Consumer Innovativeness: A Market Segmentation

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Abstract

Consumer innovativeness can be divided into innate innovativeness, domain-specific innovativeness and innovative behaviour dimensions. Due to of the fact that innovative consumers follow innovations more, adopt them more easily and tend to introduce them to people around themselves, they are very valuable to marketers. This study examines whether market segmentation is significant with regard to innate innovativeness by using the questionnaire method. In the study domain-specific innovativeness was measured in 9 product groups, innovative behaviour in 12 products, and innate innovativeness was also measured. After factor analysis of innate innovativeness, we found that there were three dimensions, rational innovativeness, hedonic innovativeness and social innovativeness. Then with cluster analysis we determined that there were three different market segments namely innovators, modest innovative and conservatives in terms of innate innovativeness and that these market segments differed in terms of socio-demographic, domain-specific innovativeness and innovative behaviour aspects.

Keywords: Consumer innovativeness, market segmentation, innate innovativeness, domain-specific innovativeness, innovative behaviour.

1. Introduction

Innovation is mostly defined as 'an idea, practice or object perceived as new by an individual or other relevant unit of adoption' in the marketing literature (Rogers 1976, p. 292). With such a definition, the distinct lines of the innovation concept were eliminated and it gained a relativistic nature. Therefore, while some individuals perceive an object as new, others may not perceive the same object as new. If an individual perceives an object supplied to him as different from the previous ones and as more beneficial than previous ones (with regard to himself, his family or for environmental protection etc.), such an object is new for him, otherwise it is not new. Innovativeness was conceived as the adoption period of innovations in the early stages of innovation literature. Rogers (1962) separated individuals into five groups according to their adoption periods of innovations and indicated a normal distribution for the adoption of innovation by society (Robertson 1967, p. 16). These groups were innovators, early adopters, early majority, late majority, and laggards. Although such a classification was found to be pragmatic in understanding the behaviours of different groups in the adoption of innovations, in the literature (for instance, Dickerson and Gentry 1983; Marez and Verleye 2004; Martinez, Polo and Flavian, 1998; Pagani, 2007) there is no consensus either in number of groups or in the characteristics of each group. In the 1970s, the focus of innovation practices shifted from the adoption period of innovations to innate innovativeness. The studies carried out during this period (for instance, Hirschman 1980; Midgey and Dowling, 1978; Rogers and Shoemaker 1971) are pioneering studies which are commonly referenced in current studies. By the 2000s on the other hand, consumer innovativeness was defined as 'a consumer's propensity to adopt new products' (Tellis Yin and Bell 2009, p. 1). With this definition, consumer innovativeness moved from an individual actually implementing the practice into an individual with the potential to implement the action. Consumer innovativeness is considered under different dimensions in the literature.

Despite different classifications of customer innovativeness (Goldsmith and Foxall 2003; Hirunyawipada and Paswan 2006; Roehrich 2004; etc.), the clearest distinction was made by Bartels and Reinder. In a review study (2011, p. 602) they, divided consumer innovativeness into 3 groups as follow: a) 'innate innovativeness', b) 'domain-specific innovativeness' and c) 'innovative behaviour'. Although this concept is commonly referred to in the literature as 'innate innovativeness' and 'global innovativeness', it is also mentioned as 'innovative predisposition' (Midgley and Dowling 1993) and 'dispositional innovativeness' (Steenkamp and Gielens 2003). Domain-specific innovativeness relies on a basic observation in daily life. Individuals are not interested in every innovation at the same level. While an individual may be interested in photography, he/she may not be interested in diving, to do same degree. Therefore he/she will follow closely any new cameras, objectives, lenses and photo editing software, whereas he/she may not follow the new wet suits and diving equipment. Domain-specific innovators are more interested in a specific product group, have more knowledge about new products, are more involved in the product category, have greater media exposure and are heavier users of the product category (Goldsmith and Newell 1997, p. 164). Consumer propensity for innovations does not necessarily mean that this propensity will always turn into behaviour. Therefore, innovation propensity and innovative behaviour are different concepts. Innovative behaviour is expressed in the literature by ownership of new products (Midgley and Dowling, p. 1978), actualized novelty seeking (vicarious innovativeness and adoptive innovativeness (Hirschman 1980) and use innovativeness (Girardi Soutar and Ward 2005).

