Journal of Informatics Education and Research ISSN: 1526-4726 Vol 4 Issue 3 (2024)

Mediating Role of Technology-enabled Applications in the Purchase Intention of Buyers for Electronics

Aditi Srivastava¹, Dr Subhash Kumar Verma², Brij Mohan Singh³, MR Rajat Jaiswal⁴, Dr Pradeep Meghwal⁵, Amita Negi⁶

¹PhD Research Scholar, School of Business Management, Noida International University, Greater Noida, orcid id- 0000-0003-0035-3108

²Professor & Director, School of Business Management, Noida International University, Greater Noida
³PhD Research Scholar, Department of Tourism Management, Indira Gandhi National Tribal University, Amarkantak, orchid id- 0000-0003-4656-3231

⁴Assistant Professor, Sanskriti University, Chhata, Mathura, prashantmeghwal85@gmail.com

⁵Assistant Professor, Sanskriti University, Chhata, Mathura, jaiswalrajat01@gmail.com

Research Scholar, Department of Commerce, University of Jammu, amitanegi1910@gmail.com,

Abstract— The paper intends to explore the effect of technology-enabled applications which induce social enjoyment on consumers' buying intention for electronic products promoted through influencers. This is essential because technological advancements have pushed companies to have well-operational and navigational applications which are user-friendly. These user-friendly technologically driven websites enable customers to enjoy their purchase journey socially. The paper uses purposive Sampling as a sampling technique to carry out this study. The paper has used a questionnaire designed to collect the respondents' responses through electronic media. Google forms were sent to the respondents to ensure data collection The Exploratory Factor Analysis is applied to a sample of 299 respondents to conduct the analysis. The paper shows that technology-enabled applications enable and increase customers' urge to shop more within their comfort zone. Having a great navigational application creates a positive attitude towards the product and customers feel like staying on the website for longer than usual time. Having a positive attitude leads to a feeling of intention to purchase the product in e-commerce for electronic products.

Keywords— E-Commerce, Technology, attitude, perception, buying behaviour

Introduction

A. Social Enjoyment through Technology-enabled Applications

Applications mean powerful content backed by good pictures, and high-quality videos to communicate well with the audiences and engage effectively with them on social media (Audrezet et al.; Childers et al.; Khamis et al.). A great technology-driven application retains customers longer on applications (Ud Din et al.). Consumers develop relationships with companies with easily navigational applications. Industries like healthcare industries have been using applications for greater customer experience (Cook et al.). To develop perceptions, applications are creative enough to communicate what they intend to ((Baali et al.). To build a positive perception of products, applications display new ways of gaining the latest developments of the products and creatively communicating those insights to the consumers ensuring a positive perception development in the minds of the consumers (Science and 2011; Casaló et al.; Iyengar et al.), where it demonstrates how easily these new technologies and trends of products fit into their luxuries and lifestyles effectively (Casaló et al.; Djafarova et al.). Credible consumers have a good follower count, especially on platforms like Instagram, and Facebook is a sign of goodwill thereby helping in the development of positive perception towards the products promoted by applications (Arora et al.; de Veirman et al.). Good Applications develop attitudes. Attitude is defined as the development of a viewpoint towards something. A viewpoint is developed after there is an image created in our minds. Attitude formation is the essential step in the creation of purchase intention. Attitudes are either positive or negative. A positive attitude leads to purchase intention generally. Attitude is related to behaviour formation when adopted repeatedly for a longer period. A longer period of adaptability ensures loyalty towards the product and enables the creation of goodwill for the company and its product. As per previous literature, knowledge of the product along with the moods, feelings, beliefs, and emotions of the consumers develop attitudes towards the product after watching the content uploaded by influencers (MacKenzie et al.). Influencers are perceived as the representatives of the brands they speak about (Freberg et al.). Psychologists agree

Journal of Informatics Education and Research ISSN: 1526-4726 Vol 4 Issue 3 (2024)

that due to attitude formation, there should be relevant changes in behaviour that may result in positive outcomes (Brown et al.).

