

Self-Customisation and Attribute Alignability: Role of Utilitarian versus Hedonic Consumption

AUTHORS:

Feisal Murshed

College of Business,
Kutztown University, Pennsylvania 19530, USA
Tel: +01 610 683 4712,
Email: murshed@kutztown.edu

Anish Nagpal

University of Melbourne, Australia

Ahmed Moosa

University of Cape Town, South Africa

ABSTRACT:

High degree of customisation prevalent in various industries calls for a richer understanding of customers' evaluations of different attributes during the task of choosing some options and forgoing others. To that end, the research reported in this paper examines consumers' preference for alignable versus nonalignable attributes during self-customisation of products. Specifically, we propose that utilitarian versus hedonic consumption goals will explain consumer's preference of alignable versus nonalignable attributes. Consistent with our theorizing, results from two studies suggest that when customising a utilitarian product, consumers rely more on alignable product components. Conversely, when customising hedonic products, nonalignable components draw more attention. The proposed correspondence between consumption motivation and structural alignment approach of comparison deepens our understanding of consumers' choice difficulty and provides insights into downstream impact of customisation strategy on consumer well-being. Furthermore, the findings will aid firms in co-creating better value with customers through formulating better self-customisation options.

KEYWORDS:

Self-customisation, Alignable versus Nonalignable attributes, Building up versus Scaling down, Utilitarian versus Hedonic consumption

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Self-customisation enables consumers to self-select attributes from a given menu and to design and create products matched to their individually stated needs (Dellaert and Stremersch 2005; Franke, Keinz, and Steger 2009; Salvador, de Holan, and Piller 2009; Wilcox and Song 2011). Thus, a consumer can create the product exactly how he or she envisions it and as such, self-customisation can enhance consumer well-being. As a case in point, at Nikeid.com, a customer can design a shoe to exact specification, selecting each element from materials of the sole to the colour of the shoelaces (Randall, Terwiesch, and Ulrich 2005). The rapid growth of customisation is pervasive as companies such as BMW, Dell, and Nestle are using web based user toolkits to create retail environments with various self-customisation options. The widespread commercial appeal also mirrors theoretical developments in marketing, as researchers continually seek greater insights into the nuances of consumers' evaluation of different customised options (e.g., Franke and Schreier 2008; Ghosh, Dutta, and Stremersch 2006; Gill 2008; Jiang, Balasubramanian, and Lambert 2015; Moreau, Bonney, and Herd 2011; Puligadda et al. 2010).

A fundamental aspect of self-customisation involves comparison among different attributes that form the various options. On a broad level, this is the focus of this article. Specifically, based on structural alignment theory (Gentner and Markman 1997), we examine consumer preferences for alignable versus nonalignable attributes during self-customisation decisions. An alignable attribute is one that is directly related to the functionality of the base product. A nonalignable attribute, conversely, does not directly

enhance the capabilities of the base product, but rather, offers benefits unrelated to functionality (Bertini, Ofek, and Ariely 2009). We postulate that the choice of alignable versus nonalignable attributes systematically varies with the nature of the product being customised. We rely on the common distinction between utilitarian and hedonic consumption contexts, which have been shown to evoke rational and emotional decision routes to decision-making, respectively (e.g., Dhar and Wertenbroch 2000; Khan and Dhar 2010; Okada 2005). Employing this distinction, our core proposition is that consumers assign more weight to alignable attributes when they are self-customising utilitarian products. Conversely, we expect consumers to shift their attention to nonalignable attributes when they are self-customising hedonic products.

In doing so, this research seeks to make three key contributions. First, by focusing on consumer co-creation of ideal products, we contribute to a better understanding of how self-customisation may help to better protect and expand consumer well-being and welfare. By documenting an interplay between consumption context (utilitarian versus hedonic) and relative weighting of alignable versus nonalignable attributes, this study adds important clarity to the conflict between consumer short-run wants and consumer long-run welfare (Armstrong and Kotler 2002) and enriches the longstanding theoretical development of utilitarian versus hedonic consumption in marketing (e.g., Dhar and Wertenbroch 2000). Second, our focus is in line with the calls for more inquiries into customisation process from consumers' perspective (e.g., Simonson 2005; Wind and Rangaswamy 2001), while this