Before the 1970s, while consumer innovativeness was perceived as the adoption period of innovations within diffusion of innovations, since then, with pioneering studies, it has started to be perceived as propensity to adopt innovations. In other words, since then, consumer innovativeness has been considered not only as a behavioural but also as a psychographics variable. The basic advantage of taking innovativeness as a psychographics issue is that it is thereby possible to forecast before the emergence of innovative behaviour. In other words, knowing about the potential consumers who will adopt product before the supply of the relevant product into the markets will allow marketers to forecast and design the best marketing strategies for such products.

Determination of innovative consumers is significant in various ways. Initially, knowing about consumers tendencies to adopt innovations will guide businesses in their marketing decisions. With such information, it is easy to decide or answer questions about the content, distribution, pricing, media and training planning of innovation. In this way, the business first supplying the innovation will get the most benefit from it. In several cases, the matter is not only to supply a new product first; the business first appropriating the category will also benefit more from such a new product. The first appropriation of an innovation will only be possible through proper marketing of relevant the innovation. The first step in the proper marketing of an innovation is to know about innovative consumers and to understand their innovative behaviours. The aim of this study is to identify the innovative consumers, for practitioners the marketing of innovations and consumer innovation researches. The objective of the present study is to determine the socio-demographic characteristics, domain-specific innovativeness and characteristics of innovative behaviours of different market groups in the context of consumer innate innovativeness. This study is important due to the handling of the innovation trends of the Turkish consumers as a segment of the market. Also this is the first study which examines the segments of the market's innovation-seeking desires into the nine different sectors and relates them to the innovation behaviours that took place in the twelve products therefor the importance of the research is increasing. Such a detailed approach of this study that defines the characteristics of the different market segments will enable researchers who will work to examine consumer innovation in the future, to be able to look from a wider perspective to the subject. What's more it will be a pathfinder for the practitioners to take the marketing of innovation decisions in their respective fields.

2. Method

2.1. The Questionnaire

Questionnaires were used to gather data. Previous studies about consumer innovativeness were scanned through to form questions. The research was planned in two stages. Before the main study was conducted a preliminary study was performed to identify disruptions and shortcomings. This was conducted to determine which scales are more appropriate for measurement. In this context, face-to-face surveys were performed with 167 people in 3 different cities.

At the evaluation phase of the questionnaires, there were questions which were filled unknowingly and containing unrealistic answers (the answers were that there was a product which didn't exist but he was considering

purchasing or stated that he already purchased). All of them were eliminated and according to the purpose of the study 90 surveys were evaluated. In the preliminary questionnaire, there were two different innovativeness scales. The first one which was developed by Vandecasteele and Geuens (2010) was composed of 20 statements. Factor analysis of this scale revealed Kaiser-Meyer-Olkin (KMO) as 0.736, explanation power of the factors for total variation as 64.468% and Cronbach'salpha value as 0.848. The second scale, which was developed by Tellis, Yin and Bell (2009), was composed of 11 statements. Factor analysis of this scale revealed KMO as 0.557, explanation power of the factors for total variation as 67.484% and Cronbach'salpha value as 0.502. Because the statements were not sufficiently understood and problems were observed in factor distributions, the second scale was found to be unsuitable, improper. Therefore, it was decided to use only the first scale in the main study.

2.2. Main Study

A 5-point Likert scale was used to measure innate innovativeness. The scale was composed of the statements (1) 'certainly disagree', (2) 'disagree', (3) 'neither agree nor disagree', (4) 'agree' and (5) 'certainly agree'. The second part of the questionnaire was composed of the questions inquiring about innovative behaviour. Participants were asked to choose the best answer for themselves about the relevant products. The options were '(1) I don't know', '(2) I know but I am not interested in', '(3) I am planning to buy' and '(4) I have already bought'. While creating these options, the studies of Tellis, Yin and Bell (2009) (with the options: 'Never seen', 'seen but never bought', 'bought once' and 'repurchased') and Hoffmann and Soyez (2010) (with the options: 'I don't know', 'I know', 'I am interested in', 'I would like to own', 'I am planning to buy' and 'I already own') were used. However neither of these studies was implemented on a one-to-one basis. There are two deficiencies in the classification of Tellis, Yin and Bell (2009). Firstly, the scale is not able to reveal whether or not an individual knowing about the product intends to buy the product. Secondly, while there was not sufficient time to repurchase durable goods, it is also hard to identify differences between the innovative behaviours of individuals using internet banking or organic foods for the first and second time. Therefore, asking the using-frequency of the products or services will complicate and extend the questionnaire. The options of Hoffmann and Soyez (2010) were composed of six different alternatives. The scale is not metric and six different options make further analysis difficult. Therefore, the choices were limited to four in the present study. In this way, it will be possible to identify individuals knowing/not knowing, interested/not interested and bought/not bought.

