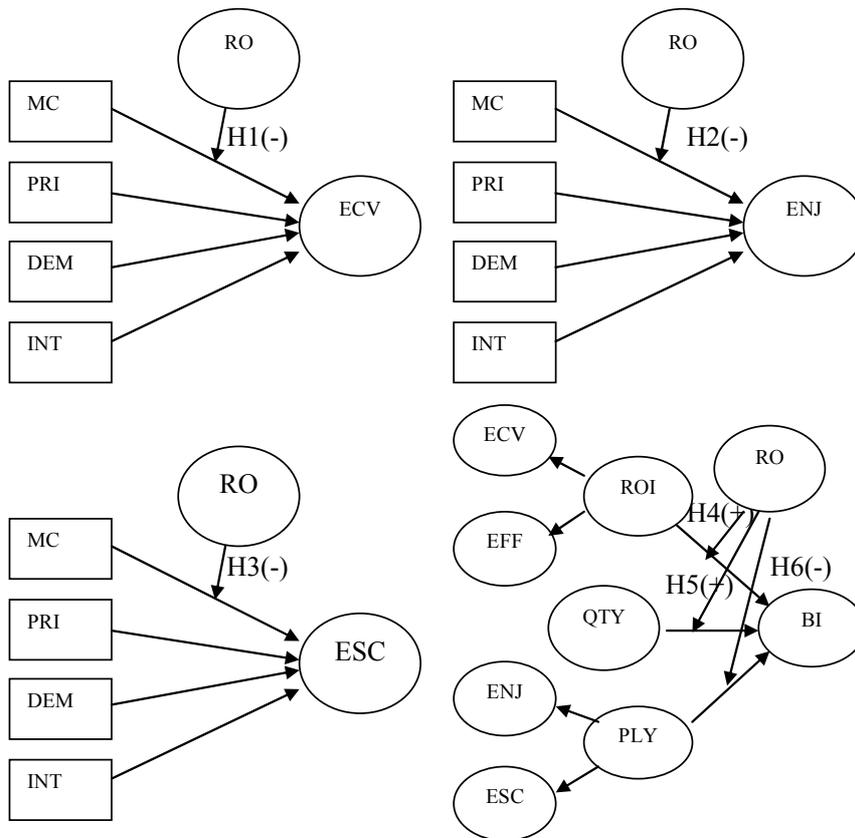
Notes: MC = mass customisation (vs. mass production)
PRI = price
DEM = demographics
INT = internet shopping experience
ECV = economic value
ENJ = enjoyment
ESC = escapism
QTY = quality
ROI = return on investment
PLAY = playfulness
BI = behavioural intention

5   Results

5.1   Manipulation check

The effectiveness of experimental manipulations was tested using the first 60 respondents of the main study. The mean value of the mass customisation question for the mass customisation and mass production groups were 4.85 and 4.06 respectively. ANOVA showed that the difference between the two means was statistically significant ($F_{(1,58)} = 8.6$, $p \leq 0.01$). The mean value of the price question was for the higher and lower price groups were 4.72 and 2.94 respectively. ANOVA showed that the difference between the two means was statistically significant ($F_{(1,58)} = 7.3$, $p \leq 0.01$). These results suggest effective manipulations for both mass customisation and price. We also checked whether respondents had been to a website similar to this one and none of the respondents gave a mass customisation apparel website.

5.2   Factor analysis

A principle component factor analysis with Varimax rotation was conducted to ensure the discriminate validity and uni-dimensionality of the researched constructs. An eigen value greater than one was used as the criterion to determine the number of factors to be extracted. This factor analysis produced six factors that can be interpreted as economic value, efficiency, quality, enjoyment, escapism and relational orientation (see Table 1). These factors accounted for 70.1% of the total variance of the data.

Table 1   Factor analysis for research constructs

Items	Loading
Relational orientation	
• It is important for me to respect decisions made by the group	0.88
• It is important for me to maintain harmony within my group	0.79
• I respect people who are modest about themselves	0.78
• I feel good when I cooperate with others.	0.72
• I will sacrifice my self interest for the benefit of the group I am in	0.63
• I have respect for the authority figures with whom I interact	0.60
Percent of variance explained = 17.8	
Cronbach *alpha* = 0.71	
Behavioural intention	
• If this website starts to operate, I would be willing to visit this site again	0.79
• If this website is launch, I would come to this website to search for information	0.73
• If this website is launched, I would recommend this site to my friends or family	0.72
• I am willing to say positive things about this website	0.71
• I would be willing to purchase a product on this website if it starts to operate	0.60
Percent of variance explained = 15.8	
Cronbach *alpha* = 0.86	

Table 1   Factor analysis for research constructs (continued)

