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Acceptance of novel products: the role of religiosity, ethnicity and values
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Acceptance of novel products: the role of religiosity, ethnicity and values

Acceptance
of novel
products

39

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Abstract

Purpose – The purpose of this paper is to establish and test the role of religiosity, ethnicity, individual basic values, and consumer innovativeness in influencing consumer acceptance of novel products. This paper specifically addresses: the driving force of religiosity and ethnicity and mediating roles of individual basic values and consumer innovativeness in influencing acceptance of novel products.

Design/methodology/approach – A questionnaire was constructed and distributed to 700 respondents in the urban area of Malaysia based on convenience sampling. The data collected data were analyzed using structural equation modeling.

Findings – Findings show that religiosity and ethnicity are the main drivers that influence the acceptance of new products. Specifically, religiosity and ethnicity have negative relationship with openness to change (stimulation, self-direction, and hedonism) and positive relationship with conservation value (traditions and conformity); conservation values have negative effects on consumer innovativeness and acceptance of new products; openness to change values show the positive relationship with innovativeness and acceptance of new products; openness to change and conservation value mediate the relationship between religiosity and consumer innovativeness; conservation value mediates the relationship between ethnicity and consumer innovativeness; and consumer innovativeness mediates the relationship between individual basic values and acceptance of novel products. The model has been able to explain 34 percent of the variance in acceptance of novel products.

Originality/value – Different from previous research that often focussed on demographic and observable (e.g. age, race, religion) antecedents of innovation acceptance, the current research emphasized on the influence of behavioral and psychological characteristics (e.g. religiosity, ethnicity, values and innovativeness) on the consumer acceptance of novel products.

Keywords Religion, Innovation, Consumer behaviour, Developing countries, New products

Paper type Research paper

Introduction

The launching of a successful innovation by a firm is well recognized as a key contributor to create a sustainable demand and improve the firm's performance. Among the companies in UK and USA, 40 to 50 percent of revenue and profit are generated by new products launched in the market within the previous five years (Hultink and Schoormans, 2004). However, even though novel (innovative and unique) products/services play a vital role in a company's success, the failure rate of new products is very high (ranging from 33 percent to over 60 percent) (Hultink and Schoormans, 2004; Sivadas and Dwyer, 2000). Each failure can be very costly. Therefore, it is important to assess the chances of success of a new product while it is still at the design stage (Srinivasan *et al.*, 2009; Tsafarakis *et al.*, 2010). In this research,



the terms novel product and new product are used interchangeably. Novel (new) product or service refers to a product or service that is new to the market and that differs significantly from the existing products or services in terms of innovativeness and uniqueness (Stanton and Miller, 1985).

In many cases, innovative products/services have been rejected by the market because consumers feel the products/services are against their traditions and their cultural norms. The acceptance of products/services by consumers is affected by how closely the product's concept conforms to the customs, values, and behavioral patterns based on the physical or mechanical attributes of products/services (Kardes *et al.*, 2008).

Members of societies learn the meaning of the symbolic system represented in the aesthetics, arts, legends, ritual, dress, drama, music, dance, and cosmetics that form their culture. Consumers everywhere respond to images, myths and metaphors that help them define their personal and national identities. Therefore, a poor interpretation of cultural perspective or the insensitivity of consumers' values can be offensive and create a negative impression of the company and its product and thus render marketing efforts ineffective or even damage the image of the companies in a particular market (Kardes *et al.*, 2008).

Most of a person's beliefs and norms come from their ethnic and religious practices. The importance of religious value systems have been recognized in sociology and psychology for centuries (Gurvitch, 1971; Johnson, 2000; Noland, 2005). Even though religious groups vary in the specifics of their values and beliefs, the behavioral patterns of their followers and the correlation between religiosity and values are strikingly consistent across monotheistic religions. Individuals who are high on religiosity usually have a relatively higher level of motivation to avoid uncertainty and change, and place a relatively low importance on expressing hedonistic desires, or independence in thoughts and actions (Roccas, 2005).

Ethnicity is highly influential in shaping an individual's values and norms. Various interdisciplinary research on the relationship between shopping behavior and ethnicity (e.g. Burton, 2002; Hamlett *et al.*, 2008; Jamal, 2003) have shown that ethnicity is a powerful predictor of human attitude and plays a significant role in consumer behavior (Laroche *et al.*, 1998; Pires and Stanton, 2000).

According to Cowart *et al.* (2007), consumer innovativeness is "the tendency of some individuals to adopt new products early" and these "consumer innovators are valuable resources to the firms in introducing new products, as they perform essential roles in innovation diffusion" (p. 517). Existing research usually focusses on the demographic characteristics of individuals and the impact of these factors on innovativeness and in the broader scope in acceptance of new products. The weakness of this approach is that demographic characteristics (e.g. religion) stay constant or cannot change (e.g. gender and race) throughout the life.

However, behavioral characteristics (e.g. religiosity and ethnicity) of an individual may evolve by the influence from environmental factors (e.g. migration, acculturation) throughout the time. Moreover, the results of the studies in this field are highly inconsistent from strong positive relationship to neutral and even negative relationship (e.g. Im *et al.*, 2003; Jordaan and Simpson, 2006; Steenkamp *et al.*, 1999). To find the answer for these two issues, the previous studies have advised (e.g. Im *et al.*, 2003, 2007) that further research should focus on variables that can be a better representative of individuals than demographic factors.

Heterogeneous market's sensitivity toward ethnic and religious issues is high. Consumer-cultural differences in the market determine which type of communication

and marketing strategy are going to be more effective. Therefore, understanding the relationships between religiosity, ethnicity, culture, and human behavior is one of the most important concerns for academics and practitioners to address (Craig and Douglas, 2006; Fox, 2001; Gurvitch, 1971; Kalliny and Hausman, 2007). Furthermore, the majority of the current literature has been generated in western countries and it usually focusses more on western religions (e.g. Christianity, Judaism) than Asian religions (e.g. Islam, Buddhism) and cannot be generalized in Asian context.

Thus, this study attempts to answer a fundamental question pertaining to the roles of religiosity, ethnicity, individual basic values and innovativeness of consumers in accepting novel products. The contributions of this study are threefold. First, by having an integrated model, it can help have a better understanding of the acceptance behavior of novel products among consumers. Second, the findings of this study can help managers design effective marketing strategies in order to increase the acceptance of novel products by consumers and therefore, reduce the failure rate of new products. Third, this study can be useful to the international companies to understand the Asian market better in terms of differences among consumer perceptions and market characteristics in order to develop and select the most effective communication channel keeping in view the religious and ethnic issues in their marketing strategies.