The third section of the questionnaire inquires about consumer willingness to look for innovations in product groups. Again, a 5-point Likert type scale was used. The scale was composed of the statements '(1) very reluctant', '(2) reluctant', '(3) neither reluctant nor willing', '(4) willing' and '(5) very willing'. The forth section of the questionnaire inquires about the socio-demographic characteristics of the participants including gender, age, educational level, marital status, income and occupation. The Cronbach' salpha values were used to evaluate the reliability of the scale. The 5-point Likert scale with 20 statements for Motivated Consumer Innovativeness (MCI) yielded a Cronbach' salpha value of 0.910. The average of 20 statements was 68.55 and standard deviation was 13.68. The Cronbach' salpha value of the scale was well above the allowable limits. Therefore, the scale was considered as reliable. The scale was also proved by four academicians with regard to its being suitable for consumer innovativeness.

2.3. Sampling Method

The research universe included people who speak Turkish and use social networking sites. There are about 17 million internet server subscriptions in Turkey and there are more than 7 million people with 3G internet access via mobile phones (ITCI 2012, p. 30). By the year 2012, 47.4% of the 16-74 years age-group were internet users (TurkStat 2012, p. 427). The number of Facebook accounts opened from Turkey is over 30 million (Check facebook 2012). From this point it can be said that approximately 20 million people who are over the age of 18 have at least one account to social network sites. Questionnaire was deducted through the internet and the convenience sampling method was used in the questionnaires. About 100 people took part in the questionnaires. It was aimed for people aged between 20-45 years old. The people that did the survey questionnaires were allowed to share questionnaire's link on their own social networking pages with people that were in their contact lists and many more participants were reached in this way. Research data were gathered in March 2012.A total of 5054 people filled in the questionnaire forms. Of the participants who filled in the forms, 2213 (43.8%) stated that they know about a mobile phone with an ultrasound function, they plan to buy or have already bought one.

Actually, such an item does not exist on the market. The reason why several people stated that they know about such a product may be as a result of the advertisement of a mobile ultrasound device which is the size of a mobile phone. However, this small size ultrasound device does not have a mobile phone function. Also, a software company advertised that, with the software they developed, mobile phones may be used as the monitor of ultrasound devices. Such software requires additional hardware in mobile phones and is not able to scan ultrasound but just transfer the ultrasound images to screen of the mobile phone. All these products might have been interpreted as a mobile phone with an ultrasound imaging function. Therefore, several participants, at significantly higher rates than in similar studies (16.5% in Tellis, Yin and Bell 2009), were left out of the evaluations. Except for the questionnaires marked the 'I don't know' about ultrasound imaging mobile phones, the rest were eliminated because they provided unrealistic information due to the inattentive behaviour and desire for social appreciation of the participants.The average age of participants with valid questionnaire forms was 24.8; the standard deviation was 7.8; the median was 22 and the mode was 21. Of the participants, 44.4% were female, 55.6% were male, 22.3% were married, 76.1% were single and 1.6% were other than these two options. With regard to the educational level of the participants, 67.6% were either university students or graduates. With regard to the income levels (monthly household income) of the participants, 29.2% had income levels of less than $555, 39.3% had between $555 - 1109, 23.9% had between $1110 - 2219, 5.8% had between $2220 - 4439 and 1.8% had an income level above $4440[1].

