

## **Inherent consumer innovativeness: Essence, dimensions and gender differences**

**Tatyana Yordanova**

**Abstract.** The article presents the results of a study focusing on inherent consumer innovativeness and the gender differences in terms of its construct and dimensions in a Bulgarian context. The data were collected on the basis of a sample of 1,106 respondents aged between 22 and 65, randomly selected. The results reveal average levels of expression of inherent innovativeness and its dimensions. The highest mean values were reported on the dimension of cognitive innovativeness, followed by these on the dimensions of independent decision making, consumer's novelty seeking and sensory innovativeness. Furthermore, significant gender differences in innovativeness and its dimensions, except the sensory innovativeness dimension are established. In details, female consumers are more receptive to innovation, intensively seek information about new product alternatives, prioritize cognitive marketing incentives, and rely more on the support of the social environment when deciding to adopt innovation, as opposed to male consumers.

**Keywords:** inherent consumer innovativeness, gender differences, cognitive innovativeness, sensory innovativeness

### **Introduction**

Inherent innovativeness is the main driving force of the consumer's innovative behaviour (Rogers 2003). It is seen as a global personality trait reflecting the person's willingness to adopt new stimuli (products or services) on the market field. Innovativeness is a distinctive feature of innovators (Venkatraman, Price 1990; Rogers 2003). This is the category of consumers who first accept the innovation in the early stages of its life cycle and contribute to its distribution in the social system (Rogers 2003). The importance of the personality dimension of innovativeness for the successful introduction of the innovative product on the market explains the increased research interest in the construct in the recent decades. Numerous studies attempt to explore its essence and the factors that determine it in order to understand the consumer's readiness to adopt

innovation or to engage in innovative behavioural activity (e.g., Rogers 2003; Merchant, G. Rose, M. Rose 2014; Nobukhosi 2014). Demographic characteristics are pointed out as one of the factors determining the inherent innovativeness of the consumer (Rogers 2003). Special attention is paid to gender, which is believed to lead to significant differences in inherent innovativeness due to the different social and cultural roles of men and women in society (Fischer, Arnold 1994). The results of existing research in the field show that there is a contradiction in relation to gender differences in the personality dimension of innovativeness (Im, Bayus, Mason 2003; Stern, Barak, Gould 1987; Dickerson, Gentry 1983), which raises the need for further research. The present work focuses namely on the study of gender differences in inherent innovativeness and its dimensions in a Bulgarian context in order to contribute to clarifying the role of this demographic characteristic regarding the readiness of the consumer to adopt innovations.

### **Inherent consumer innovativeness: Essence and dimensions**

In scientific literature, many definitions can be found describing the essence of the concept “inherent consumer innovativeness”. Generally, it can be defined as a global personality trait reflecting the innovative behaviour of the individual in the area of consumption. The construct is not tied to a particular product or product category but rather reflects the general tendency of the person to be receptive to innovation in the market field. It is assumed that inherent innovativeness has a genetic origin (Hirschman 1980; Hirschman, Stern 2001) but to some extent may also be socially determined (Hirschman 1980; Rogers 2003). Some authors define the construct from the point of view of the individual’s desire to experience something new and different. They examine it as “inherent novelty seeking” reflecting the individual’s tendency to seek new stimuli and experiences in the area of consumption (Hirschman 1980; Manning, Bearden, Madden 1995).

Inherent innovativeness is also associated with the consumer’s independent decision to accept innovation from the experience shared in the social environment. Individuals who don’t tend to seek information from their social background are believed to adopt innovation earlier than others (Midgley, Dowling 1978). These consumers are open to the new idea, they are forward thinking and able to assess the worth of the innovative product and to make a decision for its acceptance without relying on support from outside, i.e., information based on personal experience with the product, which is a subject of interpersonal communication. Thus, the concepts of “receptivity to new ideas” and “independence from the shared (communicated) experience of others” are considered to be equivalent (Midgley, Dowling 1978).

Another point of view of revealing the essence of the construct is its consideration as openness to information processing or cognitive style that influences how the consumer will react to innovative products and their associated feelings, experiences and communication. Individuals with pronounced in-

novativeness have the ability to constructively use the information received, whether it is the result of targeted search or is perceived accidentally, and have the potential to recognize the new idea and its possible applications (Leavitt, Walton 1975).

In scientific literature, many definitions associate inherent innovativeness with a change in consumer choice and pattern of behaviour. It is determined as a personal predisposition directed towards the purchase of new products and brands shortly after they become available on the market (Steenkamp, Hofstede, Wedel 1999).