Framework development

Diffusion research explains the spread of innovations (novel products/services among consumers) by modeling their entire life cycle from the standpoint of communications and consumer interactions (Peres *et al.*, 2010). According to them, "Innovation diffusion is the process of the market penetration of new products and services, which is driven by social influences. Such influences include all of the interdependencies among consumers that affect various market players with or without their explicit knowledge" (p. 92). The authors discuss three types of social influences: word-of-mouth communications, network externalities and social signals. Increase in the adoption of novel products can be due to consumers perceiving increased utility of a novel product or service because of adoption by more consumers (network externalities) (Peres *et al.*, 2010; Rohlfs, 2001) and transmission of social information that individual consumers surmise from adoption of innovation by others belonging to the same group or other groups (social signals) (Peres *et al.*, 2010; Van den Bulte and Joshi, 2007). Religiosity and ethnicity, the two main drivers of this research, help identify consumers as belonging to a particular group. Therefore, inclusion of these two constructs is essential to understanding the acceptance of novel products in marketing literature. In the following sections, we provide the foundation of various constructs used in this research.

Religion and religiosity

As a key subcategory of human values, religion provides personal as well as social identity within the context of a cosmic or metaphysical background (Marty and Appleby, 1991). Religion affects how an individual conceives his purpose in life and what he regards as his responsibilities to himself, others and his God. However, the study of impact of religion on lifestyle usually has been considered as a controversial topic by religion adherents and followers (Johnson, 2000).

In the late 1950s the problem of how to conceptualize religiosity became a major issue in the social study of religion (Wimberley, 1989). At least, based on Lenski's (1961) work onward, it is perhaps fair to say that religion usually is conceptualized as a

demographic factor (Alwin *et al.*, 2006; Roof, 1999; Steensland *et al.*, 2000). In fact, when social scientists make reference to the “religion variable” or what Lenski (1961) called the “religious factor,” they often mean religious affiliation.

However, there is more to religion than just the demographic tag which can only be represented by the religious affiliation (Hyman and Handal, 2006). Although religious affiliation is the adherence of individuals to a particular religious group, religiosity is more psychological and behavioral phenomenon which reflects the degree of beliefs and commitments in a specific religious values and ideals which are espoused and practiced by an individual (McDaniel and Burnett, 1990).

People can have religious identities that can change over time in terms of concepts and subjective experiences in the religion. Individuals can also perceive religion as an essential means of dealing with life’s challenges (Hyman and Handal, 2006; McDaniel and Burnett, 1990). For that reason, contemporary researchers have argued that other forms of religious identity such as the psychological and behavioral aspect of individuals with specific historical religious movements should be included to new stream of studies (Johnson, 2000). In fact, this approach can provide better view to companies to set the strategies and tactics based on customers dynamics rather than the static tag of religion affiliation (Katrajaya and Sidin, 2011).

Ethnic and ethnicity

The word “ethnic” was a polite term used for Jews, Italians, the Irish, and others who were considered inferior to the Anglos around Second World War when many immigrants from Germany and Europe immigrated to USA (Rosenbaum and Montoya, 2007). The traditional distinction between ethnic and ethnicity is problematic. Consequently, in some studies researchers have used the term of ethnicity equivalently to ethnic and have assumed that the definition of ethnic and ethnicity are the same (Dyer *et al.*, 2006; Lin and Kelsey, 2000). Even so, some literature assumed “ethnicity” as a cultural identity of a group within a nation while “ethnic” refers to any group of individuals’ that sets them apart from others based on a hierarchy of superiority and inferiority related to the biological constitution of their bodies (Hirschman, 2001; Lin and Kelsey, 2000).

Tajfel (1981) has defined ethnic identity as “that part of an individual’s self-concept which derives from his/her knowledge of his/her membership of a social group (or groups) together with the value and emotional significance attached to that membership” (p. 255). Hence, ethnic identity can be considered as a complex psychological process that shapes the way a person thinks and feels about himself and others in the society based on perceptions, cognition, affection and knowledge structures (Ashmore *et al.*, 2004; Jamal, 2003; Phinney *et al.*, 2007; Phinney and Ong, 2007; Romero and Roberts, 2003; Uman̄a-Taylor *et al.*, 2004). Therefore, ethnicity is defined as a process of self-identification whereby individuals define themselves and others into specific groups using ethnic labels (Chaudhry *et al.*, 2008; Grosfoguel, 2004; Jamal, 2003; Lin and Kelsey, 2000).

Evidence supports that ethnicity is a powerful predictor of various consumer attitudes and behaviors due to cultural differences (Laroche, *et al.*, 1998; Pires and Stanton, 2000). As a result, the relationship between shopping behavior and ethnicity has been the subject of some recent interdisciplinary studies (Burton, 2002; Hamlett *et al.*, 2008; Jamal, 2003).

Individual basic values

Values have been an important concept in social sciences. According to Schwartz (2006), values are used to “characterize societies and individuals, to trace change over

time, and to explain the motivational bases of attitudes and behavior” (p. 49). Based on the human basic value theory, Schwartz (2006) proposed six main features:

- (1) values are beliefs tied to affects;
- (2) values are goals that motivate action;
- (3) values go beyond specific actions and situations;
- (4) values are standards or criteria;
- (5) values are prioritized based on importance; and
- (6) actions are guided by relative importance of values.

Schwartz (2006) has identified ten values based on the motivations that guide each of them: “self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence and universalism” (p. 51). These ten values have been further classified into four constructs: “openness to change (self-direction, stimulation and hedonism), self-enhancement (achievement and power), conservation (tradition, conformity and security) and self-transcendence (universalism and benevolence)” (p. 51). Researchers have shown that openness to change (experience) is positively correlated and conservation is negatively correlated to innovation (e.g. Olver and Mooradian, 2003; Steel *et al.*, 2011; Steenkamp and Baumgartner, 1995). Therefore, in this research only two constructs of individual values are considered: openness to change and conservativeness.

Consumer innovativeness

The original diffusion research was done as early as 1903 by a French sociologist, Gabriel Tarde who plotted the original S-shaped diffusion curve. Rogers and Shoemaker (1971) have defined innovativeness as the degree to which an individual adopts a new product relatively earlier than other members in the social system. Steenkamp *et al.* (1999) have argued that consumer’s innate innovativeness is an inclination to purchase and consume new and strange products and brands rather than the existing products. The major problem in using consumer’s innate innovativeness is that it provides inconsistent results; from strongly positive relationship (Steenkamp and Gielens, 2003) to very weak (Foxall and Goldsmith, 1988; Im *et al.*, 2003, 2007) and sometimes even negative relationship (Venkatraman and Price, 1990).

An extensive body of literature has been accumulated pertaining to personality traits, in general, and innovativeness, in particular, which is useful in understanding the characteristics of consumers at different stages of product adoption (Goldsmith and Hofacker, 1991; Hirschman, 1981; Im *et al.*, 2003, 2007). Primarily, these studies have explored the personality of innovators and early adaptors who initiate diffusion of innovations and play a critical role as communicators to market.

Hypotheses development

Consumer innovativeness and acceptance of novel products

According to Diffusion of Innovation (DoI) theory, making decision by an individual about an innovation is a psychological and mental process. The steps involved in this process are: searching and acquiring information about an innovation, forming an attitude and perception toward the innovation, making decision to accept or reject, implementing the new idea and confirming this decision (Rogers, 2002, 2003).

A small group of consumers usually accepts each innovation. Studies show innovativeness is strongly associated with acceptance behavior (Goldsmith *et al.*, 2003). Innovativeness is the degree to which an individual is relatively earlier in accepting new ideas than other members of a social system. DoI categorized the members of a social system based on their innovativeness: innovators, early adopters, early majority, late majority and laggards.