realm of research has restricted itself to the supply side of customisation strategy (e.g., Pine 1993). Behind this lies the recognition that consumers tend to place a premium on the opportunity to build their own products and enhance their overall quality of life. On a general level, this research sheds new light into the purpose of educating consumers whereas the vast quantity of consumer research currently published is in the interests of marketers. Finally, beyond these theoretical contributions, our findings have clear substantive implications. As customers are increasingly seeking unique and personalised products, a better understanding of self-customisation process can help them to make better decisions and gain greater satisfaction. Furthermore, by extending understanding of how consumers derive utility from self-customised options, our work offers actionable insights for e-stores and online retailers considering customising their products in a competitive environment. As such, a better understanding of how customers may resolve trade-offs involving different attributes or options will help to deliver greater satisfaction.

The rest of this article is organised as follows: In the next section, we provide an overview of the conceptual background and derive research hypotheses. We then present two laboratory experiments and the results. In the subsequent section, we discuss the implications of our findings and conclude by identifying limitations and outlining avenues for future research.

Theoretical Background

Customisation refers to a firm's ability to design, produce, and deliver products that meet specific customer needs at near mass-production efficiency (Pine 1993; Tseng and Pillar 2003). To illustrate, a consumer self-selects features from a given menu, and thereby, configures an offering best suited to his or her requirements. Customisation can be carried out with regard to fit, style, and functionality and allows a closer fit between a firm's marketing mix and consumer choice (Simonson 2005). As a result, self-customisation allows consumers to have a tailor-made product offering that fully embodies their tastes and preferences and consequently, maximises their well-being. Consumer response to customised offerings features prominently in much of prior literature (e.g., Bharadwaj et al. 2009; Franke et al. 2009; Kramer 2007). For example, customisation provides consumers with opportunities to configure products that ideally match their functional and aesthetic preferences (Randall et al. 2005) and to distinguish themselves from others by possessing one-of-a-kind products (e.g., Franke, Schreier, and Kaiser 2010). Ghosh et al. (2006) examine whether the locus of control for customisation should reside with the vendors or the buyers. They report that both technology and knowledge factors differentially influence customisation control decisions for both vendors and buyers. These considerations suggest that 'customise-it-yourself' options offered to consumers are of strategic importance to firms irrespective of the types of products or service, from as practical as specialty chemicals (www.chemstaion.com) to as frivolous as candy (www.mymm.com).

In self-customisation context, consumers are faced with the task of choosing or rejecting an option. Consumer choice fundamentally depends on the ability to distinguish between different options during the decision-making process. Making comparisons from a set of alternatives is a fundamental psychological process. Yet, no study to our knowledge has examined the psychological mechanism that may lead to consumer evaluation of different sets of attributes. Consequently, we identify a dimension on which option can be contrasted (i.e., alignable vs. nonalignable), and that is our key point of departure from mainstream research. Our conceptualization of alignable and nonalignable attributes is based on whether they enhance the functionality of the base product. This approach is in line with Okada's (2006) conceptualization and appropriate for this research. To illustrate, computer memory is an alignable attribute since it is directly related to the base good (computer) and greater levels of memory improve the functionality of the product. Conversely, nonalignable attributes have limited commonality with the base product and do not enhance the capabilities of it, but offer new, unrelated capabilities (Bertini et al. 2009; Okada 2006). A camera carrying-case will serve as an example of a nonalignable attribute as it does not enhance the base good's primary function, but rather offers protection and the ability to change the appearance of the base good. While Bertini et al. (2009) differentiate between alignable and nonalignable in terms of the commonality (i.e., alignable relates to existing while nonalignable relates to new capabilities), in this study the differentiation is based on functionality (i.e., alignable attributes are directly related to functionality while nonalignable attributes are not).

