EFFECTS OF DEMOGRAPHIC AND LIFESTYLE ADOPTION OF NEW PRODUCT INNOVATION

<u>Narges Delafrooz^{*}</u>

<u>Hadiseh Soltani^{**}</u>

Companies feel that they are obliged to dispatch innovation in repeated periods in order to grant the consumers' demands. New products don't often find their own ways for the purchasers. The goal of this research is to recognize innovative groups in society and analyzing the features of demography and life style's effects on adoption of new products innovation. The research plan is a description of measuring circumstances of the information by the researcher that is gathering the information directly from the costumers. 384 people of university formed the research population, including instructors, staffs and university students of west Mazandaran province. Stratified sampling is chosen for the sampling method. Validity of the questionnaire is surveyed by the content validity and its reliability by calculating Cronbach's alpha that obtained 0/842. In this research 2 statistical methods are used in order to analyze the data, descriptive and inferential statistics, in adequate to the research questions. Statistical soft-wares used in this research are LISREL for structural equation. Research results show that demographical features such as age, gender, income and number of family members don't affect consumer's innovativeness and innovation adoption, and education is the only effective factor in a way that the higher the education goes, it affects modernity in a positive way. This research confirmed that life style has a high indirect effect on consumer's adoption and innovativeness and also consumer's innovativeness on the innovation adoption.

Key words:consumerism, consumer's innovativeness, consumer's adoption, consumer's life style.



^{*} Department of Business Management, Rasht branch, Islamic Azad University, Rasht, Guilan, Iran

^{**} Master of Business Management, Rasht Branch, Islamic Azad University, Rasht, Guilan, Iran

1. INTRODUCTION

Organizations and companies in a time periods known as "knowledge age", "postindustrial age", information society age", temporary communities age" and "globalization age" should always acquire componential advantages after identifying and studying the consumer's behavior. Today most of the companies and organizations accept new concepts in marketing and behave based on it. They understood that focusing on consumer's requirements is among the major assumptions in marketing trends. Thus, studying and detecting the consumers requirements, analyzing the process of their behavior and prioritizing effective factors in this process are the main tasks of marketing. Companies feel the obligation of sending innovation to market in repeated periods in order to grant the customer demands (Hoffmann & soyez, 2010). New products don't often find their own way for the purchasers (vandecasteele & geueuns, 2006, 2). Failure rate is completely high for innovations and it reaches to 80% in some parts (Hoffmann & soyez, 2010, 778). Schoormmans & Hultink mentioned in 2004 that 30 to 50 percent of new products will be destroyed (vandecasteele & geueuns, 2006, 2). 4% of consuming products' innovations and 60% of advanced technologies innovations face failure (vandecasteele, 2010, 13). Dispatching new products and services in the market prepares an important source for increasing the trade and benefit's size. Being successful in introducing new products and services to market is a critical issue in current marketing plans (Dobre & colleagues, 2009).

Consumers' adoption in order to extend their brands is a crisis for most of the companies that needs using some strategies for it. Every day companies focus on new products succession and obstacles that block their way to success for more and continuous progress. Studying the adoption of new products is very important for marketers. Company must improve available products continuously in order to progress. The success of introducing new products and services to market is a critical issue in ongoing marketing. Usually people relate new product's failure to being a bad product but the reality is not this simple. Products that are rejected by the consumers are often better than available products. Therefore having more information about consumer's characteristics could be an effective aid for the companies' directors in presenting new products successfully. Innovator consumers are usually targeted for successful beginning and marketing of new products' life cycle. Selling to these primer purchasers shows a positive liquidity that can reciprocate expenses of new products' development (goldsmith & Flynn,1992). Innovators

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us



<u>ISSN: 2249-0558</u>

are the reason of success for new products. Marketers often try to reach to an especial subgroup of the people that are surprisingly more innovator than the others (vandecasteele2, 2006). Not only Consumer's innovation is generated for productive markets but also they are used for services. Dynamic nature in markets could have been amplified by consumers' innovation (xie, 235, 2008). Personality traits grow over time; we survey the demographical features of consumers. Previous studies over consumer's innovation and demographical variables such as income, age, number of family members and life style emphasis this matter. In order find how to make a decision, evaluating the consumer's life style is valuable and consumers are classified by dividing their life styles.

2. THEORETICAL FIELD

2.1. innovation and innovation adoption

As a marketing concept, innovation could be related to the companies or their new abilities for growing, developing and dispatching new products in a high speed (Gilles, 2004, p671). Innovations could be fundamental or increasing. Fundamental innovations are revolutionary and increasing innovations are produced while changing and transforming products and processes (katila,307, 2007).fundamental innovations that are revolutionary and integral is lower than increasing innovations that are developing and extending , because they need more substructuring (Kuban, 1986).

2.1.1. innovation adoption

Innovations need time to extend through social system (Gilles, 2004, p671). Innovation diffusion theory is used for adoption rate of technological transformation (Nutley &Davies, 2000). Antiquity Of innovation diffusion theory is more than an age and it's beginner was a French sociologist, Gabriel Trade. He discovered S-shape curve in 1903. Ryan & Gross interpreted S-shape curve as innovation diffusion model in 1943 and divided the people who are exposed to innovation in to 5 groups. Finally Rogers showed it as a normal issuance curve in 1962- 1995 (Rogers, 45, 1995).

