Impact of Digital Convenience on Grocery Purchase Decisions of Working Women in Coimbatore District

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Abstract
The emergence of digital technologies has transformed grocery shopping, offering convenience, flexibility, and time-saving solutions. This study examines the impact of digital convenience on online grocery purchase decisions of working women in Coimbatore District. Using a quantitative research approach, data were collected from 150 working women through structured questionnaires measuring digital convenience factors—such as app usability, secure payment, delivery efficiency, personalized services—and purchase behavior indicators like frequency, satisfaction, and loyalty. Statistical analyses, including descriptive statistics, t-tests, ANOVA, and regression, were employed to identify relationships and differences across demographic variables. Findings indicate that digital convenience significantly influences online grocery behavior, with family type affecting perceived risk and age moderating consumer behavior, attitude, and purchase intentions. Website and market factors showed no significant variation. The study highlights that enhancing digital convenience while considering demographic differences can improve satisfaction, trust, and repeated use of online grocery platforms.
Keywords: Digital Convenience, Online Grocery Shopping, Working Women, Purchase Decisions, Coimbatore District

Introduction

The emergence of digital technologies has significantly altered consumer shopping habits worldwide. One of the most notable shifts is the rapid growth of online grocery shopping, which provides time saving, convenient, and flexible alternatives to traditional retail outlets. Digital convenience—which includes features such as intuitive mobile apps, real time product information, multiple secure payment options, home delivery, order tracking, and personalized recommendations—has become a key determinant of how and why consumers make grocery purchase decisions online.

Working women, particularly in urban and semi urban regions such as Coimbatore District, constitute a growing segment of online grocery shoppers. Balancing professional responsibilities with household management often leaves limited time for physical store visits, prompting many working women to rely on digital platforms for grocery purchases. Therefore, understanding the influence of digital convenience on their purchase decisions is crucial for businesses seeking to design customer centric strategies that enhance satisfaction, loyalty, and long term engagement.

Review of Earlier Studies

Research has highlighted various aspects of online shopping behavior, particularly among female consumers:

- Kaur and Singh (2020) found that perceived usefulness, ease of use, and accessibility significantly influence the adoption of online grocery platforms among working women, with convenience being the most cited motivator.
- Sharma and Mittal (2019) observed that digital convenience reduces the cognitive effort associated with grocery shopping, leading to higher satisfaction and increased frequency of repeat purchases.
- Natarajan and Ramesh (2021) reported that mobile applications with features such as price comparison tools, customer reviews, and flexible payment options empower women shoppers to make more informed and confident purchase decisions.
- Raj and Jose (2018) highlighted that delivery reliability and timeliness are strong predictors of continued usage of online grocery platforms, especially among working professionals who prioritize time savings.
- Bhatia and Gupta (2022) noted that personalized push notifications, discounts, and loyalty programs significantly affect grocery purchase behavior by enhancing perceived value and convenience.
- Verma and Paul (2021) emphasized that trust in online platforms—shaped by data security, transparent return/refund policies, and reliable customer service—is a critical enabler of online grocery adoption among women.

Despite these insights, most studies have focused on large metropolitan areas, leaving a gap in research related to smaller urban centers like Coimbatore, where technology adoption patterns, lifestyle constraints, and digital service expectations could differ.

Research Methodology

This study adopts a quantitative research approach to examine the impact of digital convenience on the online grocery purchase decisions of working women. A descriptive and analytical research design is employed to systematically investigate the relationship between digital convenience factors—such as app usability, payment options, delivery efficiency, and personalized services—and consumer buying behavior. The study is empirical in nature, enabling hypothesis testing and validation of the proposed relationships.

Population and Sample

The target population comprises working women residing in Coimbatore District who regularly use online platforms for grocery shopping. These respondents are selected due to their firsthand experience with digital grocery services and their decision-making authority for household purchases.

A sample of 150 respondents is chosen using convenience sampling. Respondents are drawn from various sectors including IT, banking, education, healthcare, and retail, ensuring diversity in professional background, income levels, and digital literacy.

