

Full Length Research Paper

Stipulation of a model to establish a valuable relationship with consumers in an e-grocery

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In this research, we examine the extent of information technology and application of internet in e-commerce as a whole, and e-grocery in particular, focusing on the effective factors concerning customer values and the effects of e-grocery on consumer value in the Iranian market. This survey suggests an integrated model is designed using a combination of seven variables in shaping consumer values. The seven variables; product ID, consumer's inventory management, and 24 h service from electronic commerce, distribution channel, price and choice from grocery, and the variable of respect, which plays an important role in both categories, but in distinctive ways as noteworthy features for ranking efficient variables in generating a precious connection with customers are thoroughly studied.

Key words: E-grocery, consumer values ranking, e-commerce, Iranian market, marketing, variable normality, kolmogorov-smirnov test, Friedman test.

INTRODUCTION

The present century has been named "the population explosion century" and "the information explosion century". There are deep sited reasons to believe that "the information explosion" has made so drastic changes in the life of human beings in every aspect, that, this event can be named "information revolution" and ranks atop "the industrial revolution". This revolution has become possible by evolution of information technology and innovation of "internet". On the other hand, "the population explosion" has made the cities larger and the distances longer. This has resulted in accessibility of demands, no matter the type and form, by everybody who is in need of, in a poor and unsatisfactorily manner. Internet in its turn has made remarkable changes in the business environment and has eliminated distances between the suppliers and customers, clients and contractors, sellers and purchasers, information seekers and providers, service seekers and providers, etc. Value creation for consumers

must be placed at the focus of attention for marketers, and its factors should be identified and categorized. E-business causes diversity in distribution channels and creates values for consumers. In Iran, this type of business – and e-grocery in particular – is hastily growing.

This study is a descriptive-survey study. However, from time to time, cross-sectional survey has also been implemented. Since the present study is a collection of methods which aim to describe the conditions or phenomena under study and since the execution of this research can help understand the present situation or assist us in the process of decision-making, it is descriptive. On the other hand, part of the research is survey conducted on the sample population to interpret the attitudes, thoughts, behavior or attributes of the society. A type of study and survey of nonparametric statistical tests such as Kolmogorov - Smirnov test, Friedman rank sign test are used in addition.

The research population of this study is the consumers who do their shopping in Persian Web shop. Persian Web shop was opened in Mashhad in 1386 and offers its goods in nine categories as follows: dairy, protein, nuts, vegetables, drink, snacks, canned food, cosmetics, and cleaning and detergents. Information resources dogged

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in this investigation were the databases of Persian Web shop and interviews with its store managers.

Statistics retrieved from the databases of Persian Web shop showed that the total number of the consumers who did their purchases electronically were 420. The applied sampling method was stratified random sampling. With regard to the success of the population which is 0.5, and the degree of the error which is 7%, in this research, the populations of consumers were sampled randomly. The number of the sample population was calculated to be 196 and according to the random sampling method, the sample population was determined. Secondary sources were gathered through library studies such as studying books, data and documents. Internet was the next source. The data from these sources were used for theoretical formulations. The primary data were used to test the hypotheses of the study and using a survey study (an e-questionnaire), the sample population was interviewed.

LITERATURE REVIEW

In a study by Kau et al. (2003) under the title semiotics of "Typology of online shoppers", the attitude and behavior of Singaporeans e-shoppers were studied and investigated. The statistical population of their study was 65% male and mostly single. The largest age group was 20 to 24 years which consisted about 32% of the whole population; the second largest age group was 25 to 29 years (roughly 28.5%), while the third largest was 30 to 34 years (roughly 13.9%). Only 2% of respondents were over 50. 44.9% had college degrees. Considering the results, consumers were divided into six categories.

In a study by Ahola et al. (2003) titled "A long-term case study of an e-grocery concept", they studied the factors effecting value creation for consumers of e-groceries. They found that in order to create values for a consumer in an e-grocery, it is necessary that the potentials of internet be reasonably brought into use and also be placed into good and constructive interaction with the factors in the value chain.

In a study by Joines et al. (2003) entitled "Exploring motivations for consumer Web use and their implications for e-commerce", the results were:

1. A significant negative relationship existed between trade interactions and concerns of security and privacy (concerns about credit card frauds).
2. A significant positive relationship existed between the amount of online shopping and information motives (provision of useful and constructive information about goods and services to consumers).
3. A significant positive relationship existed between online shopping and interactive motivations.
4. A significant positive relationship existed between online shopping and social motivations.
5. A significant positive relationship existed between

online shopping and economic motivations, such as, convenience and saving of time and cost.