2.1.2. innovation adoption process

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us



<u>ISSN: 2249-0558</u>

Consumer's adoption process is a mental process that a person passes from the first time that he gets information about an innovation until when he finally adopts it. The process of adoption or rejecting the innovation occurs during the time period includes a group of activities. Rogers & Shomiker (1971) introduce various phases in their research for this model. These phases are: awareness, interest, evaluation, examination and adoption (kotler, 372, 388) that the most important phase is adoption (Kai & Enderwick,2000). This procedure truly expresses that the marketer of new goods should simplifies the movement of the consumer through these phases (kotler, 372, 1388).

2.2. consumer's innovation

Those who are exposed to innovation are divided into 5 groups: 1- innovators 2-early adopters 3early majority 4- late majority 5-laggards. Universal innovators think they have powerful ideas and imaginations, adopt new behaviors easily, spend a large amount of time and power for creating new things and ideas and path the way for others (Iman, 1974). Wedel, Hofstede & steenkamp in 1999 explained innovation as a readiness for purchasing new stuffs more than old choices or old consumer's patterns (kang gertzel, 157, 2012) and it is a tendency for purchasing new products sooner than the others (Gilles, 2004, p671) (kim and colleagues, 716, 2011). 2 conditions should be fulfilled to introduce someone as an innovator: 1- searching for novelty (Gilles, 672, 2004) is an observational research for new information before obtaining an innovation (vandecasteele & geuens, 3, 2006). Innovation's meaning as a personality trait reflects inner and natural tendency for searching the information, motive or new experiences (vandecasteele & geuens, 309, 2010). Innovative consumers are probably information hunters (kim and colleagues, 735, 2011). Searching the external information more severely could have formed from several sources like personal, commercial, public and experimental ones (D. Michman and colleagues, 2003). Searching for novelty is a key combiner in innovation (J. Tellis and colleagues, 2009). 2- Independency that is called "consumer independent judgment" (CIJM) (vandecasteele & geuens, 3, 2006). Bearden found a positive and weak agreement between the independency in leadership and inner tendency toward new stuffs in 1986 (Geuens, 672, 2004) (J. Tellis and colleagues, 4, 2009). Recognitional Innovators enjoy thinking, problem solving, puzzle solving and other mental activities(park & colleagues, 38, 2010) and a tendency for involving in new experiments that estimulate their thoughts (geuens, 672, 2004). There are 4

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us



September 2014

<u>ISSN: 2249-0558</u>

dimensions for consumer's innovation(vandecasteele&geuens,311,2011): enjoyment dimensions (hoffmann & soyez

780,2010)(vandecasteele&geuens,9,2008)(vandecasteele&geuens,311,2011),functional,social(va ndecasteele&geuens,16,2008)and Mrecognition dimensions(vandecasteele & geuens, 311, 2011). Cognitive innovators have a good tendency of showing different ways of purchasing like quality consciousness, price consciousness and becoming confused because of abnormal number of choices (Park & colleagues, 37, 2010). Functional products are bought to have a functional benefit by consumers (Hoffmann & Soyez, 780, 2010). Rogers & Shomiker (1971) mentioned relative advantage, compatibility, simplicity and ease of use, trialability, observability as the most significant features in products that affect innovation adoption(chao & colleagues, 2012). Funny and functional role in products are important (hur&colleagues, 2012). Hirschman showed in 1981that encouraging innovation is related to 2 dimensions of innovation: 1- symbolic dimensions: it points social goals that were not available before. 2- Technological dimensions: it has tangible features that were unknown (Dobre & colleagues, 22, 2009).

2-2-1 negative effective factors on consumer's innovation

Habituation; reflects consumer's unwillingness for examining new behaviors in a time period. 3efforts: it explains consumer's tendency to spend time and effort for adopting a product. 4frugality; it is consumer's tendency to preserve and not to waste sources in a reliable product (Tellis & colleagues, 2009).innovator consumers are usually sensitive to the price (Goldsmith& Niol, 1997). Paperwork about marketing and experimental surveys made some agreements between innovation, various personal traits and consumer's behavior (Dobre & colleagues, 2009).

2.2.2. scales of measuring the consumer's innovation

The first scale, consumer's inner innovation(CII), says desirous people of new stuffs like products, services and ideas don't have any relation with the previous experiments of others (chao & colleagues, 2012) (vandecasteele & geuens, 2006). In spite what we said, relations between consumers inner innovation and products' innovation adoption is not permanent in academic researches (park & colleagues, 437, 2010). Gettignen & rebrestone found that innovation should been considered in a productive subject in 1985 (chao & colleagues, 2, 2009). Relations between consumer's inner innovation (CII) and purchasing new products are planned

by domain specific innovativeness (DSI) (chao & Rid, 2010, 2010, 2). Experimental researches on international DSI include studies in America, Germany and France discovered a useful scale for measuring the consumer's innovation in a special productive subject (chao & colleagues, 2012, 2012) (bartels & Rinders, 2010).Hirschman described vicarious innovativeness (VI) as a way of obtaining information considering a new product in 1980(V. chao & Rid, 2, 2007) that has a great influence on consumer adoption (chao & colleagues, 2012). By vicarious innovativeness, people can basically adopt the meaning of the product without adopting the product, like someone want to advertise and write an essay about the new products before their adoption (chao & colleagues, 4, 2009). Based on all above, in this research we are studying innovation in a productive manner and surveying the range of information that people used to search about it.