Innovativeness is examined as a multidimensional construct. Manning, Bearden, and Madden (1995) describe two dimensions of the inherent consumer innovativeness: *consumer's novelty seeking* - defined as the individual's readiness and willingness to seek information about new products and services; *independent decision making* - regarded as the degree, to which the consumer makes a decision independently from the communicated experience of the others (the experience shared in the social environment).

Venkatraman and Price (1990) expand and enrich the concept of innovativeness by disclosing the cognitive and sensory elements of the construct, associating it with the general need for stimulation or the propensity for experiences which activate the mind and excite the senses of the individual. The authors assume that some of the consumers give priority to sensory stimulation, to others cognitive stimulation is predominant, while a third group of consumers looks for both - new mental activities and sensory experiences. The cognitive innovativeness is determined by the individual's need for new knowledge and is characteristic to consumers called "cognitive innovators". They seek new experiences stimulating the mind and put all of their mental energy in order to reach the essence of the problem and explain the facts to themselves (Pearson 1970). The sensory innovativeness is inherent to individuals who prefer experiences which excite the senses, which is why they are referred to as "sensory innovators". They enjoy the new without engaging in deeper mental activity (Zuckerman 1979).

Sensory innovators turn to innovation, driven by the need to experience something new, to live through sensory pleasure and to deliver activating emotions, while subsequently rationalizing the utilitarian benefits of the product. In contrast, cognitive innovators turn to innovation, driven by need for new knowledge and pleasure of the intellectual effort invested. Their emotion is the result of the intellectual pleasure experienced, due to the fact that they learn something new and improve their cognitive level. Therefore, sensory innovators will be attracted by hedonistic product attributes and will be directed to innovations that give them emotional experiences and stimulate their senses while cognitive innovators will be drawn by the utilitarian attributes and will prefer a product that provides them functional benefits.

## **Gender and inherent innovativeness**

Among demographic factors influencing innovativeness, special attention is paid to gender, which is believed to lead to significant differences in inherent innovativeness and consumer behaviour given the different social roles that women and men have in society (Fischer, Arnold 1994).

The review of the studies in the field shows that there is a controversy over gender differences in the personal dimension of innovativeness. Some researchers do not find a difference on the level of inherent innovativeness in men and women (Im, Bayus, Mason 2003), unlike others who find one (Stern, Barak, Gould 1987). Some of the studies that support gender differences in innovativeness show that men are more innovative than women (Lee et al. 2010). Furthermore, both genders perceive and evaluate innovation differently, with men being the ones who give a more positive assessment of its attributes compared to women (Slyke, Comunale, Belanger 2002). According to other studies both genders can be innovative but with regard to different products (Tellis, Yin, Bell 2009). For example, women have a more pronounced innovativeness for cosmetics, fashion and food, while men are more innovative when it comes to cars, computers and high-tech products (Tellis, Yin, Bell 2009). In terms of the cognitive and the sensory dimension of innovativeness, some of the empirical evidence suggests that women have more pronounced cognitive innovativeness, while men have a sensory one (Venkatraman, Price 1990). Others point to the exact opposite trend - that cognitive innovativeness is inherent to men, not women (Huang 2003). Generally, the data on differences concerning inherent innovativeness with regard to gender are inconsistent, which in part is due to the lack of a unified concept of innovativeness and the various tools used by researchers to measure it.

This study **aims** to examine the inherent consumer innovativeness and the gender differences related to the construct and its dimensions in a Bulgarian context. It is based on the views of Manning, Bearden, and Madden (1995) and Venkatraman and Price (1990) on innovativeness as a multidimensional construct (including the dimensions - cognitive innovativeness, sensory innovativeness, independent decision making and consumer's novelty seeking), as well as the inconsistent data on gender impact of the considered construct.

## **Methodology of the study**

### ***Sample***

The sample of the study includes 1,106 randomly selected Bulgarian respondents aged 22 to 65 years. The average age of the individuals is 41 years, while the highest percentage of people is under 24 years of age (36.3%). The sample is relatively gender-balanced (55.1% women and 44.9% men) and education-balanced (54.2% with higher education and 45.8% with high-school education). The demographic profile of the surveyed people is detailed in Table 1.