Items	Loading
Quality	
• By browsing the website, I think the durability of the products on this website is likely to be…	0.80
• By browsing the website, I think the quality of the products on this website is probably…	0.79
• By browsing this website, I think the workmanship of the products is likely to be…	0.77
• By browsing the website, I think the likelihood that the products on this website would be reliable is…	0.74
• By browsing the website, I think the likelihood that the fabric of the product would be comfortable is…	0.60
Percent of variance explained = 13.0	
Cronbach *alpha* = 0.85	
Economic value	
• Products on this website are a good economic value	0.78
• The price on this website is too high for a product of its kind	0.78
• Overall, I am happy with this website's prices	0.76
Percent of variance explained = 7.7	
Cronbach *alpha* = 0.83	
Escapism	
• I would get so involved when I shop from this website that I would forget everything	0.81
• Shopping from the website made me feel like I am in another world	0.73
• Shopping from this website would give me chance to get away from it all	0.72
Percent of variance explained = 5.9	
Cronbach *alpha* = 0.78	
Enjoyment	
• I would enjoy shopping from this website for its own sake, not just for the items I may purchase	0.63
• I would shop from this website for the pure enjoyment of it	0.51
Percent of variance explained = 5.5	
Cronbach alpha = 0.70	
Efficiency	
• If I am to purchase a t-shirt, shopping from this website would make my task easier	0.81
• If I would like to purchase a t-shirt, shopping from this website would save my time	0.75
Percent of variance explained = 4.4	
Cronbach alpha = 0.70	
Total percent of variance explained = 70.1	

5.3 *Hypothesis tests*

As the initial step of the hypothesis tests, a series of multi-group structural equation models were estimated including both high and low relational orientation groups and restricting all paths to be equal between the two groups. These models provided the main effects of mass customisation and covariates (price, gender, age, income, education and internet shopping experience) on economic value, enjoyment and escapism as well as the main effects of ROI, perceived quality and playfulness on behavioural intention. The standardised path coefficients and explained variance of the dependent variables are provided in Table 2.

Table 2   Main effects of mass customisation (vs. mass production) on perceived value and main effects of perceived value on behavioural intention

	ECV	*ENJ*	*ESC*	*BI*
MC	0.15	0.22**	0.21*	
Price	–0.49***	–0.25***	–0.11*	
Gender	0.07	0.13	0.10	
Age	–0.12*	–0.15*	0.04	
Income	0.07	0.04	0.06	
Education	0.01	0.04	0.02	
INT	0.10	0.14*	0.07	
ROI				0.41***
QTY				0.23***
PLY				0.37***
R^2	0.35	0.21	0.08	0.87

Notes: *$p \leq 0.05$; **$p \leq 0.01$; ***$p \leq 0.001$
    MC = mass customisation (vs. mass production)
    INT = internet shopping experience
    ROI = return on investment
    QTY = perceived quality
    PLY = playfulness
    ECV = economic value
    ENJ = enjoyment
    ESC = escapism
    BI = behavioural intention

Mass customisation was found to significantly affect enjoyment ($\beta = 0.22$, $p \leq 0.01$), and escapism ($\beta = 0.21$, $p \leq 0.05$) but not economic value. Price was found to negatively affect economic value ($\beta = –0.49$, $p \leq 0.001$) and enjoyment ($\beta = –0.25$, $p \leq 0.001$) and escapism ($\beta = –0.11$, $p \leq 0.05$). The demographic variables and internet shopping experience were not found to significantly affect perceived value except for a negative effect of age on economic value ($\beta = –0.12$, $p \leq 0.05$) and enjoyment ($\beta = –0.15$, $p \leq 0.05$) and a positive effect of internet shopping experience on enjoyment ($\beta = 0.14$, $p \leq 0.05$). Return on investment, perceived quality and playfulness were found to significantly affect behavioural intention ($\beta = 0.41$, $p \leq 0.001$; $\beta = 0.23$, $p \leq 0.001$; $\beta = 0.37$, $p \leq 0.001$, respectively).

The multi-group structural equation models were estimated again, this time allowing the path coefficients to differ across the high and low relational orientation groups for the

paths corresponding to the moderating effects tested. Table 3 reported the standardised path coefficients of high and low relational orientation groups and *Chi*-square changes after relaxing the equal-path constraint.

Table 3   Tests of moderating effects of relational orientation

Hypothesis		Std. path coefficients		$\Delta \chi^2$	p
		LRO	HRO		
H1 (–)	MC → ECV	0.29***	0.12	5.53	≤0.05
H2 (–)	MC → ENJ	0.24**	0.15	1.75	-
H3 (–)	MC → ESC	0.17*	0.23*	0.41	-
H4 (+)	ROI → BI	0.40***	0.30*	8.02	≤0.01
H5 (+)	QTY → BI	0.30***	0.10	8.46	≤0.01
H6 (–)	PLY → BI	0.49***	0.35*	3.02	-

Note: *$p \le 0.05$; **$p \le 0.01$; ***$p \le 0.001$
    LRO = lower relational orientation group
    HRO = higher relational orientation group
    MC = mass customisation (vs. mass production)
    ECV = economic value
    ENJ = enjoyment
    ESC = escapism
    QTY = quality
    ROI = return on investment
    PLY = playfulness
    BI = behavioural intention

