Antecedents of Online Adoption Process for Indian Super Markets: A Case of University Students in Jaipur City

Dr. Smita Sharma
Post Doctoral Fellow,
Department of Industrial and Management Engineering IIT Kanpur
Orcid ID: 0000-0001-9687-7306
Email-id:envirosmita@gmail.com

Dr. Roopashree Rao
Associate Professor
Department of management
SomLalit Institute of Management
Ahmedabad,Gujarat.
Orcid ID: 0000-0001-8472-0627
Email-id:rooparaopeacock@gmail.com

Utkarsh Pandey
MBA Student
TAPMI School of Business
Manipal University Jaipur.

Abstract

With the growth of global mobile usage, more consumers shop online than before. New technologies make online services accessible for companies in several markets. In India a growing number of supermarkets offer an online service. So far the adoption process of the online supermarkets is much slower compared to the general online shopping adoption. This work attempts to identify the factors that influence the likelihood of consumers to engage in online shopping or buying activities for grocery at online supermarkets.

The technology acceptance model forms a theoretical basis for the conceptual framework of this study. In this model the influence of external variables on internal beliefs in an adoption process of new technology is analyzed. The external variables used in this research include consumer demographics and price. The internal beliefs influencing the likelihood of consumers to buy groceries online are perceived ease of use and perceived usefulness. In this study perceived risk of consumers in the online grocery shopping adoption process is also integrated in the model as an internal belief, because this variable is inextricably bound to the online shopping environment. In this environment perceived risk is subdivided into three categories: perceived quality, perceived service and perceived privacy.

To test the conceptual model of this study a survey was conducted and the sample size was 148 respondents. The internal beliefs were measured using a 5-point Likert scale. SPSS was used to analyze the data that was collected in the survey. First a factor analysis was performed to convert the survey questions into variables. Later the relationships between these variables were indicated using regression analyses. To test the hypotheses of the study linear regression analysis and a mediation test were performed. It was observed that three hypothesis considered being partially confirmed. Initially a positive relationship was found between 'consumer lifestyle' and 'perceived usefulness' in the online grocery shopping adoption process. Another positive relationship that was found in the analysis is between the 'degree of urbanization of the habitual surrounding' of a consumer and the 'perceived usefulness' of the online

grocery shopping adoption process. A positive relationship was also observed between the 'ICT skill' of a consumer and the 'perceived ease of use' in the online grocery shopping adoption process.

A recommendation for marketers in the online grocery market is to rely on available data when operating in such a specific environment. This makes it possible to target appropriate consumers with the right lifestyle for the online grocery shopping service. It is also observed that the marketers should also focus on the user friendliness of the online grocery shopping service as user friendly service will enable more consumers to use it, regardless of their level of ICT skill.

Keywords: Online adoption, Consumers, User Friendliness.

Introduction

The major attributes for consumers opting for online shopping are the convenience of shopping, the wide array of selection of merchandise it offers, the selected offerings of the products at competitive prices which negates the lack of convenience and time consumption of physical mode of shopping. Eastlick and Feinberg (1999). Reynolds (1974) also observed that despite the convenience and the associated arguments it is also true that the consumer must be ready to adapt the accompanying risk the online shopping process brings in. Owing to the advent of smart phones and other mobile devices the consumers are experienced to use these devices as a mode to shop online.

The development of various easier applications and introduction of privacy options regarding the payment resulted in the increase of customer trust which resulted in the growth of retail market. It is to be noted that in the ensuing years about 50% of all online purchases would be materializing through smart phones and our study attempts to analyze the factors that influence the likelihood of consumers to engage in online grocery shopping in supermarkets.

Review of Literature.

Consumers were habituated towards buying different products by using the home shopping channel for over a century. Initiated by mail orders and catalogue shopping, the home shopping channel has evolved and changed the entire retail market.

This research attempts to investigate the situational factors driving the adults to shop online by employing a research which is composed of two steps consisting of an exploratory and a conjoint experiment constituting of a sample size of 9 for the in depth interview and 206 respondents for the conjoint experiment. It was observed that among the situational factors the health and the capability to move and the distance governed the adults to opt for buying online groceries. (Kvalsvik.F.)

