

Buyer Belvedere on the Impact of Technological Makeover on Food Delivery Success Apps in Chennai

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Abstract — The purpose of this independent research is to examine the effect of food delivery applications on the operational efficiency of food sellers and how they contribute to optimizing operations. This study will benefit those keen on the restaurant industry and users of food delivery applications seeking to improve their operational effectiveness. The main results relate to the influence of technological progress on food delivery apps and their impact on improving the operational effectiveness of food suppliers. Food delivery applications allow vendors to boost sales, expand distribution networks, and improve operational efficiency. The main reason users interact with the app is the combination of simplicity and efficiency.

Keywords — Food Delivery, Operational Efficiency, Fast Delivery, Digital Makeover.

1. Introduction

In Chennai, food delivery apps are a sector that follows the trend of fast-moving digitalization. The growth of food delivery industry in Chennai is essential for the success of food delivery companies. In 2019, despite the overall negative effects of the COVID-19 outbreak on many industries, the food delivery app industry saw a notable increase in business due to the shutdown of dine-in restaurants. The delivery services were essential in bringing food to customers who were unable to leave their homes, providing a valuable service. Therefore, the food delivery sector has sustained its rapid expansion and continues to be a significant feature in the current market.

Swiggy, Zomato, Dunzo, Instamat, UberEats, Eatsure, Domino's, Starbucks, Subway, Eat Fit....

This study aims to investigate the effects of digital transformation on the operational efficiency of food delivery apps in Chennai, offering useful information for dealers to comprehend the advantages and disadvantages of incorporating this change into their tactics. and enhance their understanding. In order to achieve the desired outcome of this study, the focus will be on two sets of participants. The initial group consists of customers who are familiar with utilizing food delivery apps to investigate its impact on their buying habits and choices.

The second category consists of food dealers who integrate food delivery apps into their operations. Concentrating on these two categories will offer insights into how food delivery apps affect the operational efficiency of food sellers. The aim of this study is to investigate how food delivery apps impact food dealers' efficiency and operations, as well as how they influence customer preferences in choosing restaurants. Though many studies have focused on customers' views of food

delivery apps, there is a lack of research on the experiences of food dealers.

2. Literature Review

Marikyan & Papagiannidis (2023) stated that the impact of these factors is modified according to variables like age, gender, previous experience, and the voluntary aspect of adoption.

American Legal Publishing, (2022) describes a food vendor as a business or person that provides ready-to-eat food for the general public, which can include a range of different types of businesses like stores, restaurants, markets, food trucks, or any other place that prepares food for consumption by others.

Kumar et al., (2021) mentioned that the food delivery app trend began with "Worldwide Waiter" (Waiter.com) in northern California. This marked the shift of restaurants partnering with these services to move their traditional menus from offline to online, influenced by advancements in technology and the growing use of mobile phones and the internet by the public.

Ganatra et al. (2021), revealed customers have the option to pay using different methods such as electronic money or cash-on-delivery (COD) system. These apps also have functionalities for users to share their feedback and recommendations, enabling them to give ratings on the food quality and their overall satisfaction.

2.1 Research Hypothesis

As a result, to provide a more comprehensive insight into the research questions, the researcher presents the following hypotheses:

Null Hypothesis (H0) - The digital transformation of food delivery applications has no effect on the operational efficiency of dealers.

Alternative Hypothesis (H1) - The digital transformation of food delivery applications has a positive effect on the operational efficiency of dealers

Table 1 User's Recent Experience Using Food Delivery Applications		Responses	
		N	%
The recent experience using a food delivery application.	The problems with restaurant inefficiency	7	5
	Fast Delivery	43	29
	Satisfied experiences	82	55
	Expensive delivery fee	10	7
	The problems with drivers	8	5
Total		150	100

The inefficiency of the restaurant is due to issues such as delayed order placement and errors in 5% of orders. A rapid delivery service was credited for 29% of the responses, while positive experiences accounted for 55%. 7% of the replies attribute the high delivery fee, and 5% are because of driver-related problems such as communication issues.

Table 2 How the digital transformation of food delivery services affected the restaurant		Responses	
		N	%
What impact has the digital makeover of food delivery services had on the restaurant sector and customer satisfaction in Chennai?	Customers do not have to go out for dining	16	11
	The increasing in opportunity for food dealers to cut their operation cost	5	3
	This digital transformation supports food dealers in improving efficiency within their restaurant's	55	37
	Assisting customer to have more convenience	26	17
	More food options for customers	15	10
	Food dealers can increase more sales channels and boost their sales	22	15
	The apps cause food dealers to have more costs such as installation costs and commission fees	11	7
Total		150.0	100.0

Important findings regarding the impact of digital transformation on food delivery services in Chennai on restaurant industry and customer satisfaction. The responses, received from 150 participants, can be categorized into seven primary groups. Due to the digital transformation of food delivery services, customers can now stay home and order food instead of going out to eat.