Citrin *et al.* (2000) have shown that innovativeness has a direct relationship with the acceptance of online shopping. This finding is supported by Limayem *et al.* (2000) and they have argued that consumer innovativeness can influence online shopping behavior both directly and indirectly. Steenkamp and Gielens (2003) have indicated that the acceptance behavior of consumer toward products can be positively affected by a generalized trait of individual innovativeness. However, Im *et al.* (2007) have found that innovativeness cannot directly affect the acceptance behavior but indirectly through other factors such as advertisements and word of mouth. Overall, the empirical studies have shown inconsistent results regarding the relationship between consumer innovativeness and new product acceptance behavior across product categories and in different markets (Im *et al.*, 2007). Based on the above arguments, we hypothesize as follows:

H1. Consumer innovativeness has a positive relationship with acceptance of new product.

Individual basic values and consumer innovativeness

Among the individual's basic values of self-direction, stimulation and hedonism are the dimensions of openness to change while tradition and conformity are the dimensions of conservation (Schwartz, 2007). Based on Basic Human Value (BHV) theory, individuals with higher levels of openness to change have higher potential to try new things, enjoy taking risk and make decisions independently. However, individuals with higher level of conservation follow the traditions and usually seek confirmation from the society while making decisions.

DoI explains that innovators are a group of people who have high autonomy in decision making and seek adventures but laggards have lower autonomy in decision making (seeking confirmation) and avoid taking any risk to try new things (follow traditions). Findings of the empirical studies (e.g. Steenkamp and Baumgartner, 1995) have supported the idea that stimulation and hedonism values are positively correlated with innovativeness and are likely to correlate negatively with the self-restraining values, tradition, conformity and security. Based on the above arguments, we posit the following hypotheses:

H2. There is a positive relationship between openness to change values and consumer innovativeness.

H3. There is a negative relationship between conservation values and consumer innovativeness.

Mediating role of individual basic values between religiosity and consumer innovativeness

There are some arguments regarding the influence of values in shaping the individual behavior. Although some theorists have posited that values play a vigorous and

significant role in that regard, others have concluded that for some people, values rarely influence behavior. Bardi and Schwartz (2003) provide two justifications of individuals behavior according to their values:

- (1) there is a need for consistency between one's beliefs (values) and actions; and
- (2) value-consistent action is rewarding as it helps people attain satisfaction from this action.

The result of Schwartz *et al.* (2001) has shown tradition and conformity values correlate positively with religiosity but negatively with hedonism, self-direction, achievement and power. Saraglou and Garcia (2008), in their study have found that religiosity is correlated positively with tradition and conformity. They have also found that the self-direction, hedonism and stimulation are negatively correlated with religiosity which is in accordance with the existing study (Roccas, 2005). Religion as one of the important components of every culture may play a significant role in influencing consumer behavior by its values, norms, rules and taboos (Luna and Gupta, 2001; Ronteltapa *et al.*, 2007; Singh, 2006; Sood and Nasu, 1995; Tansuhaj *et al.*, 1991). Religious institutions serve to influence the nature, development and application of technology by propagating norms, customs, prohibitions and standards of conduct that serve to influence the nature, development and application of technology. In many religions, innovation is an unwelcomed issue and usually committed followers of religions are very conservative in terms of accepting new ideas in their societies (Herbig, 1998).

Most of the research that attempted to study the antecedents of innovativeness has suggested that further studies should focus on a more accurate model by considering the mediating effects of variables on the relationship between individual trait and innovativeness. Luna and Gupta (2001) in their model suggest that religion related factors as fundamental cultural factors that can strongly influence the consumer behavior. Based on the above arguments, the following hypotheses have been developed to test the mediation effect of individual basic values on the relationship between religiosity and innovativeness:

H4. Religiosity has a negative relationship with consumer innovativeness.

H5. Openness to change value mediates the relationship between religiosity and consumer innovativeness.

H6. Conservation value mediates the relationship between religiosity and consumer innovativeness.

Mediating role of individual basic values between ethnicity and consumer innovativeness

According to BHV, individuals with higher levels of conservation values follow the traditions and seek the confirmation from the members of the society for their behaviors. Values play an important role in the closeness of individuals toward their group. Chaudhry *et al.* (2008) have described ethnicity as a sense of common customs, language, values, morality and etiquette. In simple terms, individuals with stronger ethnicity have higher tendency to follow the accepted values of their group and therefore, receive higher support from their ethnic group (Phinney and Goossens, 1996; Phinney *et al.*, 2001).

According to Rogers (2003), the majority of societies usually have negative viewpoint toward innovators, as they perceive that innovators try to change the norms and traditions of the society. A few researchers have suggested that any study about consumers' behavior must consider ethnic phenomena as one of the most influential factors in shaping the behavior of individuals (Schwartz, 2006, 2007; Steenkamp and Baumgartner, 1995). Meanwhile, theories such as Theory of Planned Behavior (TPB), DoI and BHV support the effect of ethnicity on consumer behavior especially, when the individuals try to adopt/accept any novel and innovative product/services. Therefore, based on the above arguments, we posit the following hypotheses:

- H7. Ethnicity has a negative relationship with consumer innovativeness.
- H8. Openness to change value mediates the relationship between ethnicity and consumer innovativeness.
- H9. Conservation value mediates the relationship between ethnicity and consumer innovativeness.

Mediating role of consumer innovativeness between individual basic values and acceptance of novel products

The higher the priority an individual puts on certain values, the higher the influence they have on his/her behavior (Schwartz, 2006). According to the TPB, individual's behavior is a consequence of his/her intention. Hence, intention can be determined by the attitude toward a specific behavior and subjective norms. In reality, predicting one's intentions and knowing his/her beliefs can be as important as knowing the person's attitudes. As an outcome of TPB, the more favorable the attitude and subjective norms are the stronger the person's intention to perform the behavior in question.

DoI theory explains that duration of acceptance can be one of the variables in the acceptance process by users (Rogers, 2003). This theory has illustrated that personal characteristics (e.g. general attitude toward change) may influence the acceptance process of a novel product/service in the market. As a conclusion, individual basic values can influence the acceptance of a new product directly and can mediate the level of individual's innovativeness. Based on the above arguments, we posit the following hypotheses:

- H10. Openness to change value has a positive relationship with new product acceptance.
- H11. Conservation value has a negative relationship with new product acceptance.
- H12. Consumer innovativeness mediates the relationship between openness to change and new product acceptance.
- H13. Consumer innovativeness mediates the relationship between conservation value and new product acceptance.

Research methodology

Study method

For the purpose of this study, Malaysia has been chosen. Malaysia is a multi-cultural, progressive country with three major ethnic groups: Malays, Chinese and Indians.

It has the blend of tolerance, compromise between multi-religious groups (Islam, Buddhism, Christianity, Hinduism, Confucianism, Taoism, Sikhism and the Bahá'í Faith) and advancements in science and technology (Hashim and Mahpuz, 2011). This endowment makes Malaysia as one of the best locations to carry out this kind of study since the characteristics of its population make it suitable and convenient.

