



EFFECTIVENESS OF FACTORS OF ONLINE-BUYING ON CONSUMER SATISFACTION IN BENGALURU

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Abstract: In contemporary business landscape, numerous enterprises have transitioned from conventional brick-and-mortar models to online platforms, capitalizing on the burgeoning e-commerce ecosystem. Understanding the nuances of customer satisfaction in this digital age is paramount, as it directly influences repeat purchase behavior and brand loyalty. This research delves into the multifaceted factors that influence consumer satisfaction in the realm of online buying, a domain experiencing exponential growth due to increased accessibility to affordable internet and smartphones. The primary objective is to dissect the key determinants that shape consumer perceptions and subsequent satisfaction levels derived from online purchasing experiences. To effectively gauge consumer satisfaction, this research will explore several pivotal constructs, including website design, convenience, security, product variety and ease of shopping and their influence on shaping overall customer satisfaction. While a significant portion of consumers find e-commerce platforms user-friendly and helpful for product comparisons, enhancements in visual appeal and personalized suggestions are needed to better align with consumer expectations with data security and privacy.

Keywords: Online Buying, convenience, product selection, website design

I INTRODUCTION

E-commerce, or electronic commerce, refers to the buying and selling of goods and services over the internet. This rapidly evolving sector has transformed the way businesses operate and consumers shop, offering unparalleled convenience and accessibility. The rise of e-commerce can be attributed to several factors, including advancements in technology, increased internet penetration, and changing consumer behaviors. According to Statista (2023), global e-commerce sales reached approximately \$5.2 trillion in 2021 and are projected to grow to more than \$6.5 trillion by 2023, underscoring its significance in the modern economy. E-commerce encompasses various business models, including Business-to-Consumer (B2C), Business-to-Business (B2B), Consumer-to-Consumer (C2C), and Consumer-to-Business (C2B) (Laudon & Traver, 2021). Each of these models offers unique opportunities and challenges, catering to different market needs and

consumer preferences. The convenience of online shopping, coupled with the ability to compare prices and access a wider range of products, has led to a significant shift in consumer purchasing patterns (Chaffey, 2022).

This transformation has prompted traditional retailers to adapt their strategies, integrating online platforms and enhancing their digital presence to remain competitive in an increasingly crowded marketplace. Furthermore, the COVID-19 pandemic accelerated the adoption of e-commerce, as consumers turned to online platforms for their shopping needs during lockdowns and social distancing measures (McKinsey & Company, 2021). This shift has prompted businesses to enhance their online presence and invest in digital marketing strategies to reach their target audiences effectively. As e-commerce continues to evolve, it presents both opportunities for growth and challenges related to cybersecurity, logistics, and competition. Understanding the dynamics of this digital marketplace is crucial for businesses aiming to thrive in an increasingly interconnected world.

II LITERATURE REVIEW

The advantages associated with online shopping are manifold, leading consumers to favor this modality over conventional retail shopping due to its substantial benefits. Online shopping is devoid of temporal limitations, allowing consumers the flexibility to procure any desired product at their convenience. Consequently, consumers are afforded ample time for contemplation prior to finalizing their purchases (Kim & Kim, 2004; McKinney, 2004). Additionally, a significant advantage of online shopping is that consumers can place orders from any location with internet access (such as home, workplace, or café), thereby conserving time; there are no geographical restrictions in online shopping as vendors can showcase thousands of products on their websites, which in turn provides consumers with a plethora of choices at lower prices compared to traditional retail outlets (Harn et al., 2006; Delafrooz et al., 2009). In contrast to traditional retail environments, where consumers experience time pressure to select products, online shopping alleviates such stress, enabling individuals to engage in leisurely browsing without any urgency. The online shopping paradigm facilitates the availability of an extensive array of products due to the absence of physical constraints. Furthermore, sellers can offer lower prices than those found in traditional stores, primarily because there are numerous retailers operating within the brick-and-mortar sector (Delafrooz & Paim, 2011). Hence, in light of the aforementioned discourse, the following hypothesis is posited:

Additionally, the role of website design cannot be overstated, as it significantly influences user experience and purchasing decisions. A well-structured site with intuitive navigation can enhance convenience by making product searches more efficient, allowing consumers to find what they need quickly without frustration. Moreover, elements such as responsive design and mobile compatibility are critical in catering to the increasing number of users who shop via smartphones and tablets, further emphasizing the importance of accessibility in online retailing . As a result, retailers must prioritize not only aesthetic appeal but also functional efficiency to meet consumer expectations and foster loyalty in an increasingly competitive market. In addition to convenience and website design, the role of perceived risk cannot be overlooked in

