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Analytical Study of Factors Impacting Online Grocery Shopping by Urban Consumers through Mobile-Commerce using Structural Equation Modelling Approach

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ABSTRACT+

The online purchase of the products from different segments is capturing interest of the buyers. Mobile-Commerce with its intuitive user interface provide buyer more flexibility and personalized experience. The objective of this research is to understand the factors significantly impacting online grocery shopping using M-Commerce. The study is descriptive in nature based on the primary data of 123 respondents. The data collected was quantitative in nature based on various factors to examines the cognizance of internet and its adoption helps the buyers to make the right decision of buying the groceries online. The factors are analysed using Structural Equation Modelling. The findings of the study shows that there exists a strongest relationship between the Perceived Trust and buying behaviour since Perceived Trust to buying intention ($\beta = 0.547$, $p < 0.01$) and buying intention to buying decision ($\beta = 0.501$, $p < 0.01$) for purchase of groceries online, followed by Perceived Usefulness to buying intentions ($\beta = 0.381$, $p < 0.01$), Perceived Ease of Used to buying intentions ($\beta = 0.291$, $p < 0.01$). Also, it is seen that Perceived Ease of Use also have direct impact the buying decision ($\beta = 178$, $p < 0.05$).

Keywords: Mobile-Commerce, Buying Intentions, Buying Behaviour, Structual Equation Modelling

INTRODUCTION

Digitization is transforming nearly every aspect of the human-life. The recent emerging technological advancement shaping the businesses and societies together as a whole, and therefore influencing the acceptance of technology by the humans. The digital platforms not just limited to the devices like computers, or desktops but now available on the finger tips in the forms of handheld devices including tablets and mobile phones. These devices are highly accessible and effective. They are robust, user friendly, and tailored to accommodate the wide range of needs and demands. The gadgets are not just limited to cater the individual demands but highly accepted by the organizations to perform day-to-day activities and operation providing flexibility, allowing end-users to easily adapt them according to specific preferences and requirements. One of the highly acceptable technical enhancements in this field is online purchasing. According to the study, India's E-commerce market is projected to grow exponentially and reach $325 billion by 2030. In 2024, the online grocery market size was valued at $8.82 billion and is expected to grow at a CAGR (compound annual growth rate) of 44.9% from 2025 to 2030 (Grand View Research 2024).

The trend of purchasing online has gained attention and ingrained in today's consumer buying practices which in turn capturing the attention of a diverse range of buyers. This shift is not confined to a particular group of consumers but has gained widespread appeal across all demographics. The consumers from different age groups, income levels, and geo-locations are significantly influenced by the convenience and accessibility of online shopping. The adoption of these internet-based platforms reshaping the consumers demands of all backgrounds influence them making the decisions to purchase online that transcends the habit of traditional shopping (Bhatti & Rehman, 2020).

Mobile-Commerce or commonly known as M-Commerce is a trending and significant advancement in the field of technology. The emerging applications of M-Commerce is rapidly adopted by the consumers across the globe. This

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Research Article

digital transformation is not only driving the seamless remote connection but also promoting global collaboration. The promoters and facilitators working day and night to enhance the consumer experience by optimizing user interfaces, which in turn create more immersive and interactive mobile shopping experiences (Nodirovna & Sharif o‘g‘li, 2024). There are certain factors that drives purchasing groceries online which not only shapes the consumer buying intentions but also significantly help them to make buying decisions. Among the most common factors are Perceived Ease of Use (Renny et al., 2013), Perceived Usefulness (Renny et al., 2013), Perceived Risks (Sonya Zuelseptia et al., 2018), and Perceived Trust (Nayak et al., 2021). These factors help in measuring the buyer's confidence about platform's credibility and safety. These factors altogether responsible for consumers buying decisions. The research intended to investigate the role of Perceived Ease of Use, Perceived Usefulness, Perceived Risks, and Perceived Trust helps in influencing online grocery buying decision in context with Mobile-Commerce or M-Commerce.