Research attests that alignable attributes are perceived as being functional, and when choosing these attributes, individuals are often found to be ‘goal oriented’ (Strahilevitz and Loewenstein 1998). Evidence shows that alignable attributes are easier to list (Gentner and Gunn 2001), more readily recalled (Zhang and Markman 1998), and more easily justifiable (Markman and Medin 1995). Furthermore, consumers tend to be more satisfied with the choice process when choosing from an alignable choice set than from a nonalignable choice set (Zhang and Fitzsimons 1999). Conversely, nonalignable attributes are likely to be perceived as more sensorial, image evoking, and aesthetic (Holbrook and Hirschman 1982; MacInnis and Price 1987). Further, processing nonalignable attributes entails greater cognitive load (Zhang and Markman 2001). Along this vein, when consumers expand cognitive resources, decision-making involves greater use of nonalignable attributes (Kivetz and Simonson 2000). For instance, Sun, Keh, and Lee (2012) show that higher levels of uncertainty associated with credence services prompts consumers to expend more cognitive resources when evaluating such service options, and consequently, consumers focus more on nonalignable attributes than alignable attributes. Based on this notion, nonalignable attributes take prominence when consumers evaluate services, relative to products. Nam, Wang, and Lee (2012) assert that consumers’ perceived differentiability of alignable versus nonalignable attributes is moderated by expertise and knowledge. Experts are more likely than novices to consider nonalignable attributes as more distinguishable.

While previous research suggests that alignable and nonalignable attributes are processed differently, some recent research has begun to identify that consumers' preference between these two options may depend upon the nature of the product (i.e., services) (e.g., Sun et al. 2012). The current research builds on this work by examining the specific mechanism that underlies the formation of consumer preferences between aligned versus nonalignable attributes. In what follows, we base our reasoning in the literature about utilitarian versus hedonic consumption commonly associated with rational and emotional attitudes, respectively (Botti and McGill 2011; Dhar and Wertenbroch 2000; Okada 2005). Utilitarian and hedonic alternatives deliver positive payoffs, but of different types: the former in the form of necessity and practical functionality and the latter in the form of symbolic and experiential enjoyment (Batra and Ahtola 1990; Holbrook and Hirschman 1982; Strahilevitz and Myers 1996). We contend that the difference between utilitarian versus hedonic consumption motivation provides a more nuanced understanding of consumers' responses to alignable versus nonalignable attributes during customisation.

Whether the consumer is pursuing utilitarian or hedonic consumption objectives will influence the product evaluation (e.g., Fransen, Smeesters, and Fennis 2011). Utilitarian products are 'primarily instrumental and functional' (Dhar and Wertenbroch 2000) and viewed as useful and practical (Holbrook and Hirschman 1982). Hedonic products, on the other hand, embody 'more experiential consumption, fun, pleasures, and excitement' (e.g., Alba and Williams 2013; Dhar and Wertenbroch 2000) and described as 'affectively rich'

(Botti and McGill 2011). Given that alignable attributes are functional and practical, make consumers more goal-oriented, and enhance the performance of the base product, we contend that consumers are more likely to rely on alignable attributes when customising utilitarian products as compared to hedonic products. Further supporting the view that people tend to prefer options that are easy to justify and for which they can provide acceptable reasons to both self and others (Shafir, Simonson, and Tversky 1993), it is easier to rationalise utilitarian consumption over hedonic consumption (Okada 2005; Sela, Berger, and Liu 2009). Conversely, search among nonalignable attributes may increase the potential for delight and gratification in uncovering something completely new. Hence, nonalignable attributes are more likely to provide sensory benefits. Supporting this account, we expect a greater focus on nonalignable attributes as consumers self-customise hedonic products. This is likely to be the case as the very purpose of consuming hedonic products lies in the emotional aspect: fun, pleasure, and experiential enjoyment.

Following from the preceding discussion, we hypothesise the following:

H1a: There is a greater likelihood of selecting alignable attributes when customising a utilitarian product than a hedonic product.

H1b: There is a greater likelihood of selecting nonalignable attributes when customising a hedonic product than a utilitarian product.

Study 1

Stimulus and Pretest

The objective of study 1 was to test our predictions regarding the choice of alignable versus nonalignable attributes across two product types, utilitarian versus hedonic. The first step was to select two customisable products, one superior on providing utilitarian benefits and the other congruent with hedonic benefits. We chose laptops and vacations to represent utilitarian and hedonic products respectively. Informal discussions with a sample of undergraduates students ($n = 16$) revealed that they considered laptops to be serving utilitarian goals and vacations to be fulfilling hedonic goals. Further, it was confirmed that a majority of them consumed both the categories in last two years. The terms utilitarian and hedonic were not used in the discussion.