2.4. Analysis and Results

Urban and Hippel (1988) divided PC-CAD users into market segments with cluster analysis based on lead user characteristics. Daghfaus, Petrof and Pons (1999) carried out a cluster analysis based on List of Value (LOV). Following the analysis, researchers defined the clusters as conservatives, dynamics and hedonists. They explained each cluster based on the adoption behaviour of the innovation. Kumar, Ganesh, and Echambadi (1998) divided countries into three sections based on the widespread use of five different innovations and investigated the factors affecting widespread use. Hofstede, Steenkamp and Wedel (1999) performed a market segmentation study for yoghurt and identified four market segments in Europe. They carried out market segmentation based on product attributes, the beneficial aspects of product use, and consumers' values and determined the consumer innovativeness of these market segments. Munnuka (2007) studied the characteristics and innovativeness of early adopters of mobile services. Konuş, Verhoef, and Neslin (2008) in their study identified three different multichannel shopper segments and searched also examined innovativeness in these segments. Lim and Lee (2009) divided the consumers of four different countries into groups of technological tech hunters, trend seekers, tech laggards and tech apathetic based on technological innovativeness, opinion leadership and network externality risk and technology anxiety. Cordoso, Costa and Novais (2010) clustered consumers with regard to fashion involvement, fashion innovativeness, self-expression through clothing and impulsive buying and defined the market segments as moderates, apathetic and enthusiasts. In the present study, market segmentation was also carried out based on consumer motivation to adopt innovations and then the socio-demographic, innovation-seeking and innovative behaviour characteristics of each market segment was evaluated. This is the first study to include innovation propensity as a market segment. Therefore in the present study, together with factor analysis, cluster analysis and ANOVA, Tukey test and chi-square analysis were performed.

2.4.1. Factor Analysis

Factor analysis was used to determine the factors motivating consumers to adopt innovations. The KMO value of 20 statements was found to be 0.941. The significance of the Bartlett test was $p<0.001$. This means that data were available for factor analysis. Principle component analysis and Varimax vertical axis rotation of data were carried out. Finally, three factors were obtained and they were able to explain 52.598% of total variation.

[1]The $/TL exchange rate at the time of research was 1.80. Monthly net subsistence wage was around $390. Income levels were separated as less than 1000TL, between 1000-1999TL, between 2000-3999TL, between 4000-7999TL and more than 8000TL.

Table 1: Factor Loads of Statements in Motivation Scale for Consumer Innovativeness

	Mean	S. Deviation	Rotated Factor Loads
Factor 1 Rational Innovativeness Cronbach's alpha = 0,850			
7 - I often buy innovative products that challenge the strengths and weaknesses of my intellectual skills.	3.37	1.07	0.715
15 - I often buy new products that make me think logically.	3.51	1.04	0.683
11 - I find innovations that need a lot of thinking intellectually challenging and therefore I buy them instantly.	3.09	1.07	0.659
3 - I mostly buy those innovations that satisfy my analytical mind.	3.47	1.03	0.649
19 - I am an intellectual thinker who buys new products because they set my brain to work.	3.33	1.08	0.637
9 - If a new product gives me more comfort than my current product, I would not hesitate to buy it.	3.61	1.15	0.582
5 - If a new time-saving product is launched, I will buy it right away.	3.51	1.11	0.551
13 - If an innovation is more functional, then I usually buy it.	3.62	1.05	0.541
Factor 2 Hedonist Innovativeness Cronbach's alpha = 0,844			
14 - Innovations make my life exciting and stimulating.	3.77	1.07	0.709
18 - Acquiring an innovation makes me happier.	3.55	1.12	0.703
2 - The discovery of novelties makes me playful and cheerful.	3.97	1.03	0.671
1 - If a new product makes my work easier, then this new product is a 'must' for me.	4.01	1.05	0.636
10 - It gives me a good feeling to acquire new products.	3.39	1.24	0.619
6 - Using novelties gives me a sense of personal enjoyment.	3.57	1.12	0.588
8 - I like to own a new product that distinguishes me from others who do not own this new product.	3.62	1.23	0.529
Factor 3 Social (Pretentious) Innovativeness Cronbach'salpha = 0,629			
16 - I like to outdo others, and I prefer to do this by buying new products which my friends do not have.	2.19	1.27	0.761
12 - I prefer to try new products with which I can present myself to my friends and neighbors.	2.94	1.21	0.697
20 - I deliberately buy novelties that are visible to others and which command respect from others.	3.19	1.20	0.562

