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Consumer perception towards online shopping with special reference to Agri-products

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Abstract
In the current era online shopping also known to be as the e-shopping has become very much popular. Online shopping is not only in electronic gadgets, apparels but also in agro products. The article attempts to highlight the factors affecting the consumer to go for online shopping in Hubli-Dharwad twin city. The information was obtained from 125 consumers who are purchasing the agri-products through online. There were various factors for which the consumers have started purchasing the products through online. The information obtained was concluded with meaningful results using statistical analysis such as percentage and factor analysis. The attributes that were considered were expediency, design of the web portal, security of the purchase of the products and time saving. The results also indicated that there is a numerous scope of online firms to start the operations in Hubli-Dharwad twin city.

Keywords: Online, web portal, factor analysis, safety and security

Introduction
Shopping done through the online is called to be as e-shopping in which internet is the main source for shopping the goods through the online. Purchase of the products or services will be done with the aid of the internet only. There will be a direct purchase of the goods or services from the sellers with the help of the internet browser. The new forms of e-business has been emerged in almost all types of products or services which has changed the way towards the purchase of the products. Nowadays, majority of the customers are purchasing the products or services from an e-commerce web portal rather than visiting the physical store. On comparison with the face-to-face transaction mode, shopping done through the online has got the advantages such as selections of the products can be made across many Part of MBA (ABM) thesis submitted to UAS Dharwad brands, information of the product is accurately given in the web portal. Apart from this, there are numerous advantages by performing online shopping. Our country's e-commerce market is still small and accounts for only one% of ecommerce spending. In our country it is evidenced that only 34% of the population use the internet for purchase of the products or services as compared to the United States of America where the usage of internet for purchase of the products or services through online is 90%.

Agri-products shopping is considered as one of the most vital and regular task of every household in entire nation. People purchase agri-products irrespective of the country's economic condition. People may stop for going to vacations, restaurants, movies, etc. but they cannot stop buying the basic necessity goods such as fruits and vegetables, grocery items. However, in the hustle and bustle of modern lifestyle, people are unwilling to spend their time and energy on purchasing agri-products due to increase of rapid changes in the technology as well as the work nature of an individual. People associate shopping at agri-products stores as tiresome and stressful. Due to heavy traffic and long working hours, many people find agri-products shopping a tough task. Thus, online agri-products shopping is becoming more popular these days. With the growing internet connectivity, clientele and rising popularity of electronic shopping, entrepreneurs have seen the opportunity of opening online agri-products stores. Various e-agri-products stores likeAaramshop.com, Ekstop.com, Bigbasket.com, Atmydoorsteps.com, Mygrahak.com, Zopnow.com, Martin. Localbaniya.com, Rationhut.com and Seatohome.com are some of the online stores retailing groceries. Majority of the e-commerce companies are offering the services in metros and major urban cities of the country. Grocery business through the online is emerged in India mainly in the metropolitian cities such as Delhi, Mumbai, Hyderabad, Chennai and

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Bengaluru. The studies reveal that the consumers prefer to purchase the groceries, fruits and vegetables physically by comparing with the price and quality as it cannot be accessed through the products that are purchased through online.

Methodology

The study was based on primary data and information was collected with the help of a well-designed and pre tested questionnaires to access consumer preference towards online shopping along with that other attributes such as demographic profile of the 125 respondents of Hubli-Dharwad twin city. In order to arrive at meaningful results the following statistical tools were used for the study.

Frequency and Percentage

In order to analyze the opinion about online shopping frequency was drawn first, there after percentage was calculated. The respondents were asked with the questions and informed to respond with strongly agree, agree, disagree and strongly disagree. A percentage frequency distribution is a display of data that specifies the percentage of observations that exist for each data point or grouping of data points. It is a particularly useful method of expressing the relative frequency of survey responses and other data. Many times, percentage frequency distributions are displayed as Tables or as Bar Graphs or Pie Charts. The process of creating a percentage frequency distribution involves first identifying the total number of observations to be represented; then counting the total number of observations within each data point or grouping of data points; and then dividing the number of observations within each data point.

Factor analysis

The technique of factor analysis provides a fascinating way of reducing the number of variables in a research problem to a smaller and more meaningful number by combining related ones into factors. It relieves the researcher from the confusion arising through overlapping measures of the same underlying variables. Moreover the cost of further research may be reduced by focusing efforts on fewer variables for study.

A major goal of factor analysis is to represent relationships among sets of variables parsimoniously yet keeping factors meaningful. A good factor solution is both simple and interpretable. When factors can be interpreted, new insights are possible.