This was followed by deciding on a number of customisable alignable and nonalignable attributes for each product type. A list of potential alignable and nonalignable attributes for both product types was first identified from multiple online electronics retail websites. As the utilitarian and hedonic attributes are well established in literature, our selection of attributes was vendor-derived (rather than consumer-derived). For both laptop and vacation, four alignable and four nonalignable attributes were identified based on how closely they met the definition of being alignable or nonalignable. Table 1 documents different alignable and nonalignable attributes of both the product types.

Following this, four options, varying in terms of price within each attribute, were selected. To illustrate, four customisable options for the Operating System of a laptop were Basic, Home Edition, Corporation and Ultimate. Similarly, for vacations, four car rental options available for customisation were Luxury, Full-Sized, Compact and Economy. A pretest ($n = 28$) was run as a manipulation check. Utilizing the information from the websites,

participants were provided with brief descriptions about the different attributes and prices of the options. They were then asked to rate each attribute on a scale with the end-points as 1 = alignable attribute and 9 = nonalignable attribute. We used the term alignable and nonalignable in the description so that these were interpreted as intended. All the alignable attributes received a significantly lower score than the nonalignable attributes ($p < .05$). The pretest indicated that a mouse was not perceived an alignable attribute for the laptop category. It was replaced by mouse pad.

Table 1. Alignable and Nonalignable Attributes used in Study 1 and 2

Category	Alignable Attributes	Nonalignable Attributes
Utilitarian (Laptop)	Operating System, Random Access Memory, Internal Memory, Processor Speed	Carrying Case, Headphones, Mouse pad ¹ , Webcam.
Hedonic (Vacation)	Transport, Accommodation, Food, Car Rental	Massage, Scuba diving, Tours, Theme parks

¹Mouse pad replaced Mouse following the pretest.

Participants, Design, and Procedure

Fifty undergraduate students (64% females) from a large Australian university were recruited to participate in study 1. The cover story stated that the researcher was interested

in understanding the consumer decision making process. The task instruction emphasised that there were no right or wrong answers. They were informed that the choice task involved making hypothetical customisation decisions. Participants were assigned at random to one of the two choice alternatives, laptop and vacation. Both the product categories were described on eight attributes (four alignable and four nonalignable). For each attribute, there were four levels to select from, each one differing in price. For example, the operating system had four levels to select from; a basic version priced at AUD 180, a limited edition priced at AUD 260, a special edition priced at AUD 330, and the ultimate edition priced at 390. The lowest-priced level was preselected for each attribute. Participants were then asked to customise the product by selecting higher levels of each of the eight attributes.

For each participant, the total amount spent on alignable (nonalignable) attributes was divided by the sum of the highest-priced alignable (nonalignable) attribute to arrive at the proportion spent on alignable (nonalignable) attributes. For example, if the sum total of alignable attributes selected by participants was AUD 770, and the sum of the most expensive alignable attributes was AUD 1000, then the proportion spent on alignable attributes would be 77%.

Other dependent measures included participants' perceptions about the perceived quality of their final products (1 = very low; 8 = very high), probability of liking the product (1 = very low; 8 = very high), and fit with personal needs (1 = strongly disagree; 8 = strongly

agree) (Cronbach's $\alpha = .82$) (Bertini et al. 2009). We also measured customisation complexity by using three seven-point scales measuring: complexity (1 = not at all complicated; 7 = extremely complicated), difficulty (1 = not at all difficult; 7 = extremely difficult) and effort required (1 = not at all effortful; 7 = extremely effortful) (Cronbach's $\alpha = .84$) (Dellaert and Stremersch 2005). In the end, participants were asked about their previous customisation experience, gender, and age.