Following the factor analysis, three factors were identified. However, two statements (numbers 17 and 4) were eliminated since they load into more than one factor. Factor loads are shown in Table 1. The first factor was classed as rational, the second as hedonist and third as social innovativeness. Rational items are mostly related to consumer desires to reach new attributes, higher performances, more practicality and more comfort through innovations and to improve oneself and learn new things by innovations. Therefore, the term 'rational innovativeness' was used for this factor since rational items motivate consumers to adopt innovations. The second factor includes hedonist items and is a mostly related consumer deriving happiness from using innovations. Therefore it was called 'hedonist innovativeness'. The third factor was basically related to consumers' desire to attract the attention of others, to gain superiority over others or to gain social status among others. Therefore, it was called 'social innovativeness'. The factors in the original scale were identified as functional, cognitive, hedonist and social innovativeness. In the present study, functional and cognitive innovativeness emerged as a single combined dimension. Therefore, it was called 'rational innovativeness'. While statement 1 was expected to be observed in factor 1, it emerged in the 2nd factor. Although this statement explains a rational state, it emerged under the hedonist dimension. Such a case may be interpreted as people feeling pleasure when they are able to make things easier.

2.4.2. Estimation Results across Categories

Cluster analysis was performed by taking the three factors observed in factor analysis and motivating consumers to innovations into consideration. With this analysis, we tried to separate consumers into different market groups based on motivating items through innovations. Ward's method, a common method among hierarchical clustering methods in the marketing literature, was used in cluster analysis. Squared Euclidian distance was taken as the distance measure in clustering. Factor values were not directly included in clustering and they were used in analysis after transforming them into standard normal distribution. In cases with 2-5 clusters, cluster distributions were evaluated. Finally, three clusters were found to be available. ANOVA and Tukey tests were used to determine the differences among the innovativeness averages of the three clusters. ANOVA test revealed that the rational, hedonist and social innovativeness means of the three different clusters were found to be significantly different from each other.

Tukey test revealed that the rational, hedonist and social innovativeness means of the third cluster were significantly higher than those of the other two clusters. Therefore, the 3rd cluster was called innovators. Although the rational and hedonist innovativeness means of the first cluster were lower than those the 3rd cluster, they were still at higher levels. However, the social innovativeness mean was low. Since rational and hedonist innovativeness are related to individual itself and only these two innovativeness had higher means, this cluster was called modest innovative. The second cluster with lower means in all factors was called conservatives or non-innovatives. While the conservatives cluster was the most crowded cluster, innovators was the least crowded cluster.

Table 2: Segment Description Based on Motivated Consumer Innovativeness

	Segment 1: modest innovative	Segment 2: conservatives	Segment 3: innovatives		
Sample size	998	1246	591		
Innovativeness to which consumer is motivated					Tukey*
				ANOVA (Significance)	
Rational Innovativeness	3.77	2.82	4.20	0.000	2 1 3
Hedonist Innovativeness	4.00	3.09	4.45	0.000	2 1 3
Social Innovativeness	2.52	2.45	3.92	0.000	2 1 3
Innovation-seeking desires				ANOVA (Significance)	Tukey*
White appliances	3.30	3.05	3.49	0.000	2 1 3
Food stuff	3.95	3.65	4.02	0.000	2 1 3
Cosmetics	3.49	3.08	3.70	0.000	2 1 3
Electronic supplies	4.25	3.94	4.37	0.000	2 1 3
Clothing and accessories	4.36	3.95	4.46	0.000	2 1 3
Furniture	3.56	3.30	3.63	0.000	2 1 3
Cleaning products	3.36	3.12	3.41	0.000	2 1 3
Internet and software	3.88	3.55	4.04	0.000	2 1 3
Automobile	4.23	3.98	4.35	0.000	2 1 3
Innovative Behaviour**				Chi-Square (Significance)	
3G mobile phone	3,4	1,2	3,4	0.000	
Start-stop automobile	1,3	1,2	3,4	0.000	
Cold-water disolvent detergent	2,3,4	1,2	3,4	0.000	
Woodenware produced from massive panels	2	1	3,4	0.000	
Organic fruit and vegetables	3,4	1,2,3	1,4	0.000	
On-line purchasing through Internet	3,4	1,2	3,4	0.000	
3-D television	3	2	1,3,4	0.000	
Touchscreen computer	3	2	1,3,4	0.000	
Anti-dirt clothing	3	1,2	1,3,4	0.000	
Home-type dry cleaner	2,3	1,2	3,4	0.000	
Anti-aging cream	2,3,4	1,2	3,4	0.000	
Internet banking	3,4	1,2	1,3,4	0.000	

*Clusters were ranked from the lower means to higher means. There were not any significant differences between the means of clusters underlined ($p<0.05$).
**1: 'I don't know', 2: 'I know but not interested in', 3: 'I plan to buy', 4: 'I have already bought'. The options with higher marks than the average were included in the table.