An attempt to investigate the factors that predict the attitude of the customers who shop online and the extent of the influence they have on the e – satisfaction, behavioral intention and the intention to continue to use the various applications to shop online during the time of COVID was attempted by using the structural equation modelling technique by collecting a sample of 410 respondents. The expectation model was incorporated and the integrated model was validated by using SMART PLS3.

It was observed that the prediction of attitude can be done by usefulness and ease to use and wherein the intention to behave can be predicted by reviewing online, physical distance, threats that are perceived, ease to use, extent of usefulness and the accompanying attitudes.

In addition the various other factors like ease to use, the extent of usefulness, the e – satisfaction predicted the intention to continue and the intention to behave mediated the review to online part, ease to use, extent of usefulness, threat and the distance physically and a mediating influence was also observed between e –satisfaction and confirmation influence and the intention to continue. Chakraborty, D., Bhatnagar, S. B., Biswas, W., &Khatua, A. K. (2022).

Ha &Stoel (2009) observed that the perceived ease of use and perceived usefulness play a big part in predicting consumers' attitude towards online shopping. They also pointed out that trust and enjoyment in using an online shopping tool as two key factors to be concentrated upon in the context of market research.

It is noted that trust and enjoyment are triggered by attributes like website design, customer service, privacy

and security, and the general atmosphere of the website. It is also observed that an important reason as to why many consumers do not buy products online is owing to the lack of trust in the safety of the system involved and also in the process associated with it. (Gefen& Straub, 2003).

Chervany (2001) defines consumer trust as to the belief that usage of a particular technology is reliable and credible. As trust is also defined as a key factor influencing the beliefs about safety, it is also obviously associated to perceived risk experienced in an online environment.

Pavlou (2013) affirms to the importance of trust in the adoption of online shopping. In addition to the above he also observes that the measurement of trust is also be accompanied with the measurement of perceived risk in the uncertainty of the online shopping environment.

Owing to the fact of customer reliance on online information for shopping online and the associated risk, Pavlou (2013) introduces the factor of trust and risk in the existing technology adoption model. By implementing these factors an attempt was made to suggest the key factors for facilitating the customers to be associated in online transactions and owing to the fact that the online shopping is basically driven by the associated technology.

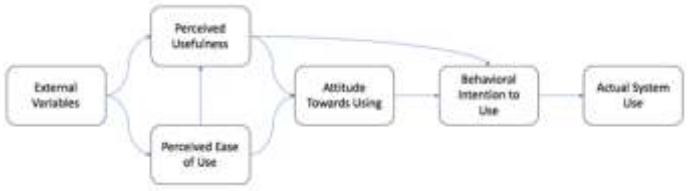
Koufaris (2002) states a difference in the thought process of online consumers in comparison to the offline consumers. He high lights the presence of lower perceived control which eventually resulting to a larger risk in the shopping environment. He also affirms to the fact that owing to the ease of shopping online consumers use the online shopping process.

Liu, Forsythe & Black (2011), in their study on the adoption of online shopping for the book and of bank services, observes that perceived risk, perceived ease of use and perceived usefulness total and justify the 50% of the reason for online adoption.

It can also be noted that the technology acceptance model is widely used to understand the adoption of technology by consumers in various segments. It is also affirmed that the above stated model is 'a robust and parsimonious framework' which can be used for the similar studies. (Dalcher & Shine, 2003).

Research Model.

The technology acceptance model (Davis, 1989) studies and explains the background of online consumer behavior. According to the research of Lee, Cheung & Chen (2005), this model is a very dominant theory within this subject. Davis, Bagozzi, and Warshaw (1989) stated the following about this process: " to better predict, explain, and increase user acceptance, we need to better understand why people accept or reject technology". The original version of this model was first presented by Davis (1989) (image below).