LITERATURE REVIEW

The use of handheld devices has made the online shopping easier and convenient than ever. With the rise of Mobile-Commerce and the widespread availability of mobile devices, consumers are increasingly turning to their smartphones to shop, prompting a greater emphasis on mobile-optimized websites and apps. The shift towards the online buying decisions has made a range of factors responsible including technological advancements, psychological influences, economics, and social trends. The facilitators are playing a role of psychologists understanding the demands and needs of the consumers of almost all demographics. They provide the seamless user experience of mobile apps which in turn makes the buying decisions easier. They are now understanding the key-elements that influence from buying intentions to buying behavior and enhanced consumer satisfaction (N Ramya & Ali, 2016). Although, the consumers relaying on buying the groceries online that saves time but they remain highly price-sensitive and often seek a wide variety of options (Sinha & Vasudevan, 2021). The buying intention of the consumers are also highly influenced by improvements in brand positioning, brand associations, performance measures, pricing factors, physical attributes, and brand loyalty (Guliyeva, 2022). The demographics significantly playing an important role influencing online grocery shopping due to which the shopping orientation affects the preferences (Hamad & Schmitz, 2019). With the involvement of demographic factors, health concern is also a significant driver of online grocery shopping adoption (Eriksson & Stenius, 2022). Although health worries were an important driver, they were neither the sole nor the most critical factor (Eriksson & Stenius, 2022).

Making the buying intention stronger, there are some other factors responsible viz., Convenience, Ease of Purchase, Past Experience, Affordability, and Quality (Ghai & Tripathi, 2019). The competitiveness among products of the same vertical but of different marketers in is also linked to brand image, which aids in predicting consumer expectations and buying intentions (Kler et al., 2022). Mobile-Commerce is seen as a future of online shopping, it bridges the gap between physical and digital market. This is responsible for making the virtual experience more dynamic. Mobile-Commerce not just simplifying the virtual experience but accelerate the online buying process. Personalized experience of Mobile-Commerce, intuitive interface, are the key drivers which leads to more satisfying experience (Nodirovna & Sharif o‘g‘li, 2024). This domain-specific innovativeness positively influences online shopping decision (Moshref Javadi et al., 2012). Therefore, Consumer Satisfaction is recognized as a measure of overall success (Rajan et al., 2021).

Perceived Ease of Use (PEU) and Perceived Usefulness (PU) are a key component of TAM (Technology Acceptance Model) that primarily focuses of consumers acceptance towards high-end technology (Davis, 1989). This model is based on the idea of consumer's belief, attitude, and intentions to adapt to widespread technological enhancement. It is the most influential factor in generating consumer interest in online shopping, fostering a positive attitude that holds significant value (Zuelseptia et al., 2018). Perceived Usefulness (PU) significantly helps in shaping the attitude towards online buying (Renny et al., 2013). According to the study (Cho & Sagynov, 2015), (Gunawan et al., 2019), it indicates that Perceived Usefulness (PU) had a slightly stronger effect on consumers compared to other studied factors. Perceived Usefulness had a significant effect on customer purchase intention.

Perceived Trust (PT) is one of the key factors that significantly influences buying intention of the buyer especially in the context of the online shopping (Nayak et al., 2021). One of the reasons considering Perceived Trust (PT) as a key factor is due to lack of physical interaction. Buyers to feel more confident about the decision they are making to buy the products online, trust play an important role. Price and product quality are also significant, but rank just below

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Research Article

convenience and trust in importance influencing both their purchase decisions and satisfaction (Uzun & Poturak, 2014) (Kutty et al., 2024). Trust positively influences buyers' attitudes toward the usability of Mobile-Commerce but hesitation regarding online transactions often stems from concerns about transaction security (Renny et al., 2013). Lack of trust had a significant negative effect on the intention to shop online (Cho & Sagynov, 2015). Trust, considered as a moderating variable, significantly strengthens the relationship between Perceived Usefulness (PU) and online shopping. Similarly, trust enhances the connection between Perceived Ease of Use (PEU) and online shopping. Overall, it plays a crucial role in shaping the dynamics between various factors and online shopping behavior (Annisa et al., 2024).