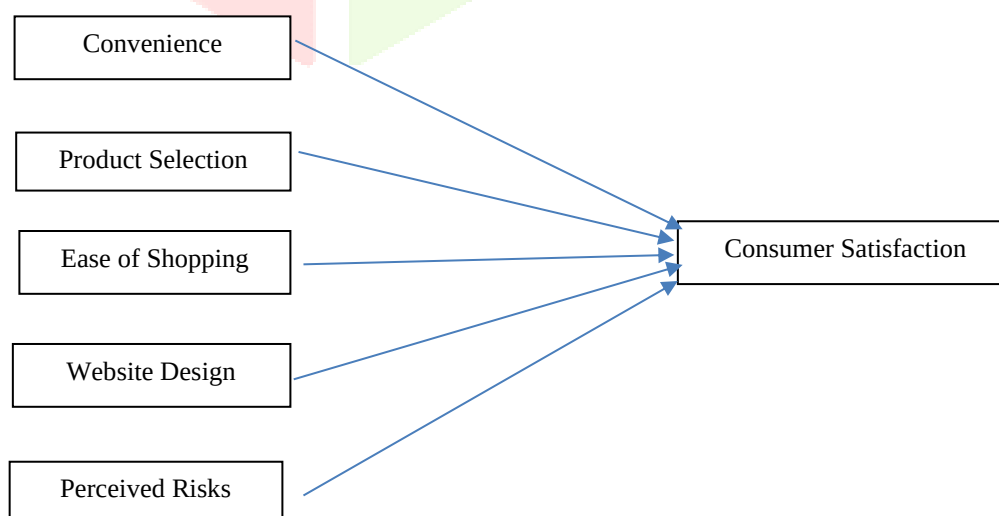
influencing online shopping behavior. Many consumers harbor concerns regarding data security, product quality, and the reliability of delivery services, which can deter them from completing purchases. Retailers need to actively address these fears by implementing robust security measures, offering transparent return policies, and providing detailed product descriptions and customer reviews. By enhancing consumer confidence through effective communication and support, e-commerce platforms can significantly mitigate perceived risks, thus promoting a more favorable shopping experience that encourages repeat business (Korgaonkar and Wolin, 1999) .

ease of shopping Furthermore, the integration of personalized marketing strategies can significantly enhance the online shopping experience by tailoring product recommendations to individual consumer preferences. This approach not only fosters a sense of connection between consumers and retailers but also increases the likelihood of impulse purchases, as users are presented with items that resonate with their interests (Monzuwe et al., 2004). Additionally, leveraging data analytics allows businesses to refine their understanding of consumer behavior, enabling them to anticipate needs and adapt offerings accordingly. As competition intensifies in the e-commerce landscape, companies that prioritize personalization alongside convenience and security will likely see higher customer satisfaction and retention rates, ultimately driving sales growth (Korgaonkar and Wolin, 1999).

III OBJECTIVE

This study aims to understand the relation between factors of online buying such as convenience, product selection, ease of shopping, website design and perceived risks with consumer satisfaction towards online buying.

The research model developed for the purpose of the study is as follows:



IV METHODOLOGY

Data collection was done from primary source through a structured and close ended questionnaire consisting of observed variables and latent variables. Data was collected through google forms circulated on whatsapp to groups and individuals. A total of 103 responses were received, of which 86 responses were considered valid for the purpose of study. Descriptive and Regression analysis was done to understand the relationship of latent variables.

V RESULTS AND DISCUSSION

Table 1: Demographic Analysis

Sl.no	Demographic variable	Category	No of respondents	Percentage
1.	Gender	Female	67	78%
		Male	19	22%
		Total	86	100.0%
2.	Age	< 20 years	19	22.1%
		21-30 years	25	29.1%
		31-40 years	28	32.6%
		41-50 years	13	15.0%
		> 50 years	1	1.2%
		Total	86	100.0%
3.	Education	12th	-	-
		Diploma	1	1.2%
		Graduate	31	36.0%
		Others	9	10.5%
		Post Graduate	43	50.0%
		Under graduate	2	2.3%
		Total	86	100.0%
4.	Occupation	Government Employee	1	1.2%
		Homemaker	28	32.6%
		Private Sector Employee	28	32.6%
		Retired	5	5.8%
		Self Employed	15	17.4%
		Student	-	-
		Unemployed	9	10.5%