In a study by Raija (2002) entitled "the consumer benefits and problems in the electronic grocery store", the results showed that 43% of the consumers had stated that finding the goods was not easy; 40% stated that prices were higher than the traditional form of shopping; 34% had stated that the quality of the goods was almost impossible to verify; 28% had stated that goods were less classified than traditional stores; 12% had stated that the exchange of information had not been easy; 6% had stated that delivery had not been time-effective; 6% had stated that the goods were not returnable, and 3% had stated that the services provided during the purchase had not been satisfactory. The result was that price is an important factor in online shopping and that services provided to consumers at the time of purchase and facility of purchase take up the first and second place.

In a research by Ankar et al. (2002) titled "creating customer value in online grocery shopping", variables of price, choice, services and ease of purchase were investigated and the results showed that variables of service and price played a determining role in the consolidation of a grocery.

In a study by Ling (2001) titled "an analysis of the e-grocery industry in Singapore", variables of distribution channel, choice, time cost, payment method and cost were evaluated. These results showed that none of the mentioned variables indicated any tilt of attraction towards either traditional or electronic grocery or considering that online grocery is in its early stages of development, it is unable to compete with traditional grocery.

In a research by Kamarainen (2001) titled "the reception box impact on home delivery efficiency in the e-grocery business" points out that grocery delivery is not yet publically normalized, and perhaps, one of the main reasons is the lack of any difference in the speed of either methods of grocery. Moreover, online grocery sometimes turns out to be more costly for the consumers. In recent years, internet and online shopping have mildly facilitated the purchase process; however, there exist a lot of problems and ambiguities to which, so far, no proper answer has been found. In that article, different channels of purchase process were investigated, and efficient channels another research by Smaros et al. (2000), "reaching the consumer through e-grocery VMI". Point is made that in today's world which is full of competition, in order to win profits from our sales and maintain our commercial growth, we need to create values for our consumers; we cannot simply hand solid merchandise to a consumer without considering any meaningful and relevant side service. This side service will act as our axis to create value for our consumers. This will, in turn, lead to more profit which will ensure the survival of our organization. In addition, the created value needs to be a permanent one. The researcher examines

the demands for the goods in a grocery and suggests that with appropriate services accompanying the goods, they can increase their sales. A grocery should be able to develop a scenario to be able to meet the diverse needs of their consumers, while their marketing mix must show a high flexibility.

A consumer is any person or organization involved in the channel of distribution or decision (other than competitors) whose action can affect the purchase of the firm's products and services. It encompasses both the firm's existing consumers and those potential consumers it seeks for the future. It focuses on those persons or organizations that can influence the decision to purchase the firm's products and services. Thus, the notion of consumer is broadened far beyond the entity (person, family, or organization) the exchange money (or goods and services) for the firm's products or services (Capon et al., 2001).

The foremost of consumer value very simply states that achievement in targeted market divisions is directly related to the firm's ability to provide value to consumers. A corollary of this major is that although firms develop, produce, and deliver products and services, consumers perceive value only in the benefits that these products and services provide (Capon et al., 2001).

$$\text{Value} = \frac{\text{Benefits} = \text{Functional Benefits} + \text{Emotional Benefits}}{\text{Costs (Monetary Costs + Time Costs + Energy Costs + Psychic Costs)}}$$

Delivering superior consumer value is a means to success in a more and more cutthroat setting. From the perspective of a single grocery retailer, online or offline, consumer value can generate in four different ways, by offering:

1. Competitive price
2. A broad and/or specialized assortment
3. Superior shopping convenience
4. Superior consumer services (Ankar et al., 2002).

As Blackwell et al. (2001) shows, the winners in "clicks and order" retailing, like their forerunners in "bricks and mortar" retailing, will be those who know how to support the consumer better than competitors and offer superior solutions than were obtainable to consumers in former times. What constitute a considerable part on influencing consumer satisfaction are consumer need, consumer value and consumer cost. The technology of e-commerce determines what can be offered to consumers, but only consumers settle on which of those technologies will be accepted. The means to success for e-commerce is to be familiar with consumers' behavior, value and satisfaction. There are numerous models that have been built up to support our understanding of value that consumers expect from a given product or service (Engel et al., 1995;

As said by Kotler et al. (2000), consumer value is the consumer's opinion of the product's general capability to convince his or her needs. Consumers face with a huge group of product and brand options, fees and suppliers. It is supposed that consumers do guesstimate which offer will deliver the most value for them. They are accepted as true to be value-maximizes within the bounds of search costs and limited information, mobility and income. It is believed that consumers will buy from the firm that they perceive to put forward the highest consumer delivered value. The whole consumer value is the bundle of benefits, consumers expect from a given product or service (product value, service value, staff value, and image value). Total consumer cost is the package of costs consumers expect to incur in evaluating, obtaining and using the product or service (monetary cost, time cost, energy cost, and psychic cost). Consumer delivered value is the difference between the total consumer value and total consumer cost (Ahola et al., 2000).