Perceived Risk (PR) refers to the uncertainties buyers may face during the overall buying experience. The uncertainties may be related to the technology, services, or the products. These risks may impact the decision making, the reason may potentially a negative outcome before proceeding with the buying process. There are different types of Perceived Risk viz., Financial, Social, Performance, Psychological, Physical, Time, and Privacy. Referencing Mobile-Commerce, Privacy and Financial Risks can be treated as the highest concerns (Iriani & Andjarwati, 2020) does not deter them from making online purchases. Both direct and indirect impact of Perceived Risk (PR) indicate that they are related to buyers buying intentions in the context of online grocery shopping. (Ou et al., 2022) examined how consumers' conformity behaviors and customer engagement influence their intentions to participate in Online Group Buying, with Perceived Risk (PR) acting as an interference factor.

OBJECTIVE

To investigate the role of Perceived Ease of Use, Perceived Usefulness, Perceived Risks, and Perceived Trust helps in influencing online grocery buying decision in context with Mobile-Commerce.

HYPOTHESIS

1. Perceived Ease of Use (PEU) impacts Buying Intentions (BI).
2. Perceived Ease of Use (PEU) impacts Buying Decision (BD).
3. Perceived Usefulness (PU) impacts Buying Intentions (BI).
4. Perceived Usefulness (PU) impacts Buying Decision (BD).
5. Perceived Trust (PT) impacts Buying Intentions (BI).
6. Perceived Risk (PR) impacts Buying Intentions (BI).
7. Buying Intentions (BI) impacts Buying Decision (BD).

METHODOLOGY AND DATA

The study intends to investigate the mediating role of buying intentions in relation to Perceived Ease of Use, Perceived Usefulness, Perceived Trust and Perceived Risk of online shopping of groceries on buying decisions in context with Mobile-Commerce. A descriptive research study was conducted to obtain the data using a close ended structured questionnaire comprising of 5-point Likert scale (1 – Strongly disagree; 5 – Strongly agree). The data is collected through a survey of consumers of urban areas of Nagpur City which is a tier-II city of Maharashtra State of India through one-to-one interaction.

5.1. Sample Selection

The formula given by Cochran (1963) for determination of sample size was used and the sample size is calculated as below:

$$n = \frac{Z^2 P*Q}{e^2} = 62$$

where Z = the Z score obtained at 10 % level of significance (1.645), P = the proportion of online users (assumed as 65%), and Q = the proportion of online non-users (assumed as 35%) and e = error term (0.10). The sample size obtained using the above formula was 62. A random sampling technique was used for the study. The questionnaire was distributed amongst the 200 prospective respondents of diverse socio-economic background across various age groups (above 18 years) and genders and 123 responses were collected, indicating 61.5% response rate.

5.2. Structural Equation Modelling

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Research Article

The functional form of structural equation model consists of a system of linear equations that represents the relationship between the observed variables and the latent constructs (unobserved variables) given as below:

$$\boldsymbol{\eta} = \boldsymbol{\beta}\,\boldsymbol{\eta} + \boldsymbol{\Gamma}\,\boldsymbol{\xi} + \boldsymbol{\zeta},$$

$$\text{and} \quad \mathbf{Y} = \boldsymbol{\Lambda}\,\mathbf{Y}\,\boldsymbol{\eta} + \varepsilon \text{ and } \mathbf{X} = \boldsymbol{\Lambda}\,\mathbf{X}\,\boldsymbol{\xi} + \boldsymbol{\delta}$$

In this equation, η – represents the latent endogenous variable, ξ – the latent exogenous variables, ς - a vector of latent errors, Y and X are the vectors of observed variables. ΛY and ΛX are the matrices of factor loadings and ε and **δ** are the vectors of the error term. The endogenous variable in the study is Buying Decision (BD) and remaining variables are considered as the exogenous variables. The data analysis is done and interpretations are drawn based on estimation of analytical tool SEM (Structural Equation Model).