The ANOVA test was carried out to determine the differences among innovation-seeking desires in consumers in the three different clusters. Significant differences were observed among the innovation-seeking desires of all clusters. Then, the Tukey test was performed to identify the clusters with significant differences. Significant differences were observed among all groups in white appliances, electronic supplies, internet and software. The innovation-seeking desires of these product groups are ordered from the lowest to highest as conservatives, modest innovative and innovators. While the conservatives had the lowest innovative-seeking desire means in food stuff, clothing and accessories, cleaning products and automobiles, there were no significant differences between the means of modest innovative and innovators. There were significant relationships among the consumers of different groups and their innovative behaviours. Innovators marked the 'I have already bought' option in all products at higher rates than the means. Innovators also marked the 'I plan to buy' option again in all products except for organic fruit and vegetables at higher rates than the means. Modest innovative marked the 'I plan to buy' option in all products except for woodenware produced from massive panels at higher rates than the means. Conservatives, on the other hand, marked the 'I don't know' option in all products except for 3-D televisions and touch screen computers at higher rates than the means. Conservatives also marked the 'I know but not interested in' option in all products except for woodenware produced from massive panels at higher rates than the means.

Basic Characteristics of Three Market Segments

Conservatives

Conservatives are less motivated by innovations than the other segments. They usually are located either in the lowest or in the highest income group. When they have their own business they join become part of the highest income group and when they work in the private sector they join become part of the lowest income group. This group is basically composed of males with low educational levels. Conservatives know less about new products than the other clusters and they are also less interested in new products.

Modest Innovative

Modest innovative are mostly composed of highly-educated female civil servants. They have medium level income, as expected. Modest innovative constitute the group desiring to buy new products most.

Innovators

Innovators can be described as females, young and highly-educated individuals. Since they are young, they are mostly university students. Innovators exhibit innovative behaviours the most. Although they know more about most new products than others, they may know less about some product groups than the other clusters. However, they do not regard as important the products they know about. Innovators look for innovations more than the other groups but sometimes they may not be able to reach information about certain products any faster than the others. However, when they come across a new product, their desire to buy it or actual purchase rates are higher than those of the other clusters.

The main characteristics of the market segments are summarized as Table 3.

Table 3: Characteristics of Market Segments

Conservatives	Modest Innovative	Innovators
Less motivated by innovations.	While less motivated by social innovations, highly motivated by rational and hedonist innovations.	Motivated by innovations at highest level.
Have low education levels. Usually located either in the lowest (private sector workers) or in the highest (own business) income level group.	Highly-educated, medium income level, civil servants.	Highly-educated young people.
Know about innovations less than the other groups and less are interested in them.	Have the desire to buy new products at highest level.	Mostly buy innovations and are interested in buying products they haven't bought yet.

3. Discussion

Consumer innovativeness is evaluated under three dimensions (Bartels and Reinder, 2011:602); innate innovativeness, domain-specific innovativeness and innovative behaviour. Innate innovativeness describes the overall propensity of individuals to innovations. Domain-specific innovativeness indicates the interest levels of individuals for certain product groups. In this way, businesses are able to identify the interest of consumers for innovations in their activity areas. Consumer propensity for innovations does not necessarily mean that this propensity will always turn into an innovative behaviour. Therefore, it is important for businesses to know about which consumers have innovative behaviour. Knowing about innovations, accepting an innovation as really new (or beneficial), buying innovations, knowing about all utilizations of a product, and finding new areas of use for a product are the different levels of innovative behaviour. The consumer innovativeness motivation scale developed by Vandecasteele and Geuens (2010) was used in factor analysis to determine the factors motivating consumers for innovativeness. The results of the analysis revealed that consumers were motivated by three factors. These are; (1) rational innovativeness (to learn new things through innovations, develop oneself, get high performance, new attributes, have practical and reliable products), (2) hedonist innovativeness (to feel better through innovations, derive amusement) and (3) social innovativeness (to attract the attention of others through innovations, be superior to them and gain a social position among them).