Companies deal with needs by putting forth a value proposition - a set of benefits they offer to consumers to assure their needs. The intangible value proposition is made physically by an offering which can be an amalgamation of products, services, information and experience. Value is given by (Kotler, 2002):

Murphy, 2001). For example, Holbrook (1999) lists efficiency, convenience and quality of products or services as consumer value. Ravald and Gronroos (1996) list purchase price, acquisition cost, transportation, risk of failure or poor performance as consumer cost (Lin, 2003).

To quote Haddrell (1994, cited in Danaher and Haddrell, 1996), as they mention, many different scales have been considered to assess customer contentment. As stated by Lin (2003), three core scales which play a noteworthy character in determining consumer selections are as follows:

1. Consumer need
2. Consumer value and
3. Consumer cost

As affirmed by Solomon (1999), the needs can be separated beside two aspects: Utilitarian (a desire to achieve some functional or practical benefit) and Hedonic (an experiential need, involving emotional responses or fantasies) (Solomon, 1999).

A person's set of values play a very significant position in consumption activities. Many products and services are purchased for the reason that people consider these products will help them attain a value-related goal (Solomon, 1999). Values have an effect on consumers in

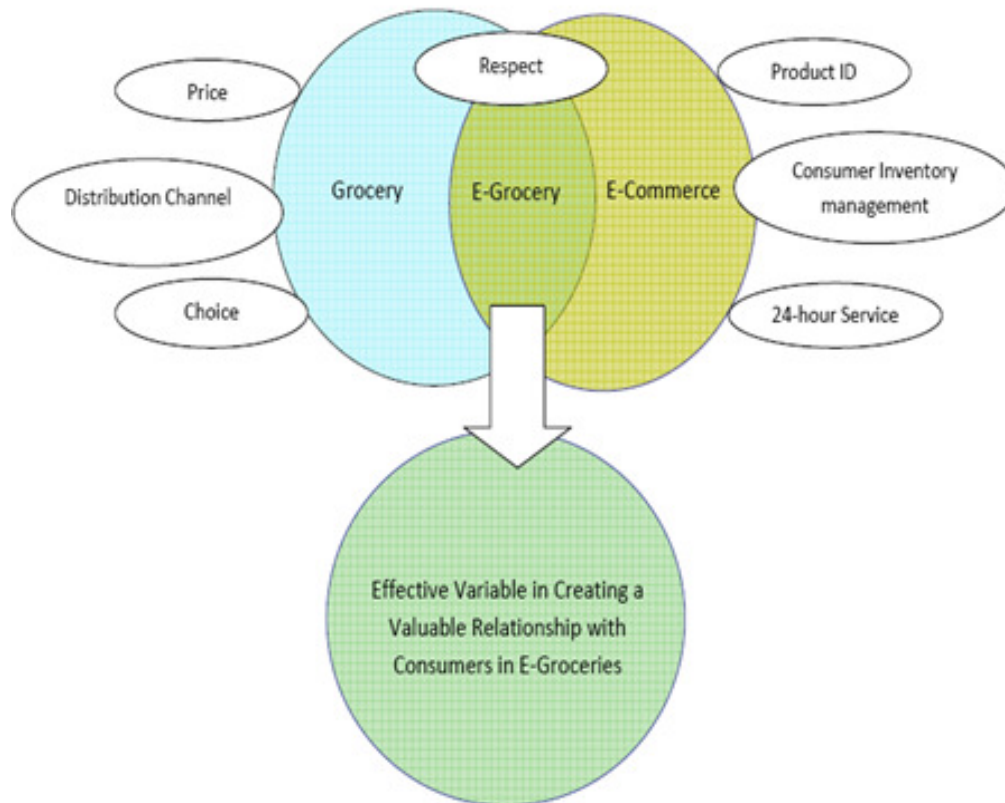


Figure1. Model variables affected in relationship with consumers in Iranian e-groceries

determining evaluative criteria, replying the question “Is this product for me?” Value can be delineated as principles or standards of an individual, group, organization or society as a whole (Kenny, 1994). They reflect an individual or collective judgment as to what is valuable or vital in life (Kenny, 1994).