This model deals about the impact of external factors on internal beliefs. Davis et al. (1989) assume perceived usefulness and perceived ease of use are primarily relevant for acceptance of behavior. Gong et al. (2013) define perceived ease of use as of online shopping: "the degree to which a person believes that using a particular system would be free of effort". The definition of perceived usefulness of online shopping is defined by Gong et al. (2013) as: "the degree to which a person believes that using a particular system would enhance his or her job performance". The external variables have been defined (Davis et al., 1989) as individual differences and managerially controllable interventions which influence behavior.

An important factor for consumers to use a 'non-store format' are the lower prices of products, this is addressed in the model of Forsythe, Liu, Shannon & Gardner (2006). Customers tend to avoid online shopping due to the perceived risks they experience. These two factors would make a valuable contribution to the existing technology acceptance model in order to research the likelihood of customers to engage in online shopping activities. As price is a managerially controllable intervention which influences consumer behavior this can be accounted as an external variable.

The model as Davis et al. (1989) designed, may be extended by adding the perceived risks of shopping online. Lee & Tan (2003) researched the perceived risk of product and service failure is much higher in an online environment compared to an offline shopping environment because consumers are more likely to shop for low-risk online products and can be concluded perceived risk also has a direct effect on the likelihood to shop online.

In this research the perceived risk is integrated in the model. The literature however states there are several types of perceived risk as consumer operates in an online environment. These different types of risks are harder to measure and hence all types of perceived risk are tested in the survey were proven useful, since some of the variables were not significant. Indian customers are known to not changing their habits so quickly, are highly price sensitive and take time to generate trust towards something new. In such scenario adoption of new platforms calls out for research to be done to identify influencing factors.

The existing data provides information about the origin of online shopping. Apart from that, the research till now shows how online shopping has developed over time and is growing year by year. This model contains several independent variables influencing the dependent variable which lead to the objective of finding the factors that influence the online shopping in India.

Dependent Variable:

Online shopping intentions and attitude towards online supermarkets are defined as: Users' likelihood to engage in online shopping or buying activities for grocery.

Independent Variables:

External Variables: Demographics, price, consumer characteristics.

Internal Variables: Perceived Risk, Perceived Ease of Use, Perceived Usefulness.

SPSS was used to analyze these measures and to identify the relationships between the dependent and independent variables.

Factor analysis method was adopted and was performed using SPSS. Like cluster analysis involves grouping similar cases, factor analysis involves grouping similar variables into dimensions. This process is used to identify latent variables or constructs. The purpose of factor analysis is to reduce many components. Factor analysis can be used to simplify data, such as reducing the number of variables in regression models.

Operationalization of Data.

To determine the relationship between the likelihood of consumers to shop for groceries online and the internal beliefs that influence this relationship, all variables are being measured in the survey questions. To measure the external factors and internal beliefs scales have been used that are already extensively used in former research about online shopping.

The scale used in the survey within this study for the likelihood to use the online grocery shopping channel is the same as Davis et al. (1989) used in their research in the technology acceptance model. This scale is used to measure the first part of internal beliefs for the perceived ease of use and the perceived usefulness of online grocery shopping adoption. The questions asked for perceived ease of use measure to what extent respondents agree on the assertion the process of ordering, navigating and paying on the website is easy. The answers were based on a 5-point Likert scale varying from one 'strongly disagree' to five 'strongly agree'. Perceived usefulness was measured by questions about to what extent participants agree on statements about shopping online for groceries would be efficient, convenient and time saving. The answers were equally based to the answers measuring the perceived ease of use of the service.

Forsythe et al. (2006) extensively researched the relationship between the perceived risk and the perceived ease of use of online shopping. This is used in the same way, based on a 5-point Likert scale, in the survey. Within the literature (Eggert, 2006) there is a clear subdivision of perceived risk in an online environment: perceived quality, perceived service and perceived privacy. These three components are also included in the survey and used in the analysis as representation of perceived risk.

In the questions measuring perceived quality the respondents had to indicate to what extent they agreed on statements about the quality at an online supermarket

compared to offline supermarkets. Again a 5-point Likert scale was used where one represented 'strongly disagree' and 5 represented 'strongly agree'. Perceived service was measured in the same way as quality but participants had to indicate to what extent they agreed on statements about the perceived service of an online supermarket and to what extent they know how to get this service. Perceived privacy in the survey was more about to what extent users are comfortable to share information in an online supermarket environment and to what extent they believe their personal information will not be used for purposes they did not give permission for in advance.