Data were collected from participants using bilingual questionnaires; English and Malay Language (national language of Malaysia). Items in Malay were back translated to English to ensure accurate translation. Seven hundred questionnaires were distributed in several states in Malaysia. The sample elements were selected based on convenience sampling. There was no restriction in terms of academic qualification, race, gender and religious affiliations. The samples were taken from shopping malls, sport complexes, restaurants and transportation hubs (e.g. airports, railway stations and bus stations).

Three consumer products and two services were chosen as novel products/services. New product ownership is also measured using novel products (a set of three products – high definition television, GPS and organic products) which were owned by the participants. These products were chosen because of the considerable variation in acceptance behavior due to the different characteristics and usage. For new service, participants indicated a number of services they regularly used between two services (online banking and government e-service). All chosen products and services were considered as new in Malaysia at the time of study in late 2010 and early 2011. The basic purpose of choosing a set of novel products and services was to compute relative time of acceptance of novel products and this concept is explained in a later section. The research has applied the approach recommended by Im *et al.* (2003, 2007).

Measurement of constructs – religiosity scale

Allport is the first person who operationalized religiosity to intrinsic and extrinsic in his book *The Individual and His Religion* (Allport, 1950). One of the most popular and most reliable scales to measure religiosity is intrinsic-extrinsic Religious Orientation Scale (ROS) which is developed by Allport and Ross (1967). ROS is used in several marketing and consumer researches. According to Allport and Ross (1967), intrinsically religious people are genuinely committed to their faith, while extrinsically religious people are more self-serving. ROS's reliability is acceptable and has been used in studies related to social science in general and marketing research in particular (De Noble *et al.*, 2007; Delener, 1990, 1994; Essoo and Dibb, 2004; Mokhlis, 2006).

However, some researchers have raised concern on the direct usefulness of the scale in marketing research. ROS was originally developed to measure the religiosity of Christian or Judeo-Christian subjects in North America. Therefore, ROS's limitation is that it may not be a highly reliable tool for a study that covers individuals from a wide range of religious backgrounds (Islam, Buddhism, Hinduism, Christianity) and in Asian context (Essoo and Dibb, 2004). Based on previous studies, selecting the accurate scale to measure the religiosity depends upon the cultural and religious background of the population. In this study, the scale developed by Mokhlis (2006) was selected since this scale had been tested in Malaysia and it had showed high reliability and validity. This scale consists of ten questions (six questions measure intrapersonal religiosity and four questions measure interpersonal religiosity).

Ethnicity scale

A uni-dimensional scale cannot capture ethnicity (Phinney and Goossens, 1996). The most proposed dimensions of ethnic identity are: language, friendship networks, participation

in clubs and organizations, endogamy, food preferences, and traditional celebrations (Eriksen, 2002; Kim *et al.*, 2007; Laroche *et al.*, 1998; Phinney, 1990). To improve the ethnic identity measurement, Phenny and Ong (2007) have applied a series of analysis to test the reliability and consistency of the measurement of "The Multi-Group Ethnic Identity Measure" (MEIM-R) (Phinney, 1992). In this research, MEIM-R was employed to measure the ethnicity of the participants due to its high level of reliability and validity (Cronbach's α of 0.74 for self-direction, 0.76 for exploration, 0.78 for commitment and for the combined 6-item scale, α was 0.81).

Individual basic values scale

Schwartz's (1992) Value Survey (SVS) is one of the most reliable surveys to measure an individual's basic values. The usage of this scale in studies conducted over 65 countries has confirmed its uniqueness. With the aim of improving SVS, Schwartz developed a modified version so that respondents with different educational and ethnic backgrounds can find it easier to understand. The Portrait Values Questionnaire (PVQ) was developed with the same ten basic value orientations evaluated in SVS.

Studies that measured values with PVQ have confirmed many predicted associations between value priorities and background, personality, attitude, and behavior variables in samples from diverse countries (Schwartz, 2003). Moreover, the PVQ method has demonstrated adequate psychometric properties for a short scale intended to measure multiple constructs. There is evidence of its predictive validity, based on studies in many different countries (Schwartz, 2003). In this study, PVQ has been used to measure the basic values of individuals.

Innovativeness scale

A significant number of studies have tried to develop valid measurement to measure innovativeness of consumers in the market. However, just a few of them have been successful in designing a scale with high reliability and statistical consistency. Roehrich (2004) has analyzed almost all previous studies to find out the best measurement to study the consumer innovativeness. In his work, he has introduced Le Louarn's scale as one of the latest and reliable scales. The scale is proven to have good psychometric properties (internal consistency and validity). Its predictive validity is good; R^2 between the innovativeness score and early new product purchase intention is up to 0.23. Since this scale is easy to understand by all groups of participants from different ages and educational backgrounds, this research has employed this particular scale to measure the innovativeness of participants in this study.

The relative time of acceptance (acceptance of new products)

New product/service acceptance behavior is related to the duration an individual takes to adopt innovative and novel products/services compared to other members of the society (Rogers, 2003). New product ownership (service usage) was measured using a cross-sectional method (Foxall, 1995; Foxall and Goldsmith, 1988; Rogers, 1995) which calculated the level of acceptance across a set of products/services.

The relative time of acceptance for new products/services was measured based on ownership and duration of ownership (Im *et al.*, 2007). The measured relative time of acceptance was a weighted average of the length of ownership of new products/services and the square root transformation was used to lessen the effect of outlier samples (Im *et al.*, 2007). The products were high definition television, GPS and organic

products. The services were online banking and government e-service. These products and services were considered novel in Malaysia in late 2010 and early 2011, the year of study.

Relative time of acceptance for new products/services (RTA_{NP} or RTA_{NS}) was calculated using the following expression:

$$= \sum (\text{Product Owned}_{0-1} \text{ or Service Used}_{0-1}) \times \sqrt{\text{Years Owned or Years Used}}$$

Results

To test the questionnaire's relevancy, accuracy and its layout, a pilot test with 50 respondents was conducted in Kuala Lumpur (capital city of Malaysia). After a few minor amendments in the questionnaire, 700 questionnaires were distributed in different states of Malaysia. The total number of returned questionnaires was 610 (overall response rate of 87.1 percent). Returned questionnaires were screened for missing values. Overall, 37 questionnaires were excluded from the final analysis due to many missing and wrong values. Eventually, 573 questionnaires were used for this study. Table I gives the profile of the respondents.

Descriptive statistics

Table II gives the descriptive statistics of various constructs. The result shows that respondents' average rate of acceptance of new products is above average (mean = 3.14, SD = 2.85). The level of innovativeness among Malaysians is below average (mean 2.6, SD = 0.93). The level of religiosity is above average (mean = 3.40, SD = 0.75). These results indicate that generally, Malaysia is a religious society and religion can be one of the factors that can influence the daily life of Malaysians.