**Table 1.** Demographic profile of the sample (N = 1,106)

Indicator		Frequency	%
Gender	Male	497	44.9
	Female	609	55.1
Age	Up to 24 years	401	36.3
	25-35 years	283	25.6
	36-45 years	218	19.7
	46-65 years	204	18.4
Education	Secondary school	507	45.8
	Bachelor or Master	599	54.2

### *Measures*

A set of two methods is used for the purposes of this study:

1. *Scale of inherent consumer innovativeness* (Manning, Bearden, Madden 1995)

The tool measures the individual's readiness to accept innovations on the market field, and includes two subscales: 1) *consumer's novelty seeking* - considered as the individual's willingness to seek information about new products, measured through eight items; 2) *independent decision making* - the degree to which the consumer makes a decision independently from the communicated experience of the others (the experience shared in the social environment), measured through six items.

2. *Scale of cognitive and sensory innovativeness* (Venkatraman, Price 1990)

Venkatraman and Price (1990) examine two dimensions of inherent innovativeness - sensory and cognitive, which relate to the person's preference to engage in new experiences that stimulate the mind and the senses. Cognitive innovativeness is associated with a desire for new experiences with objects that activate the mental activity, while sensory innovativeness is associated with objects that excite the senses. Cognitive innovators enjoy thinking as a process and are willing to devote a lot of mental energy to solving the problems they face, while sensory innovators enjoy fantasies, dreams and adventures. The authors consider that cognitive and sensory innovativeness are differentiated through unique demographic and personal profiles and are linked in a different way to innovative behaviour. The scale includes 18 statements - 8 for each of the two dimensions.

For the participants' responses to both methodologies, a 5-step Likert-type scale is used, ranging from 1 - "disagree" to 5 - "agree".

The scales used for the purposes of the study showed excellent psychometric properties when applied in Bulgarian conditions, as the coefficient of internal consistency (Cronbach's alpha) for the individual scales and the subscales they are made of varies in the range from  $\alpha = 0.72$  to  $\alpha = 0.87$ .

## Results and discussion

In order to establish the level of inherent consumer innovativeness of the examined sample, descriptive statistics were applied. Its results demonstrate that the mean values of inherent consumer innovativeness ( $M = 2.70$ ;  $SD = 0.65$ ) and its dimensions are about average. The dimension of cognitive innovativeness is the most pronounced ( $M = 2.96$ ;  $SD = 0.78$ ), and the least - the dimension of sensory innovativeness ( $M = 2.45$ ;  $SD = 0.75$ ). In second and third place are ranked the dimensions of independent decision making ( $M = 2.79$ ;  $SD = 0.71$ ) and searching for new product information ( $M = 2.74$ ;  $SD = 0.77$ ), which have almost similar mean values. The results obtained reflect the weaker innovation activity of our country in the global innovation economy. According to the latest data of the global innovation index, Bulgaria is 41st among the 117 countries surveyed (Global Innovation Index 2019). Eight factors are at the basis of the global innovation index, one of which is human capital, paying particular attention to its proactivity at each stage of the innovation process. The discussed result is presented in Table 2.

According to the results, there is a tendency of the people surveyed to give priority to the cognitive stimuli over the sensory experiences on the market. They need to raise their cognitive level about new marketing stimuli. These consumers actively look for information about new products and services using different information sources. This in turn increases the confidence in their ability to make the best choices for themselves, making reasoned decisions that have a low degree of risk. Regardless of the emotional deficiency experienced by the modern consumer, the people surveyed are obviously not willing to take great risks in the field of consumption in order to get activating experiences.

The verification of the gender differentiating role in terms of inherent consumer innovativeness and its dimensions is done with a series of independent samples t-tests. The results obtained show that the gender of the respondents leads to statistically significant differences in the levels of their inherent innovativeness ( $t = 2.07$ ;  $p = 0.003$ ). The mean values of women ( $M = 29.37$ ;  $SD = 8.31$ ) are higher than those of men ( $M = 28.34$ ;  $SD = 7.56$ ). The trend thus established is in line with the trend outlined in other studies (Stern, Barak, Gould

