

## ECONOMIC SUSTAINABILITY OF DIGITAL BUSINESS PROCESSES AS A MEDIUM OF INCREMENTAL REVENUE FOR FIXED FOOD HAWKERS/VENDORS IN MEERUT CITY

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### ABSTRACT

**Purpose-** This paper aims to scrutinize the economic sustainability of digital tools and online procedures as adopted by the fixed food hawkers and vendors in Meerut City, which they consider as a medium of their incremental revenue.

**Design/Methodology/Approach-** The paper has the application of descriptive research design with a quantitative approach. The primary data has been collected from 100 valid fixed food hawkers/vendors in Meerut City in the schedule. Tabular presentation, Descriptive and inferential statistics (Correlation & Multiple Regression) have been applied for the analysis of data through EXCEL.

**Findings-** The findings revealed a noteworthy increase in the revenue of food hawkers and vendors in Meerut City by adopting the digital business processes. These digital procedures are economically sustainable however not very strongly, especially nowadays (Post Covid-19Wave2) for these hawkers, as intense competition has also been increased due to the adoption of online food ordering applications and platforms in Meerut City.

**Practical Implication-** Food hawkers/vendors culture in Meerut City is an integral part of food habits in Meerut City, where people from every social background enjoy eating from these vendors. These vendors are nowadays implementing digital business tools which are economically sustainable and providing incremental revenue for their business. This study is practically viable as the market share of these hawkers is increasing day by day; however, the competition from online food ordering is also increasing.

**Originality/Value-** The study is highly valuable as these fixed food hawkers/vendors play a significant role in the food business in Meerut City. They are coming up with new digital platforms for increasing their revenues and acting as a competitor for nearby food café's. This study is original because it is based on primary data collected from food hawkers/vendors.

**Keywords:** Economic Sustainability, food hawkers & vendors, digital tools, incremental revenue JEL Classification- M31.

### I. INTRODUCTION

Fixed food vendors and hawkers are the one of the most prominent element of food informal business in almost every part of India and they play a significant role. All major cities of India whether metros or non metros are habitual to this eating out concept. These food hawkers are fixed or mobile depending upon the volume of their business and reach of their consumers. Categorically, in food segment these vendors are mostly fixed at various public places like major bus stands, railway stations prominent markets, cinema halls, educational institutions, shopping complexes etc. However, these fixed hawkers have no legal claim on the particular property. Meerut City in western UP (Population around 23 lakhs – 2020) is one of the industrial, manufacturing and educational hub and a part of National Capital Region. There are many localities, shopping complexes and markets, cinema halls, plenty of educational institutions with state and private owned universities. People of Meerut city are habitual of fixed food vendors and hawkers and these are the part and parcel of their lives. With the advent of digital means of conducting business, these hawkers have also started to adopt such online technologies so as to increase the scale (revenue/sales) of their business and eventually making these online modes economically sustainable amidst the stiff competition from organised online food retailers and online food ordering sites. Here economic sustainability refers to the long term economic growth of their business without adversely impacting social, environmental and cultural aspects of the consumers. The problem arises that whether these hawkers after using the digital process are successful to beat the competition and make the best use of the same

by increasing their revenue. Hence the purpose of this paper is to examine the impact of online mode of conducting business as a revenue generator for these hawkers.

## II. LITERATURE REVIEW

There have been several studies conducted related to the food hawkers and vendors - which are generally known as street vendors in different cities around the world. But for the current research, major recent contributions for the last four-five years have been identified and listed which are as follows:

- **Himanshu Thakkar and Dr. Radha Tiwari (2017)** in their research concluded that in Gandhinagar district, Gujarat, street food vending is one of the most prevailing informal profitable businesses. It is one of the major sources of employment and primary occupation to many people. This business segment demographically captured by the migrants of nearby villages with poor educational and income background. This business serves as the low cost investment business for these people to earn their livelihood.
- **Parikshit Chakraborty and Samarpita Koley (2018)** conducted their study at Jamshedpur and demonstrated that the male street vendors are in better condition as compared to the females as far as income is concerned. Furthermore they stated that the pattern of subsistence for daily street vendors is not comfortable for their livelihood. These street vendors are thus exposed to number of problems related to local administration, financial crisis and stability issues.
- **Sangeeta Das (2019)** highlighted that in Guwahati city, these food vendors have specific role in urban society and space. Their primary role is to provide livelihood and employment to poor people of the area concerned. These vendors must concentrate on more profitable business oriented strategies and should adopt such practices that help them to legalize their business operations.
- As per study of **Vaishali Patil, Jayashree C. Gogte & Kishor Talnikar (2019)** their must be integration of food vending business with the main market in the concerned area of study. Their study demonstrated that by rearranging the vendors from congested street to the main market, the possibility of systematic functioning of these vendors must have increased. They further recommended for addressing the issues of these food vendors on a priority basis by the local administration.
- **Mubarak Kirumirah and Dr. E. J. Munishi (2021)** findings indicated that street vending involves people from diverse characteristics like gender, age, income, education, economic status, marital status and cultural status. They face different and varied challenges like lack of resources, lack of finances, lack of legal supremacy, lack of training etc. efforts must be taken to resolve their issues firmly from all ends.