The level of ethnicity among the three major ethnic groups of Malaysians is high (mean = 3.43, SD = 0.64). The results also show that the level of conservatism among Malaysian is very high (mean = 3.98, SD = 0.78). The mean value indicates that

	Percentage		Percentage
<i>Gender</i>		<i>Race</i>	
Male	47.6	Chinese	30.9
Female	52.4	Malay	51.8
		Indian	12.4
		Other Race	4.9
<i>Age</i>		<i>Religion</i>	
18-22	13.1	Islam	55.7
23-27	44.3	Christianity	21.5
28-35	31.2	Buddhism	14.7
36-45	8.4	Hinduism	5.1
46-60	2.6	Non-religious	3.1
<i>Income level MYR (RINGGIT)</i>		<i>Education level</i>	
Below 1,500	32.1	SPM and Below	29.3
1,501-3,000	39.1	Diploma	28.3
3,001-4,500	19.2	Degree	31.6
4,501-6,500	5.9	Master	9.8
Above 6,500	3.0	PhD	1.0

Table I.
Participants
demographic factors

Malaysians are deeply concerned about their traditions and support from the society is very important to them. Additionally, data shows that openness to change is high (mean = 3.8, SD = 0.95). Overall, the mean values of all constructs, except innovativeness, are “high” (more than three on a five-point scale).

Reliability and validity

The results of reliability test are shown in Table III. It indicates that Cronbach values of all constructs are greater than the threshold level of 0.7. The convergent and discriminate validities are assessed based on the guidelines suggested by Hair *et al.* (2010). They suggest four criteria to test these validities:

- (1) factor loading of all items under each construct must be > 0.5 ;
- (2) composite reliability (CR) must be > 0.7 ;
- (3) average variance extracted (AVE) must be more than 0.5; and
- (4) AVE of each construct must be greater than the squared correlations of that construct with other constructs.

CR and AVE values are given in Table III. Factor loadings are assessed using the confirmatory factor analysis (CFA). Based on the results of CFA, the factor loadings are: between 0.61 and 0.83 for items related to religiosity, between 0.72 and 0.81 for items related to ethnicity, between 0.68 and 0.96 for items related to openness to change, between 0.63 and 0.81 for items related to conservation and between 0.61 and 0.95 for items related to consumer innovativeness. The correlation values and squared correlation values are as shown in Table II. Based on the results in Tables II and III, it can be observed that all the criteria suggested by Hair *et al.* (2010) have been satisfied.

Hypotheses testing

The hypotheses have been tested using structural equation modeling. The fit statistics are: RMSEA – 0.075 (< 0.08), RMR – 0.041 (< 0.08), $\chi^2 - 201.41$, $df - 48$, p -value – 0.000, GFI – 0.95 (> 0.9), CFI – 0.949 (> 0.9), TLI – 0.918 (> 0.9). Based on these results, the model fit is considered “good.” Table IV gives the coefficients of all variables. The results of hypotheses testing can be summarized as follows. *H1* which expounds the positive relationship between consumer innovativeness and acceptance of new products is supported ($\beta = 0.251$, p -value = 0.001). Our result challenges the viewpoint of Im *et al.* (2007) that innovativeness cannot directly affect acceptance behavior but does indirectly through other factors such as advertisements and word of mouth. Furthermore, our finding is in line with the findings by Citrin *et al.* (2000), Limayem *et al.* (2000) and Steenkamp and Gielens (2003). *H2* which states the positive

Construct	Mean	SD	Correlation					
Religiosity	3.40	0.75	1.00	<i>0.381</i>	<i>0.108</i>	<i>0.203</i>	<i>0.194</i>	<i>0.155</i>
Ethnicity	3.43	0.64	0.617*	1.00	<i>0.09</i>	<i>0.246</i>	<i>0.181</i>	<i>0.166</i>
Openness	3.80	0.95	-0.328*	-0.299*	1.00	<i>0.046</i>	<i>0.202</i>	<i>0.157</i>
Conservation	3.98	0.78	0.451*	0.496*	-0.214*	1.00	<i>0.217</i>	<i>0.183</i>
Innovativeness	2.6	0.93	-0.441*	-0.426*	0.449*	-0.466*	1.00	<i>0.212</i>
Acceptance	3.14	2.85	-0.394*	-0.407*	0.396*	-0.428*	0.460*	1.00

Table II.
Correlation of
variables

Notes: Italicized correlations are squared correlations. *Significance at 0.01 level

<i>Construct</i>	<i>Number of items</i>	<i>Cronbach α</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
Religiosity	10	0.88	0.87	0.53
Item				Factor loading
<i>Inter religiosity</i>				
Religion is especially important to me because it answers many questions about the meaning of life				0.834
I often read books and magazines about my faith				0.76
I spend time trying to grow in understanding of my faith				0.774
My religious beliefs lie behind my whole approach to life				0.717
Religious beliefs influence all my dealings in life				0.630
It is important to me to spend periods of time in private religious thought and prayer				0.609
<i>Intra-religiosity</i>				
I enjoy taking part in activities of my religious organization				0.722
I keep well informed about my local religious group and have some influence in its decisions				0.716
I make financial contributions to my religious organization				0.778
I enjoy spending time with others of my religious affiliation				0.701
<i>Construct</i>	<i>Number of items</i>	<i>Cronbach α</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
Ethnicity	6	0.80	0.70	0.59
Item				Factor loading
<i>Commitment</i>				
I have often talked to other people in order to learn more about my ethnic group				0.793
I have often done things that will help me understand my ethnic background better				0.800
I have spent time trying to find out more about my ethnic group, such as its history, traditions, and customs				0.723
<i>Exploratory</i>				
I feel a strong attachment towards my own ethnic group				0.730
I understand pretty well what my ethnic group membership means to me				0.750
I have a strong sense of belonging to my own ethnic group				0.809
<i>(continued)</i>				

<i>Construct</i>	<i>Number of items</i>	<i>Cronbach α</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
Openness to change	9	0.75	0.95	0.65
Item				Factor loading
<i>Self-direction</i>				
Thinking up new ideas and being creative is important to him. He likes to do things in his own original way				0.713
It is important to him to make his own decisions about what he does. He likes to be free to plan and to choose his activities for himself				0.752
He thinks it's important to be interested in things. He likes to be curious and to try to understand all sorts of things				0.779
<i>Stimulation</i>				
He likes surprises. It is important to him to have an exciting life				0.814
He likes to take risks. He is always looking for adventures				0.856
He thinks it is important to do lots of different things in life. He always looks for new things to try				0.817
<i>Hedonism</i>				
He seeks every chance he can to have fun. It is important to him to do things that give him pleasure				0.790
Enjoying life's pleasures is important to him. He likes to "spoil" himself				0.872
He really wants to enjoy life. Having a good time is very important to him				0.963
				0.963
<i>Construct</i>	<i>Number of items</i>	<i>Cronbach α</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
Conservation	8	0.75	0.89	0.52
Item				Factor loading
<i>Conformity</i>				
He believes that people should do what they are told. He thinks people should follow rules at all times, even when no-one is watching				0.7
It is important to him to be polite to other people all the time. He tries never to disturb or irritate others				0.627
It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong				0.81
It is important to him to be obedient. He believes he should always show respect to his parents and to older people				0.756
<i>Tradition</i>				
He thinks it's important not to ask for more than what you have. He believes that people should be satisfied with what they have				0.71
Religious belief is important to him. He tries hard to do what his religion requires				0.728
He believes it is best to do things in traditional ways. It is important to him to follow the customs he has learned				0.655
It is important to him to be humble and modest. He tries not to draw attention to himself				0.775