Evidence from the literature shows that great applications induce attitude which is an important element leading to purchase intention (Laroche et al.; Chan et al.). Even arguments are also presented in recent studies which highlighted the importance of attitude in creating purchase intention (Lim et al.). This paper focuses on how technology-enabled applications drive social enjoyment enabling shopping behaviour in e-commerce platforms. The objective of the paper is to see how applications and technological advancements help in driving customer purchase decisions. The technology-enabled applications create positive attitudes and enable buying behaviour. We intend to study this objective in the study.

Research Methodology

This proposal aims to distinguish specific factors that determine the purchase intention of buyers towards electronic products. 537 respondents were chosen using purposive sampling (the respondents who essentially subscribe to influencers and see their videos on social media platforms to purchase electronic goods) and sent structured survey questions. A total of 299 responses were received out of a total of 537. The respondents were chosen carefully and were instructed about the study. We applied exploratory factor analysis (EFA) to identify key variables of key factors using principal component analysis (PCA) as the factor extraction method and varimax rotation as the rotation method. The decision to determine the number of factors and items is based on the following principles: i) Kaiser-Meyer-Olkin Score (KMO) test,> 0.6, ii) Significant value of Bartlett's test factor, p <0.001 and iii) Factor loading for items > 0.60 (Daud et al., 2019). Out of 9 items as listed in the table above, the varimax rotation was able to extract. The survey instrument for the study was developed after a pilot study of 50 respondents through an open-ended questionnaire. "The instrument was presented to experts in the field to ensure content validity, to eliminate any ambiguity or unclear words from the questionnaire" (Sekaran & Roger, 2013; Zainuddin, 2012). This study used three constructs and nine newly developed items. Each construct contains three items. The constructs were developed keeping in mind the proposed objectives of the study. Respondents were chosen carefully to achieve the analysis and ensure fair results.

Data Analysis

| Code | Items | Mean | Std. Dev. | Coeff. Of Var. |
|------|--|------|--------------|----------------------|
| | Social Enjoyment through technology-enabled applications | | | |
| SE1 | I liked and enjoyed the application | 3.53 | 0.774 | 0.2193 |
| SE2 | I was motivated to learn more about the product after watching the application | 3.49 | 0.817 | 0.2341 |
| SE3 | I think that using the application was optimally utilized time. | | 0.743 | 0.2099 |
| | All Items in Technology enabled applications | | | |
| | Impression | | | |
| IM1 | The application created a positive image of the product. | | 0.622 | 0.1575 |
| IM2 | I was able to relate to the video. | | 0.632 | 0.16 |
| IM3 | The influencer created an impression in the video. | 3.93 | 0.62 | 0.1578 |
| | All Items in Impression | 3.94 | | |

ISSN: 1526-4726 Vol 4 Issue 3 (2024)

| | Attitude | | | |
|-----|--|------|-------|--------|
| AT1 | The video developed my perspective about the product. | 4.17 | 0.616 | 0.1477 |
| AT2 | The video developed a positive viewpoint about the product. | 4.14 | 0.637 | 0.1539 |
| AT3 | The video lead you to browse e-commerce websites for the price, discounts, cashback etc. | | 0.593 | 0.1432 |
| | All Items in Attitude | 4.15 | | |

Table 4- Factor Loadings

| Kaiser-Meyer-C | .765 | | | |
|----------------------------------|------|------|--|--|
| Bartlett's Test of Sphericity | 11 1 | | | |
| | df | 36 | | |
| | Sig. | .000 | | |

Table 1: KMO and Bartlett's Test

| Component | No. of Items | Cronbach's Alpha |
|-------------|--------------|------------------|
| Component 1 | 3 | 0.863 |
| Component 2 | 2 | 0.758 |
| Component 3 | 2 | 0.794 |