Hypothesis 1 posited that the effect of mass customisation on consumers' perception of economic value would be negatively moderated by relational orientation. The standardised path coefficient between approach and economic value for the high relational orientation group was non-significant whereas the coefficient for the low relational orientation group was significant ($\beta = 0.29$, $p \le 0.001$), which was consistent with the hypothesised moderating effect. The drop in *Chi*-square after relaxing the restriction of equal coefficients across the two groups was 5.53, which was significant at the 0.05 level for one degree of freedom. Therefore, this hypothesis was supported. Hypothesis 2 posited that the effect of mass customisation on enjoyment would be negatively moderated by relational orientation. This hypothesis was partially supported. The path coefficient between mass customisation and enjoyment for the high relational orientation group was non-significant whereas the coefficient for the low relational orientation group was significant ($\beta = 0.24$, $p \le 0.01$), which was consistent with the hypothesised moderating effect. However, the drop in *Chi*-square was 1.75 after relaxing the restriction of equal coefficients, which did not exceed the minimum level of 3.84. Hypothesis 3 posited that the effect of mass customisation on escapism would be negatively moderated by relational orientation. This hypothesis was not supported. The path coefficient between mass customisation and escapism was at the same significance level for both the high and low relational orientation groups. The drop in *Chi*-square did not exceed the minimum level of 3.84.

Hypothesis 4 posited that the relationship between ROI and behavioural intentions would be positively moderated by relational orientation. The results supported the opposite effect. The significance level of the path coefficient of the high relational orientation group ($\beta = 0.30$, $p \leq 0.05$) was below that of the low relational orientation group ($\beta = 0.40$, $p \leq 0.001$). The *Chi*-square value dropped by 8.02 ($p \leq 0.01$) after relaxing the restriction of equal coefficients, indicating significant difference between the two groups. Hypothesis 5 posited that the relationship between perceived quality and behavioural intentions would be positively moderated by relational orientation. Again, results supported the opposite effect. The path coefficient was non-significant for the high relational orientation group and significant for the low relational orientation group ($\beta = 0.30$, $p \leq 0.001$). The *Chi*-square value dropped by 8.46 ($p \leq 0.01$), indicating significant difference between the two groups. Hypothesis 6 posited that the relationship between playfulness and behavioural intentions would be negatively moderated by relational orientation. The significance level of the path coefficient of the high relational orientation group ($\beta = 0.35$, $p \leq 0.05$) was lower than that of the low relational orientation group ($\beta = 0.49$, $p \leq 0.001$). Moreover, the drop in *Chi*-square after relaxing the restriction of equal coefficients was 3.02, lower than 3.84. Therefore, this hypothesis was partially supported.

6   Discussions

Support for Hypothesis 1 and partial support for Hypothesis 2 indicate that consumers who have higher levels of relational orientation are less likely to perceive enhanced economic value and enjoyment from mass customisation compared with those who have low levels of relational orientation. This suggests that relational orientation, which stresses conformity to group norms, limits the value of apparel mass customisation as an outlet for creative expression and perceived utility of the unique product resulting from this creation. Song and Fiore (2008) found that the effect of mass customisation on economic value was non-significant for Chinese consumers. The results of the present study suggest that strong relational orientation of the Chinese consumers may have contributed to the non-significant effect.

Results for Hypotheses 4 and 5 showed that relational orientation significantly moderated the relationship between ROI and behavioural intention and between quality and behavioural intention, but the effects were the inverse of what was proposed. Unexpectedly, ROI and perceived quality were more important for consumers with low relational orientation than those with high relational orientation. We submit two possible explanations for these findings. First, consumers with high relational orientation tend to be less sensitive to price for products visible in public, such as t-shirts. Schutte and Ciarlante (1998) indicated that a premium price may greatly enhance the prestige (e.g., face) of the consumer when the product can be seen in public. The consumer, motivated by the enhanced prestige, may disregard or accept a higher price tag if his/her self-concept is oriented toward an interdependent self. Second, high 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 (Hsee and Weber, 1999).

Partial support for Hypothesis 6 indicated that consumers with high relational orientation were less motivated by playfulness in a consumption experience. It is interesting to note that the perceived value dimensions studied here were generally less important for high relational orientation consumers, as shown in the results for Hypotheses 4, 5 and 6. This suggests the existence of other aspects of perceived value particularly relevant to consumers with high relational orientation. A potential aspect is social value, which includes affiliation, status or prestige. Wong and Ahuvia (1998) indicated that collectivistic, interdependent consumers are more likely to purchase based on social motivations such as to impress others whereas individualistic, independent consumers tend to make purchase decisions based on their own values and pleasure. Schutte and Ciarlante (1998) suggested that Asian consumers, who are interdependent in personal relationships, may be strongly motivated by social value, which is separate from performance of the product or the shopping experience. The ability of the product to deliver the right meaning according to accepted norms and standards would become an important criterion in a consumer's decision. Including the social aspects of perceived value may better explain behavioural intentions for high relational orientation consumers.