5.3. Reliability and Goodness of Fit Test

For reliability of scale Cronbach's alpha is used. Higher value of alpha ($0 < \alpha < 1$) indicates strong reliability. The various goodness of fit indicators used for model are Chi-square, CMIN/df, RMSEA (absolute fit) and CFI (incremental fit).

The details of variables used for the study are given as under:

Table 1 Variables for the Study.

SN	Variables	Items
1	Perceived Ease of Use (PEU)	1) I prefer buying groceries through Mobile-Commerce due to the user-friendly interface of the app. 2) Locating groceries and other products on the app is simple and straightforward 3) It is easy to complete the groceries purchase process through the mobile app 4) Navigating the mobile app is effortless, intuitive and convenient 5) Finding detailed product information is easy 6) I rarely experience technical glitches during online grocery shopping 7) I usually compare prices and products before making an online grocery purchase 8) I am satisfied with the variety of groceries available for online purchase
2	Perceived Usefulness (PU)	1) I feel grocery shopping is faster and more efficient 2) Mobile-Commerce provides a better shopping experience than physical stores 3) I get better deals and offers on groceries than in store shopping 4) I find it helpful to compare grocery prices across different mobile apps 5) Online grocery shopping provides more variety and options compared to physical store shopping 6) I am able to shop for groceries online without feeling rushed or pressured
3	Perceived Trust (PT)	1) I feel trusted while using mobile apps to purchase groceries 2) I feel confident about the security of my personal and payment information 3) I believe product reviews and ratings are crucial in influencing my decision to purchase groceries online

Journal of Information Systems Engineering and Management
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Research Article

		4) I believe that Mobile-Commerce platforms provide transparent and accurate information about products 5) I believe that online grocery platforms provide reliable customer service in case of issues 6) I believe in the overall trustworthiness of online grocery shopping platforms
4	Perceived Risk (PR)	1) I feel trusted while using mobile apps to purchase groceries 2) I feel confident about the security of my personal and payment information 3) I believe product reviews and ratings are crucial in influencing my decision to purchase groceries online 4) I believe that Mobile-Commerce platforms provide transparent and accurate information about products 5) I believe that online grocery platforms provide reliable customer service in case of issues 6) I believe in the overall trustworthiness of online grocery shopping platforms
5	Buying Intentions (BI)	1) Buying groceries online using Mobile-Commerce is more convenient than traditional 2) I prefer purchasing groceries using Mobile-Commerce because it saves me time 3) I find the mobile grocery shopping experience to be more personalized
6	Buying Decisions (BD)	1) Mobile-Commerce helps in order tracking and deliveries 2) I believe Mobile-Commerce will continue to influence my grocery shopping 3) Shopping in physical stores can take longer than expected 4) I feel comfortable completing online grocery purchases on my mobile device

5.4. Conceptual Framework

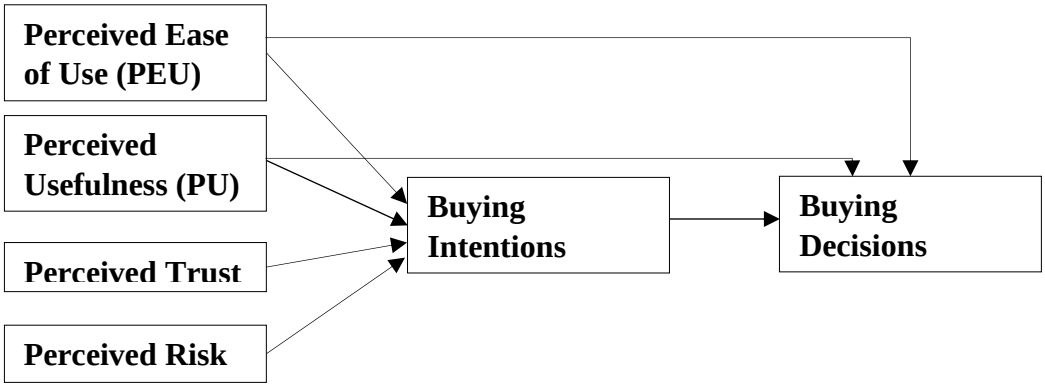

Figure 1 Conceptual Framework.