2.3. Consumption, consumerism and life style

Consumption phenomenon was introduced among sociologists for the first time in 1899 by an American sociologist – Torstone voblen- in a book named "affluent class". He had a critical view about the affluent and middle class consumption (Clarke, 2006). Veber believes economical production method affects consumption circumstance (Bendix, 1967). Consuming is a system of signs and symbols (Bourdieu, 66, 1984). Consumption and consumerism join person and structure (Stearns, 2001).

2.3.1.Life style

We need to look at the Meaning of consumption as a factor or sign of differentiation among people and life styles. Those who have a similar life style, experience group cohesion formed out of similarities in consumption pattern and behavior (Bendix, 1967). There are 3 kinds of data about consumer's purchasing decision: 1- demographic data 2- behavioral data 3- psychographic data. Psychographic data are recognized by beliefs and attitudes, life style features or personal values that have a great importance in consumer's decision making process. The circumstance of using psychographic data and also dynamic, significant, newfound markets is a challenge for researchers and scholars (zhang & colleagues, 912, 2007). Life style is used for dividing the market; we start dividing the people instead of products and classify them into different types of



<u>ISSN: 2249-0558</u>

life styles (type of people). It is essential for being successful or not. Advertising and marketing concentrate on character, consumption pattern and similarities of life styles (Plummer, 35, 2013). The concept of life style patterns and its relations with marketing is presented in 1963 by William leaser (plummer, 33, 2013) and as a preservative expression for evaluating activities, interests and ideas classifications (G. Grunert & colleagues, 150, 2006) (T. plummer, 33, 2013). Life styles changes principal methods that can be interpreted as efforts for balancing the environmental changes and its valuing system (G. Grunert & colleagues, p150, 2006) and describe them like a pattern of attitudes, interests and ideas of a person (urnett, 40, 2008). Activities are daily affairs known for ways of spending time for work, entertainment and diversion. Interests are whatever that is important for someone like his interest in fashion, food, entertainment and media. Ideas concentrate on a person view point about social problems, product and priority of brands (J. Lee and colleagues, 154, 2009). These variables could help in decision making process for decreasing the risk. This risk shows some concerns while the purchaser cannot forecast the result of shopping (michmann, 19, 2003).

Consumer's life style is searching for how people select available sources for expressing and developing their situation in a society. Marco believes 3 main dimensions should join In order to explain or build a renewed life style: social situation, attitudes and priorities, behavior and customs based on Bourdieu (Reusswig& colleagues, 2003). International researches are done about the relation of evaluated life style and behavior –esp. consumer's behavior. As Kupferer Velavent Reports in one of his essays, life styles explain demographical variables fewer than 10 % (Joe and colleagues, 341, 2005). Classifying help the life style of many powerful companies for increasing the probability of sale in compare with their competitors (chose Dasgupta & colleagues, 243, 1994). Life style is a strong concept in explaining the understanding of public danger, reacting against danger and generally consumer's behavior (Brinkmann & colleagues, 28, 2008). Statistical features of a population are often used for separating the markets such as age, gender, family, life style, income or education. Mental separation is using attitude, personality, motivation and life style for recognizing the costumers (burrnett, 40, 2008). Measures of consumers' publication have two important usages in the process of classification. First they can be used for explaining the various types of small cultures that their members are common in some values, needs, slogans and behaviors, individually or in a combinational manner (C. mowen, 65, 1391).

2.4. Goals and hypothesis of the research

Research goal is to determining the target market for products and innovations of electronic devices. We are looking for demographical and life style effects on consumer's adoption. Thus, as it is shown in figure 1, our model is drown on the personal traits theory that says personal traits affect human's behavior and illustrates how consumers with different innovational level adopt new innovations or products. this research while following "Ying hong & colleagues in 2011", "J. Tellis and colleagues in 2009" researches, findings and suggestions of "chao & colleagues in 2012 and 2009" base on effects of consumer's innovation on adopting new products, is done for confirming the relations of innovation and new product's adoption also surveying and recognizing the effective factors in adopting new products in other countries. In addition because a few studies are done about consumer's innovation and identifying the features of innovative consumers in Mazandaran province, more studies about foresaid subject is required.

2.4.1 demographical features and consumer's innovation

Studies of Dobre & colleagues in 2009 expresses the positive relation between gender and issuing the innovation and Tellis results in 2009 shows the probability of being innovative in products or technology is higher in men in compare with women (yung, 272, 2005) and also as Yung mentioned demographical features such as age and gender can balance the consumer's conformity with mobile adoption. Surveys of J. Tellis & colleagues in 2009 showed 5 to 10 variables are related with demography such as age, gender, income and education have key forecasts of innovation about the consumer and number of family members is not that important. In this manner based on studies that are done by Vandecasteele & geuens in 2008 and 2010, Bartels & Reinders in 2008 in U.S.A, E.U and Germany, demographical variables have a vague effect on organizational purchasing behavior and totally forecasting ability of demographical variables is low. So, the first hypothesis of the research is formed as follows:

H1: demographical features affect consumer's innovation

2.4.2.Life style and consumer's innovation

Ying Hong & colleagues in 2011 used a esp. Limited view point for analyzing the relations between innovation, life style, knowledge, experimental purchasing behavior tendancy and

<u>ISSN: 2249-0558</u>

services adoption concepts on situation. Findings show that consumers with different innovation levels for services on situation have various life styles. Based on D. Michman's statements in 2003 how a consumer use some methods for decreasing risk in different aspects such as ; wasting time, chance, pride and money is depended to life style variables . Therefore in the second hypothesis we study the effect of life style on consumer's innovation.