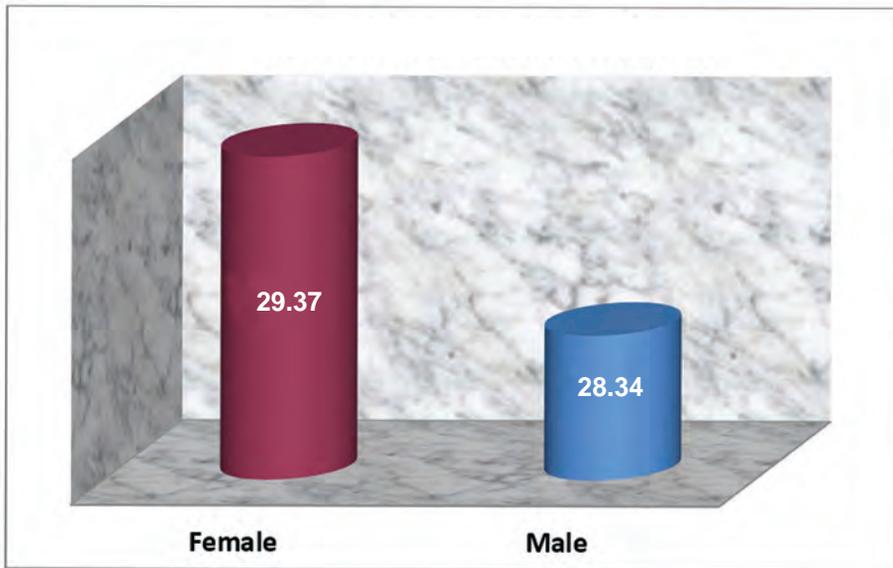
**Table 2.** Descriptive statistic of inherent consumer innovativeness and its dimensions

Variable	Mean	SD	Min	Max
Inherent innovativeness	2.70	.65	1.00	5.00
Cognitive innovativeness	2.96	.78	1.00	5.00
Sensory innovativeness	2.45	.75	1.00	5.00
Independent decision making	2.79	.71	1.00	5.00
Seeking new information	2.74	.77	1.00	5.00

1987) - that innovativeness is more pronounced in women than in men. A possible explanation can be found in the higher level of involvement of women in the sphere of consumption than of men. They visit the sales network more frequently and spend more time looking at product alternatives, which, on the one hand, increases the possibility of being influenced by marketing incentives and, on the other hand, leads to greater awareness and experience with the products offered, including innovative ones. Results from existing empirical studies show that as the cognitive level of the consumer increases, the perceived risk associated with the product alternative decreases, which in turn reflects on the higher level of innovativeness of the individual (Bhatnagar, Misra, Rao 2000).

The results obtained could also be interpreted in terms of existing gender-role stereotypes and their ability to influence perceptions and behaviour of individuals. Men perceive themselves as more prone to risk and more innovative, while women consider themselves more adaptable and willing to avoid risk (Boyd, Goldenberg 2013). The change in gender-role stereotypes, the blurring of the clear boundary between typically male and female roles, and the increasing trend of more and more women taking leadership positions and taking care of the financial provision of their family (for one reason or another), probably has also led to a change in perceptions among women. They have begun to look at themselves as more innovative, willing to take risks, which has also reflected in the area of consumption. The differences in the inherent innovativeness of the people surveyed by the gender indicator are presented in Fig. 1.

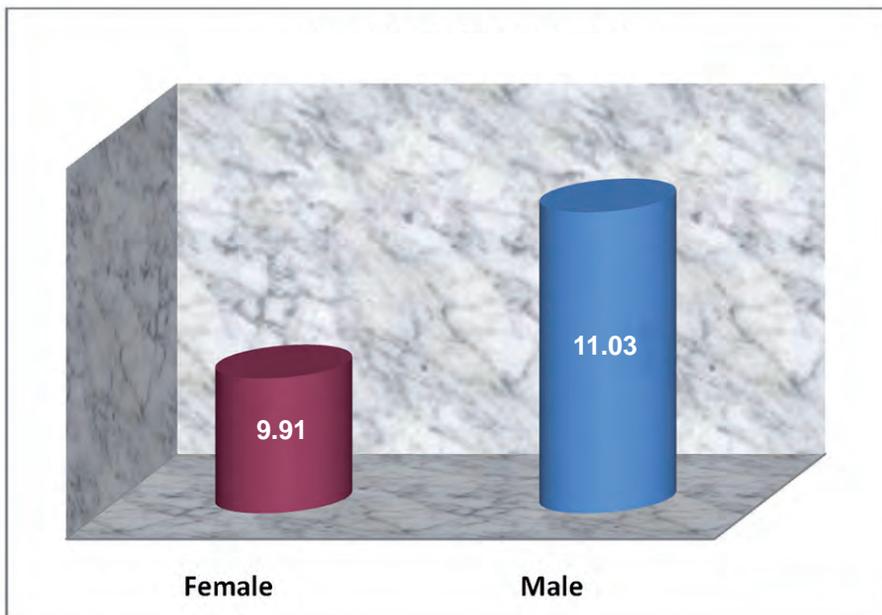
Regarding the dimensions of inherent consumer innovativeness - *seeking information about new products* and *independent decision making*, the Student's T-test also showed statistically significant differences by the gender factor. On the



