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A STUDY OF FACTORS DETERMINING PERCEIVED VALUE OF FOOD DELIVERY APPS

ROSY M^{*1}

Dr. S. Meenakumari²

^{*1}First Author (Department of Management Studies, Anna University, Chennai, India)

²Second Author (Department of Management Studies, Anna University, Chennai, India)

ABSTRACT

The development of internet and mobile phone technology has paved way for the on demand food order and delivery business model through smartphone apps. The marketshare of this business is increasing day-by-day which creates a need for research in the consumer's perceived value of the ordering app and delivery service. This study takes into account, four independent variables, "Convenience, Design, Food choices and Trustworthiness" and a dependent variable, "Perceived value". An online survey was conducted using convenience sampling technique with 15 item questionnaire with all items measured in 5 point likert scale. Results from regression analysis on the data using SPSS software shows that "food choices" and "Trustworthiness" directly influence "Perceived value".

Keywords:

Convenience, Design, Food choices, Trustworthiness, Perceived value

INTRODUCTION

The development in processing speed, ease of use and affordable cost of smartphone enabled its mass adoption [1]. The introduction of 4G enabled high speed internet connection in smartphones. The growth of internet usage is 1.8x, number of smartphone users increased 4.7x and 1 in 5 indians buy products online [2]. The internet users in India are expected to rise by 40 percent and smartphone usage to double by 2023 [3]. NASSCOM (National Association of Software and Service Providers) has announced in 2020 Report titled Strategic Review — 'Techade: The New Decade,' that the IT sector has generated the highest revenue of \$ 97 billion, up 6.7 percent, followed by e-commerce worth \$ 54 billion. The sector generated exports of more than \$ 147 billion in revenue in FY2020, up 8.1 percent from a year earlier [4].

The current level at which food lovers are growing in India is extremely high when compared to other factors in the past. The current rate of online food delivery is growing has led to an increase in orders per day to around 40,000 major cities like Bangalore. This, in turn, means that food exports make up 56% of the total number of orders shipped by the food tech sector in India [5]. Various studies have been conducted focused on developing the food delivery business and many food delivery business models have been proposed [6].

The on-demand food order and delivery model has revolutionized the food delivery business [7]. This is made possible through the food delivery apps available on smartphones. The research on perceived value has gained more momentum [8]. In this study, we will focus on the factors that determine perceived value of food delivery apps.

LITERATURE REVIEW

Perceived value

[9] has proposed that perceived value can be regarded as a "consumer's overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given", the parameters of perceived value depends on the views of different consumers. Additionally, he suggested 'get' and 'give' components of perceived value, leading to this definition of perceived value [10]. Specifically, perceived value can be considered as a trade-off between perceived benefits and perceived costs [11].

Perceived value is a subjective variable [12]. Same product is viewed differently by different consumer segments. Additionally, various purchase groups have different opinions on the product [13]. Perceived value is the result of a cognitive comparison process and Perceived satisfaction must be considered as a post-purchase construct and not to be used along perceived value [14].

Convenience

Convenience is one of the determinants of online purchases. Online purchase saves time and money needed to search for the best product. The convenience or utilitarian perspective of online shopping motivates Internet shoppers to app features that save search costs in order to obtain their convenience outcomes during the purchase [15].

Hypothesis H1: Convenience directly influences perceived value

Design

“Design represents logical structures of mobile apps involving usability, understandability, and operability that users need to put effort into in order to use” [16]. Companies and markets have tried to utilize the on-demand food order and

delivery business model to attract more online browsers to their physical offline stores by providing better shopping environments equipped with convenient user-friendly design and a vast variety of choices [17].

Hypothesis H2: Design directly influences perceived value

Food choices

Consumers have different preferences and priorities in choosing their food. They have different expectations regarding the quality of certain food delivery apps, and additionally, may have different opinions about their levels of perceived value related to using those food delivery apps [18].