		Total	86	100.0%
5.	Profession	Business	1	1.2%
		Engineer	6	7.0%
		IT	5	5.8%
		Not Working	16	18.6%
		Others	38	44.2%
		Teacher/Lecturer	20	23.2%
		Total	86	100.0%
6.	Annual Income	Below 3,00,000	8	9.4%
		3,00,000 - 5,00,000	53	61.6%
		5,00,000 - 10,00,000	15	17.4%
		Above 10,00,000	10	11.6%
		Total	513	100.0%
7.	Marital Status	Married	320	62.4%
		Married but Single	52	10.1%
		Unmarried	141	27.5%
		Total	513	100.0%
8.	Way of living	Living alone	6	6.9%
		Living as a Nuclear Family	44	51.2%
		Living with Joint Family	36	41.9%
		Total	86	100.0%

Source: Research Survey

The demographic analysis reveals that the majority of respondents are female (78%), with male respondents making up 22%. Age-wise, the largest group falls within the 21-30 years category (32.6%), followed by 31-40 years (32.1%) and 20 years or below (23.3%). Education levels show that 50% are post-graduates, 36.0% are graduates, and 2.3% are undergraduates. In terms of occupation, the largest groups are homemakers and private sector employees, each accounting for 32.6%. For profession, 44.6% of respondents work in other fields, with 23.2% in teaching/lecturing and 18.8% in IT. Most respondents earn between 3,00,000 to 5,00,000 annually (61.6%), with 62.4% being married. The majority of respondents live in family setups (41.5%), followed by those living with joint families (36.1%). This analysis provides insights into the key demographic makeup, focusing on gender, age, education, occupation, income, marital status, and living arrangements.

Table 2: Reliability and Validity of Constructs

VARIABLES AND CONSTRUCTS	Fact Loading	AVE	CR	Cronbach α
<i>Convenience</i>				
I can shop in the privacy of my home	0.787	0.515	0.827	0.812
I can shop whenever and wherever I want	0.660			
I can save the effort of visiting multiple stores	0.596			
I can have the goods delivered to my door.	0.789			
I can easily return/ replace the goods.	0.712			
I can easily receive a refund	0.658			
<i>Product Selection</i>				
I feel items from everywhere are available online	0.525	0.514	0.790	0.775
I feel I can get reliable product information online	0.718			
I feel I get a broader selection of consumer durables online	0.636			
I feel I have access to many brands and retailers in e-stores	0.654			
I feel I can get consumer durables at competitive prices in e-stores	0.815			
I feel I get good offers on consumer durables online	0.758			
<i>Ease of shopping</i>				
I don't have to wait in long queues for checkout	0.761	0.543	0.746	0.706
I don't have to face the hassles of traffic to buy consumer durables	0.635			
I get multiple payment options which make payment easy	0.765			
Online product reviews make it easy for me to buy consumer durables online	0.717			
<i>Website Design</i>				
The e-store website is easy to use	0.855	0.676	0.884	0.820
The e-store website is visually appealing	0.841			
The e-store website increases my search effectiveness	0.845			
Personalized recommendations on the e-store website are useful	0.791			
The e-store website helps me to compare products	0.781			
<i>Perceived risks</i>				
I might not get the product I ordered online	0.565	0.547	0.758	0.660
I feel sharing personal information online may not be safe	0.913			
I feel online payment system may not be secure	0.863			
I can't examine the product through touch and feel	0.626			
I face technical problems like the slow loading of websites during payment	0.608			
It is easy to become skillful at using the website	0.613			

Consumer satisfaction

I am happy with the product I bought on the website	0.852	0.814	0.902	0.918
I am satisfied with online shopping	0.906			
I made the right choice of buying online	0.910			
I had a pleasant experience shopping online	0.895			

Source: Research Survey

The table shows that both Convenience and Product Selection constructs have good reliability and validity. Convenience items have factor loadings between 0.596 and 0.789, with an AVE of 0.515, CR of 0.827, and Cronbach's Alpha of 0.812, indicating strong internal consistency. For Product Selection, factor loadings range from 0.525 to 0.758, with an AVE of 0.514, CR of 0.790, and Cronbach's Alpha of 0.775, also demonstrating satisfactory reliability. Both constructs are valid for measuring customer perceptions in e-commerce. The table provides the factor loadings, AVE, CR, and Cronbach's Alpha for various e-commerce constructs: Ease of Shopping, Website Design, Perceived Risks, and Consumer Satisfaction. All constructs show good reliability and convergent validity. Website Design and Consumer Satisfaction have high factor loadings (0.791 to 0.855 and 0.852 to 0.895), with excellent AVE, CR, and Cronbach's Alpha values, indicating strong internal consistency. Ease of Shopping also demonstrates good reliability, with an AVE of 0.746 and a CR of 0.846. Perceived Risks has slightly lower Cronbach's Alpha (0.660) but still shows strong factor loadings and acceptable overall reliability. In conclusion, the constructs exhibit strong validity and reliability, with Consumer Satisfaction and Website Design being particularly robust.