(continued)

<i>Construct</i>	<i>Number of items</i>	<i>Cronbach α</i>	<i>Composite reliability</i>	<i>Average variance extracted</i>
Innovativeness	6	0.74	0.91	0.67
Item				Factor loading
Attraction to newness				
When I hear about a new product, I try to know more about at the first occasion				0.884
I am the kind of person who tries every new product at least once				0.694
<i>Ability to take risks in trying newness</i>				
I never buy something I don't know anything about with the risk of making a mistake (r)				0.944
I'd rather choose a brand that I usually buy rather than try something I am not confident in (r)				0.673
<i>Autonomy in innovative decision</i>				
I seek out the opinion of those who have tried new products or brands before I try them (r)				0.604
Before trying a new product, I try to learn what friends who possess this product think about it (r)				0.916

Table IV.
Structural
equation model

	Relationship		ST.EST	SE	CR	<i>p</i>
Conservation	←	Religiosity	0.303	0.086	3.838	0.001
Openness	←	Ethnicity	-0.166	0.108	-2.091	0.037
Conservation	←	Ethnicity	0.417	0.091	5.212	0.001
Openness	←	Religiosity	-0.267	0.106	-3.298	0.001
Innovativeness	←	Openness	0.167	0.025	3.076	0.002
Innovativeness	←	Conservation	-0.175	0.040	-2.400	0.016
Innovativeness	←	Religiosity	-0.253	0.054	-2.815	0.005
Innovativeness	←	Ethnicity	-0.209	0.055	-2.357	0.018
Acceptance	←	Conservation	-0.259	0.219	-4.886	0.001
Acceptance	←	Innovativeness	0.251	0.453	4.201	0.001
Acceptance	←	Openness	0.249	0.163	5.322	0.001

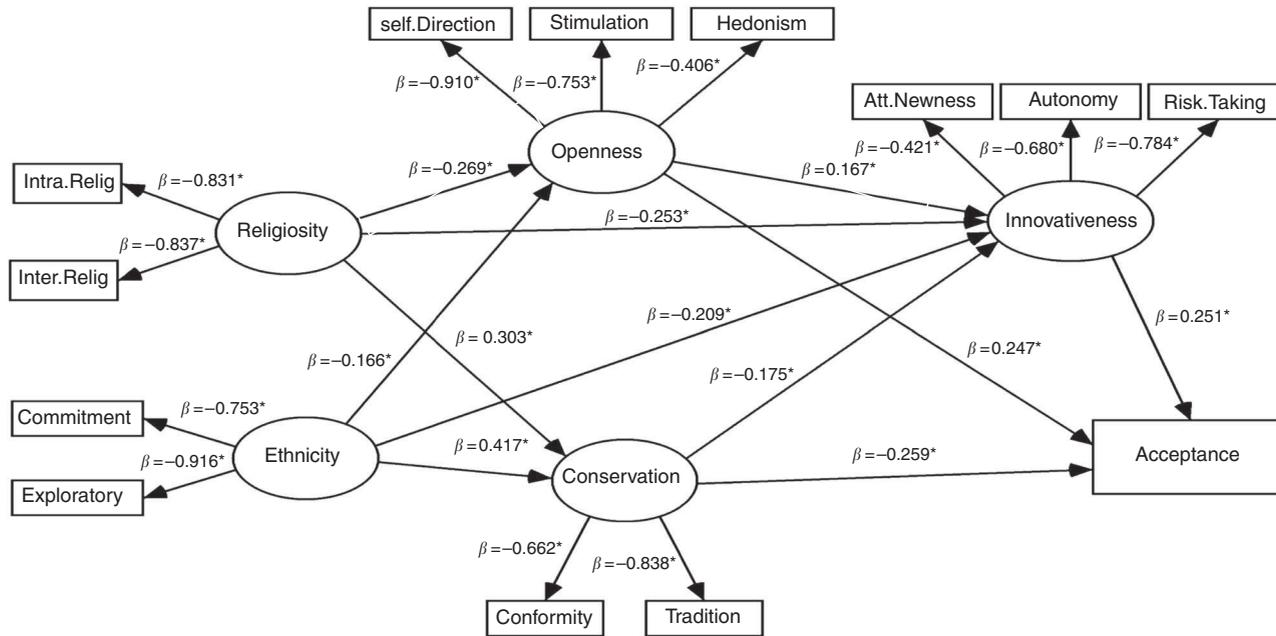
Notes: Innovativeness's squared multiple correlations: 0.418; acceptance's squared multiple correlations: 0.340

relationship between openness and acceptance of novel products is supported ($\beta = 0.247$, p -value = 0.001). Our result confirms the findings by Steenkamp and Baumgartner (1995), Schwartz (2007) and Steenkamp *et al.* (1999). *H3* which states the negative relationship between conservation and novel acceptance of products is supported ($\beta = -0.259$, p -value = 0.001). A study by Steenkamp and Baumgartner (1995) in South Africa has shown that stimulation and hedonism values are positively correlated with change seeking (novel products) and likely to correlate negatively with the self-restraining values, tradition, conformity and security. According to Wang *et al.* (2008), conservation values and adoption of new consumer products are negatively correlated. *H4* that tests the relationship between religiosity and innovativeness is supported ($\beta = -0.253$, p -value = 0.000). This implies that an individual who has high levels of religiosity will be less inclined toward accepting new products. This finding is in line with other studies (Kalliny and Hausman, 2007; Mansori, 2012). *H5* that explains the mediating role of openness to change between religiosity and consumer innovativeness is supported. This result implies that religiosity also affects innovativeness indirectly through openness to change (Sobel's test t -value = 2.30, p -value = 0.021) besides, direct effect. Based on the results, higher levels of religiosity of individuals lead to lower levels of openness to change ($\beta = -0.269$, p -value = 0.000) and lower levels of openness to change lead to lower levels of consumer innovativeness ($\beta = 0.167$, p -value = 0.002). A few studies have reported relationships between religiosity and openness to change and between openness to change and consumer innovativeness, separately (Roccas, 2005; Saroglou and Munoz Garcia, 2008; Schwartz *et al.*, 2001). Our study has combined these relationships and has tested for the mediation effect. *H6* that explains the mediating role of conservation value between religiosity and consumer innovativeness is supported. This result implies that religiosity also affects innovativeness indirectly through conservation value (Sobel's test t -value = 2.10, p -value = 0.041) besides, direct effect. Based on the results, higher levels of religiosity of individuals lead to higher levels of conservation value ($\beta = 0.303$, p -value = 0.000) and higher levels of conservation value lead to lower levels of consumer innovativeness ($\beta = -0.175$, p -value = 0.016). Our study has extended the results of the studies by Roccas (2005), Saroglou and Munoz Garcia (2008) and Schwartz *et al.* (2001). *H7* that explains the relationship between ethnicity and innovativeness is supported ($\beta = -0.209$, p -value = 0.018). This implies that consumers who identify themselves with groups based