The functional and cognitive innovativeness of the original scale emerged under a single dimension (rational innovativeness) in the present study. These two factors were combined under a single factor just because of the cultural differences among countries. Developing oneself and learning new things from innovations may lead to higher performances and the ability to use new attributes of the innovations. The level of information learnt from the innovations will allow consumers to get higher performances from the relevant innovation. In the present study, consumers were divided into market segments with regard to their propensity for innovativeness. A cluster analysis was used and consumers were divided into three market segments as innovators, modest innovative and conservatives. Innovators had the highest means with regard to rational, hedonist and social innovativeness. While modest innovative has high means for rational and hedonist innovativeness, they had lower means in social innovativeness. On the other hand, conservatives had low mean values in all innovativeness types. The different market segments also had different socio-demographic characteristics, innovation-seeking desires and innovative behaviours. While innovators were mostly highly-educated female and student participants, modest innovative were highly-educated female civil servants with medium level income. Conservatives were mainly male participants with low educational levels, low or high incomes, working in the private sector or with their own businesses.

In the literature, innovators were observed as males (Aydın 2009; Tellis Yin and Bell 2009), females (Goldsmith and Newell 1997), highly-educated individuals (Shih and Venkatesh 2004), young (Manning Bearden and Madden 1995; Martinez Polo and Flavian 1998), elderly (with regard to functional innovativeness, Vandecasteele and Geuens 2010), and from the high-income group (ImBayus Mason 2003). Beside these groups, there are also studies indicating no relationship between demographic variations and innovativeness (Flynn and Goldsmith, 1993).

Therefore, it is evident that there is no consensus on the socio-demographic characteristics of innovators. In the present study, innovators and modest innovative were from the medium-income group. Although these people have high educational levels, they mostly work in salaried jobs. Conservatives were mainly composed of males with low educational levels. When they have their own businesses they are classed in the highest income group and when they work in the private sector they are classed in the lowest income group. The higher rates of low income males than females may be due to differences in their internet access opportunities. While there was no significant difference in internet access in highly-educated males and females, low educated females do not have as much opportunity as low educated males (TurkStat 2012, p. 427).

With regard to innovation-seeking desires, while innovators constituted the market segment with the highest desire for innovations, conservatives had the least desire. Innovators replied to questions about innovative behaviour generally as 'I plant to buy or I have already bought' at the highest rates. On the other hand, conservatives generally marked the options 'I don't know', 'I know but not interested in'. The current results comply with the findings of previous studies. Individuals with high innovative propensity exhibit more innovative behaviour than others (for instance; Gielens and Steenkamp 2007; ImBayus and Mason 2003).In conclusion, three different market segments were observed with regard to consumer motivation from innovations. These segments exhibit differences from each other with regard to socio-demographic characteristics, motivation from the innovation, innovation-seeking desire and innovative behaviour. The market segments of the present study, determined based on the motivation level of consumers from innovations, may provide significant results for both academicians and marketing practitioners.

4. Limitations and Future Research Directions

The current study has some limitations. Initially, research data were gathered through the internet by questionnaires. The universe included individuals using social networking sites and the sampling method was convenience sampling. Therefore, respondents were mainly younger and more highly educated than the countries average. In future studies, randomized sampling methods may be used to generalize the research over the entire country and to determine the dimensions of market segments. Further development of innovativeness propensity scales may provide a better definition of market segments. Therefore, scale development research supported by qualitative studies should not be limited to certain countries. Despite the difficulties in design and implementations, experimental methods should also be employed to measure consumer innovativeness. In particular 'what the consumer comprehends or not comprehends from a new product' should be determined through empirical studies. In the present study, three dimensions of consumer innovativeness and demographic variables were taken into consideration. In further studies, other variables related to consumer innovativeness (consumer creativity, risk-taking, opinion leadership, market mavenship, voluntary simplicity, interpersonal influence, role-relaxed consumer, and materialism) should be incorporated into market segmentation. Such broad studies may provide a better definition of each market segment for marketing researchers and allow marketing practitioners to develop marketing mixtures more easily. More significant comparisons may be provided by including several countries in the study. Social appreciation is another problem possibly observed during consumer innovativeness measurements. Consumers may exaggerate their innovative propensities and behaviours (Tellis Yin and Bell 2009, p. 15). They may tend to think that they will be appreciated by others when they show themselves as more innovative. Therefore, a non-existent innovation may be included in the research. In cases where all participants are sure about the non-existence of such an 'innovation', including this product into the study will lead to negative attitudes in opponents. On the other hand, including uncertain products or products that appear to exist through an internet search, will allow the researcher to filter out consumer opinions. Therefore, selection of filtering questions plays a significant role in such studies.

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