Model Summary

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. error of the estimate
1. Conv→ CS	.48	.23	.22	.28
2. PS → CS	.72	.53	.52	.22
3. EOS→ CS	.53	.28	.27	.27
4. WD→ CS	.38	.15	.14	.30
5. PR → CS	.11	.01	.00	.32

Source: Research Survey

The table presents the results of four regression models examining the relationship between different independent variables (Conv, PS, EOS, WD) and the dependent variable Consumer Satisfaction (CS). The model PS → CS shows the strongest relationship, with an R-square of 0.53, meaning it explains 53% of the variance in consumer satisfaction is explained by product selection, and it also has the lowest standard error (0.22), indicating high prediction accuracy. The Conv → CS model explains 23% of the variance with a moderate R (0.48), while EOS → CS explains 28% with a slightly weaker R (0.53) and a standard error of

0.27. The WD → CS model is the second least effective, explaining only 15% of the variance, with the highest standard error (0.30), suggesting poor prediction accuracy. PR → CS shows no effect with negligible value of R square. Overall, Product Selection stands out as the most effective model in explaining and predicting Consumer Satisfaction.

Table4: Anova (Conv-CS)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.98	1	1.98	24.67	.000
Residual	6.65	83	.08		
Total	8.63	84			

(Independent variable Convenience – Dependent variable Consumer Satisfaction)

Source: Research Survey

The ANOVA table shows that the relationship between Convenience (Conv) and Consumer Satisfaction (CS) is statistically significant, with an F-value of 24.67 and a p-value of 0.000. This indicates that the regression model explains a significant portion of the variance in CS. The mean square for the regression (1.98) is much higher than for the residual (0.08), supporting the model's effectiveness.

Table 5: Anova (PS-CS)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.53	1	4.53	91.83	.000
Residual	4.10	83	.05		
Total	8.63	84			

(Independent variable Product Selection – Dependent variable Consumer Satisfaction)

Source: Research Survey

The ANOVA table shows that the relationship between Product Selection (PS) and Consumer Satisfaction (CS) is highly significant, with an F-value of 91.83 and a p-value of 0.000. The regression explains a substantial portion of the variance in CS, with a mean square for the regression (4.53) much higher than the residual (0.05).

Table 6: Anova (EOS-CS)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	2.42	1	2.42	32.29	.000
Residual	6.21	83	.07		
Total	8.63	84			

(Independent variable Ease of Shopping – Dependent variable Consumer Satisfaction)

Source: Research Survey

The ANOVA table for the relationship between Ease of Shopping (EOS) and Consumer Satisfaction (CS) shows a significant model with an F-value of 32.29 and a p-value of 0.000. This indicates that the regression model explains a notable portion of the variance in CS. The Sum of Squares for the regression is 2.42, and the residual sum is 6.21. The mean square for the regression (2.42) is much higher than the residual mean square (0.07), confirming the strength of the model in predicting consumer satisfaction.

Table 7: Anova (WD-CS)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.26	1	1.26	14.24	.000
Residual	7.36	83	.09		
Total	8.63	84			

(Independent variable Website Design – Dependent variable Consumer Satisfaction)

Source: Research Survey

The ANOVA table shows that the relationship between Website Design (WD) and Consumer Satisfaction (CS) is significant, with an F-value of 14.24 and a p-value of 0.000. The regression explains a meaningful portion of the variance in CS, as indicated by a higher mean square for regression (1.26) compared to the residual (0.09).

Table 8: Anova (PR-CS)

	Sum of Squares	df	Mean Square	F	Sig.
Regression	.11	1	.11	1.09	.299
Residual	8.52	83	.10		
Total	8.63	84			

(Independent variable Perceived Risk – Dependent variable Consumer Satisfaction)

Source: Research Survey

The ANOVA table for the relationship between Perceived Risk (PR) and Consumer Satisfaction (CS) shows that the model is not statistically significant, with an F-value of 1.09 and a p-value of 0.299, which is above the 0.05 significance threshold. This suggests that Perceived Risk does not explain a meaningful portion of the variance in Consumer Satisfaction. The mean square for the regression (0.11) is only slightly higher than the residual mean square (0.10), further indicating the model's limited explanatory power.