H2: customer's life style affects consumer's innovation.

2.4.3.Consumer's innovation and new products' adoption

J. Van Rijnsoever & oppewal in 2012 and Xie in 2008 mentioned, discriminating consumer's innovation and searching new and different information (conceptually) is not possible and will make a new adoption level in new products. Innovative consumers have a tendency for searching products and brands that have the lower dependence on available products. According to the studies of Lee & colleagues in 2012 people in market need to have the exact information about technological products and a warranty for simplicity of their usage. Studies of Rid & colleagues in 2012, Xie in 2008, chao & colleagues in 2009 and 2012, Fualor & Bridguez in 2010 and hur & colleagues in 2012 showed the effects of innovation on new products' adoption.

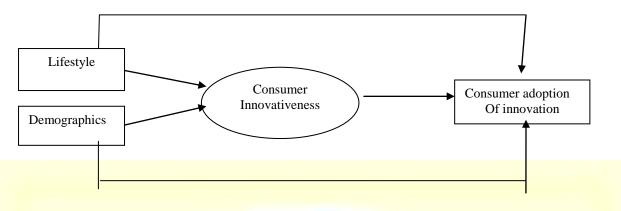
2.4.4.Life style and new products adoption

Aldas Manzano & colleagues in 2008 expressed consumer's life style factors are direct and indirect introduction of consumer's goal for conformity of superior technological products. Another survey by Luis lee yung in 1998 is done. Its findings show that life style could be effective for presenting solutions for advertisement designing. This research proved that life style is an important index in conformity of media's new technology in urban parts of china more than demography. Therefore, the forth hypothesis is formed and it's under survey.

H4: costumer's life style affects consumers' adoption of innovation through consumer's innovation.



Figur1. Structural model



3. RESEARCHMETHOD

Research plan is a section that focuses on the consumers of electronic devices in west Mazandaran province. The available sampling method was stratified sampling and documental and field method (questionnaire) was used for collecting the data. Likert and nominal scale (sequential or ordinal scale) is used for scoring and valuing the responses. The most appropriate place for research population was the university because it provides intensive and at the same time diverse societies. Instructors, staffs and students of governmental and private universities of west Mazandaran participated in the present research as costumers and consumers of electronic devices for research population. In this research content validity is used for checking the validity. The questionnaires are completed and given to the respondents after studying the scholar's previous researches and final confirmation of marketing and consumer's behavior professors. One of the ways of calculating the potential reliability is Cronbach's alpha. Its total amount is 0/842 so this questionnaire was reliable.

Questions of current questionnaire could be divided in to 2 parts, general and main parts related to research variables. In general part there are 5 questions about gender, age, no. of family members, monthly income and education. In main part there are 31 questions based on previous researches, Lee & colleagues 2009, Bearden & colleagues 1995, J. Tellis & colleagues 2009, Leung 1998. For evaluating the dependent variable, consumer's adoption, people's tendency for achieving new products and negative effective variables are examined. We use 4 variables for estimating the life style including being complicated and stylish, prosperity and life enjoyment, life rang and finally having priority for high-tech products. "Complicated and good style "means

being new, the flow of products' particular styles and statement such as: I enjoy having new and stylish stuffs, I usually buy unique products, I often buy the last style of a product, etc.

Prosperity and life enjoyment show the way we pass holidays and leisure times in according to respondents opinion about statements like ; I prefer to take a rest instead of doing anything, having a personal environment make me happy, I prefer a safe and stable jobs, etc.

Life rang is considering the way of looking to the life and the amount of using internet. for evaluating it we use statements such as I like learning new knowledge and technologies, I use online ordering more than before, I spend less time for watching T.V. because of internet etc. and finally "having priority for high-tech products" factor is used for high-tech products. Next one is consumer's innovation. It focuses on time spending on internet and the amount of time and interest spending for getting information about a product.

4. Testing the hypothesis and findings of the research

In this research we use two ways for statistical analysis: a) descriptive statistics: (Frequency distribution, average, standard deviation, variance, percentage) b) Inferential statistics: (independent t test, analyzing the single factor variance, fiedman test and path analysis) is used for briefing and analyzing the research data and the software used for this project is LISREL. For checking the distribution of data in population, kolmogorove- smirnov test is done that the result of the test shows the normal distribution of the data.

Base on the research findings the no. of men is more than women that is 53/5 % (206 men) and 46/5 % (179 women). It shows most of the respondents are between 20-29 years old with the frequency of 279 people that is 72/5%. People less than 19, between 30-39 years old, 40-49 and more than 50 are 11/4%, 10/4%, 4/2%, 1/6% respectively. The respondents most frequency of family population is for families with 4 family members with 170people that is 44/2%. The least frequency is for families with 6-7 family members with 34 people that is 8/8 %. Near to half of the respondents (49/4%) have income less than 500 hundred Tomans. After extracting data of monthly income, the frequency of income groups of five hundred to one million, one million to one million and half, one million and half to two million and more than 50/1% of the respondents have the bachelor degree. The population includes People having degrees under diploma,

diploma, associated degree, master and PHD with 0/3%, 9/9%, 25/2%, 10/2% and 3/6% respectively.