Hypothesis H3: Food choices directly influences perceived value

Trustworthiness

Trustworthiness can decrease the cost spent on searching for the best product; this cost incorporates variables such as the time and effort required to choose an online seller [19] and the perceived risk of online shopping [20]. As trustworthiness reduces the non-monetary cost, it increases the perceived value when shopping on a seller’s app. [21] have researched the impact of trustworthiness on perceived value and confirmed this influence, but there are only a few of studies examining this relationship in the food order and delivery model in India.

Hypothesis H4: Trustworthiness directly influences perceived value

Consolidating the above stated hypothesis, a conceptual model is formulated and given below in Fig 1.

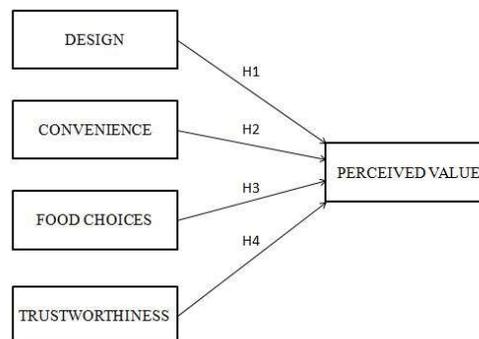


Fig. 1: Proposed Model

METHODOLOGY

An online survey was conducted to collect data with a total of 15 items. The convenient sampling technique was used. The items on “Convenience, Design, Food choices, Trustworthiness and Perceived value” were adopted from [18]. All the 15 items were measured in 5 point likert scale.

Demography

People from Bangalore and Chennai participated in the survey. Further demographic details are listed in the Table 1

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Table 1: Demographic details

Respondent Details		Count	Percentage
Gender	Female	120	48
	Male	130	52
Age	18-24	130	52
	25-34	87	34.8
	>34	33	13.2
Occupation	Student	90	36
	Employed	142	56.8
	Others	18	7.2
Food Delivery App	Swiggy	128	51.2
	Uber Eats	38	15.2
	Zomato	68	27.2
	Private Apps	16	6.4

The gender equality is fairly maintained. Majority of the respondents were young people falling under the age group of 18-24 years. More than half of the participants were employed and most of the respondents preferred Swiggy to other food delivery apps.

Descriptive statistics and Reliability

The standard deviation ranges from 0.924 and 1.235. The reliability analysis details are listed in the Table 2.

Table 2: Reliability analysis

VARIABLE	NO. OF ITEMS	CRONBACH'S ALPHA
Independent variables		
Convenience	3	0.757
Design	3	0.819
Food choices	3	0.874
Trustworthiness	3	0.865
Dependent Variable		
Perceived Value	3	0.797
TOTAL ITEMS	15	

The cronbach's alpha is beyond the optimum value of 0.7 for all variables. Thus, the obtained data is reliable.

Regression analysis

Table 3 shows the results of the linear regression analysis.

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Table 3: Regression analysis

INDEPENDENT VARIABLES	STANDARDIZED COEFFICIENT, β
Convenience	-0.30
Design	-0.076
Food choices	0.386
Trustworthiness	0.704
Dependent Variable: Perceived Value	
R ²	0.865
Adjusted R ²	0.863

The adjusted R² shows that the independent variables explain 86.3 percent of variance in the dependent variable. A large f-test value of 393.59 indicates good statistical fit for the proposed model. The impact of independent variables indicated by the standardized coefficient is considered at 95 percent significance ($p < 0.05$).

Inference

- The obtained Cronbach's alpha value indicates a reliable dataset.
- The proposed model has a good fit.
- It can be concluded that Food choices and Trustworthiness have a direct relationship with Perceived value. Trustworthiness has major impact on Perceived value.
- Convenience and Design have a weak inverse relationship with Purchase intention for the observed population.

Limitations

- Only people from Bangalore and Chennai participated in the survey.
- Age group below 18 was not considered.

Future research

- As this study was limited by age and geography of the participants, further studies may try to eliminate these limitations.
- As people's preferences change [11], this study may be done from time to time and be updated.

CONCLUSION

Marketers of Food delivery apps could make use of this result to increase the perceived value of the app and service offered. This study could be taken into account while designing the marketing strategy for the expansion of the online food order and delivery business in Bangalore and Chennai.

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