Model for factor analysis

Let X_1, X_2, X_3 … X_p be p random variables which can be represented as follows

$X_1 = \lambda_{11} Y_1 + \lambda_{12} Y_2 + … \lambda_{1m}Y_m + e_1$
$X_p = \lambda_{p1} Y_1 + \lambda_{p2} Y_2 + … \lambda_{pm}Y_m + e_p$

The iterative method of obtaining factor loadings by principal axes method is given as follows in different steps.
1. Write the sum of each column of the correlation matrix (R) in the row labelled S_1.
2. Divide each value in the row labelled S_1 by the highest value in that row and enter the results in the next row labelled u_1
3. Obtain the sum of cross products of S_1 with each row of

correlation matrix and enter the results in row named as S_2. For example the first entry of S_2 is sum of the cross products of row 1 and row S_1, the second entry is the sum of cross product of row 2 and S_1 and so on.
4. Divide each value in row S_2 by the highest value in that row and enter the results in the next row named as u_2.
5. Now compare the values in rows u_1 and u_2. If they agree to the desired degrees of accuracy (up to four decimals) the iteration will be stopped and the factor loadings may be computed. If desired accuracy is not achieved, the iteration is continued by squaring the correlation matrix R.
6. Obtain R^2 matrix by multiplying R with itself.
7. Total the columns of matrix R^2 and enter the values in row named as S_2. These values should be the same as values in row S_2 in matrix R. Copy the value from row u_2 of matrix R into next row in the matrix R^2.
8. Sum of cross products of row S_2 with each row of matrix R^2 and enter the value in S_3 of matrix R^2. These values in S_3 will be in the same as the columns totals of matrix R^4.
9. Divide each value row S_3 by the highest value in that row and enter into next row named as u_3.
10. Compare the values in rows u_2 and u_3 to the desired degree of accuracy and if they tally the iteration procedure is terminated. If not, the process has to be continued with R^4, R^8 etc. until two successive rows of u will agree to the desired degree of accuracy.

Computation of first factor loadings

- Sum of cross products each row of original correlation matrix R with final row of u, when the iteration procedure was terminated. The value are entered as row $V_{i1}=R_u$.
- The loadings for variable I on the first factor

$$\lambda_{i1} = \frac{V_{il}}{\sqrt{(uV_{il})}}$$

Where,
Σuv_{i1} is sum of cross product of the final Row u and row V_{il}

Steps in factor analysis

1st Step: the correlation matrix for all variables is computed
2nd Step: Factor extraction
3rd Step: Factor rotation
4th Step: Make final decisions about the number of underlying factors.

In the present study, factor analysis has been used for identifying the important product and store attributes of retailing and various marketing strategies of retailers.

Results and Discussion

Data in Table 1 presents the factors affecting on consumers to go for online shopping. As observed from the table that there are ten different statements for which the response was took. For the first statement that is user friendly web portal for which 59.20% of the respondents uttered as strongly agree, 17.60% as agree, 13.60% as disagree and 9.60% as strongly disagree. The second statement that was put forth in front of the respondents was exhaustive search options along with different products. 54.40% of the respondents

expressed with strongly agree, 25.60% with agree, 11.20% as disagree and 8.80% as strongly disagree. The third statement as assortment of the products 69.60% of the respondents expressed as strongly agree, 19.20% of the respondents have expressed as agree, 6.40% as disagree and 4.80% of the respondents as strongly disagree. For the statement put forth that is cash on delivery, 40.80% expressed as strongly agree, 17.60% of the respondents as agree, 32.80% as disagree and 8.80% as strongly disagree. The next statement was ease in net banking for which 59.20% of the respondents expressed as strongly disagree, 24.80% as agree, 12.00% as disagree and 4.00% of the respondents as strongly disagree. The sixth statement which was on payment through credit or debit cards is most secured. The response of respondents 48.80% of them strongly agreed 8.80% expressed to be as agreed, 24.80% as disagree and 17.60% as strongly disagree. The seventh statement was on offers and discounts 67.20% expressed as strongly agree, 23.20% as agree, 3.20% as disagree and 6.40% as strongly disagree. For the statement offers and discounts, 67.20% of the respondents expressed as strongly agree, 23.20% as agree, 3.20% as disagree and 6.40% as strongly disagree. With respect to the free shipping of the products, 58.40% of the respondents expressed they strongly agree, 34.40% of them as agree, 1.60% as disagree and 5.60% strongly disagreed. The ninth statement was on tracking of the ordered products, for the statement 71.20% of respondents expressed as strongly agree, 17.60% as agree, 9.60% as disagree and 1.60% as strongly disagree. The last statement which was on product confirmation screen through online, 59.20% of the respondents expressed as strongly agree, 32.80% of them expressed as agree, 6.40% as disagree and 1.60% of the respondents expressed as strongly disagree