4.1. Testing the effects of gender on consumer's innovation

Independent t-test is used when there are two independent groups. Variances' Similarity (Levene test) were surveyed by SPSS software. Statistical hypothesis in independent t-test are defined as follows:

 $H_0: \qquad \mu_1 = \mu_2$ $H_1: \qquad \mu_1 \neq \mu_2$

 H_0 hypothesis says the average score of consumer innovation between male and female respondents doesn't have a meaningful difference and h1 hypothesis shows a meaningful difference between the average score of male and female respondents. According to independent t1 table, there is not a meaningful difference between males and females about consumer's innovation in p<0/05 level.

Table 1: Independent t-test for testing the effects of gender on consumer's innovation

Р	Independent	The average	The average	Free	Surveyed factors	
	t	score of	score of	degree		
		female	male			
		respondents	respondents			
0.981	0.023	3.549	3.55	383	Consumer innovation	

4.2. Testing the effect of age, no. of family members, monthly income and educational degree on innovation

In order to test of a single factor variance being done, the hypothesis are expressed as below:

H₀: H₀ : $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

H₁: at least one of the averages is not equal

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A.

International Journal of Management, IT and Engineering http://www.ijmra.us



<u>ISSN: 2249-0558</u>

For testing this hypothesis, h1 says the reposes' average score of various respondents (according to age, no. of family members, monthly income and educational degree) about consumer's innovation are not equal and h0 says the mentioned scores are equal. As you see in table 2 and the foreseen F, the average score of consumer's innovation doesn't have a meaningful difference in p<0/05 level for variables like age, no. of family members and monthly income. In other words, these variables don't affect consumer's innovation, but it is different for variable of educational degree. As we see there is a meaningful level for F (0/024). Therefore educational degree affects consumer's innovation by 95% of confidence level.

Table2: test of a single factor variance, studying the effective actors on consumers' innovation

Р	F	Surveyed factors
0.666	0.595	age
0586	0.710	No. of family members
0.341	1.132	Monthly income
0.024	2.630	Educational degree

4.3.Examining the second, third and fourth hypothesis by structural equations with LISREL software

Table 3 is according to LISREL output data for measuring the structural equation of the research that includes main variables of the research. Result shows:

- a) Life style has a positive effect on consumer's innovation indirectly equal to 0/852. While it doesn't affect it directly. According to meaningful numbers (0/044) we came into conclusion that life style has a meaningful effect on consumer's innovation thus the second hypothesis is being proved.
- b) Life style has a positive effect on consumer's adoption indirectly equal to 0/326. While it doesn't affect it directly. According to meaningful numbers (0/043) we came into conclusion that life style has a meaningful effect on consumer's adoption thus the forth hypothesis is being proved.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

c) Consumer's innovation has a positive effect on consumer's adoption indirectly equal to 0/326. While it doesn't affect it directly. According to meaningful numbers (0/047) we came in to conclusion that consumer's innovation has a meaningful effect on consumer's adoption thus the third hypothesis is being proved.

 Table 3: direct and indirect effects and all research variables in analyzing relational rout between variables

Test result		Meaningful	effect			Independent	Dependent
		level	total	indirect	direct	variable	variable
Proven	2 nd	0.044	0.852	0.852	-	Life style	Consumer
hypothesis	s						innovation
Proven 4	4th	0.043	0.326	0.326	_	Life style	Consumer
hypothesis	s						adoption
Proven 3	3rd	0.047	0.383	0.383	-	Consumer	Consumer
hypothesis	s					innovation	adoption

4.3.1.research proved path analysis model

Due to proven hypothesis (2nd, 3rd and 4th), the identified relation between life style, consumer's innovation and consumer's adoption variables and the analysis done by LISREL software, graph no. 1 is shown for proved path analysis as follows:



Chi-Square=69.65, df=1, P-value=0.00000, RMSEA=0.423

Graph 1: analyzing the rout of research variables

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering

http://www.ijmra.us



According to graph no. 1, t-statistics shows the great relation of the variables with each other. That is life style in compare with consumer's innovation (t-statistics equals 19/48) and consumer's innovation by consumer (t-statistic equals 8/16) above 1/96 is in confidence level of 95%. This issue in addition to reconfirming the research hypothesis proves the research path analysis that is showed in graph 1.

4.4 ranking the studied factors

In current research we try to rank the studied factors such as (factors of life style, consumer's innovation and consumer's adoption variables) base on the average score of statistical sample. Friedman test is used in this research for ranking the factors. Ranking the questions used for evaluating the consumer's adoption variable shows: the first statement that is "I enjoy having products with new innovation" won the first place and the fifth statement that is "I prefer to buy new products at the moment of entering the market" placed at the fifth (the last) position. Ranking of life style factors showed that "prosperity and life enjoyment" won the first place and "life range" placed at the forth (the last) position. Ranking the questions for evaluating consumer's innovation shows: the thirty first statement says: "I enjoy being noticed of new and different products" is placed in the first position and the statement no. thirty that is "I spend a little time for checking new brands or products" is in the seventh (the last) position.