RESULTS AND DISCUSSION

6.1. Reliability Test

The reliability test is performed using Cronbach's alpha to test the presence of measurement error of the scale. The results are presented below in table 2:

Journal of Information Systems Engineering and Management
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Research Article

Table 2 Reliability Statistics for All Variables

Variables	N of Items	Cronbach's Alpha
Buying Intentions (BI)	3	0.755
Buying Decision (BD)	4	0.681
Perceived Ease of Use (PEU)	8	0.818
Perceived Usefulness (PU)	6	0.798
Perceived Risk (PR)	7	0.819
Perceived Trust (PT)	6	0.845
Overall	34	0.874

Source: Author's Computation

The reliability is tested for all the constructs using Cronbach's alpha as shown above in table 2. The value of reliability estimate for each construct must be greater than 0.6 for better internal consistency. (Sekaran & Bougie, 2016) (Awang et al., 2023). The results shows that the values of all the constructs, viz., Perceived Ease of Use, Perceived Usefulness, Perceived Risk, Perceived Trust, Buying Intentions and Buying Decisions fulfil the criteria of reliability and hence are considered as highly consistent and reliable. Also, the overall reliability estimate concluding all the constructs comes to be 0.874 which is greater than the threshold value of 0.60, indicating that the scale reliability criteria is fulfilled.

6.2. Measurement Model and Goodness of Fit

The table 3 below shows the various estimates of goodness of fit of the model.

Table 3 Parameters of Model Fit in Figure 1

Name of Category	Metrics	Metrics Value	Inference
Goodness of Fit	Chi-Square	1387.031 (0.0000)	Model is significant at 1 % level.
Goodness of Fit (Normed Chi-sq)	CMIN/df	2.831	Value ≤ 3.0 shows good fit.
Absolute Fit	RMSEA	0.122	Value is closer to 0 shows good fit.
Incremental Fit	CFI	0.596	Value lies between 0 & 1. The model is moderate fit.

Source: Author's computation based on the primary data

From the table 3, it can be observed that all the goodness of fit metrics fulfils the necessary requirements of validity of the model for the selected constructs as per the criteria (Awang et al., 2023).

6.3. Structural Equation Model Estimation

After testing for model's reliability, the structural model is fitted for testing the research hypothesis of the study. The path coefficients linking each exogenous construct to the endogenous construct is shows in Figure 2 below. It is found that the relationship between the various exogeneous variables to the endogenous variable is mediated by three variables, Perceived Ease of Use, Perceived Usefulness and Perceived Trust. The mediating exogenous construct is buying intentions impacting the endogenous construct buying decision. The exogeneous construct Perceived Risk is not found to be the significant construct impacting the buying intentions. The findings of the hypothesis testing are summarized in table 4.

Journal of Information Systems Engineering and Management
2025, 10(34s)
e-ISSN: 2468-4376
https://www.jisem-journal.com/