In addition, values reflect what people do and what guides behavior, that is; what is done at work and how it is done reflect the values people hold (Kenny, 1994). Values can mean a variety of things to different consumers. Woodruff and Gardial (1996) argue that satisfaction and value are complementary, yet distinct constructs (Woodruff and Gardial, 1996).

As Ravald and Gronroos (1996) examine, the theories of consumer behavior research argue that “value” is continually used in a context, meaning values of consumers.

On the other hand, Peter and Olson (1993) discuss another meaning of value; “the value or utility the consumers receive when purchasing a product”. Monroe (1990) describes consumer perceived value as the ratio between perceived benefits and perceived sacrifice (Monroe, 1990).

Kotler’s (2000) meaning is analogous with Monroe’s and is gone over the main points as this judgment that “consumer delivered value is the difference between total value and total consumer cost”.

The research proposes that the following major benefits

for suppliers are involved, as witnessed by the views expressed of Kotler (2000) and Skyrme (2001):

1. 24 h and 365 day opening
2. Lower costs
3. Efficiency gains
4. Extended market reach
5. Speedy modifications to market circumstances
6. Influence consumer purchases and
7. Improved consumer service.

According to Kotler (2000) and Skyrme (2001), e-commerce also provides a number of benefits to consumers, such as:

1. Convenience
2. Information
3. Less hassles
4. Low procurement costs
5. Smooth process
6. Personal shopping and
7. Transaction can be instant.

Over 70% of the respondents reported convenience and saving time as their primary reason for buying groceries online.

The other reasons mentioned were corporeal

constraints, hatred of grocery shopping or grocery stores, buying for business, an inability to keep away from impulse buying, and the reality that the respondents do not like waiting in queue" (Tanskanen et al., 2002).

THE PROPOSED MODEL

The proposed model is shown schematically in Figure1 in an e-grocery in Iran.

Distribution channel

With people's life full of daily activities, shopping at residence will be much more economical and easier. From the customer's point of view, residence delivery is a new service that makes life easier, especially for people who have difficulties in getting to a store or who do not have time for shopping. As we exemplify in Figure1, this reality is adorned as distribution channel in this paper. In e-shopping, since stores have categorized and listed the goods and services, and it has become easier for consumers to contrast and select, much of the labors of purchase have been omitted, and much of the work which was previously on the consumer is now on the grocery store (Delany et al., 2003). Noticeably, when shopping in customary groceries, consumers would fritter away much of their time especially when they are unable to find their preferred item for consumption and have to search different sections of the store for it (Delany et al., 2003).

Convenience has been proved to be the most important factor in the expansion of e-grocery in TESCO. TESCO is an online grocery shopping and delivery service which has been mainly fashionable for its ease of purchase rather than the low price (Delany et al., 2003). From the customer's point of view, home delivery is a new service that makes life easier, especially for people who have difficulties in getting to a store or who do not have time for shopping (Morganosky et al., 2000; Kamarainen, 2001).

Price

Price is the one aspect of marketing mix that produces revenue; the other elements produce costs. Prices are the easiest marketing-mix element to adjust. Product features, channels, and even promotion take more time. Price also converses to the market company's intended value positioning of its product or brand (Kotler, 1997).

Price can be looked upon as the amount for which a product or service is exchanged, or offered for sale to potential purchases, irrespective of the value or worth (Proctor, 2000). The simulation results illustrate that e-grocery home delivery service can actually be as much as 43% cheaper to current costs of consumers visiting the store using their own car and spare time.

Baker (2000) acknowledged groceries are everyday necessities for which most consumers are loathing to pay a premium (Kamarainen, 2001). So, it is said that briefly, competing by price is the most repeatedly used method in the grocery business. Chiger (2000) says about 67% of these online shoppers agreed that convenience was the main reason they had bought through the internet with 41% mentioning price as another factor (Berning et al., 2004).

Choice

Studies attest that variety serves as a determining issue in shopping from a store. Also, choice and availability of rare-to-find products can be a momentous factor in e-commerce (Ankar et al.,

2002).