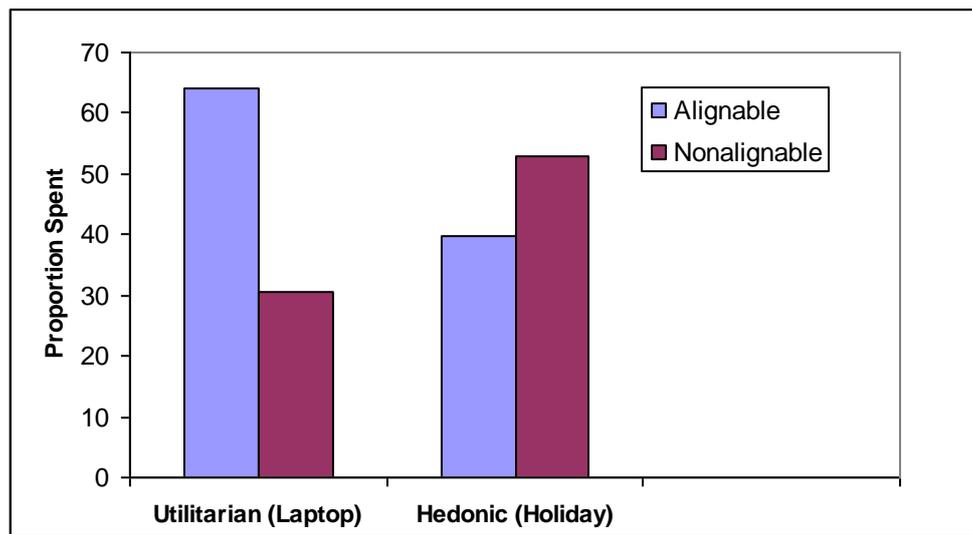
Results and Discussion

One-way Analysis of Variance (ANOVA) revealed that participants spent a greater proportion on alignable attributes when they customised the laptop (64%) than when they customised a vacation (39.70%), $F(1, 48) = 45.81, p < .001$. Thus, H1a received support. In contrast, participants spent a greater proportion on nonalignable attributes when they customised the vacation (52.80%) than when they customised a laptop (30.65%), $F(1, 48) = 29.05, p < .001$. Thus, H1b also received support (see Figure 1).

When asked which of the tasks is more complex, participants indicated the tasks of customising a laptop to be more complex ($M = 4.82$) compared to customising a vacation ($M = 6.08, F(1, 48) = 13.53, p < .001$). That is, customisation of a utilitarian product, compared to a hedonic product, was perceived to be more complex. This result could be interpreted in accordance with other research. First, hedonic products are more aesthetically and emotionally pleasing and vivid, thus corresponding more closely to consumer involvement (Dhar and Wertenbroch 2000) and should be relatively easy to customise. Furthermore, past

research also shows that consumers pay more attention to attributes that differentiate among the various options than those that are common across options (Markman and Medin 1995). Nonalignable differences are perceived to be more differentiating (Nam, Wang, and Lee 2012) and as such, warrant more time. Hence, consumers are likely to perceive the customisation of a hedonic good as less complicated. Further, regarding the impact on complexity, we also found that participants perceived the customised hedonic product to be more valuable than the utilitarian product ($M = 5.96$ vs. $M = 4.96$, $F(1, 48) = 6.00$, $p < .05$). This finding is in accord with prior research that increase in elaboration (i.e., time) can enhance perceived value and attractiveness (Shiv and Huber 2000; Strahilevitz and Loewenstein 1998). Okada (2005) argues that hedonic purchases are more difficult to justify, and therefore, consumers prefer to pay in the currency that is easier to justify, that is, spending time.

Figure 1. Proportion spent on alignable versus nonalignable attributes for utilitarian and hedonic product – building-up customisation strategy (Study 1)



Note: Difference in proportion-spent is statistically significant ($p < .001$) between alignable and nonalignable attributes

The data furnished by study 1 support our central proposition that the choice of alignable versus nonalignable attributes depends upon the nature of the customised product (utilitarian versus hedonic). Moreover, as predicted, consumers focused on alignable attributes when a utilitarian product was being customised. In contrast, nonalignable attributes got more prominence when a hedonic goal is fulfilled.

Building Up Versus Scaling Down

Note that in study 1, consumers were asked to customise a product bottom-up. That is, the lowest-priced option for each attribute was preselected and participants were asked to customise their desired end product. A closer look at the customisation literature reveals two distinct modes of customisation. Consumers can be asked to put together the product either by adding desired attributes to a base model (building-up), as was done in study 1, or by removing the undesired attributes from a fully loaded model (scaling-down) (Park, Sun, and MacInnis 2000; Shafir 1993). To elaborate, Dell offers customers a base model computer, and then consumers do attribute comparisons and add the ones they desire. In contrast, BMW offers customers a fully loaded model with all the options pre-loaded, and consumers removes those attributes that are not desired. In both cases, the seller helps the customer design his/her ideal product. Research shows that consumers end up with a more expensive feature-laden configuration when scaling-down than when building-up (Levin et al. 2002; Park et al. 2000). The central notion underlying this stream of research is based on endowment effect and loss aversion (Kahneman, Knetsch, and Thaler 1991); people place a greater value on something they already possess than on something equivalent they do not possess. Hence, people tend to frame the forgoing of features as a loss.