Research Article

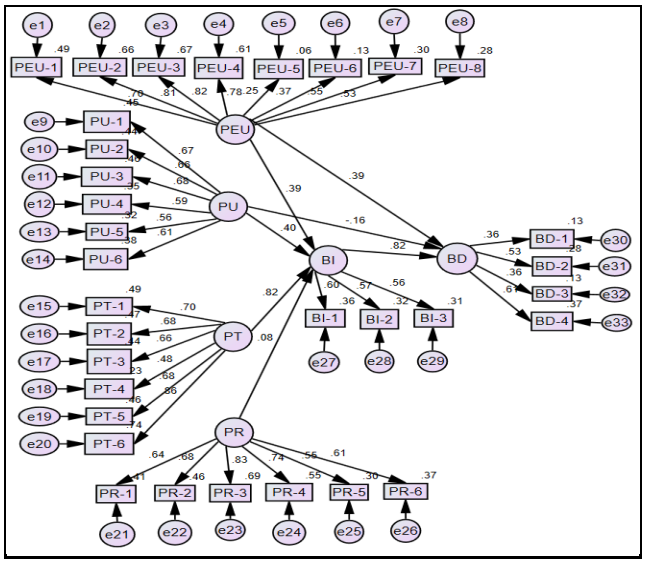

Figure 2 Structural Model Estimation

The table 4 below presents the various structural path coefficients:

Table 4 Structural Path Coefficients

Hypothesis	Variable	Path	Variable	β	Z	P-Value	Result
H1	Perceived Ease of Use (PEU)	→	Buying Intentions (BI)	0.291	3.737	0.000	Significant
H2	Perceived Ease of Use (PEU)	→	Buying Decision (BD)	0.178	2.541	0.011	Significant
H3	Perceived Usefulness (PU)	→	Buying Intentions (BI)	0.381	3.504	0.000	Significant
H4	Perceived Usefulness (PU)	→	Buying Decision (BD)	-0.093	-1.215	0.224	Not Significant
H5	Perceived Trust (PT)	→	Buying Intentions (BI)	0.547	5.594	0.000	Significant
H6	Perceived Risk (PR)	→	Buying Intentions (BI)	0.056	1.014	0.298	Not Significant
H7	Buying Intentions (BI)	→	Buying Decision (BD)	0.501	3.278	0.001	Significant

Source: Author's computation based on the data analysis

As seen in table 4, the following inferences may be drawn:

1. Indirect effects and direct effects both of Perceived Ease of Use (PEU) to Buying Intentions (BI) are both significant at 1% level and 5% level respectively.
2. Direct effects of Perceived Usefulness (PU) to Buying Intentions (BI) are significant at 1% level, but indirect effects of Perceived Usefulness (PU) to Buying Decisions (BD) are not significant.
3. Direct effects of Perceived Trust (PT) to Buying Intentions (BI) are significant at 1% level.
4. Direct effects of Perceived Risk (PR) to Buying Intentions (BI) are not significant.
5. Direct effects of Buying Intentions (BI) to Buying Decision (BD) are significant at 1% level.

Thus, it can be inferred from the above findings that buying intentions (BI) plays significant mediating role between Perceived Ease of Use (PEU) (Zuelseptia, Rahmiati, & Engriani, 2018), Perceived Usefulness (PU) (Kahar, Wardi, & Patrisia, 2019) and Perceived Trust (PT) (Nayak, Bhatt, & Nagvadia, 2021) and buying decision (BD). The variable Perceived Risk (PR) doesn't significantly contribute to Buying Intentions (BI). Also, the overall correlation between Buying Intentions (BI) and Buying Decision (BD) is very high. Thus, it can be concluded that buying intentions mediates the relationship between Perceived Ease of Use, Perceived Usefulness and Perceived Trust on buying decisions of grocery which is also evident from the fact that the correlation from BI to BD is 0.82 which indicates the aggregate effect of all constructs on buying intentions leading to buying decision.