As well, search engines are so designed to make it possible for the consumers to find their precise products and services. Furthermore, there are records in which products and services are categorized, priced and their respective additional information provided. In so-doing, a wide series of users are aided in their valuation and choice of products and services (this is called comparison and search convenience). This reality is decorated in Figure1 as choice. This convenience will occasionally allow consumers to identify unrecognized substitute products which may possess finer qualities (Alba et al., 1997).

Twenty-four hour service

IT can help resolve a number of difficulties. It provides the opportunity of doing their purchases at home which helps reduce unnecessary traffic and market rush, and time of purchase (Kotler, 2000). In other words, as shown in Figure1, consumers will have a 24 h chance of purchase. The website efficiently and effectively provides necessary services and information for the consumer, and transactions and services are automatically rendered (Lin, 2002).

Respect

With an e-grocery, consumers are relived of disrespect and long queues, especially after a long working day. Since omission of a head to head communication with a frowning cashier, leading in turn to disrespect; e-commerce has proved positive to consumers (Delani et al., 2003). Daly (2002), in a report on users' respect at e-groceries, which was prepared through interview with users and investigation of websites active in the field, introduces six effective elements on respect which are:

- i. Privacy
- ii. Clearness
- iii. Principles
- iv. Responsiveness
- v. Simplicity
- vi. Attitude

Gupta et al. (1997) clarify that consumers' lack of interest in e-shopping is mostly on account of security issues and conciliation of privacy. Burke (1997) also mentions the same problem as why the majority of consumers lack an interest in making use of technology.

Product ID

Today, with the provision of a digital product ID, consumers will have the chance to virtually identify the products and obtain information on their production process from the beginning through to the store (Smaros et al., 2000). This information may consist of the kind of the meat, where the animal is raised, the kind of grass the animal is fed, where the meat is packaged, and how the meat has been transported to the grocery (Higginson, 2002). Design of such system has got advantages for both the consumers and the grocers. It is of significance to grocers because of the facility with which they can manage their supply chain process, expedite their delivery of products to consumers, manage their inventory, and avoid storing the surplus products. In addition, consumers will be able to do their purchase with more information and transparency (Rundh, 2008).

Consumer inventory management

Consumer inventory management requires a useful and

Table 1. Summary of variable normality test.

Variable	Significance	Result
Distribution channel	0.012	Non
Price	0.001	Non
24 hour service	0.000	Non
Respect	0.001	Non
Product ID	0.017	Non
Choice	0.001	Non
Consumer inventory management	0.018	Non normal

constructive relationship between the grocer and the consumer so that the grocer is able to collect and store the consumer's purchase information such as taste, habit, number of monthly purchases, etc. and design an efficient system to manage the consumer requests (Smaros et al., 2000). In other words, using consumer management inventory, consumers will know if a particular product is available, and if not, they will also know if there is any alternative product. Subsequently, every month, consumers are updated on the changes in inventory of the grocery and the alternative products (Ankar et al, 2002). Finally, the success of an e-grocery lies with establishing a constructive relationship between the consumer demands, inventory, and the quality of the provided services to the consumer (Delani et al., 2003).

RESULTS AND DISCUSSION

Gender distribution in the sample was correspondent with the research model. Majority of the consumers consisted of women, and the results portrayed the reliability of the findings. Results showed that 85% of the female consumers were over 20 years, and 80% of them earned over 7,000 dollars per month. On the other hand, 90% of the male consumers aged above 20 years, and 85% of them earned over 7,000 dollars per month. Moreover, all but 12% of the respondents had higher educations. Regarding, online shopping, 77% of respondents were in favor of online shopping, while 23% were contrasting to it. Concerning electronic shopping 71% of women showed tendencies towards electronic shopping. That is, while 56% of men had inclinations for electronic shopping, the majority of the population was in favor of electronic shopping.

Operative variable results

As for the question of distribution channel being an advantage, results showed that 36% of the respondents completely agreed, while 53% only agreed, and 11% exhibited indifference.

The results showed that 6% of the respondents completely agreed on price being economic and an advantage in e-grocery, while 32% only agreed, whilst 47% showed neutrality, and 14% opposed the notion.

On the other hand, 1% displayed strong disagreement.