The results supported that relational orientation negatively impacts consumer perceptions of economic value and enjoyment from interactive mass customisation products and processes. This finding is important because it suggests that perceived value is dependent to some extent on the cultural values of the Chinese consumers. However, the results should not be a misinterpreted as mass customisation being not viable in the PRC. Past research in Chinese settings (Kurniawan et al., 2006) has provided evidence that allowing consumers to configure products by themselves increases consumer's decision quality and satisfaction with the process than letting them choose from standard offerings. An implication from the present and past research is that marketers may find greater opportunities among consumer who are less relation-oriented. A differentiation strategy may be needed. Following the growth of affluent and middle-class consumer segments in the PRC, the demand for unique products and expression individuality is expected to increase. As a result, we may expect mass customisation to become a more prevalent marketing approach in the PRC.

The present study also found that relational orientation influences the relative importance of aspects of perceived value in consumption decisions. ROI, quality and playfulness are more strongly associated with behavioural intentions for low relation-orientation consumers. This implies that marketing messages stressing cost efficiency, quality of workmanship and a fun experience are likely to resonate with consumers with low levels of relational orientation.

The present study adds to the literature that supports influence of cultural value on consumer behaviours. Cultural value has been found to impact a wide variety of consumer behaviours such as product choice [e.g., Clarke and Soutar (1982)] decision-making strategies [e.g., Chan and Lin (1992) and Hiu et al. (2001)], and information processing [e.g., Olshavsky et al. (1988)]. The present study further indicates cultural value as a valid domain in consumer behaviour research. In the present study, we chose the most recognised cultural value on which China differs than many Western societies. Literature [e.g., Hofestede (1980) and Trompenaar (1993)] pointed out many dimensions, on which cultures appear divergent. The effects of other cultural values and combinations of values need be further studied.

7   Limitations and future research

We recognise the existence of great cultural variation across regions, ethnic groups and social strata within the PRC (Oakes, 2000). Use of a university student sample limits the external validity of this study. Therefore the findings may be most relevant to the relatively young and computer literate consumers in the PRC. Along with future studies that include more heterogeneous samples in the PRC, a cross-cultural study including samples from both the PRC and a more individualist culture such as the USA may further extend the variance of the research variables and allow for a direct cross-cultural comparison. Such a study may provide more direct implications for entering strategies into China for marketers currently operating in the Western markets.

We also note that the use of a single type of apparel product, t-shirt, limits the generality of the study to other types of apparel. It should be noted that mass customisation of apparel can focus on providing customisable features other than aesthetic design. Several apparel manufacturers' (e.g., Youngor, Brooks Brothers, Lands' End) mass customisation programmes have been focusing on providing apparel made to customers' personal body measures. We expect relational orientation be less related to consumer responses to this form of apparel mass customisation. Additional studies are needed to understand how consumers would interact with different forms of apparel mass customisation.

References

Chan, T.S. and Lin, G. (1992) 'An empirical analysis of consumer decision processes in the People's Republic of China', *Journal of International Consumer Marketing*, Vol. 4, No. 4, pp.33–48.

Cohen, M.L. (2005) *Kindship, Contract, Community, and State: Anthropological Perspectives on China*, Stanford University Press, California.

Clarke, Y. and Soutar, G.N. (1982) 'Consumer acquisition patterns for durable goods: Australian evidence', *Journal of Consumer Research*, Vol. 10, No. 1, pp.456–459.

Dawar, N. and Philip, P. (1994) 'Marketing universals: consumer' use of brand name, price, physical appearance and retailer reputation as signals of product quality', *Journal of Marketing*, Vol. 58, No. 1, pp.61–95.

Dellaert, B. and Stremersch, S. (2005) 'Marketing mass customised products: striking a balance between utility and complexity', *Journal of Marketing Research*, Vol. 42, No. 2, pp.219–227.

Dodds, W.B., Monroe, K.B. and Grewal, D. (1991) 'Effects of price, brand, and store information on buyers' product evaluations', *Journal of Marketing Research*, Vol. 28, No. 3, pp.307–319.

Fiore, A.M., Lee, S. and Kunz, G. (2004) 'Individual differences, motivations, and willingness to use mass customisation options of fashion products', *European Journal of Marketing*, Vol. 38, No. 7, pp.835–849.

Franke, N. and Piller, F. (2004) 'Value creation by tool kits for users innovation and design: the case of watch market', *Journal of Product Innovation Management*, Vol. 21, No. 6, pp.401–415.

Franke, N. and Schreier, M. (2006) 'I made it myself: exploring process utility in mass customisation', available at http://www.tim.wi.tum.de/home/index.php?option=com_docman&task=doc_view&gid=20&Itemid=90 (accessed on 9 June 2010).

Gilmore, J.H. and Pine, B.J. (1997) 'The four faces of mass customisation', *Harvard Business Review*, Vol. 75, No. 1, pp.9–11.