The external variables were questioned in the survey in the form of questions about price. Participants had to indicate to what extent they would be willing to pay extra for delivery or for better product quality online. The answers to this questions were again based on a 5-point Likert scale allocated in the same way as the other agree or disagree questions. Also the survey questions about demographics and consumer characteristics.

The demographics contained some general questions about gender (nominal), age (years), education level (high school to doctorate degree), habitual surrounding (countryside to city central location) and lifestyle of the respondents (nominal). The consumer characteristics were divided into two components. The first component was about the level of ICT skill of the participants based on agree to disagree varying answers. The second component was about how often they used online shopping and online grocery shopping services before. These answers were based on a 5-point Likert scale ranging from strongly disagree to strongly agree.

Descriptive Statistics.

In total, 148 respondents participated in the online grocery shopping survey. The tables below depict the descriptive characteristics of the population of respondents who participated in the survey.

Table 1: Descriptive Statistics Gender.

Gender	Frequency	Percentage	Cumulative Percentage
Male	96	64.9 %	64.9 %
Female	52	35.1%	100 %
Total	148	100 %	

Table 2: Descriptive Statistics Age

Age	Frequency	Percentage	Cumulative Percentage
< 18	1	0.7 %	0.7 %
18-24	56	37.8 %	38.5 %
25-34	51	34.5 %	73 %
35-44	10	6.8 %	79.7 %
45-54	12	8.1 %	87.8 %
55-64	18	12.2 %	100 %
Total	148	100 %	

Table 3: Descriptive Statistics Educational Level

Education	Frequency	Percentage	Cumulative Percentage
MBA	13	8.8 %	8.8 %
B.Com	47	31.8 %	40.5 %
BBA	33	22.3 %	62.8 %
BA	41	27.7 %	90.5 %
PHD	6	4.1 %	94.6 %
BSc	8	5.4 %	100 %
Total	148	100 %	

Factor Analysis using SPSS.

Factor analysis is a method of data reduction. It is done by seeking underlying unobservable (latent) variables that are reflected in the observed variables (manifest variables). The above data was analyzed using the method of factor analysis in SPSS.

Total Variance Explained

Component	Initial Eigenvalues			Loadings			Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.904	32.931	32.931	7.904	32.931	32.931	6.192	25.800	25.800
2	2.631	10.964	43.895	2.631	10.964	43.895	3.466	14.441	40.241
3	1.723	7.180	51.076	1.723	7.180	51.076	1.897	7.906	48.147
4	1.229	5.121	56.197	1.229	5.121	56.197	1.470	6.123	54.270
5	1.080	4.500	60.697	1.080	4.500	60.697	1.291	5.378	59.647
6	1.030	4.290	64.987	1.030	4.290	64.987	1.281	5.340	64.987
7	.907	3.781	68.768						
8	.887	3.698	72.465						
9	.741	3.089	75.555						
10	.712	2.969	78.524						
11	.673	2.804	81.327						
12	.647	2.698	84.025						
13	.574	2.391	86.416						
14	.505	2.105	88.521						
15	.428	1.783	90.303						
16	.380	1.585	91.888						
17	.351	1.464	93.353						
18	.331	1.380	94.733						
19	.304	1.266	95.999						
20	.260	1.085	97.084						
21	.233	.970	98.054						
22	.178	.741	98.795						
23	.151	.628	99.423						
24	.139	.577	100.000						

Extraction Method: Principal Component Analysis.