30% of the respondents completely agreed on choice being an advantage in e-grocery; 45% only agreed, while 9% showed neutrality, and 4% opposed the thesis. 2%, however, displayed strong disagreement. 28% of the respondents completely agreed on 24-hour service being an advantage in e-grocery; 48% only agreed, while 15% showed neutrality, and 6% opposed the thesis. 3%, however, presented strong disagreement. 22% of the respondents completely agreed on respect being an advantage in e-grocery; 56% only agreed, while 18% showed neutrality, and 3% opposed the thesis. 1% however, displayed strong disagreement. 15% of the respondents completely agreed on product ID being an advantage in e-grocery; 32% only agreed, while 35% showed neutrality, and 16% opposed the thesis. 2%, however, put on view strong disagreement. 12% of the respondents completely agreed on consumer's inventory management being an advantage in e-grocery; 28% only agreed, while 42% showed neutrality, and 14% opposed the thesis. 4% however, flaunted strong disagreement.

Normality of the research variables

Before getting to test the research hypotheses, in order to accept the conduct of variables used for the model presented in this paper, we need to determine the normality of the research variables which are rated through the Kolmogorov-Smirnov test. The design of the hypotheses is as follows:

H_0 : The related variables is normal.

H_1 : The related variable is not normal

Based on the test results from all variables, since the obtained significance numbers were less than 0.05, the H_0 was rejected and the non normality of the variables of value creation were confirmed as is shown in Table1.

Sign test

Using sign test, the status balance of the dimensions of value creation is investigated. (Memo: since the value

Table 2. Summary of variables sign test.

Variable	Output	Z	Result
Distribution channel	5	1.65	Cause
Price	2	1.65	Cause
24 hour service	3.5	1.65	Cause
Respect	3.4	1.65	Cause
Product ID	2.2	1.65	Cause
Choice	3.2	1.65	Cause
Consumer inventory management	2.1	1.65	Cause create value

Table 3. Summary of ANOVA test.

Variable	Value
Total	196
χ^2	419.076
Degree of freedom	29
Significance	0.00

range is 1 to 5)

H_0 : The variable does not propote value creation on e-grocery

H_1 : The variable does not propote value creation on e-grocery

or:

$H_0: \mu \leq 3$

$H_1: \mu > 3$

With regard to the obtained results, as shown in Table 2, all the variables had significant relationships with value creation for consumers.

Friedman ANOVA

To rank the value creation for identifying the weak and strong points, Friedman analysis of variance (ANOVA) was used. The results are as shown in Table 3.

Value creation dimensions

Hypothesis test: there is a significant difference between the present statuses of value creation dimensions. Therefore, the following statistical hypotheses can be developed:

H_0 : There is significant difference between the present status of value dimensions.

H_1 : There is no significant difference between the present status of value dimensions.

Considering the output of SPSS (Statistical Package for

the Social Science), the significance value is less than the standard significance level ($\alpha = 5\%$). Therefore, H_0 is not validated on the 95% confidence level, and therefore, the dimensions of value creation do not have similar ranks.

Rank mean in Friedman test

As can be seen from Table 4, the highest rank belongs to distribution channel, and then afterwards, choice, 24 h service, respect, product ID, consumer inventory management and price, respectively.

CONCLUSION

The role of distribution channel in attracting consumers to electronic grocery

Results showed that 89% of consumers had either completely agreed or just agreed that distribution channel had a very decisive role in attracting them to do electronic grocery.

This was, while 11% of the consumers showed indifference none disagreed to the statement. Therefore, conclusion can be made that distribution channel has a key role in the growth and development of electronic grocery.

The character of price in attracting consumers to e-grocery

Although price has always been a concern for consumers regardless of the value they gain from a product, the concern is for the thing they get for the money they spend.

Table 4. Summary of variable rank results.

Variable	Significance	Average rating
Distribution channel	0.012	18.91
Choice	0.001	17.58
24 Hour service	0.000	17.39
Respect	0.001	16.32
Product ID	0.017	11.83
Consumer inventory management	0.001	11.40
Price	0.018	10.30

According to the study, although 47% of the respondents had shown apathy to price difference, a greater number of consumers were not willing to pay extra for their electronic purchases; they believed that, compared to traditional grocery stores, e-stores were not reasonably priced. Compared to other factors such as time, effort or respect, price proved to be a factor of higher interest in e-shopping, and can have a determining role in stimulating a consumer towards e-grocery.

The character of choice in attracting consumers to electronic grocery

As examinations showed, whereas only 8% of the respondents had (fully) disagreed with choice being a substantial factor in attracting consumers to e-shopping, 75% had (fully) agreed to the matter. Considering the percentage of the indifferent respondents, claim can be placed that choice can be a determining factor of attraction for the consumers of an e-grocery.

The character of 24 h service in attracting consumers to electronic grocery

As shown by the study, merely 9% of the respondents had (fully) disagreed with 24 h service being an influential factor in attracting consumers to e-shopping.