Gold, T., Guthrie, D. and Wank, D. (2002) *Connections in China: Institutions, Culture, and the Changing Nature of Guanxi*, Cambridge University Press, Cambridge, UK.

Goncalo, J. and Staw, B.M (2005) 'Individualism-collectivism and group creativity', *Organizational Behavior and Human Decision Process*, Vol. 100, No. 1, pp.96–109.

Gong, W. (2003) 'Chinese consumer behavior: a cultural framework and implications', *Journal of American Academy of Business*, Vol. 3, No. 1, pp.373–380.

Hiu, A.S.Y., Siu, N.Y.M., Wang C.C.L. and Chang, L.M.K. (2001) 'An investigation of decision-making styles of consumers in China', *The Journal of Consumer Affairs*, Vol. 35, No. 2, pp.326–345.

Hofestede, G. (1980) *Culture's Consequences: International Differences in Work-Related Values*, Sage, Beverly Hills, CA.

Hsee, C. and Weber, E.U. (1999) 'Cross-national differences in risk preference and lay predictions', *Journal of Behavioral Decision Making*, Vol. 12, No. 2, pp.165–179.

Hsu, F.L.K. (1981) *Americans and Chinese: Two Ways of Life*, University of Hawaii Press, Honolulu.

Igbal, M.M., Jui, R.P. and Gurung, H.B. (2006) 'Consumers' opinion about mass customisation in Dhaka City', *Daffodil International University Journal of Business and Economics*, Vol. 1, No. 1, pp.135–141.

Gilmore, J.H. and Pine, B.J. (1997) 'The four faces of mass customization', *Harvard Business Review*, Vol. 75, No. 1, pp.9–11.

Hsee, C. and Weber, E.U. (1999) 'Cross-national differences in risk preference and lay predictions', *Journal of Behavioral Decision Making*, Vol. 12, No. 2, pp.165–179.

Jöreskog, K.G. and Sörbom, D. (1993) *LISREL 8.12a: Structural Equation Modeling with the SIMPLIS Command Language*, Scientific Software, Chicago, IL.

Kacen, J.J. and Lee, A.J. (2002) 'The influence of culture on consumer impulsive buying behavior', *Journal of Consumer Psychology*, Vol. 12, No. 2, pp.163–176.

Kamali, N. and Loker, S. (2002) 'Mass customisation: on-line consumer involvement in product design', *Journal of Computer Mediated Communication*, Vol. 7, No. 4, available at http://jcmc.indiana.edu/vol7/issue4/loker.html (accessed on 9 June 2010).

Karahanna, E., Evaristo, J.R. and Srite, M. (2005) 'Levels of culture and individual behavior: an integrative perspective', *Journal of Global Information Management*, Vol. 13, No. 2, pp.1–20.

Kim, J. (2004) 'Effects of perceived merchandise quality and service quality on consumer shopping behavior in the internet apparel retailing environment', Unpublished PhD dissertation, Iowa State University, Ames, USA.

Kim, J., Forsythe, S., Gu, Q. and Moon, S.J. (2002) 'Cross-cultural consumer values, needs and purchase behavior', *Journal of Consumer Marketing*, Vol. 19, No. 6, pp.481–502.

Kline, R.B. (1998) *Principles and Practice of Structural Equation Modeling*, The Guilford Press, New York.

Kurniawan, S.H., So, R.H.Y. and Tseng, M.M. (2006) 'Consumer decision quality in mass customisation', *International Journal of Mass Customisation*, Vol. 1, Nos. 2–3, pp.176–194.

Le Claire, K.A. (1992) 'Ethnic attitudes and Hong Kong Chinese consumption values', *Journal of International Consumer Marketing*, Vol. 4, No. 4, pp.73–87.

Malhotra, N.K. and McCort, J.D. (2001) 'A cross-cultural comparison of behavioral intentions models: theoretical consideration and an empirical investigation and an empirical investigation', *International Marketing Review*, Vol. 18, No. 3, pp.235–269.

Mathwick, C., Malhotra, N. and Ridgdon, E. (2001) 'Experiential value: 'conceptualization, measurement and application in the catalog and internet shopping environment'', *Journal of Retailing*, Vol. 77, No. 1, pp.39–56.

Moon, J., Chadee, D. and Tikoo, S. (2008) 'Culture, product type, and price influences on consumer purchase intention to buy personalized products online', *Journal of Business Research*, Vol. 61, No. 1, pp.31–39.

Mueller-Heurmann, G. (1992) 'Market and technology shifts in 1990s: market fragmentation and mass customisation', *Journal of Marketing Management*, Vol. 8, No. 4, pp.303–314.

Nunnally, J. (1978) *Psychometric Theory*, McGraw-Hill, New York.

Oakes, T. (2000) 'China's provincial identities: reviving regionalism and reinventing "Chineseness"', *The Journal of Asian Studies*, Vol. 59, No. 3, pp.667–692.