Table 2: Reliability Statistics for the three components of Purchase Intention

| Compo nent | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | |
|---------------|---------------------|------------------|--------------|-------------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 2.667 | 29.638 | 29.638 | 2.667 | 29.638 | 29.638 |
| 2 | 2.626 | 29.178 | 58.816 | 2.626 | 29.178 | 58.816 |
| 3 | 1.225 | 13.613 | 72.428 | 1.225 | 13.613 | 72.428 |

Journal of Informatics Education and Research

ISSN: 1526-4726 Vol 4 Issue 3 (2024)

| 4 | .700 | 7.777 | 80.206 | | |
|---|------|-------|---------|--|--|
| 5 | .579 | 6.439 | 86.644 | | |
| 6 | .415 | 4.607 | 91.251 | | |
| 7 | .330 | 3.662 | 94.913 | | |
| 8 | .279 | 3.100 | 98.013 | | |
| 9 | .179 | 1.987 | 100.000 | | |

Findings and Discussion

The result of the study shows that social enjoyment is significant in e-commerce shopping behavior. Social enjoyment is the least studied factor however the impact of the factor is tremendous in predicting shopping behavior and customer preference for the products. Social enjoyment as the findings suggest creates an attitude towards the products being promoted or endorsed by them. Attitude creation is the initial step toward any product. The millennials are socially attracted to the videos and therefore subscribe to and share the videos. Electronic products have a huge demand among the young generation. It is essential to use this strategy to influence to buy electronic products. As per the findings, socially enjoying a video promoted by influencers is an amazing and attractive strategy to target the audience gracefully. Attitude development leads to a thought creation to purchase the product. Intention to purchase is essential to have the products in the carts. The intention to purchase easily leads to buying the product on e-commerce websites.

Conclusion

To conclude the study, it is important to understand the motive of the study. The study is carried out to see how technology-enabled latest applications develop feelings of social enjoyment as an independent factor that leads to attitude creation. Attitude creation leads to the development of an intention to purchase the electronic product. Influencers as communicator is a very effective strategy to plan out such promotions. An influencer who already has thousands or millions of followers motivates Generation Z and other people to buy electronic products. The videos uploaded by the influencers are attention gainers and are designed to persuade followers. Social enjoyment here specifically means social means of interacting with the followers. The study shows the importance of social enjoyment to retain customers and influence them to have a positive attitude towards electronic products.

REFERENCES

- [1] Arora, A., Bansal, S., Kandpal, C., ... R. A.-J. of retailing and, & 2019, undefined. (n.d.). Measuring social media influencer index-insights from Facebook, Twitter and Instagram. Elsevier.
- [2] Audrezet, A., Kerviler, G. de, research, J. M.-J. of business, & 2020, undefined. (2017). Authenticity under threat: When social media influencers need to go beyond self-presentation. Elsevier, 45, 509–510. https://www.sciencedirect.com/science/article/pii/S0148296318303229
- [3] Chan, K., Leung ng, yu, & Luk, E. K. (2013). Impact of celebrity endorsement in advertising on brand image among Chinese adolescents. Young Consumers, 14(2), 167–179. https://doi.org/10.1108/17473611311325564/FULL/HTML
- [4] Childers, C. C., Lemon, L. L., & Hoy, M. G. (2019). #Sponsored #Ad: Agency Perspective on Influencer Marketing Campaigns. Journal of Current Issues and Research in Advertising, 40(3), 258–274. https://doi.org/10.1080/10641734.2018.1521113
- [5] Casaló, L., Flavián, C., Research, S. I.-S.-J. of B., & 2021, undefined. (n.d.). Be creative, my friend! Engaging users on Instagram by promoting positive emotions. Elsevier. S
- [6] Casaló, L., Flavián, C., research, S. I.-S.-J. of business, & 2020, undefined. (n.d.-a). Influencers on Instagram: Antecedents and consequences of opinion leadership. Elsevier. Retrieved October 4, 2022, from https://www.sciencedirect.com/science/article/pii/S0148296318303187
- [7] Iyengar, R., van den Bulte, C., & Valente, T. W. (2011a). Opinion leadership and social contagion in new product diffusion. Marketing Science, 30(2), 195–212. https://doi.org/10.1287/MKSC.1100.0566