That was while 76% of the respondents had (fully) agreed to the statement, and since only 15% had presented their lack of difference, it could be argued that 24 h service can act crucially in drawing consumers towards e-grocery.

The character of respect in attracting consumers to electronic grocery

As the study shows, 78% of the respondents (fully) agreed e-groceries grant more respect to their consumers (for example, consumers no longer have to face bored and ill-tempered shop assistants or cashiers, or do their shopping in congested stores). Additionally, e-groceries satisfy a higher sense of prestige which acts

as an attracting element towards e-grocery.

The character of consumer inventory management in attracting consumers to electronic grocery

As shown by the examination, 40% of respondents (fully) agreed that e-grocery's consumer inventory management served as an attraction motive towards e-shopping. Because of their busy schedules, consumers often fail to check on their inventory or miss updates to alternative goods, thus consumer inventory management serves as an influential element in value creation.

The role of product ID in attracting consumers to electronic grocery

According to the study, 47% of respondents (fully) agreed that provision of a product ID is influential in attracting the consumers and that consumers could do a more informed purchase. Moreover, the results indicated that product ID has been one of the significant factors of creating value for consumers.

Consumer value rankings

With regard to the per-centage of the respondents who had (fully) agreed to the study variables, the variables were ranked as follows: (1) distribution channel = 89%, (2) 24-hour service = 80%, (3) respect = 78%, (4) choice = 75%, (5) product ID = 47%, (6) consumer inventory management = 40%, (7) price = 38%.

E-commerce and online shopping

The comparison of the conceptual framework and literature of the research along with the results indicates that the Iranian consumers approach towards e-commerce and online shopping is no different from that of other countries and along with the expansion of internet application and spreading out communication infrastructure, there is the growth of electronic commerce and online shopping.

E-grocery

Results showed that 85% of female consumers were over 20 years, among which 80% had a monthly income of over 700,000 tomans per month. It also indicated that 90% of male consumers were over 20 years, out of whom 85% earned a monthly salary of over 70,000 dollars. Meanwhile, all but 12% of the respondents had higher education. Moreover, 77% of respondents showed favor to online shopping while 23% opposed it. Lastly, whereas 71% of the female buyers had shown favor to online shipping, a mere 56% of the male buyers showed willingness. Nevertheless, the majority of the respondents had tendency towards e-shopping.

Although e-grocery is in its early stages of development in the markets of Iran and most of the consumers are young and earn an above average income, it is operating quite similarly to those of e-groceries of other countries.

Consumer values in e-grocery

Consumer values of the target population are mostly identical with those other populations. Nevertheless, consumer values are affected by economic and cultural factors. Although, these values differ in ranking from population to population, distribution channel, time, and respect possess high priorities in the countries where e-groceries are in operation.

Considering the research analysis and the obtained results, we notice that through the creation of values by e-groceries and the development of the digital world, tendency for electronic grocery will vividly increase in the near future.