Dhar and Wertenbroch (2000) point out that compared to acquisition tasks (building-up), forfeiture tasks (scaling-down) result in more spontaneous elaboration. In an endowment-based account, consumers imagine possessing as the default option, thereby all

lesser alternatives are reframed as losses (Kahneman, Knetsch, and Thaler 1991; Sen and Johnson 1997). In similar vein, Griffin and Broniarczyk (2010) find that nonalignable attributes are more sensory, alluring, emotionally and aesthetically pleasing, and more easily imaginable compared to alignable attributes. Viewed in combination with the finding that nonalignable attributes are more easily imaginable with consumers spending more time thinking how they would be compromised without those suggests that consumers will be less willing to give up the nonalignable attributes. Supporting this view, research also shows that the influence of more easily imaginable attributes on product evaluations increases with consumers engaging in greater elaboration (Keller and McGill 1994). Consistent with this notion, we argue that this unwillingness to give up nonalignable attributes holds true independent of the product type.

Consider the case of scaling-down a hedonic product. Consumers are more focused on the nonalignable attributes (as explained and evidenced in study 1) when customising a hedonic product. To the extent that scaling-down is associated with spontaneous elaboration, and since nonalignable attributes are more sensory based, there are reasons to believe that customers will exhibit a tendency to hold on to the nonalignable attributes. Furthermore, we predict this tendency to persist in the case of scaling-down utilitarian products as well. To illustrate, scaling-down will cause a shift in consumers' attention to the nonalignable attributes, thus making them less willing to give those up. In particular, under this view, there will be no significant difference in the choice of nonalignable attributes

between utilitarian and hedonic product types. However, when scaling-down from a fully-loaded model, it seems likely that the difference in alignable attributes between a utilitarian and a hedonic product should still be significant. We therefore predict that in a scaling-down customisation strategy,

H2a: There is a greater likelihood of selecting alignable attributes when customising a utilitarian product than a hedonic product (same as H1a).

H2b: There will be no significant difference in the likelihood of selecting nonalignable attributes between customising a utilitarian and a hedonic product.

Study 2

Participants, Design, and Procedure

In study 2, we set out to test H2a and H2b and further investigate the underlying process in the context of scaling-down customisation strategy. Forty-four undergraduate students (57% female) at a large Australian university, drawn from a population similar to those in study 1, participated in the study in exchange for course credit. Participants were required to complete a scaling-down customisation task. Apart from this customisation task, the procedure and dependent measures were identical to that used in study 1. Four levels for each attribute were listed in decreasing order of price and the highest priced level was pre-selected for each attribute. For example, the operating system had four levels; the

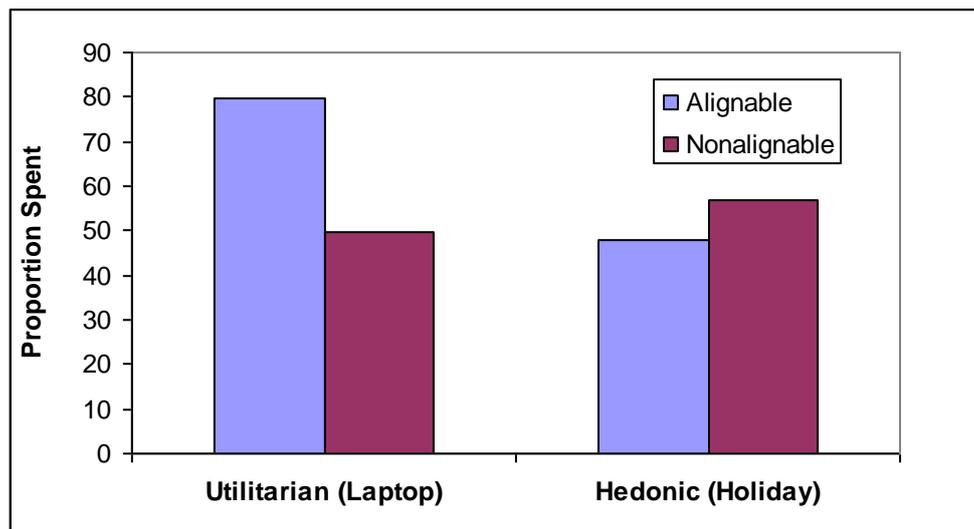
ultimate edition priced at AUD 390, a special edition priced at AUD 330, a limited edition priced at AUD 260, and a basic version priced at AUD 180.