5. General discussion

The current research is about the effective factors of innovation adoption by consumers. As this subject has a high importance for companies and trading organizations in researching, developing, decreasing the product's life domain and increasing the rate of different innovations in trading areas, it is chosen as a subject of this research. Logically the accomplished innovation adoption by the costumer and fulfilled cost for them in the frame of trading and commercial goals for commercial innovators is very important and creates a challenging issue in this regard for influencing on rate of innovation adoption of the consumers.

Here on, due to the previous studies, the important factors in innovation adoption of consumer is introduced by 2 variables of life style and demography and each of these factors are effective on innovation adoption of the consumers by consumer's innovation with some components. Research model is formed base on these relations and research hypothesis are mentioned for





<u>ISSN: 2249-0558</u>

testing this model and analyzed in research goal frame work. Various studies were accomplished about the subject of the research. Now that the statistical tests of current research is finished and the results are clear, we try to compare the findings of this project with the previous studies in a frame work of their common variables. Findings of current research are different from the results of Dobre & colleagues in 2009, Tellis in 2009, (yung, 272, 2005) and also yung in 2005 regarding the demographical variables. The current Research results are in the same line with the findings of J. Tellis and colleagues in 2009 solely about education and family members and prove them all. But the findings of the foresaid research are different from the current findings like the previous study about age, gender and income. The outcome is in the same line with the studies of bartels & Reinders in 2008 in USA, EU and Germany and Vandecasteele & geuens in 2008 & 2010. Also the results in ongoing research proves the findings of chao and colleagues in 2009 and 2012, Fualler & Bridgues in 2010 and Lin Chong & colleagues in 2012 show the effects of innovation on new products' adoption.

It seems that results have a high overlap between the researchers and base on most experts view innovation have positive effect on innovation adoption. About the measure of tendency for searching the information, results are in the same line with the studies of One & Opual in 2012 and xie in 2008. Findings of ying hong & colleagues in 2011 are the same as these results in the case of life style effect on consumer's innovation and this research take this issue into account regarding to location variable. Also the findings have overlap with results of Menzno & colleagues in 2008. The findings of Another survey by Louis Leung in 1998 proves these results regarding to the effects of life style on innovation adoption but in current research demographical factors don't introduced as an important component for innovation adoption.

Briefly the previous results highly proves our findings and in this regard life style variable, its effect on innovation and innovation adoption of consumer were almost common in all of them and the differences were for demographical factors. Of course these differences are various in the field of demographical indexes (age, gender, income, no. of family members and educational degree) and there is no oriented difference that we can separate the surveys in to two groups. Generally as the findings of current research are proved by most of the previous studies, the reliability is in a good level and generalizing the foresaid results in statistical population is possible.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

5.1.Applicable suggestions of the research

According to the findings and the results of statistical tests and other findings of the research and in order to improve the performance of trading companies in innovation adoption and reforming the consumer's behavior in consumptive innovation, the following suggestions are given:

- 1- Base on the results of hypothesis h1 in this research that studied the effects of demographical features on consumer's innovation, we suggest not to concentrate on these factors directly as an effective ones on innovation and innovation adoption in marketing planning system but to mention them as moderating variables for influencing other factors on innovation and innovation adoption and use demographical features in different situations, products condition and resolving feature of them. This issue could have taken into account in marketing policies.
- 2- The results of hypothesis h1 in this research say educational degree has a meaningful effect on consumer's innovation. The point is increasing the educational degree can have more logical relation with getting information. Therefore we recommend high-tech and also innovative product presenters to inform the target market or potential customers about the products if it's necessary. Thus it is suggested to consumers of innovative and high-tech products to decrease probable risk of these products and increase their information about them.
- 3- According to proven h2 hypothesis that shows consumer's life style affect innovation and also base on life style factors in current study (complicated and stylish, prosperity and life enjoyment, life ranges and prioritizing the high-tech products) it is better to be in a way that policies and plans of presenting a now product and its entering to market show the advantages of that product for improving one's life in an understandable way.
- 4- According to proven h3 consumer's innovation affects consumer's adoption. It is recommended to business companies that present innovative products to pay attention to classifying the market and recognizing that special part of that which has more and higher innovative features and then select their target market. Because it is not possible to have an equal expectation for adopting innovation by consumers in every parts of a big market like all Iran's market. This issue can avoid the possible costs of failure in entering to inappropriate part of the market. Field researches and marketing research projects can be used for recognizing markets with innovative population.

- 5- By proving h4 secondary hypothesis we came to conclusion that costumer's life style affects consumers' adoption of innovation through consumer's innovation. So we suggest pay an especial attention to life style and its important factors in order to increase the rate of innovation adoption between consumers. In this regard it is better to know the type of life style and not to execute equal marketing operations in different markets by recognizing consumers' features like their life style.
- 6- According to achieved findings by ranking the questions which are related to innovation adoption variable, statement no.1 that is "I enjoy having products with new innovation" placed in the first position. It seems at least from the sentimental dimension for consumers it is pleasing to have an innovative product. So it is suggested to focus on perfectness and the high quality of the product by illustrating new brands base on its quality and esp. features and use its benefits for convincing the costumer e.g. using comparing advertisements between new and old products.
- 7- By ranking the life style factor that it shows "prosperity and life enjoyment" placed in the first position, it is recommended to make an appropriate feature from the name of that product as an up- to-date mode and more life welfare in order to penetrate the innovative product into market.
- 8- While ranking the consumer's innovation measures, the statement "I enjoy having information about new and different products "placed in the first position. This issue shows the necessity of giving cognitive information and awareness to the costumer and should have been noted in marketing system.