REFERENCES

- Ahola H, Oinas-Kukkonen H (2003). A long-term case study of an e-grocery concept. *Frontiers of e-business research*. University of Oulu, Finland, pp. 513-524.
- Ahola H, Oinas-Kukkonen H, Koivumaki T (2000). Customer Delivered Value in a Web-based Supermarket. *Proceedings of the 33rd Hawaii International Conference on System Sciences*. Hawaii, pp. 4-6.
- Alba J, Lynch J, Weitz B, Janiszewski C, Lutz R, Sawyer A, Wood S (1997). *Interactive Home Shopping: Consumer, Retailer, and Manufacturer Incentives to Participate in Electronic Marketplaces*. *J. Mark.*, 61: 38-53.
- Ankar B, Walden P, Jelassi T (2002). Creating Customer Value in Online Grocery Shopping. *Int. J. Retail Distrib. Manage.*, 30(4): 211-220.
- Baker M (2000). Onlin grocery shopping – time for a stock-taking. *ICSC Res. Q.*, 7(1): 1-4.
- Berning C, Ernst S, Hooker NK (2004). *E-Grocery: Who is the Ideal Consumer?* OHIO State University: AEDE-RP-0043-04.
- Blackwell RD, miniard PW, Engel JF (2001). *Consumer Behavior*. 9th ed. Harcourt College Publishers. Orlando, Fl.
- Burke RR (1997). *Real shopping in a virtual store*. Peterson RA (editor). *Electronic Marketing and the consumer*. Thousand Oak, pp. 81-88.
- Capon N, Hulbert J (2001). *Marketing Management in the 21st Century*. Prentice Hall Publishers, pp. 86-89.
- Chiger S (2001). *Consumer Shopping survey*. *Catalog Age*, 4:80-81.
- Danaher PJ, Haddrell V (1996). A comparison of question scales used for measuring customer satisfaction. *Int. J. Serv. Ind. Manage.*, 7(4): 4-26.
- Delany K, Klinger K, Boyer K, Frohlich M (2003). The Return of Online Grocery Shopping: a comparative analysis of Webvan and Tesco's operational method. *TQM Mag.*, 15(3): 187-196.
- Gupta S, Chatterjee R (1997). *Consumer and Corporate Adoption Of the world wide web as a commercial medium*. Peterson R.A. (editor). *Electronic Marketing and the consumer*. Thousand Oak, pp. 123- 138
- Higginson CS, Rayner MJ, Draper S, Kirk TR (2002). The nutrition label-which information is looked at? *J. Nutr. Food Sci.*, 32(3): 92-99.
- Holbrook MB (1999). *Consumer value: A Framework for Analysis and Research*. Rutledge, London.
- Joines JL, Scherer CW, Scheufele DA (2003). Exploring motivations for consumer Web use and their implications for e-commerce. *J. Consum. Mark.*, 20(2): 90-108.
- Kamarainen V (2001). The reception box impact on home delivery efficiency in the e-grocery business. *Int. J. Phys. Distrib. Logist.*, 31(6):414-426.
- Kau AK, Yingchan TE, Ghose S (2003). Typology of online shoppers. *J. Consum. Mark.*, 20(2): 139-156.
- Kenny T (1994). From vision to reality through values. *Manage. Dev. Rev.*, 7(3): 17-20.
- Kotler PH (1997). *Marketing Management Analysis, Planning, Implementation, and Control*. Prentice-Hall International (UK) Limited. Ninth Edition. London: 470-475.
- Kotler PH (2000). *Marketing Management*. Pearson Education Publishers, Eleventh Edition, pp.11-13.
- Kotler PH, Armstrong G, Saunder J, Wong V (2002). *Principals of Marketing*. Third European Edition, pp. 822-825.
- Lin CC (2003). A critical appraisal of customer satisfaction and e-commerce. *Manag. Audit. J.*, 18(3): 202-212.
- Monroe KB (1990). *Pricing- Making Profitable Decisions*. McGraw-Hill/Irwin. 3 edition. New York. NY.
- Morganosky MA, Cude BJ (2000). Consumer response to online grocery shopping. *Int. J. Retail Distrib. Manage.*, 28(1): 17-26.
- Murphy R (2001). *Shopping online: motivating the consumer to buy*. Social Marketing Working Paper Series. University of North London, London, p. 12.
- Peter J, Pand Olson JC (1993). *Consumer Behavior and Marketing Strategy*. Homewood, IL, 3rd ed. Irwin.
- Proctor T (2000). *Marketing Management-Integration*. *Theory Pract.*, 350: 321-325.
- Rajja A (2002). The consumer benefits and problems in the electronic grocery store. *J. Retail. Consum. Serv.*, 9: 107-113.
- Ravald A, Gronroos C (1996). The value concept and relationship marketing. *Eur. J. Mark.*, 30(2): 19-30.
- Rundh B (2008). Radio frequency identification (RFID) Invaluable technology or a new obstacle in the marketing process. *J. Mark. Intell. Plann.*, 26(1): 97-114.
- Skyrme DJ (2001). *Capitalizing on Knowledge From E-commerce to K-business*. Butterworth- Heinemann. Oxford.
- Smaros J, Holmstrom J (2000). Reaching the consumer through e-grocery VMI. *Int. J. Retail Distrib. Manage.*, 28(2): 55-61.
- Smaros J, Holmstrom J, kamarainen V (2000). New service opportunities in the E-grocery. *Int. J. logist. Manage.*, 11(1): 61-73.
- Solomon MR (1999). *Consumer Behavior*. Prentice Hall, 4th ed. Englewood Cliffs, NJ.
- Tanskanen K, Yrjoelae H, Holmstroem (2002). The way to profitable Internet grocery. *Int. J. Retail Distrib. Manage.*, 30(4): 169-178.
- Woodruff RB (1997). Customer value: the next source for competitive advantage. *J. Acad. Mark. Sci.*, 25(2): 53-139.
- Woodruff RB, Gardial S (1996). *Know Your Customer*. Wiley, Publishers, Cambridge.