Results and Discussion

One-way ANOVA revealed that participants spent a greater proportion on alignable attributes when they customised the laptop (79.5%) than when they customised a vacation (49.50%), $F(1, 42) = 46.94, p < .001$. Further, as expected, there was no significant difference in the proportion of nonalignable attributes between utilitarian (48.1%) and hedonic (56.90%) product, $F(1, 42) = 2.91, ns$. Thus, H2a and H2b received support (see Figure 2).

Additional analyses suggest that similar to study 1, participants found the task of customising a laptop more complex ($M = 4.40$; Cronbach's $\alpha = .91$) than customising a vacation ($M = 5.42, F(1, 42) = 5.05, p < .05$). None of the other effects were significant. Unlike study 1, we did not find any significant difference on perceived value derived from the customisation of utilitarian versus hedonic products, $F(1, 42) = .17, ns$. Although not a direct evidence, this non-significant effect on perceived value perhaps lends some credibility to the argument that the task of scaling-down renders attention to the nonalignable attributes. Since nonalignable attributes are more sensory and alluring, and consumers do not differ in their choice when scaling-down a utilitarian versus a hedonic product, one would suggest that they derive similar value from scaling-down of both product types.

Figure 2. Proportion spent on alignable versus nonalignable attributes for utilitarian and hedonic product –Scaling-down customisation strategy (Study 2)



Note: Difference in proportion-spent is statistically significant ($p < .001$) between alignable and nonalignable attributes

Discussion

Self-customisation strategy has grown rapidly in prominence and has become a dominant platform for firms to match better with consumers' ideal internally held preferences. At the same time, by creating their own purchases, customers experience stronger sense of ownership towards the end products. Research shows that customised products can provide differentiation through pronounced personalization and emotional involvement and can build a foundation for customer relationship on a one-to-one basis (e.g., Arora et al. 2008; Franke and Schreier 2008). The main objective of the research

reported in this article was to develop a theoretical account of the self-customisation process when consumers are confronted with a choice between alignable and nonalignable attributes. Furthermore, we attempted to expand our understanding of how self-customisation option may contribute to consumer welfare and stimulate more research into this underresearched intersection. Results obtained from two experimental studies reveal that the nature of the product (utilitarian versus hedonic) is a key contextual variable that influences preferences between alignable versus nonalignable attributes. Consumers tend to attach greater importance to alignable attributes when they are customising a utilitarian product. In contrast, when consumers customise hedonic products, nonalignable features assume more salience. This result is robust across both building-up and scaling-down customisation contexts. Furthermore, under a scaling-down customisation context, the difference in preference for nonalignable attributes between utilitarian versus hedonic products disappears. We believe these findings add a new dimension to research on customisation, which has, to date, primarily focused on relatively narrow behavioural outcome.

Theoretically, this study accomplishes several goals. First, by extending our understanding of conditions under which alignable versus nonalignable attributes would be weighted more heavily, this research contributes to broadening the structural alignment literature. Second, our work extends the growing stream of consumer research focusing on how consumer behaviour differs across different consumption goals (i.e., utilitarian and

hedonic). Specifically, we extend this notion to the comparison between alignable and nonalignable attributes in the self-customisation context. Third, this article develops a novel and more comprehensive perspective on customisation strategy by deepening our understanding of the downstream impact of both building-up and scaling-down strategies. Prior research has primarily focused on the effects of customisation strategies on the quantity of attributes selected with little attention paid to the type of attributes (see Puligadda et al. 2010). By focusing on the type of attributes, this research adds richness to the understanding of choice difficulty inherent in the customisation context.