Olshavsky, R.W., Moore, D.J. and Lim, J-S. (1988) 'An information processing interpretation of cross-national consumer characteristics', *Journal of Global Marketing*, Vol. 1, No. 4, pp.25–40.

Overby, J., Gardial, S.F. and Woodruff, R.B. (2004) 'French versus American consumers' attachment of value to a product in a common consumption context: a cross-national comparison', *Journal of the Academy of Marketing Science*, Vol. 32, No. 4, pp.437–460.

Petrick, J.F. and Backman, S.J. (2002) 'An examination of the construct of perceived value for the prediction of golf travelers' intentions to revisit', *Journal of Travel Research*, Vol. 41, No. 1, pp.38–45.

Piller, F. (2009) 'MCPC 2009 Conference Report Day 4: Fashion Lab: Anna Ruohonen, Selve, Servive, Rivolta on why customization is the true luxury in fashion', *Mass Customization & Open Innovation News*, October, available at http://mass-customization.blogs.com/mass_customization_open_i/clothing/ (accessed on 9 June 2010).

Piller, F. (2005) 'Mass customization in China: China as a market and manufacturing place for customized goods. The example of Youngor', *Mass Customization & Open Innovation News*, Vol. 8, No. 3, November, available at http://www.mass-customization.de/news/news05_03.htm#h (accessed on 29 October 2010).

Pine, B.J. (1993) *Mass Customisation: The New Frontier in Business Competition*, Harvard Business School Press, Boston, MA.

Schutte, H. and Ciarlante, D. (1998) *Consumer Behavior in Asia*, New York University Press, New York.

Singelis, T.M. (1994) 'The measurement of independent and interdependent self-construals', *Personality and Social Psychology Bulletin*, Vol. 20, No. 5, pp.580–590.

Song, K. and Fiore, A.M. (2008) 'Tradition meets technology: can mass customisation succeed in China?', *Journal of Advertising Research*, Vol. 48, No. 4, pp.506–522.

Triandis, H.C. (1995) *Individualism and Collectivism*, Westview, Boulder, CO.

Triandis, H.C., Bontempo, R. and Villarel, M. (1988) 'Individualism and collectivism: cross-cultural perspectives on self-ingroup relationship', *Journal of Personality and Social Psychology*, Vol. 54, No. 2, pp.323–338.

Trompenaar, F. (1993) *Riding the Waves of Culture*, Economics Book, London.

Wong, N.Y. and Ahuvia, A.C. (1998) 'Personal taste and family face: luxury consumption in Confucian and Western societies', *Psychology & Marketing*, Vol. 15, No. 5, pp.423–441.

Yamaguchi, S. (1994) 'Collectivism among the Japanese: a perspective from the self', in Kim, U., Triandis, H.C., Kagitcibasi, C., Choi, S.C. and Yoon, G. (Eds.): *Individualism and Collectivism*, pp.75–188, Sage, Thousand Oaks, CA.

Yau, O.H.M. (1994) *Consumer Behavior in China: Customer Satisfaction and Cultural Values*, Routledge, London and New York.

Xiao, G. and Kim, J.O. (2009) 'The investigation of Chinese consumer values, consumption values, life satisfaction values, life satisfaction, and consumption behaviors', *Psychology and Marketing*, Vol. 26, No. 7, pp.610–627.

Zeithaml, V.A. (1988) 'Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence', *Journal of Marketing*, Vol. 52, No. 3, pp.2–22.

Notes

1   The term ROI has been used most frequently in capital investment and advertising investment settings. ROI is also used in consumer behaviour literature [e.g., Mathwick et al. (2001)] to describe consumer subjective evaluation of cost efficiency in a transaction in a daily consumption setting. ROI in the present paper refers to the latter.

Appendix A

Measurement scales and Chinese translation

Economic value

Products on this website are a good economic value.

    ☐   Strongly disagree   ☐   Strongly agree

该网站的产品的价格很实惠。非常不同意…非常同意

The price on this website is too high for a product of its kind.

    ☐   Strongly disagree   ☐   Strongly agree

该网站的价格对于这类商品来说太高了。非常不同意…非常同意

Overall, I am happy with this website's prices.

    ☐   Strongly disagree   ☐   Strongly agree

总的来说，我对该网站产品的价格感到满意。非常不同意…非常同意

Efficiency

If I am to purchase a t-shirt, shopping from this website would make my task easier.

    ☐   Strongly disagree   ☐   Strongly agree

如果我要站购买T恤，使用该网站将使任务更容易。非常不同意…非常同意

If I would like to purchase a t-shirt, shopping from this website would save my time.

    ☐   Strongly disagree   ☐   Strongly agree

如果我要站购买T恤，在该网站购买能节约时间。非常不同意…非常同意

If I would like to purchase a t-shirt, shopping from this internet site would fit with my schedule.

    ☐   Strongly disagree   ☐   Strongly agree

从该网站购买会符合我的时间安排。非常不同意…非常同意

Quality

By browsing the website, I think the durability of the products on this website is likely to be...