on racial, religious, linguistic or any other common traits are less innovative in terms of accepting new products. Our results confirm the findings in other studies (Moreira-Almeida *et al.*, 2012; Pauwels *et al.*, 2004). *H8* tests the mediating role of openness to change between ethnicity and consumer innovativeness. Based on the results, this hypothesis is not supported (Sobel's test t -value = 1.729, p -value = 0.083). This implies that the indirect effect between ethnicity and consumer innovativeness is not strong enough among consumers in Malaysia. However, the direct effect between ethnicity and consumer innovativeness is strong ($\beta = -0.209$, p -value = 0.018). *H9* argues the mediating role of conservation value between ethnicity and consumer innovativeness. The test results reveal that the hypothesis is supported (Sobel's test t -value = 2.18, p -value = 0.029). This implies that consumers who identify themselves with group based on ethnic values have high conservation values ($\beta = 0.417$, p -value = 0.001) and this in turn leads to lower consumer innovativeness ($\beta = -0.175$, p -value = 0.016). This result is supported by a few studies (Rogers, 2003; Schwartz, 2007; Steenkamp and Baumgartner, 1995). *H10* tests the relationship between openness to change and acceptance of new products by consumers and the hypothesis is supported ($\beta = 0.249$, p -value = 0.001). This implies that consumers who are open to change are more likely to accept new products. *H11* explains the relationship between conservation values of consumers and their acceptance of new products. This relationship is supported ($\beta = -0.259$, p -value = 0.001) and implies that higher conservative values of consumers lead to lower acceptance of new products. These results are consistent with the results from other studies (Rogers, 2003; Schwartz, 2007; Steenkamp and Baumgartner, 1995). *H12* tests the mediating role of consumer innovativeness between openness to change and acceptance of new products. The hypothesis is supported (Sobel's test t -value = 2.50, p -value = 0.013) and this implies that consumers who are open to change are more innovative and are more likely to accept new products. *H13* that explains the mediating role of consumer innovativeness between conservation values and acceptance of new products by consumers is supported (Sobel's test t -value = 2.10, p -value = 0.037). The consumers that have conservative values are less likely to favor innovativeness and acceptance of new products. A few studies have highlighted the effect of conservation values, openness to change and consumer innovativeness on acceptance of new products (Rogers, 2003; Schwartz, 2007; Steenkamp and Baumgartner, 1995). Figure 1 provides the final framework with significant relationships and Table VI summarizes the hypotheses results (Tables IV-VI).

Discussion

Innovation adoption and technology acceptance have been important research topics in consumer behavior and management field for decades. A few empirical studies have investigated the factors that influence consumers' acceptance of new products/services (Rogers, 2003; Schwartz, 2007; Steenkamp and Baumgartner, 1995). This research was conducted to address the following question: what are the roles of religiosity, ethnicity, individual basic values (openness to change and conservation) and innovativeness of consumers in accepting novel/new products? We answer this question by analyzing the various paths in Figure 1: religiosity-openness-consumer innovativeness-acceptance of new products, religiosity-openness-acceptance of new products, religiosity-consumer innovativeness-acceptance of new products, religiosity-conservation-consumer innovativeness-acceptance of new products, religiosity-conservation-acceptance of new products, ethnicity-openness-consumer innovativeness-acceptance of new products, ethnicity-openness-acceptance of new products, ethnicity-consumer

Figure 1.
Structural model

Notes: RMSEA = 0.075; GFI = 0.950; TLI = 0.918 CFI = 0.949; RMR = 0.041; $\chi^2 = 201.41$; df = 48; probability level = 0.001; **p*-value 0.05

innovativeness-acceptance of new products, ethnicity-conservation-consumer innovativeness-acceptance of new products and ethnicity-conservation-acceptance of new products. It can be seen that religiosity and ethnicity are the main drivers that influence the acceptance of novel products in a religious but progressive country such as Malaysia. Our framework has been able to explain 34 percent of the variance in acceptance of novel products, 41.9 percent of the variance in consumer innovativeness, 15.6 percent of the variance in openness and 40 percent of the variance in conservation.

Religiosity and ethnicity are utilized as explanatory variables by a few researchers to explain the differences in the consumption habits of different consumers (Moschis and Ong, 2011; Schwartz, 2006). These constructs, besides the direct effect, also indirectly affect through the mediating constructs: openness to change, conservation

Mediation effect of	<i>t</i> -value	<i>p</i> -value
Openness to change between religiosity→innovativeness	2.30	0.021
Openness to change between ethnicity→innovativeness	1.76	0.079
Conservation between religiosity→innovativeness	2.10	0.041
Conservation between ethnicity→innovativeness	2.18	0.029
Innovativeness between openness to change→new product adoption	2.50	0.013
Innovativeness between conservation→new product adoption	2.10	0.037

Table V.
Sobel test result

Hypothesis	Result
<i>H1</i> : consumer Innovativeness has a significant relationship with acceptance of new product	Supported
<i>H2</i> : there is a positive relationship between openness to change values and consumer innovativeness	Supported
<i>H3</i> : there is a negative relationship between conservation values and consumer innovativeness	Supported
<i>H4</i> : religiosity has a negative relationship with consumer innovativeness	Supported
<i>H5</i> : openness to change value mediates the relationship between religiosity and consumer innovativeness	Supported (partially mediate)
<i>H6</i> : conservation value mediates the relationship between religiosity and consumer innovativeness	Supported (partially mediate)
<i>H7</i> : ethnicity has a negative relationship with consumer innovativeness	Supported
<i>H8</i> : openness to change value mediates the relationship between ethnicity and consumer innovativeness	Rejected
<i>H9</i> : conservation value mediates the relationship between ethnicity and consumer innovativeness	Supported (partially mediate)
<i>H10</i> : openness to change value has a positive relationship with new product acceptance.	Supported
<i>H11</i> : conservation value has a negative relationship with new product acceptance	Supported
<i>H12</i> : consumer innovativeness mediates the relationship between openness to change and new product acceptance	Supported (partially mediate)
<i>H13</i> : consumer innovativeness mediates the relationship between conservation value and new product acceptance	Supported (partially mediate)

Table VI.
Hypotheses results

values and consumer innovativeness. These results suggest that consumers who put high values on ethnicity, religiosity and conservation tend to be less innovative and therefore, are less inclined toward new products. On the other hand, customers who are more open to change are more likely to be more innovative and therefore, readily accept new products.

Based on the descriptive statistics, it can be seen that Malaysian consumers have scored “moderately high” in religiosity and ethnicity but also “high” in openness to change and conservation values. This is reflective of Malaysian society. Malaysians tend to conform to traditions and conservative values but at the same time are open to change in a “limited” way (such that the religious and ethnic sentiments are not compromised). To get the better view of this result, we tested the difference between the means of openness to change and conservation using independent “*t*” test. The results (*t*-value = 3.51, *p*-value = 0.0005) indicate that in Malaysia conservation values are significantly stronger than openness to change. This supports our stand that despite the high score in openness to change, Malaysians are highly conservative and thus, the level of innovativeness is low because religion and ethnic values do play an important role in their life and influence the way they make decision and accept changes in their lifestyle.