Predicting customer preferences remains a perennial challenge for marketers and this is specially so in the context of customisation where extensive customer participation is warranted (Simonson 2005). The prevailing belief is that companies offer customised features and options at a higher cost (Berger, Draganska, and Simonson 2007) and as such, successful and profitable delivery of products or solutions that match exact customer requirements is deemed to be a challenging endeavour. On a related note, 200 managers of Fortune 1000 firms state that around one-fourth of the time, firms tend to lose money by way of designing an effective customised solution (Stanley and Wojcik 2005). Under this backdrop, this research offers a nuanced understanding of the variables that affect marketers' ability to provide effective customised solutions to customers.

Finally, the study offers public policy implications in regards to creating value through self-customisation strategy and consumer well-being. As consumers co-create

customised products, consumer cost of interactions becomes an important parameter to account for. In this regard, Syam, Ruan and Hess (2005) empirically document that consumers are better off with customising rather than opting for standard products and without the customised options, much consumer surplus is often left on the table. Our research is relevant given the criticism that the field of consumer research has underprioritised scholarship on consumer well-being and increased quality of life (Mick 2008). As traditional marketing thoughts and practice have evolved to culminate in well-being marketing (e.g., Sirgy and Lee 2008), with advanced information technology, self-customisation has become an indispensable tool for marketers to engage in well-being marketing and prosper in the long-run. Based on our findings, while customising hedonic products, consumers tend to ignore alignable attributes that are usually cognitively superior option and thus, could have substantially improved the decision quality. Hedonic (i.e., nonalignable) attributes are tempting to focus on, but to do so at the expense of functional and useful (i.e., alignable) attributes may ultimately result in choices that do not maximise consumer well-being. This notion aligns with prior research that trading functional attributes for hedonic ones evokes guilt (Kivetz and Simonson 2002). Under the light of this, consumers should be made aware of the natural tendency, when customising hedonic products. Accordingly, we speculate that marketers would do well to offer an inclusive list of alignable attributes, while dealing with hedonic products. Broadly speaking, our findings offer specific prescriptions about encouraging customers to choose utilitarian and relatively more healthful and practical options, which in turn will improve the general welfare of the

society. Thus, managers and retailers being informed about the results of the present research will be better prepared for designing an optimal customisation strategy.

Limitations and Future Research

This research has several limitations that suggest the need for additional work. First, as our studies were based on customisation decisions that required limited functional knowledge and technical expertise, we advise caution when attempting to generalise our findings to other product categories. We have used laptop and vacation to represent utilitarian and hedonic products, respectively. Previous research employed the same products with different framing – utilitarian versus hedonic (e.g., Botti and McGill 2011). We are mindful of the limitations of using different products instead of using the same product with different framing. This limitation is especially relevant as certain alignable (nonalignable) attributes could be more important for a utilitarian (hedonic) product (Gill 2008; Valenzuela et al. 2009). Second, we could not tease out the impact of the price of attributes. Typically, a customisation decision involves a fundamental trade-off that consumers must often make between spending time and money. Future research could broaden the investigation by taking this issue in account. Third, this study did not consider the role of individual differences among the customers which may unlock potentially interesting stream of research. Along these lines, for example, research shows that consumers with clear insights into their preferences are better positioned to glean more

benefits out of customisation options (Kramer 2007). Further, there is evidence that experts and novices differ in their perception and processing of attribute information (Nam, Wang, and Lee 2012). Fourth, future research should be directed toward a richer understanding of the nature of linkage between the number (proportion) of alignable/nonalignable attributes and a utilitarian/hedonic focus. To illustrate, in the current research, participants considered an equal number of alignable versus nonalignable attributes. Offering a different proportion of alignable and nonalignable attributes might focus the attention proportionally, and that, in turn can have a differential effect on choice. Fifth, while interest of this study focuses on alignable versus nonalignable attributes, attributes can also be differentiated on the basis of their valence (Houston and Sherman 1995). For example, consumers select anti-virus software to feel secure (i.e., negative valence) and graphic software to enhance the quality of experience (i.e., positive valence). Understanding attributes and the associated decisions from this perspective offers a compelling area for future research. Finally, we did not focus on the complexity of customisation interfaces and processes and how these may effect consumer assessment of different attributes (Novemski et al. 2007; Wilcox and Song 2011). This could be especially relevant in the B2B market.

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