☐   Very low   ☐   Very high

通过浏览该网站，我想其产品的耐用性可能是... 非常低…非常高

By browsing the website, I think the quality of the products on this website is probably…

☐   Very low   ☐   Very high

通过浏览该网站，我想该网站产品的质量可能是... 非常低…非常高

By browsing this website, I think the workmanship of the products is likely to be…

☐   Very low   ☐   Very high

通过浏览这个网站，我认为该网站产品的做工可能是... 非常低…非常高

By browsing the website, I think the likelihood that the products on this website would be reliable is…

☐   Very low   ☐   Very high

通过浏览该网站，我认为其产品在使用上的可靠性可能是... 非常低 …非常高

By browsing the website, I think the likelihood that the fabric of the product would be comfortable is…

☐   Very low   ☐   Very high

通过浏览该网站，我认为其产品面料的舒适性可能是... 非常低…非常高

Enjoyment

I would enjoy shopping from this website for its own sake, not just for the items I may purchase.

☐   Strongly disagree   ☐   Strongly agree

我觉得在该网站购物的乐趣，是因为购物的过程本身，而不是因为要买的东西。非常不同意…非常同意

I would shop from this website for the pure enjoyment of it.

☐   Strongly disagree   ☐   Strongly agree

我会仅仅为了享受一种乐趣，而在该网站购物。非常不同意…非常同意

Escapism

I would get so involved when I shop from this website that I would forget everything.

☐   Strongly disagree   ☐   Strongly agree

在该网站上购物时，我会如此沉浸于其中，以至于忘记一切其他事情。非常不同意…非常同意

Shopping from the website made me feel like I am in another world.

 ☐ Strongly disagree ☐ Strongly agree

在该网站购物可以使我感到仿佛置身于另一个世界。非常不同意…非常同意

Shopping from this website would give me chance to get away from it all.

 ☐ Strongly disagree ☐ Strongly agree

在该网站上购物时，我可以将其他事情抛诸脑后。非常不同意…非常同意

Behavioural intention

If this website starts to operate, I would be willing to visit this site again.

 ☐ Strongly disagree ☐ Strongly agree

如果这个网站开始运营，我愿意再次访问该网站。非常不同意 … 非常同意

If this website is launch, I would come to this website to search for information.

 ☐ Strongly disagree ☐ Strongly agree

如果这个网站开始运营，我会到该网站来查询商品信息。非常不同意 … 非常同意

If this website is launched, I would recommend this site to my friends or family.

 ☐ Strongly disagree ☐ Strongly agree

如果这个网站开始运营，我会把这个网站推荐给朋友或家人。非常不同意 …
非常同意

I am willing to say positive things about this website.

 ☐ Strongly disagree ☐ Strongly agree

我愿意正面评价这个网站。非常不同意…非常同意

I would be willing to purchase a product on this website if it starts to operate.

 ☐ Strongly disagree ☐ Strongly agree

如果这个网站开始运营，我会愿意在该网站购买商品。非常不同意 … 非常同意

Relational orientation

Even when I strongly disagree with group members, I avoid an argument.

 ☐ Strongly disagree ☐ Strongly agree

即使我非常不同意其他成员的意见，我也会避免争论。非常不同意 … 非常同意

It is important for me to respect decisions made by the group.

 ☐ Strongly disagree ☐ Strongly agree

尊重集体的决定对我而言是重要的。非常不同意 … 非常同意

I should take into consideration my parents' advice when making education/career plans.

☐   Strongly disagree   ☐   Strongly agree

在做教育和职业方面的打算时，我应该会考虑父母的建议。非常不同意 …
非常同意

I feel my fate is intertwined with the fate of those around me.

☐   Strongly disagree   ☐   Strongly agree

我感到我的命运与周围的人的命运是相关联的。非常不同意 … 非常同意

If my brother or sister fails, I feel responsible.

☐   Strongly disagree   ☐   Strongly agree

如果我的兄弟姐妹失误了，我感到自己也有责任。非常不同意 … 非常同意

I would offer my seat in a bus to my professor (or my boss).

☐   Strongly disagree   ☐   Strongly agree

我会在公共汽车上给我的教授（或老板）让座。非常不同意 … 非常同意

My happiness depends on the happiness of those around me.

☐   Strongly disagree   ☐   Strongly agree

我的快乐取决于周围人的快乐与否。非常不同意 … 非常同意

I will stay in a group if they need me, even when I am not happy with the group.

☐   Strongly disagree   ☐   Strongly agree

即使我不喜欢某个群体，但是如果他们需要我，我仍会留在该群体。非常不同意
… 非常同意

I usually go along with what others want to do, even when I would rather do something different.

☐   Strongly disagree   ☐   Strongly agree

我通常会顺着其他人的想法，即使我本来的想法有所不同。非常不同意 …
非常同意

It is important for me to maintain harmony within my group.

☐   Strongly disagree   ☐   Strongly agree

和我所在的群体保持和谐是重要的。非常不同意 … 非常同意

I respect people who are modest about themselves.