In addition to above-mentioned suggestions, these items are recommended:

- Expanding the studies and researches in order to have better understanding of effective factors on innovation adoption in similar products to that special one.
- Professional training of marketing personnel and innovative product sellers
- Considering that each product is a resolver of an esp. requirement, it could be an appropriate policy for companies with innovative products to make culture of using this innovative product; it will obviate that esp. need in a modern way and will result in long term.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

- If possible , creating an environment for testing that innovative product for the costumers
- As the product is recently used, paying attention to costumer's feedbacks more than valuing their opinions and trusting them, will help in improving the product and it's troubleshooting.

5.2. Research restrictions and recommendations for future researchers

Any survey or research that is done in a field method, face some restrictions due to its nature. In current research the restrictions of researcher and the research work are as follows:

- 1- Main research variables were qualitative ones
- 2- Problems in defining effective and important factors in the field of consumer's adoption of innovation
- 3- The only way of collecting the data was through questionnaire. Cases like impossibility of having deep interviews and lack of cooperation in filling the questionnaires were among the restrictions of the research.
- 4- According to the target of the current research, relation of dependent and independent variables and effective factors on innovation adoption of customers were put into account and the level of innovation adoption in current statistical population was not considered.
- 5- Time limit of the research and short sampling period are among the restrictions of any academic research which decrease the exactness of each research.

Base on experiences and information obtained by this researcher in current survey, following subjects are recommended to those who are interested in field of innovation and innovation adoption by consumers.

- 1- Survey the effectiveness of cultural factors in innovation adoption by Iranian consumers
- 2- Study the role of economic factors on high-tech product's adoption
- 3- Ranking effective factors on innovation adoption in home appliances and products.
- 4- Ranking effective factors on innovation adoption of consumers in servicing industries by AHP technique.
- 5- Comparing the effects of life style in Iran and a foreign country on innovation in family consumption

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

- 6- Surveying the adoption of consumers toward products' innovation in Iran and comparing it with a foreign country
- 7- Study the approaches of increasing the innovation adoption rate for various producers
- 8- Understandable role of consumers in the rate of innovation and innovation adoption from consumer's side
- 9- Role of relational marketing on costumer's perceptions in new products adoption

REFERENCES

-Aldas Manzano J, Lassa Navarre C, Ruiz Mafe C, and Sanz Blas S (2008). The rolt of consumer innovativeness and perceived risk in online banking usage International Journal of bank Marketing. 27 : 53-75.

-Ayman I (1974). Educational Innovation in Iran. Paris: Unesco Press.

-Bartels J, j.reinders M (2010). social identification, and consumer innovativeness in an organic food context : a croos-national comparison, food quality and preference. 21: 347-352.

-Bendix R, Lipset M (1967). Class, status and power, London: RKP.

-Bourdieu P (1984).Distinction: A Social critique of the Judgment of taste. Translated by

Richard Nice. London: Routledge & Kagan Paul.

-Brinkmann J, Peattie K (2008).Consumer Ethics Research: Reframing the Debate about Consumption for Good, *EJBO Electronic Journal of Business Ethics and Organization Studies*. 13(1).

-Burnett J (2008).Core Concepts of Marketing. pp:1-287.

-C.C.Yang K (2005). Exploring factors affecting the adoption of mobile commerce in Singapore, Telematics and Informatics. 22:257-277.

-C.Manning K, O.Bearden W, J.Mdden T (1995). Consumer Innovativeness and the Adoption Process, Journal of consumer psychology,4(4): 329-345.

-Chao C.W, Reid M (2010). Consumer innovativeness and chines's really new product adoption behavioure. 1-5.

http://anzmac2010.org/proceedings/pdf/anzmac10Final00151.pdf

-Chao C.W, Reid M, and T.mavondo F (2012). Consumer innovativeness influence on really new product adoption, Australasian marketing journal .20:211-217.

20

- Chao C.W, Reid M, and T.mavondo F (2009). The influence of consumer innovativeness on reallynewproduct adoption, ANZMAC: 1-8.

http://www.duplication.net.au/ANZMAC09/papers/ANZMAC2009-490.pdf

-Clarke J (2006). Consumption; Ency clopedia of Governance, Sage Publication.

-C Mowen J, S.minor M (2012). "consumer behavior", Translated by Abbas Saleh Ardestani & Mohammadreza Saa'di, 4th edition, Etehad-Aylar publication, Tehran, Iran.

-Cuban L (1986). Teachers and machines. New York: Teachers College Press.

-D.Michman R, M. Mazze E, and J. Greco A (2003). Lifestyle Marketing Reaching the New American Consumer.

-Dobre C, dragomir A, and preda G(2009). consumer innovativeness: a marketing approach, managemanet and marketing. 4(2): 19-34.

-G.Grunert K (2006). Future trends and consumer lifestyles with regard to meat consumption, Meat Science 74,149–160.

-Ghose Dasgupta C, S.Dispensa G, and Ghose S (1994). Comparing the predictive performance of a neural network model with some traditional market response models *International Journal* of Forecasting. 10: 235-244.