Based on the above findings, it can be observed that out of seven hypotheses, five are supported. As far as online grocery shopping is concerned, there exists a strongest relationship between the Perceived Trust and buying behavior since Perceived Trust to buying intention ($\beta = 0.547$, $p < 0.01$) and buying intention to buying decision ($\beta = 0.501$, $p < 0.01$) for purchase of groceries online. This is consistent with the earlier studies (Orapin, 2009; Roca et al., 2009) indicating that the buying intention is the key mediator to for buying decision indicating buying behavior of online shopping. The next important variable is Perceived Usefulness impacting buying intentions ($\beta = 0.381$, $p < 0.01$) in online grocery shopping, followed by Perceived Ease of Used on buying intentions ($\beta = 0.291$, $p < 0.01$). Also, it is seen that Perceived Ease of Use also have direct impact the buying decision ($\beta = 178$, $p < 0.05$). This indicates that if the customer while making online purchases of groceries derives Perceived Usefulness and Perceived Ease of Use, it will impact his intention to buy the product and it will lead to buying decision. Thus, Perceived Trust, Perceived Usefulness and Perceived Ease of Use are the major determinants of buying behavior for online grocery shopping. In context with India where population belongs to diverse socio-economic background, there exists a conservative approach on the part of many customers with respect to online shopping in general and groceries in particular. The major factors impacting buying intentions and buying decisions are influenced by the peer pressure of friends, relatives and colleagues. There exists a lot of opportunity for the e-platforms to create awareness about the various benefits of online shopping and ease of use of such platforms. The access to technology available now to many customers, but the online shopping behavior towards groceries still has vast potential to penetrate into the market. Hence, if the above-mentioned factors are adequately taken care of, it is going to impact the buying behavior of shopping online groceries.

CONCLUSION

This study examines the factors influencing online grocery shopping: a mobile-commerce perspective – With increased awareness of internet facilities, there has been a significant adoption of online shopping amongst the buyers. The buyers are attracted towards shopping using the handheld devices. Mobile-Commerce is not just a facility but gives more personalized experience which in turn helps buyer making buying decision. Investing research and improvement in intuitive user interface and robustness, this provides buyer more flexibility to make a decision. This also enhances the buying experience that can lead to significant increased buyers' retention. With this enhancement, the promoters can stay competitive in the emerging market. The transparency and accurate information availability helps in making definitive choice. It can be concluded that buyers influenced with convenience, time-saving, and other dependent factors but they are also attentive to make the right decision. Considering the buyers choices, preferences it is essential to keep enhancing the experiences, strategies and that will ensure customer satisfaction and loyalty in a longer-term. Thus, based on this evidence online grocery shopping through Mobile-Commerce promotes the acceptance amongst the buyers of every demographic. From the advanced research point of view, it is recommended that apart from the identified attributes, the researchers can establish/study more attributes that are responsible for buying intention and buying decision of the buyers. Enhancement of the new technologies have been adopted, can also be considered in the future studies. Artificial Intelligence, is one such advancement that understands the pattern which can help shaping the future of online grocery purchase using Mobile-Commerce.

REFRENCES

[1] Annisa, S., Siahaan, E., & Lumbanraja, P. (2024). Impact of digital transformation on banking employee performance with selfefficacy as a mediator. Problems and Perspectives in Management, 22(4), 523-531. doi:http://dx.doi.org/10.21511/ppm.22(4).2024.39