☐   Strongly disagree   ☐   Strongly agree

我尊重谦虚的人。非常不同意 … 非常同意

I feel good when I cooperate with others.

☐   Strongly disagree   ☐   Strongly agree

和别人合作时我感觉良好。非常不同意 … 非常同意

I will sacrifice my self interest for the benefit of the group I am in.

☐   Strongly disagree   ☐   Strongly agree

我会为了群体的利益而牺牲自己的利益。非常不同意 … 非常同意

I have respect for the authority figures with whom I interact.

☐   Strongly disagree   ☐   Strongly agree

我通常会尊重权威人物的意见。

I often have the feeling that my relationships with others are more important than my own achievement.

☐   Strongly disagree   ☐   Strongly agree

我常常感到人际关系比达成个人目标更重要。非常不同意 … 非常同意

Appendix B

Experimental website interfaces

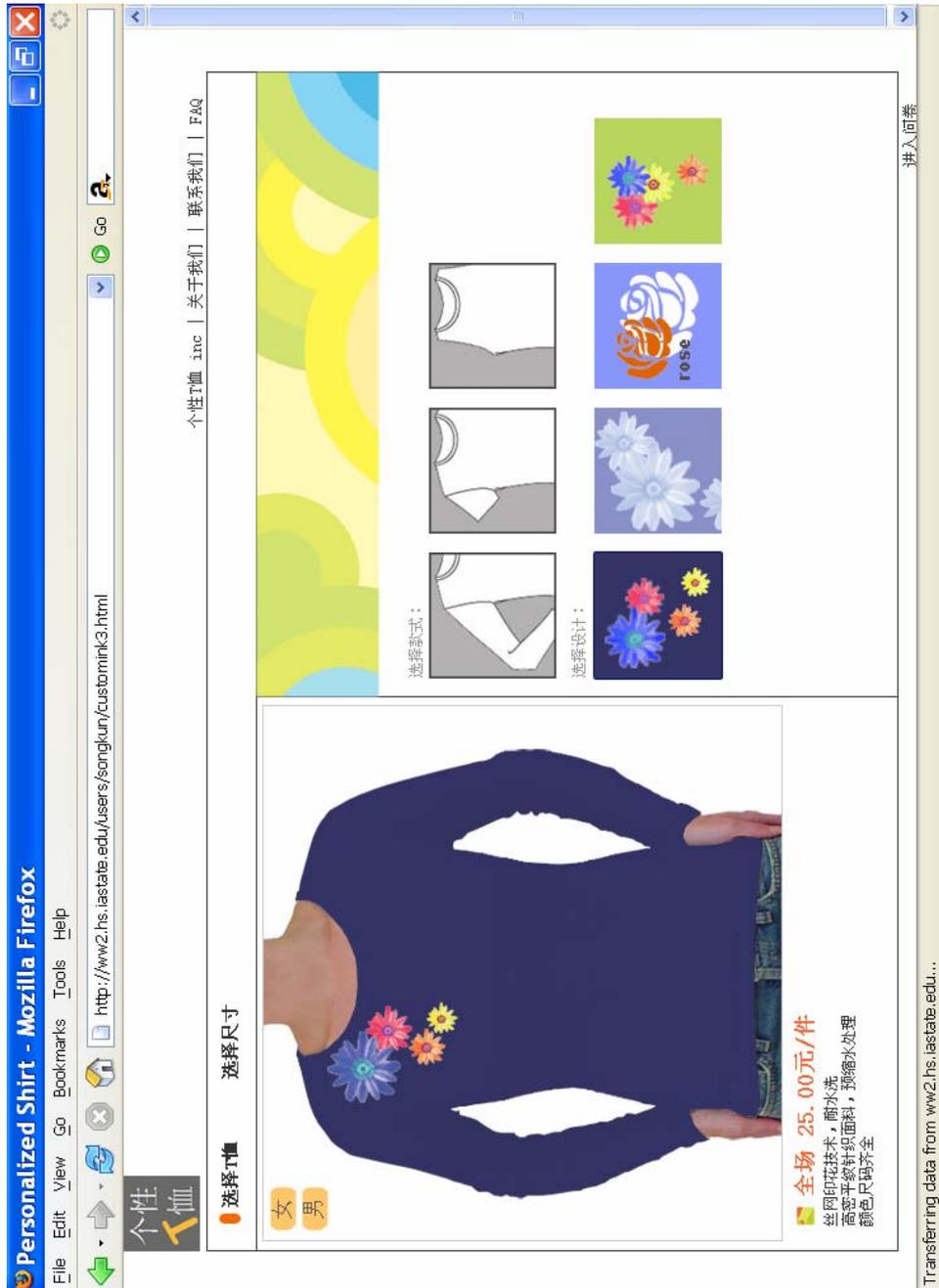**Figure 3** Mass production website (see online version for colours)

Figure 4 Mass customisation website (see online version for colours)