Table 4:

	Rotated Component Matrix					
	1	2	3	4	5	6
Transportation	-.114	.238	-.158	.585	-.262	-.265
Quality standards while buying online	.722	-.025	-.131	.351	.009	.083
Same products in supermarkets	.621	.207	.111	.143	.120	-.027
Complaints management	.744	-.052	.102	-.047	-.015	.307
Feedback mechanism	.781	-.030	.087	.081	.142	.050
customer privacy	.567	.357	.208	-.132	-.336	.103
Data security	.407	.656	.125	.086	-.098	-.264

	Rotated Component Matrix					
	1	2	3	4	5	6
Price high -quality high influence on products in online medium	.666	.093	.035	-.405	-.074	.017
willingness to pay delivery fee for same priced products while ordering online	.614	.354	-.033	-.234	.004	-.332
Willingness to pay delivery fee for cheap priced products while ordering online	.705	.268	.111	-.260	.132	-.173
Price less -quality less influence on products in online medium	.613	.435	-.007	-.184	-.076	-.224
Willingness of distance to travel	.063	.071	.543	.450	-.249	.061
Time spent on offline shopping	.134	.093	.547	.018	.336	.230
Frequency of visits to supermarket	-.058	.318	.525	.184	.501	.036
Online ordering is easy	.749	-.242	-.215	.081	.204	.108
Easy navigation of websites while ordering online	.733	-.212	-.065	-.023	.145	.049
Paying Online is easy	.718	-.230	-.192	.260	.177	-.069
Online ordering is more efficient	.780	-.268	-.119	.045	-.109	.151
Online ordering is more convenient than offline ordering	.792	-.147	-.086	.079	-.291	.061
online super market saves time	.817	-.255	.030	.077	-.140	.077
Lifestyle constraints	.182	.073	-.542	.167	.430	-.271
Technology Skills	.009	.646	-.185	.167	-.027	.292
Technology adaptability	.193	-.751	.309	-.051	-.065	-.214
Online buying frequency	-.156	.399	-.417	-.079	.012	.520

Extraction Method: Principal Component Analysis.

Based on the analysis there are six formed factors. The grouping is done in accordance with the factor loading value. Factor loading is the correlationamount between one variable and a newly formed factor.

1. Perceived Product quality: The first factor has 7.904 Eigen value and 32.931% contribution in percentage. This factor covers different variables like the meeting personal quality standards of the products while buying online and also the statement that all variables offer same quality products.

   These factors are called Perceived Product quality since the largest factor loading is from the Perceived product quality and holds a mean value of 0.182.

2. Perceived service: The second factor has 2.631 Eigen value and 10.964% contribution in percentage. This factor includes variables like complaint management and feedback mechanisms. These factors are called Perceived service variables as they explain about the customer perspectives towards complaint handling and approaches and also about the consideration of feedbacks provided by the customer, it also holds a mean value of 0.179.

3. Perceived Privacy: The third factor has 1.723 Eigen value and 7.810 % contribution in percentage. This factor covers variables like customer privacy and data security. These factors are called perceived privacy in which the customers can understand about the security of their personal data while shopping offline/online data and also holds a mean value of 0.140.

4. Price: The fourth factor has 1.229 Eigen value and 5.121% contribution in percentage. This factor covers variables like delivery fee for products of same price on both online and offline medium, Delivery fee for cheap priced product, price high-quality high influence and

price low – quality high influence, the mean value for these variables is 0.085

5. Perceived ease of use: The fifth factor has 1.080 Eigen value and 4.50% contribution in percentage. This factor covers variables like order ease, navigation ease and payment ease. It also has a mean value of 0.102

6. Perceived Usefulness: The sixth factor has 1.030 Eigen value and 4.29%contribution in total percentage. This factor includes variables like efficiency, convenience and time management and also has a mean value of 0.083.

Table 5: Component Correlation Matrix.

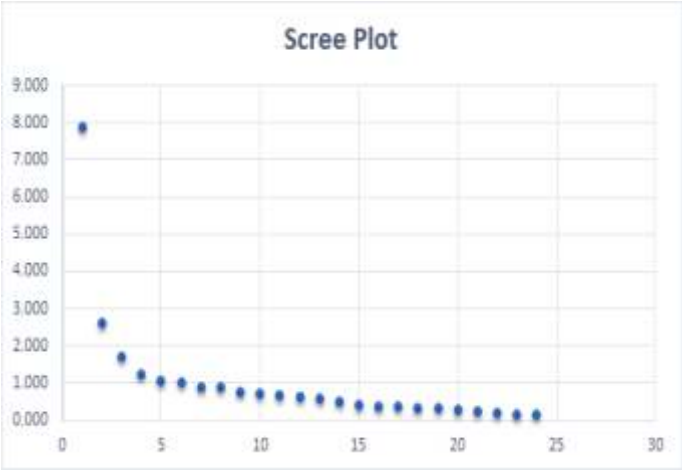
Component	1	2	3	4	5	6
1	1.000	-.149	.014	-.104	-.042	-.469
2	-.149	1.000	-.003	.111	.075	-.131
3	.014	-.003	1.000	.083	-.138	-.128
4	-.104	.111	.083	1.000	.011	-.014
5	-.042	.075	-.138	.011	1.000	.048
6	-.469	-.131	-.128	-.014	.048	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