[2] Awang, Z., Afthanorhan, W., Lim, S., & Zainudin, N. (2023). SEM Made Simple 2.0 A Gentle Approach of Structural Equation Modelling. Gong Badak: Penerbit Unisza.
[3] Bhatti, A., & Rehman, S. (2020). Perceived benefits and perceived risks effect on online shopping behavior with the mediating role of consumer purchase intention in Pakistan. International Journal of Management Studies, 26(1), 33-54.
[4] Cho, Y., & Sagynov, E. (2015). Exploring Factors That Affect Usefulness, Ease Of Use, Trust, And Purchase Intention In The Online Environment. International Journal of Management & Information Systems, 19(1), 21-36.
[5] Davis, F. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. 13(3), 319-340.
[6] Eriksson, N., & Stenius, M. (2022). Online grocery shoppers due to the Covid-19 pandemic - An analysis of demographic and household characteristics. Procedia Computer Science, 196(2022), 93-100.
[7] Ghai, S., & Tripathi, S. (2019). Perceived Benefits & Risks of Online Grocery Shopping: Role of Cognitive Influences. Indian Journal of Public Health Research & Development, 10(4), 29-36.
[8] Guliyeva, S. (2022). Effect of brand experience on consumer purchasing behaviours in the food industry of Azerbaijan. 24th RSEP International Conference on Economics, Finance & Business – Virtual/Online, (pp. 16-23). Vienna. doi:https://doi.org/10.19275/RSEPCONFERENCES154
[9] Gunawan, F., Mukti Ali , M., & Nugroho, A. (2019). Analysis of the Effects of Perceived Ease of Use and Perceived Usefulness on Consumer Attitude and Their Impacts on Purchase Decision on PT Tokopedia In Jabodetabek. European Journal of Business and Management Research, 4(5), 1-6. doi:http://dx.doi.org/10.24018/ejbmr.2019.4.5.100
[10] Hamad, H., & Schmitz, M. (2019). The Impact of Demographic Variables and Consumer Shopping Orientations on the Purchasing Preference for Different Product Categories in the Context of Online Grocery Shopping. Journal of Marketing and Consumer Research, 52, 21-32. doi:10.7176/JMCR/52-05
[11] (2024). India Online Grocery Market Size, Share & Trends Analysis Report By Product (Fresh Produce, Breakfast & Dairy, Snacks & Beverages, Meat & Seafood, Staples & Cooking Essentials), By Payment Mode (Online, Offline), And Segment Forecasts, 2025 - 2030. San Francisco: Grand View Research.
[12] Iriani, S., & Andjarwati, A. (2020). ANALYSIS OF PERCEIVED USEFULNESS, PERCEIVEDEASE OF USE, AND PERCEIVEDRISKTOWARDONLINE SHOPPING IN THE ERAOFCOVID-19PANDEMIC. Systematic Reviews in Pharmacy, 11(12), 313-320.
[13] Kahar, A., Wardi, Y., & Patrisia, D. (2019). The Influence of Perceived Usefulness, Perceived Ease of Use, and Perceived Security on Repurchase Intention at Tokopedia.com. 2nd Padang International Conference on Education, Economics, Business and Accounting (PICEEBA-2 2018), 64, 145-154.
[14] Kler, D., Prasad, D., Prasad, D., Goswami, R., & Mitra, G. (2022). Factors affecting consumer buying motivations: An empirical study in the behavioral economics perspectives. Journal of Positive School Psychology, 6(2), 711-717.
[15] Kutty, R., Vasudevan, H., & Aslan, I. (2024). Factors Influencing Customers' Online Shopping Behavior in Malaysia During the COVID-19 Pandemic. Journal of Comprehensive Business Administration Research., 00(00), 01-09. doi:https://doi.org/10.47852/bonviewJCBAR42023941
[16] Moshref Javadi, M., Dolatabadi, H., Nourbakhsh, M., Poursaeedi, A., & Asadollahi, A. (2012). An Analysis of Factors Affecting on Online Shopping Behavior of Consumers. International Journal of Marketing Studies, 4(5), 81-98.
[17] N Ramya, & Ali, D. (2016). Factors affecting consumer buying behavior. International Journal of Applied Research, 2(10), 76-80.
[18] Nayak, D. M., Bhatt, D., & Nagvadia, J. (2021). Measuring Impact of Factors Influencing to Customer Buying Intention with Respect to Online Shopping. International Journal of Management (IJM), 12(1), 230-242.
[19] Nodirovna, M. S., & Sharif o'g'li, A. S. (2024). E-Commerce Trends: Shaping The Future of Retail. Open Herald: Periodical of Methodical Research, 2(3), 46-49.
[20] Ou , C.-C., Chen, K.-L., Tseng, W.-K., & Lin, Y.-Y. (2022). A Study on the Influence of Conformity Behaviors, Perceived Risks, and Customer Engagement on Group Buying Intention: A Case Study of Community E-Commerce Platforms. Sustainable and Human-Centric E-Commerce, 14(4), 1-20. doi:https://doi.org/10.3390/su14041941
[21] Zuelseptia, S., Rahmiati, R., & Engriani, Y. (2018). The Influence of Perceived Risk and Perceived Ease of Use on Consumer's Attitude and Online Purchase Intention. PICEEBA, 550-556.