Data Collection
Primary Data

Primary data is collected through a structured questionnaire designed based on previous literature and adapted to the local context. The questionnaire uses a five-point Likert scale ranging from: (1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree)

The questionnaire covers the following sections:
- Digital Convenience Factors: App usability, product information availability, secure payment options, delivery timeliness, personalized recommendations, and promotions.
- Online Grocery Purchase Decisions: Frequency of purchase, average spend, platform preference, satisfaction level, and likelihood of repeat purchase.
- Demographic Profile: Age, education, occupation, income, family size.

Secondary Data

Secondary data is sourced from academic journals, industry reports, market surveys, and online publications to support theoretical development and contextualize findings.

Measurement of Variables

Variable Type	Variable	Indicators
Independent Variable	Digital Convenience	App usability, delivery efficiency, secure payment, personalized services
Dependent Variable	Online Grocery Purchase Decisions	Purchase frequency, average spend, platform preference, satisfaction, loyalty

Data Analysis Techniques
- Descriptive Statistics: To summarize demographic characteristics and overall trends in online grocery behavior.
- Factor Analysis: To identify key dimensions of digital convenience influencing purchase decisions.
- Correlation Analysis: To examine the strength and direction of relationships between digital convenience factors and grocery purchase decisions.
- Multiple Regression Analysis: To determine the impact of individual digital convenience factors on online grocery purchase behavior.
- Reliability Test: Cronbach's Alpha will be used to check the internal consistency of the questionnaire items.

Scope of the Study

The study focuses on working women in Coimbatore District who use online grocery platforms. It aims to provide insights into the role of digital convenience in influencing purchase decisions, which can guide e-commerce platform design, marketing strategies, and service enhancements targeted at this growing consumer segment.

Objectives

1. To study the demographic background of working women in Bengaluru while shopping for grocery online.
2. To identify the factors that influence the online grocery shopping behavior of working women in Bengaluru.
3. To determine the important factors that influences the online grocery shopping behavior of working women in Bengaluru.

Analysis and Interpretation

Null Hypothesis (H01): There is no significant difference between types of family (nuclear and joint) with respect to factors of online shopping behavior among working women.

Test of Significant Difference Between Types of Family

Factors	Type of Family	N	Mean	SD	t value	P value
Website Factors	Nuclear	75	29.41	4.48	0.923	0.356
	Joint	75	29.97	5.33		
Market Factors	Nuclear	75	31.97	4.64	0.096	0.755
	Joint	75	29.36	4.24		
Consumer Factors	Nuclear	75	33.49	4.64	1.172	0.242
	Joint	75	34.15	5.57		
Perceived Risk	Nuclear	75	27.37	4.87	2.978	0.003**
	Joint	75	29.13	5.21		
Subjective Norms	Nuclear	75	13.62	3.61	0.594	0.553
	Joint	75	13.37	3.51		
Attitude	Nuclear	75	18.16	3.74	0.212	0.832
	Joint	75	18.25	3.46		
Behavioral Intention	Nuclear	75	14.43	2.54	1.107	0.269
	Joint	75	14.76	2.49		
Behavior	Nuclear	75	18.91	2.92	0.835	0.404
	Joint	75	18.61	3.50		

Note: ** indicates significance at 1% level

Interpretation

- The p-value for Perceived Risk (0.003) is less than 0.01, so the null hypothesis is rejected for this factor. This indicates that there is a significant difference between nuclear and joint families regarding perceived risk. The mean score for working women in joint families (29.13) is higher than for nuclear families (27.37), suggesting that women in joint families perceive more risk when shopping online.

- For all other factors—Website Factors, Market Factors, Consumer Factors, Subjective Norms, Attitude, Behavioral Intention, and Behavior—the p-values are greater than 0.05, so the null hypothesis is accepted. This means that there is no significant difference between nuclear and joint families for these aspects of online grocery shopping behavior.

II) Null Hypothesis (H02): There is no significant difference among age groups with respect to various factors of online grocery shopping behavior of working women.