As we can notice the values of correlation are greater than .5 which indicates the new factors are strongly co-related but strict with oblique correlation., since they are weak greater than 0.5 so we assume that they are orthogonally related.

A Scree Plot is drawn between the factor numbers and the eigenvalues. The scree plot graphs the eigenvalue against the factor number. The first five values in the first five columns of the table are immediate to each other. From the sixth factor on, it is noticed that the line is almost flat, meaning the each successive factor is accounting for smaller and smaller amounts of the total variance.



KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.854
Bartlett's Test of Sphericity	Approx. Chi-Square	1726.799
	df	276
	Sig.	.000

KMO &Bartlett's'stest is used to measure the sampling adequacy. If the value is greater than 0.5. then it is adequate for the sample, but here in this case the value is .854 at Sig. 000, which means at least one significant correlation exists between two items.

Conclusion

The implications of this research are both academic and managerial. The adoption process is studied with the help of the dependent variable 'consumers' likelihood to buy grocery online'. In former research studying the adoption process of online shopping in general, the traditional technology acceptance model was used as basic conceptual model. Therefore most of the research focuses on the influence of the internal beliefs of a consumer, the perceived ease of use and the perceived usefulness, on the attitude towards using a new technology. This is a study that tests a direct relationship between the internal beliefs of consumers and the likelihood to buy grocery online.

The adoption process is studied with the help of the dependent variable 'consumers' likelihood to buy grocery online'. In earlier researches studying the adoption process of online shopping in general, the traditional technology acceptance model was always used as basic conceptual model. Therefore most of the research focuses on the influence of the internal beliefs of a consumer, the perceived ease of use and the perceived usefulness on the attitude towards using a new technology. This is a study that tests a direct relationship between the internal beliefs of consumers and the likelihood to buy grocery online. Consumer lifestyle has a positive significant relationship with the consumer perceived usefulness of an online grocery shopping service and these insights may can be used to target the customers shopping online in a supermarket.

References.