-Goldsmith R, Flynn. LR (1992). Identifying Innovators in consumer Product Markets, European Journal of Marketing. Vol 26. No. 12. PP:42-55.

- Hoffmann S, soyez K (2010). a cognitive model to predict domain-specific consumer innovativeness, journal of business research. 63: 778-785.

-Hur W.M, Yoo J.J, Chung T.L (2012). the consumption values and consumer innovativeness on convergence products, industrial management and data systems, vol 112 (5): 688-706.

-J.Tellis. G,; yin. E, and Bell.S, (2009), global consumer innovativeness : cross country differences and demographic commonalities, journal of international marketing, American marketing association, 17(2): 1-22.

-J.Van Rijnsoever. F,; Oppewal. H,(2012). Predicting early adoption of successive video player generations, Technological Forecasting & Social Change:558-569.

-K. Eastman J, Kevin L, Eastman J (2011). Perceptions Of Status Consumption And The Economy, *Journal of Business & Economics Research*, Volume 9, Number 7

-Kai-MingAU A, Enderwick P (2000). A Cognitive model on attitude towards technology.15(4): 266-275.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

September 2014

-Kang M, Gretzel U (2012). perceptions of museum podcast tours : effects of consumer innovativeness, internet familiarity and podcasting affinity on performance expentancies, tourism management perspectives. 4: 155-163.

-Katila R (2002). Measuring innovation performance. Cambridge: Cam- bridge University Press.

-Kotler PH (2009). "Marketing Management: Analysis, Planning, and Control, Translated by: Bahman Forouzandeh, 5th edition, Farzaneh publication, Tehran, Iran.

-Kotler PH, Armstrong G (2006). " principles of Marketing", Translated by: Bahman

Forouzandeh, 5th edition, Aamukhte publication, Tehran, Iran.

-Fowler K, bridges E (2010), consumer innovativeness : impact on expectations, perceptions and choice among retail formats, journal of retailing an consumer services. 17 :492-500.

-Kim W, Di Benedetto C.A, and Richard A.L (2011). the effects of country and gender innovativeness and decision processes in a highly globalized hagh-tech product market, asia pacific journal of marketing and logostics. 23(5): 714-744

- Klaus G.G (2006). Future trends and consumer lifestyles with regard to meat consumption, Meat Science. 74: 149–160.

-Lee H. J., Lim H, D.Jolly L, and Lee J (2009). Consumer Lifestyles and Adoption of High-Technology Products : A Case of South Korea. Journal of International Consumer Marketing. 21:153-167.

-Leung.L,(1998), Lifestyles and the use of new media technology in urban China, *elecommunications Policy*. 22(9): 781-790.

-Manzano J.A, Lassala-Navarre C, ruiz-Mafe C, and Sanz-blas S (2008). The role of consumer innovativeness and perceived risk in online banking usage International Journal of bank Marketing .27 : 53-75.

-Nutley.S M, Davies H.T.O (2000). Making a reality of evidence-based practice: some lessons from the diffusion of innovations. Public Money and Man- agement. Vol.20. No.4. PP. 35-42.

-Park J. E, Yu J, and Zhu J.X (2010). consumer innovativeness and shopping styles, journal of consumer marketing. 27 (5): 437-446.

-Reusswig F, Lotze-Campen H, Gerlinger *Changing K (2005). Global Lifestyle andConsumption Patterns*: The Case of Energy and Food Potsdam Institute for Climate Impact Research (PIK)Global Change & Social Systems Department.

A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering http://www.ijmra.us

-Roehrich G (2004). consumer innovativeness concepts and measurement, journal of business research. 57: 671-677.

-Rogers E. M (1995). Diffusion of Innovations. New York: Free Press.

-Sjoberg L, Engelberg E (2005). Lifestyles and Risk Perception Consumer Behavior, International Review of Sociology/Revue Internationale de Sociologie. 15(2): pp. 327-362.

-Stearns P (2001). Consumerism in Word History, London: Routledge.

-T.plummer J (1974). the concept and application of life style segmentation, journal of marketing. 38:33-37.

-Vandecasteele B (2010). Innovative Consumers: who, why, and How to Target? A Doctor Dissertation, Ghent university.

-Vandecasteele B, and Geuens M (2010). motivated consumer innovativeness : concept, measurement, and validation intern.j. of research in marketing. 27: 308-318.

-Vandecasteele B, and Geuens M (2008), motivated consumer innovativeness and GLB : a comparative study.

-Vandecasteele B, and Geuens M (2008). motivated consumer innovativeness : concept and measurement, universite it Gent: 1-54. <u>http://ideas.repec.org/p/rug/rugwps/08-532.html</u>

-Vandecasteele B, and Geuens M (2008). motivated consumer innovativeness and GLB : a comparative study: 1-34. http://ideas.repec.org/e/pge20.html

-Xie Y.H (2008). consumer innovativeness and consumer acceptance of brand extensions, journal of product and brand management. 17 (4): 235-243.

-Yang Y, Ahuvia A, and Carroll B (2006). consumer culture theory and lifestyle segmentation, Innovative Marketing. 2(4): 33-43.

-ZhangT, Zhang D (2007). Agent-based simulation of consumer purchase decision-making and the decoy effect, *Journal of Business Research*. 60: 912–922.