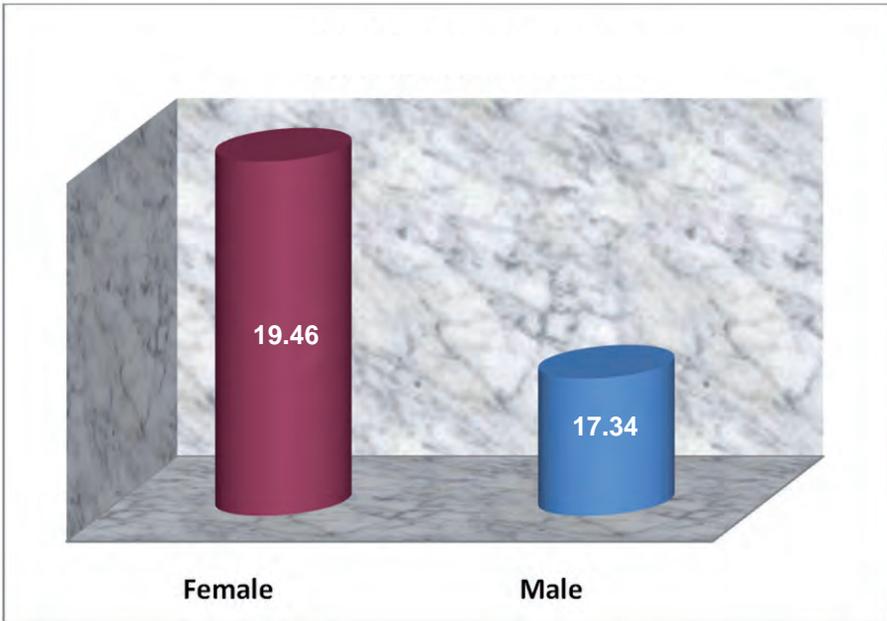
**Fig. 1.** Gender differences in the inherent consumer innovativeness

*independent decision-making* subscale, the mean values of men ( $M = 11.03$ ;  $SD = 4.31$ ) are higher than those of women ( $M = 9.91$ ;  $SD = 4.02$ ) at  $t = 4.49$  and  $p = 0.000$ . The result could be related to some of the characteristics traditionally associated with the male and female nature. Women are caring, careful, engaged, perceiving others as an important part of their self-concept, while men are independent, determined, willing to take risk and perceive themselves as separate from others (Gilligan 1982). These characteristics are also reflected in their behaviour on the market field. Research shows that men do not like to shop, they do it when they have to, and buy in a hurry - without much attention to detail (Hensen, Jensen 2009). They look for less information (Cleaver 2004), rely heavily on their judgement and have more optimistic expectations about the outcome of their purchase. In contrast, women are careful in their choices, seek more information using different sources, and make a thorough analysis (Beaudry 1999). This can be explained in view of the fact that they make most of the purchases for the whole family and the responsibility for the quality of the selected products is theirs. The discussed result is presented in Fig. 2.

On the inherent innovativeness dimension - *seeking information about new products*, female respondents have higher values ( $M = 19.46$ ;  $SD = 6.75$ ) compared to men ( $M = 17.34$ ;  $SD = 6.66$ ). The greater interest and involvement of women in the area of consumption somewhat explains the established trend. Spending more time shopping and having contact with different commodity alternatives, besides delivering positive emotional experiences, also increases their cognitive level, which in turn may trigger willingness for additional information activity due to the increased interest in marketing stimulus (Bertt-



**Fig. 2.** Gender differences in the “independent decision making” dimension



**Fig. 3.** Gender differences in the “seeking new information” dimension

man, Park 1980). The result obtained confirms a study conducted by Halder, Ray, and Chakrabarty (2010), which found that women had higher values on the *information search* subscale compared to men. Figure 3 shows the outcome discussed.