Regression Analysis

Table 9: Coefficients of Convenience

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	2.38	.29	.00	8.16	.000
CON	.34	.07	.48	4.97	.000

Source: Research Survey

The regression analysis shows a significant positive relationship between Convenience (CON) and Consumer Satisfaction (CS). The unstandardized coefficient (B) of 0.34 indicates that a one-unit increase in convenience leads to a 0.34 increase in consumer satisfaction. The standardized coefficient (Beta) of 0.48 confirms a moderate effect, with a t-value of 4.97 and a p-value of 0.000, indicating statistical significance.

Table 10: Coefficients of Product Selection

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	.06	.39	.00	.15	.883
PS	.98	.10	.72	9.58	.000

Source: Research Survey

The regression analysis shows a strong positive relationship between Product Selection (PS) and Consumer Satisfaction (CS). The unstandardized coefficient (B) of 0.98 indicates that a unit increase in PS leads to a 0.98 increase in CS. The standardized coefficient (Beta) of 0.72 confirms the strong impact, with a t-value of 9.58 and a p-value of 0.000, indicating statistical significance.

Table 12: Coefficients of Ease of Shopping

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
(Constant)	2.49	.24	.00	10.47	.000
EOS	.32	.06	.53	5.68	.000

Source: Research Survey

The regression analysis shows a positive relationship between Ease of Shopping (EOS) and Consumer Satisfaction (CS). The unstandardized coefficient (B) of 0.32 indicates that a unit increase in EOS leads to a 0.32 increase in CS, with a standardized coefficient (Beta) of 0.53. The t-value of 5.68 and p-value of 0.000 confirm statistical significance.

Table 13: Coefficients of Website Design

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
(Constant)	2.36	.39	.00	6.07	.000
WD	.37	.10	.38	3.77	.000

Source: Research Survey

The regression analysis shows a positive relationship between Website Design (WD) and Consumer Satisfaction (CS). The unstandardized coefficient (B) of 0.37 indicates that a unit increase in WD leads to a 0.37 increase in CS, with a standardized coefficient (Beta) of 0.38. The t-value of 3.77 and p-value of 0.000 confirm statistical significance.

Table 14: Coefficients of Perceived Risk

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig
(Constant)	4.26	.42	.00	10.13	.000
PR	-.12	.11	-.11	-1.04	.299

Source: Research Survey

The regression analysis shows a negative, though statistically insignificant, relationship between Perceived Risk (PR) and Consumer Satisfaction (CS). The unstandardized coefficient (B) for PR is -0.12, indicating that for each unit increase in PR, CS decreases by 0.12. The standardized coefficient (Beta) of -0.11 also supports this negative relationship. However, the t-value of -1.04 and the p-value of 0.299 indicate that this relationship is not statistically significant, meaning that Perceived Risk does not have a significant impact on Consumer Satisfaction.

Findings

The regression analyses reveal that Convenience (CON), Product Selection (PS), Ease of Shopping (EOS), and Website Design (WD) all have significant positive relationships with Consumer Satisfaction (CS). Specifically, Product Selection (PS) shows the strongest positive impact, with a standardized coefficient (Beta) of 0.72, followed by Ease of Shopping (EOS) with a Beta of 0.53, Convenience (CON) at 0.48, and Website Design (WD) with a Beta of 0.38. These findings suggest that improvements in these areas lead to higher consumer satisfaction. On the other hand, Perceived Risk (PR) shows a negative relationship with CS, but this effect is statistically insignificant (Beta of -0.11), indicating that perceived risk does not significantly impact consumer satisfaction.

Conclusion

The findings from the regression analyses highlight the significant positive impact of Convenience (CON), Product Selection (PS), Ease of Shopping (EOS), and Website Design (WD) on Consumer Satisfaction (CS). Among these factors, Product Selection emerged as the most influential, followed by Ease of Shopping, Convenience, and Website Design. In contrast, Perceived Risk (PR) was found to have a negative but statistically insignificant relationship with Consumer Satisfaction, suggesting that it does not play a significant role in shaping consumer perceptions of satisfaction.

Based on these findings, businesses should prioritize enhancing Product Selection, Ease of Shopping, and Website Design to improve consumer satisfaction. Focusing on these factors could lead to a more positive customer experience and higher retention rates. Additionally, reducing perceived risk may not have a significant effect on satisfaction, but businesses could consider implementing strategies such as offering clearer product information, return policies, or customer reviews to help reduce any perceived risks in the consumer's decision-making process.

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