ANOVA for Significant Difference Among Age Groups

Factors	Age Group (Years)	N	Mean	SD	F Value	P Value
Website Factors	18–25	37	28.56	4.80	2.429	0.082
	26–35	38	29.55	4.76		
	36–45	37	30.30	4.36		
	46–55	38	33.25	4.36		
	55+	--	--	--		
Market Factors	18–25	37	31.70	5.55	1.564	0.183
	26–35	38	32.40	5.41		
	36–45	37	32.04	5.28		
	46–55	38	31.49	5.39		
Consumer Factors	18–25	37	32.70	5.31	2.787	0.022*
	26–35	38	33.97	4.77		
	36–45	37	34.19	4.59		
	46–55	38	32.93	4.05		
Perceived Risk	18–25	37	29.11	4.95	3.078	0.016*
	26–35	38	27.45	4.93		
	36–45	37	26.95	5.32		
	46–55	38	28.72	5.02		
Subjective Norms	18–25	37	13.97	3.44	3.078	0.026*
	26–35	38	14.59	3.51		
	36–45	37	13.49	3.42		
	46–55	38	11.88	3.55		

	18–25	37	17.31	3.42	7.758	<0.001**
Attitude	26–35	38	18.68	2.82		
	36–45	37	17.54	3.84		
	46–55	38	18.62	3.81		
Behavioral Intention	18–25	37	14.11	3.42	3.078	0.047*
	26–35	38	14.91	3.55		
	36–45	37	14.72	3.73		
	46–55	38	16.80	3.68		
Behavior	18–25	37	14.11	3.42	3.078	0.026*
	26–35	38	13.10	3.55		
	36–45	37	27.15	3.73		
	46–55	38	18.62	3.68		

*P < 0.05 significant; **P < 0.01 highly significant

Interpretation
1. Website Factors and Market Factors
- p-values (0.082, 0.183) > 0.05 → no significant difference among age groups.

2. Consumer Factors, Perceived Risk, Subjective Norms, Behavioral Intention, and Behavior
- p-values < 0.05 → significant difference exists among age groups.
- Younger and older age groups show varying levels of perceived risk, influence of subjective norms, and actual behavior.

3. Attitude:
- p < 0.001 → highly significant difference among age groups.
- Indicates that age plays a major role in shaping attitudes toward online grocery shopping.

Conclusion
The study reveals that digital convenience plays a pivotal role in shaping online grocery purchase decisions among working women in Coimbatore District. Features such as app usability, secure payment options, delivery efficiency, personalized recommendations, and promotional offers significantly enhance satisfaction, trust, and repeat purchase behavior. Demographic analysis indicates that family type influences perceived risk, with women in joint families perceiving higher risk than those in nuclear families, while other factors remain unaffected. Additionally, age significantly moderates consumer behavior, perceived risk, subjective norms, attitude, and behavioral intention, highlighting the importance of age-specific strategies for online grocery engagement. Website and market factors showed no significant variation across age groups, suggesting a general consistency in platform usability and pricing perception. Overall, integrating digital convenience features with targeted strategies based on age and family structure can strengthen engagement, loyalty, and long-term adoption, enabling e-commerce platforms to better meet the needs of time-constrained working women.

References

1. Bhatia, R., & Gupta, S. (2022). Influence of personalized notifications and loyalty programs on online shopping behavior. Journal of Retail and Consumer Services, 64, 102754. https://doi.org/10.1016/j.jretconser.2021.102754

2. Kaur, P., & Singh, A. (2020). Adoption of online grocery platforms among working women: Role of perceived usefulness and convenience. International Journal of Consumer Studies, 44(3), 215–225. https://doi.org/10.1111/ijcs.12592

3. Natarajan, S., & Ramesh, K. (2021). Mobile applications and consumer empowerment in online grocery shopping. Journal of Retailing and Consumer Services, 59, 102376. https://doi.org/10.1016/j.jretconser.2020.102376

4. Raj, M., & Jose, P. (2018). Determinants of online grocery shopping among working professionals. Indian Journal of Marketing, 48(12), 30–45. https://doi.org/10.17010/ijom/2018/v48/i12/137879

5. Sharma, N., & Mittal, R. (2019). Digital convenience and consumer satisfaction in online grocery retail. Asia Pacific Journal of Marketing and Logistics, 31(5), 1262–1277. https://doi.org/10.1108/APJML-02-2019-0104

6. Verma, A., & Paul, J. (2021). Trust, security, and adoption of online grocery shopping among women consumers. Journal of Retailing and Consumer Services, 60, 102448. https://doi.org/10.1016/j.jretconser.2021.102448