- Aghdaie, S. F. A., Sanayei, A., &Etebari, M. (2012). 'Evaluation of the Consumers' Trust Effect on Viral Marketing Acceptance Based on the Technology Acceptance Model.' International Journal of Marketing Studies, 4(6), 79-94.
- Alba, J. W., & Hutchinson, J. W. (1987). 'Dimensions of Consumer Expertise.' Journal of Consumer Research, 13(4), 411-454.
- https://www.pwc.in/assets/pdfs/publications/2014/evolution-of-e-commerce-in-india.pdf
- https://www.researchgate.net/publication/319348529_Ecommerce_in_India_Evolution_and_revolution_of_online_retail
- Bhatnagar, A., Misra, S., & Rao, H. R. (2000). 'On Risk, Convenience, and Internet Shopping Behaviour Association for Computing Machinery.' Communications of the ACM, 43(11), 98-105.
- Burton-Jones, A., &Hubona, G. S. (2006). 'The Mediation of External Variables in the Technology Acceptance Model.' Information & Management, 43, 706-717.
- Chakraborty, D., Bhatnagar, S. B., Biswas, W., &Khatua, A. K. (2022). What Drives People to Adopt Grocery Apps? The Moderating Role of Household Size. Business Perspectives and Research, 0(0). https://doi.org/10.1177/22785337221091640
- Chang, M. K., Cheung, W., & Lai, V. S. (2005). Literature Derived Reference Models for the Adoption of Online Shopping. Information & Management, 42, 543-559.
- Davis, F. D., Bagozzi, R. P., and Warshaw, P. R. (1989). 'User Acceptance of Computer Technology: A Comparison of Two Theoretical Models.' Management Science, 35, 982-1003.
- Davis, F. D. (1989). 'Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology.' MIS Quarterly, 13(3), 319-340.
- Chiang, K. P., & Dholakia, R. R. (2003). 'Factors Driving Consumer Intention to Shop Online: An Empirical Investigation.' Journal of Consumer Psychology, 13(2), 177-183.
- Degeratu, A. M., Rangaswamy, A., & Wu, J. (2001). 'Consumer Choice Behavior in Online and Traditional Supermarkets: The Effects of Brand Name, Price, and other Search Attributes.' International Journal of Research in Marketing, 17(1), 55-78.
- Eastlick, M. A., & Feinberg, R. A. (1999). 'Shopping Motives for Mail Catalog Shopping.' Journal of Business Research, 45(3), 281-290.
- Featherman, M. S., &Pavlou, P. A. (2003). 'The Major Dimensions of Perceived Risk. In: D. Cox (Ed.), Risk Taking and Information Handling in Consumer Behavior.' Harvard University Press, Cambridge, MA. International Journal of Human-Computer Studies, 59, 451-474.
- FifiKvalsvik, Understanding the role of situational factors on online grocery shopping among older adults, Journal of Retailing and Consumer Services, Volume 68, 2022, ISSN 0969-6989,
- https://doi.org/10.1016/j.jretconser.2022.103009. (https://www.sciencedirect.com/science/article/pii/S0969698922001023)
- Forsythe, S., Liu, C., Shannon, D., & Gardner, L. C. (2006). 'Development of a Scale to Measure the

Perceived Benefits and Risks of Online Shopping.' Journal of Interactive Marketing, 20(2), 55-75.

- Gilbert, A. (2004, August 11). 'E-Commerce Turns 10.' Retrieved from http://www.cnet.com/news/ecommerce-turns-10/
- Ha, S., &Stoel, L. (2009). Consumer E-Shopping Acceptance: Antecedents in a Technology Acceptance Model. Journal of Business Research, 62, 565-571.
- Huseynov, F., &ÖzkanYildirim, S. (2014). 'Internet Users' Attitudes Toward Business-to-Consumer Online Shopping a survey.' Retrieved from http://idv.sagepub.com/content/early/2014/10/16/0266666914554812.full
- Kenny, D. A. (2014, October). Testing Mediation with Regression Analysis. Retrieved from http://www.upa.pdx.edu/IOA/newsom/da2/ho_mediation.pdf
- Koufaris, M. (2002). Applying the Technology Acceptance Model and Flow Theory to Online Consumer Behavior. Information Systems Research, 13(2), 205-223.
- Lee, K. S., & Tan, S. J. (2003). 'E-retailing Versus Physical Retailing: A Theoretical Model and Empirical Test of Consumer Choice.' Journal of Business Research, 56(11), 877-885.
- https://research-methodology.net/research-methods/quantitative-research/regression-analysis/
- https://hbr.org/2015/11/a-refresher-on-regression-analysis
- Legris, P., Ingham, J., &Collerette, P. (2003). 'Why do People use Information Technology? A Critical Review of the Technology Acceptance Model.' Information & Management, 40, 191-204.
- Naseri, M. B., & Elliott, G. (2011). 'Role of Demographics, Social Connectedness and Prior Internet Experience in Adoption of Online Shopping: Applications for Direct Marketing.' Journal of Targeting, Measurement and Analysis for Marketing, 19(2), 69-84.
- Pozzi, A. (2012). 'Shopping Cost and Brand Exploration in Online Grocery.' American Economic Journal: Microeconomics, 4(3), 96-120.
- Renny, R., Guritno, S., &Siringoringo, H. (2013). 'Perceived Usefulness, Ease of use, and Attitude Towards Online Shopping Usefulness Towards Online Airlines Ticket Purchase.' Procedia - Social and Behavioral Sciences, 81, 212-216.