Factors attributing the customers for online shopping is presented in the table no 2. As seen in the table there were four attributes that was considered for the study, the first attribute was on expediency, which was followed by design of the web portal, security and time saving. For the expediency attribute, highest factor loading was observed for purchase of the product can be made at any point of time with the loadings of 0.88. For the statement that is information of product was clearly given the loading was observed to be 0.84. 0.65 factor loadings was observed for comparison of the prices of the products among the different online companies made. 0.81 of factor loadings was observed for selecting the right product is easy and the last statement that is home delivery without any extra charges for which 0.74 factor loadings was observed. The Eigen value and cumulative variance was observed to be 3.25 and 21.78 with cronbach's alpha to be 0.89. For the second attribute that is design of the web portal, 0.74 of factor loadings was observed in easy navigation of the portals of online shopping rendering companies. 0.63 of factor loadings was for web design of the portal was appropriate. 0.69 of loading was for products are categorised appropriately which makes for impulsive buying and at last 0.71 of factor loadings was observed for preferences is given for those online companies which give appropriate information about the quality of the products. Eigen values and cumulative variance were around 2.55 and 22.41 with the cronbach's alpha to be 0.74. The third attribute was on security, 0.74 of factor loading was observed for the shopping through online is secured during this pandemic period. For the statement I feel secured to share the information about the card during payment was with the factor loading of 0.67. Online shopping is trustworthiness regarding return of the product was registered to be at 0.69. Eigen values and cumulative variances were 2.44 and 19.51 with the cronbach's alpha to be 0.64. The fourth attribute was related to the time saving, for the statement that is online shopping helps to purchase the products which are supplements in nature had the factor loadings of 0.61, the time taken for the purchase is less with 0.57 factor loadings, 0.54 of factor loadings was observed for wastage of time is eliminated. The Eigen values and cumulative variance was around 1.74 and 14.74 with the cronbach's alpha registering to be at 0.77 respectively.

Table 1: Factors affecting on consumers to go for online shopping n=125

Sl No	Factors/Variables	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)	Total (%)
1	User friendly web portal	59.20	17.60	13.60	9.60	100
2	Exhaustive search options along with different products	54.40	25.60	11.20	8.80	100
3	Assortment of the products	69.60	19.20	6.40	4.80	100
4	Cash on delivery	40.80	17.60	32.80	8.80	100
5	Ease in Net Banking	59.20	24.80	12.00	4.00	100
6	Payment through credit/Debit cards is most secured	48.80	8.80	24.80	17.60	100
7	Offers and Discounts	67.20	23.20	3.20	6.40	100
8	Free Shipping of the products	58.40	34.40	1.60	5.60	100
9	Tracking of the ordered products	71.20	17.60	9.60	1.60	100
10	Product confirmation screen through online	59.20	32.80	6.40	1.60	100

Table 2: Factors affecting the customers for online shopping

Attributes	Factor loadings				Cronbach's Alpha
1. Expediency					
Purchase of the product can be made at any point of time	0.88				
Information of the product is clearly given	0.84				
Comparison of the prices of the product among different online companies can be made	0.65				
Selecting the right product is easy	0.81				0.89
Home delivery without any extra charges	0.74				
Eigen values	3.25				
Cumulative variance	21.78				
2. Design of the web portal					
Easy navigation of the portals of online shopping rendering companies		0.74			
Web Design of the portal is appropriate		0.63			
Products are categorized appropriately which makes for impulsive buying		0.69			
Preferences is given for those online companies which give appropriate information about the quality of the products		0.71			0.74
Eigen values		2.55			
Cumulative variance		22.41			
3. Security					
Shopping through online is secured during this pandemic period			0.74		
I feel secured to share the information about the card during payment			0.67		0.64
Online shopping is trustworthiness regarding return of the product			0.69		
Eigen values			2.44		
Cumulative variance			19.51		
4. Time Saving					
Online shopping helps to purchase the products which are supplements in nature				0.61	
The time taken for the purchase is less				0.57	
Wastage of time is eliminated here				0.54	0.77
Eigen values				1.74	
Cumulative variance				14.74	

Conclusion

Majority of the customers are satisfied with online shopping for vegetables and other staple products such as cereals and pulses. This signifies there is a numerous scope for online operating firms to expand its business in the twin cities of Hubli and Dharwad. Transaction security and consumers data safety are principal concerns of online customers purchasing products or services online. Therefore online vendors can assure their consumers" by offering personal information privacy protection policy and guarantee for transaction security by improving their technological systems.

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