The findings of this study are consistent with the findings by other researchers (Ronteltapa *et al.*, 2007; Schwartz, 2007; Singh, 2006). It shows that the religiosity and ethnicity of consumers are the important factors of acceptance of new products and these factors can be very important for Islamic countries like Malaysia.

In addition, these factors have significant effects on innovativeness and individual basic values (openness to change and conservation). Religiosity and ethnicity have a negative effect on openness to change and positive effect on conservation values (Roccas, 2005; Saraglou *et al.*, 2008; Schwartz *et al.*, 2001). Our research clearly indicates that religiosity and ethnicity must be included in marketing literature that deals with adoption of novel products/services.

Implications

Launching new products/services is vital for companies to maintain or gain bigger market share. However, in many markets the acceptance rate of new products is almost low since consumers have low enthusiasm to accept new and innovative products/services. To identify the most effective communication tools to introduce the novel products, managers need to know their target consumers’ psychological and personality traits at each stage of product life cycle. The findings of this study can assist managers of companies understand their consumers and give them a better view about the heterogeneous markets such as Malaysia.

Religiosity

Findings indicate that religiosity influences openness to change and innovativeness of individuals. Results of this study show that religiosity has a negative relationship with openness to change and innovativeness. Sometimes religious people have negative perceptions toward the product/service or reject the advertisements because they feel that new product/service is against their religious beliefs or philosophies (Essoo and Dibb, 2004; Fam *et al.*, 2004). Therefore, the manager must be able to understand the aspects of the religion that can affect the level of openness among consumers who are religious before launching any new product. Through this understanding, they can

come up with effective strategies while introducing the new product and at the same time reduce the level of resistance among religious consumers. To achieve this goal, marketers can introduce their new product by providing some sponsorship through the religious organizations and participating in the religious festivals to show their respect to their target market. This can help reduce the level of resistance among religious leaders by creating awareness and showing the relative advantage of products.

Ethnicity

According to Communication Accommodation Theory (Howard Giles, 1960s-1970s), people use different types of literature and style in dialogue regarding their social class, gender, race and age (Heffernan, 2008; Holland and Gentry, 1999). Holland and Gentry (1999) have suggested that to get a better result companies should use ethnic music, language, idols, salesperson, national flag, art and ritual symbols in their marketing campaign to address consumers with high ethnicity (Holland and Gentry, 1999).

Results of our study reveal that ethnicity can influence degree of openness to change and innovativeness of consumers negatively. Therefore, as the first step in launching products and new services, companies should target consumers with lower degree of ethnicity and introduce their products/services through the channels that target consumers with less level of ethnicity such as international satellite TVs and English newspapers.

In the second step, by targeting consumers with high ethnicity, managers should focus on media and channels that target specific ethnic groups to induce the demand of consumers who have higher ethnicity and try to tie up the usage of new products/services to the target markets' ethnic events. This strategy could help companies to attract the attention of this group of consumers by maintaining positive self-identity and developing social acceptance within their societies.

Individual's basic values

Different values are usually triggered by different situations. Exploring the mechanism through which values affect consumer innovativeness can benefit managers in determining the target market and in adjusting marketing strategies at each stage of the product life cycle. The findings of this study indicate that conservation has negative effects on innovativeness and in contrast, openness to change has a positive association with innovativeness. Therefore, targeting the market segments that have a high openness to change and low conservation can be a good approach in the introduction stage of the product life cycle, because customers in these categories have simpler and quicker mechanisms to buy new products.

During the subsequent stages of the product life cycle, in order to reach the mainstream of consumers, managers have to work on two dimensions of conservation (tradition and conformity). First, to reduce the negative effect of conservation on innovativeness and product acceptance, firms should promote products/services to get social acceptance and receive the social support by adjusting their market offers toward less sophisticated, closer to existing products/services and distribute products through visible marketing channels. Second, companies' promotion strategy should emphasize that using their products can increase the level of recognition and conformity of their peers and society.

Consumer innovativeness

The results of the current study show that innovativeness has a significant and positive relationship with acceptance of innovative products. Consumers with a high

degree of innovativeness have higher autonomy, risk-taking ability and tendency for newness. Innovators love to talk about their new experience with others. Consumers often use weblogs, online forums and social networks to share their ideas and experiences throughout the globe. Thus, during the initial stage of the introduction of novel product managers must focus on the excitement and adventurous side of new products/services to catch the attention of innovators by employing more modern methods of marketing (e.g. viral marketing) and concentrate more on sport activities and other events that encourage more risk taking.

Compared to innovators, the second group (early adopters) has enough time and money to invest. They are fashion oriented and usually want to be seen as trendy and try to be different from other members of their peer group. Early adopters are usually affluent buyers and have access to different sources of information. This group is respected by their peers and the group's testimony can play a key role in determining an innovation's success. To target this group of consumers, managers should focus on the luxurious and hedonic aspects of products to get the attention of this group (Im *et al.*, 2007; Moore, 2002; Rogers, 2003). Sponsorship of some events such as fashion shows and hiring some distinguished celebrities can be a suitable approach to target this group.

No matter how successful managers are in selling to the first two groups, as they are not a large group to sustain commercial success (around 20 percent of market), the biggest challenge for managers is to find a way to "bridge" the visualization "chasm" to reach the mainstream buyers (Moore, 2002). According to the findings, individuals with low level of innovativeness may have a higher level of religiosity, ethnicity and conservatism. Therefore, managers ought to consider traditional channels of communication such as Newspapers, TVs and Radios that target followers of a particular religion or a specific ethnic group. In addition, managers should think about the sponsorship of events that are more related to religious and ethnic activities to remove the negative aspect of novel products such as ambiguity and risk.

Conclusions

This research analyses the roles of religiosity, ethnicity, consumer innovativeness and individual values in influencing the acceptance of novel products. Specifically, this study addresses the mediating effects of consumer innovativeness and individual values between religiosity and ethnicity and acceptance of novel products. The study is carried out in Malaysia, a fast developing and an Islamic country in Southeast Asia. The findings of this research are important to academicians and practitioners. For academicians, we have demonstrated that the various constructs used in this study should not be treated in isolation while studying the consumers' acceptance of new products. In fact, analyzing the mediation relationships in an integrated model provide valuable results. Our model has been able to explain 34 percent of the variance in acceptance of novel products and 41.9 percent of the variance in consumer innovativeness.

For practitioners, the managers can be able to design appropriate strategies for marketing new products in a country such as Malaysia. Even though, Malaysia is regarded as a progressive Islamic country, the people still cling to religious, ethnic and conservatism values. Therefore, advertisements and promotions that are likely to hurt religious and ethnic sentiments may result in rejection of new products even if they have superior features. Managers by avoiding such potential pitfalls (sensitive

advertisements and promotions) can “invoke” openness to change value of consumers and this can lead to a positive attitude toward new products.

This study is not without limitations. First, the study design is cross-sectional and hence, it is difficult to establish causal relationships between constructs, empirically. A longitudinal study design is better suited for establishing causal relationships. Second, the sampling technique used is convenience sampling, a non-probability sampling technique. The generalization of the findings of the study has to be considered with caution.

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