Journal of Informatics Education and Research ISSN: 1526-4726 Vol 4 Issue 3 (2024)

- [8] Khamis, S., Ang, L., & Welling, R. (2017). Self-branding, 'micro-celebrity' and the rise of Social Media Influencers. Celebrity Studies, 8(2), 191–208. https://doi.org/10.1080/19392397.2016.1218292
- [9] de Veirman, M., Cauberghe, V., & Hudders, L. (2017b). Marketing through instagram influencers: The impact of number of followers and product divergence on brand attitude. International Journal of Advertising, 36(5), 798–828. https://doi.org/10.1080/02650487.2017.1348035
- [10] Djafarova, E., behavior, C. R.-C. in human, & 2017, undefined. (n.d.-b). Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users. Elsevier.
- [11] Djafarova, E., behavior, C. R.-C. in human, & 2017, undefined. (n.d.-b). Exploring the credibility of online celebrities' Instagram profiles in influencing the purchase decisions of young female users. Elsevier.
- [12] H. Baali, H. Djelouat, A. Amira and F. Bensaali, "Empowering Technology Enabled Care Using IoT and Smart Devices: A Review," in IEEE Sensors Journal, vol. 18, no. 5, pp. 1790-1809, 1 March1, 2018, doi: 10.1109/JSEN.2017.2786301. keywords:
- [13] Kapitan, S., & Silvera, D. H. (2016a). From digital media influencers to celebrity endorsers: attributions drive endorser effectiveness.
- [14] Laroche, M., Kim, C., Research, L. Z.-J. of business, & 1996, undefined. (1996). Brand familiarity and confidence as determinants of purchase intention: An empirical test in a multiple brand context. Elsevier.
- [15] Lim, X., Radzol, A., ... J. C.-A. J. of B., & 2017, undefined. (2019). The impact of social media influencers on purchase intention and the mediation effect of customer attitude. Researchgate.Net. https://doi.org/10.14707/ajbr.170035
- [16] MacKenzie, S. B., Lutz, R. J., & Belch, G. E. (1986). The Role of Attitude toward the Ad as a Mediator of Advertising Effectiveness: A Test of Competing Explanations. Journal of Marketing Research, 23(2), 130–143. https://doi.org/10.1177/002224378602300205
- [17] Goyal, S., Sharma, N., Bhushan, B., Shankar, A., Sagayam, M. (2021). IoT Enabled Technology in Secured Healthcare: Applications, Challenges and Future Directions. In: Hassanien, A.E., Khamparia, A., Gupta, D., Shankar, K., Slowik, A. (eds) Cognitive Internet of Medical Things for Smart Healthcare. Studies in Systems, Decision and Control, vol 311. Springer, Cham. https://doi.org/10.1007/978-3-030-55833-8 2
- [18] I. Ud Din et al., "The Internet of Things: A Review of Enabled Technologies and Future Challenges," in IEEE Access, vol. 7, pp. 7606-7640, 2019, doi: 10.1109/ACCESS.2018.2886601. keywords: {Smart cities; Wireless sensor networks; Internet of Things; Sensors
- [19] D. J. Cook, M. Schmitter-Edgecombe, L. Jönsson and A. V. Morant, "Technology-Enabled Assessment of Functional Health," in IEEE Reviews in Biomedical Engineering, vol. 12, pp. 319-332, 2019, doi: 10.1109/RBME.2018.2851500
- [20] R. Singh, Yasmeen, A. Srivastava, B. Bijeshdhyani and D. Deepa, "Machine learning based human interacted robotic intelligence to detect the different categories of speech," 2023 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI), Chennai, India, 2023, pp. 1-8, doi: 10.1109/ACCAI58221.2023.10199251.