In terms of the cognitive and sensory dimension of consumer innovativeness, the results show that gender is a differentiating factor only in the cognitive dimension ( $t = 3.84$ ;  $p = 0.002$ ). Higher levels on the dimension under consideration are seen in women ( $M = 24.04$ ;  $SD = 4.23$ ) than in men ( $M = 22.48$ ;  $SD = 5.18$ ). A result that is logical in view of the previous one (female respondents have higher values compared to men on dimension - *seeking information about new products*). Cognitive innovators have a strong need for knowledge (Venkantraman, Price 1990). They are cognitively active and looking for new stimuli in the market field to excite their minds. They thoroughly process the information about the innovative product, analyse it in detail and enjoy this mental activity, as a result of which their decisions are well thought out, rational and contain a low degree of risk. The characteristics described are inherent and manifest in the behaviour of female consumers as a result of their greater attention and concern for purchasing decisions. This logic finds support in the empirical data obtained in other studies, according to which women have more pronounced cognitive innovativeness, whereas men have a sensory one (Venkantraman, Price 1990). Certainly, studies are also found in the literature, which outline the exact opposite trend - that cognitive innovativeness is inherent to men, not women (Huang 2003). Gender differences on the “cognitive innovativeness” dimension are presented in Fig. 4.

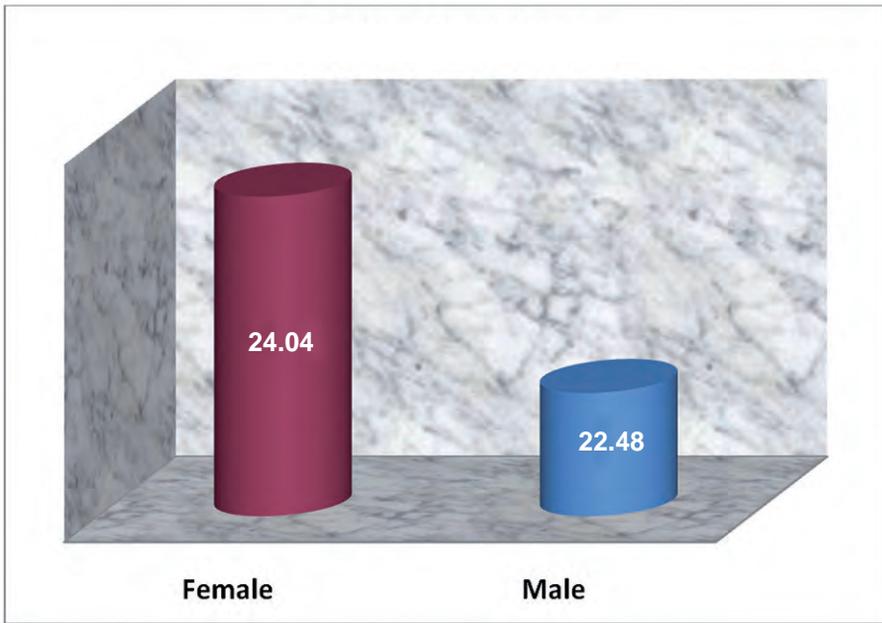


Fig. 4. Gender differences in the “cognitive innovativeness” dimension

## Conclusion

Inherent consumer innovativeness is a complex construct that determines the individual’s readiness to adopt innovations on the market field. The conducted empirical research revealed that the surveyed people possess average levels of the multidimensional construct “inherent innovativeness”. The most pronounced is the dimension of cognitive innovativeness, and the least - the dimension of sensory innovativeness. The dimensions of independent decision making and search for new product information take second and third place, respectively. With regard to gender, it was found to be a differentiating factor in the studied construct and three of its four dimensions. Significant differences exist in the following dimensions: independent decision making, seeking information about new products and cognitive innovativeness. A tendency is outlined that female consumers are more receptive and open to innovation on the marketplace, giving preference to those marketing incentives that stimulate the mind and move their thinking activity, actively use different information sources to raise their awareness of the new products and services, and relying more on the experience shared in the social environment, when making a decision to accept the innovation, unlike male consumers. According to these results, women are the market segment to which the innovative product should be directed at its appearance. Building effective communication with this consumer segment requires the marketing message to focus on the utilitarian benefits of innovation, to present it as a cognitive stimulus that elicits the mental capacity and satisfies the need for cognition of these consumers. It is also necessary a skilful

coordination of information flows coming from the two main communication channels - media and leaders of public opinion, so as to support the success of the innovation product.

The results obtained in this study reveal certain trends among Bulgarian consumers, which are subject to additional empirical verification. Future research will show whether and to what extent the gender demographic factor is a useful variable for segmenting the Bulgarian market when introducing innovative products.

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**Asst. Prof. Tatyana Yordanova, PhD**  
 Institute for Population and Human Studies  
 Bulgarian Academy of Sciences  
 Acad. G. Bonchev Str., Bl. 6  
 1113 Sofia, Bulgaria  
 Email: tania\_jd@abv.bg