This transformation also allows food dealers to lower operating costs (3%), enhance efficiency within their restaurants (37%), increase customer convenience (17%), and provide a broader range of food choices (10%). Nevertheless, a few participants noted that the expenses for food vendors, such as commission and installation, are higher with the apps.

Table 3 Factors influence customers to choose food delivery Applications over dining in restaurants.		Responses	
		N	%
What elements impact customers' decisions to opt for food delivery Apps rather than eating at restaurants?	Convenience	58	39
	Timesaving	32	21
	Variety of Cuisine options	21	14
	Distance from restaurants	28	19
	Others	11	7
Total		150	100

The research findings states that among factors influencing Convenience reached with 39%, time saving with 21%, distance from restaurants with 19%, Variety of Cuisine options with 14% and others with 7%.

Table 4 - What improvements or solutions would you suggest for the operational challenges you may have encountered while using food delivery applications?			
Independent Variable	Cronbach's alpha	Mean	S.D.
Improve the delivery service (IDS)	0.816	3.37	0.673
Increase the accuracy of GPS and map systems	0.834	3.35	0.57
Improve the payment process (IPP)	0.851	3.39	0.569
Make the applications to be more stable and easier to use	0.88	2.97	0.681
Provide more discounts for customers	0.827	3.36	0.522

The reliability of the data was checked using Cronbach's alpha. Table 4 shows Cronbach's alpha, mean and standard deviation values. Cronbach's alpha values of all items are higher than 0.80 which are within the acceptable range. The mean values of the independent variables including IDS, ↑ in GPS, IPP, Application Stable & Easy to use, Discount offers with 3.37, 3.35, 2.97 and 3.28 respectively.

TABLE 5 - REGRESSION ANALYSIS COEFFICIENTS						
Model		Unstandardized coefficients		Standardized coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.884	0.124		4.683	0
	Improve the delivery	0.307	0.513	0.309	5.406	0

service (IDS) - H_1					
Improve the payment process (IPP) - H_2	0.314	4.972	0.314	4.629	0.001
Make the applications to be more stable and easier to use - H_3	0.17	0.806	0.19	-0.477	0.634
Provide more discounts for customers - H_4	0.283	4.904	0.28	4.722	0
Dependent variable: Food Delivery Business Performance					

The respective beta values for i Provide more discounts for customers, Improve the delivery service (IDS), Improve the payment process (IPP), and Make the applications to be more stable and easier to use and Provide more discounts for customers are 0.283, 0.307, 0.314, 0.170, and 0.207. Therefore, based on these findings, H_1 , H_2 , and H_4 are accepted, whereas H_3 is denied.

3. Conclusion

The hypothesis states that the use of food delivery apps improves dealers' operational efficiency, showing that adopting these apps has positive impacts on how they run their business, making it more convenient for them. Hence, the outcomes of the study on how the digital evolution of food delivery apps has impacted the operational effectiveness of food providers. Food dealers utilize food delivery applications primarily to boost operational efficiency, enhance customer experience, and facilitate various services, especially delivery services, in the restaurant. Additionally, food delivery apps help to enhance sales and expand distribution avenues for food vendors.

The apps played a critical role in the restaurant's business operations and were a key factor in addressing the research question. Nevertheless, the utilization of food delivery apps correlates with Technology Use in the research, specifically in choosing a delivery service provider app. Food vendors need to carefully choose the right platform as there have been numerous new applications introduced in the online food delivery market in Chennai. Food sellers should evaluate which characteristics or functionalities in each software could most effectively support their company.

The main concern is the dependability and success of the app, along with the operational efficiency of the restaurant, in order to fulfill their needs. Furthermore, some of the food dealers agree that the gross profit or commission rate that they were charged between the small restaurant and large restaurant is unreasonable; the small restaurants were charged a high price, while the larger restaurants were charged cheaper.

Additionally, the findings from the customer survey have uncovered a range of issues and proposed enhancements for the food delivery apps in relation to system upgrades, restaurant procedures, and driver concerns. Common recommendations included improving the stability and ease of use of the application. Food delivery apps are essential in the restaurant sector in Chennai. Consider the viewpoints of food sellers and app users to improve the app and help it become more efficient and useful.

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