## III. GAP ANALYSIS, NEED & SCOPE OF THE STUDY

Though the literature studied in this domain has not been very wide and intensive as almost all the researches conducted till date generally focussed on demographic profiles, challenges, problems, sustainability etc of these vendors and hawkers in general as research conducted in different parts of India. No specific emphasis lay down on a particular framework or to study (quantitatively) the impact of certain variables which are economically sustainable and directly influence the revenue of these hawkers. There is an existence of a wide gap rather an intense need to study for the fundamental variables like digital processes which directly influence the revenue of these hawkers making them economically sustainable. Meerut City in western UP is one of the economic, industrial and educational hub in north India with overall expected growth in 10% in GDP and city population of 23 lakhs (2020) approximately. Penetration of these hawkers and vendors in Meerut city area is quite high and residents are well accustomed for their eating habits and culture from these food centres resulting in the wide scope for the study of the same.

## IV. OBJECTIVES OF THE STUDY

- To study various digital processes adopted by the fixed food hawkers in Meerut City.
- To analyse the impact of digital (online) processes to influence the sales/revenue of fixed food hawkers in Meerut City.
- To examine the economic sustainability of these digital processes for fixed food hawkers in Meerut City.

## V. RESEARCH METHODOLOGY

**5.1 Research Design was Descriptive** being the researcher analysed the impact of digital processes influencing the sales/revenue of fixed food hawkers/vendors in Meerut City. Furthermore researchers explained the economic sustainability of these processes for their future growth.

**5.2 Research Approach was Quantitative** in nature as the close ended responses ('Yes' or 'No') received by the respondents had been analysed.

**5.3 Research Variables** were classified into dependent and independent variable, where major dependent variable was 'Incremental Revenue/sales' and independent variable was 'Digital processes'. Digital processes was composed of many factors like online payment, online orders, customer relationship, timely delivery, repeat orders etc. 'Economic sustainability' was the macro factor that had been studied in relevance with long term economic growth of this business with the implementation of digital processes. The exact key research variables were as follows:

**Table 1: Key Research variables**

Variable Type	Variables	Denotations
Dependent Variable	Digital process contributing incremental revenue.	X1
Independent Variable	Customer willingness to pay online.	X2
	Digital process as a medium of CRM.	X3
	Digital process as a medium of information provider to customers.	X4
	Digital process as a medium of making home deliveries/attracting footfalls.	X5
	Online payment is considered the only feature of digital process.	X6
	Economic Sustainability a key macro factor determined as an outcome of digital processes as X7.	

#### 5.4 Research Hypothesis:

**H01:** Overall adoption of digital business processes will positively influence the incremental sales/revenue of fixed food hawkers in Meerut.

**H02:** Online payment by the customers (ease and comfort) is the only influencing factor leading to the significant increase in the sales of fixed food hawkers in Meerut City.

**H03:** Economic sustainability of fixed food hawkers is independent to adoption of digital business processes in Meerut City.

**5.5 Data Collection method was "Primary"** as around **100 (valid responses)** fixed food hawkers had been personally contacted by the researchers to collect the data.

**5.6 Sampling frame and Sample Unit** consisted of only fixed food hawkers (Chhole Bhatoore & Chawal, Poori Sabzi, Biryani, Butter Naan thali, Mutter Kulche, All fast food items, Kulfi Stalls etc) at different locations of Meerut City. Average per plate selling price is at least 50/- of these fixed hawkers.

**5.7 Sample Size of total 130 food hawkers** had been taken for conducting the research. Out of which 100 valid responses were considered for final analysis. No scientific formula was adopted for sample size but as per **Krejcie & Morgan (1970)** suggests that the sample size of around 400 respondents for the population of more than ten lakh size. However the approximate number of fixed food hawkers (under consideration from research point of view) as stated above in Meerut City is around 1200-1300 (Both the visitors personally visited some major markets, educational institutions, railway station, shopping complex, hospitals etc. and also asking the feedback for known relatives/friends residing thereby). Therefore taking 10% of total population is almost quite feasible as per the study.

**5.8 Sampling Method was "Convenience Sampling Method" observing the convenience of researchers & respondents and limited time**, however the researchers had tried to obtain equal respondents each from different locations of Meerut City like major markets (Central Market in Shastri Nagar,

Sharda Road, Begum Pul, Sadar Bazaar, Budhana Gate, PallavPuram, Ghantaghar, Ganga Nagar, Kankerkhara, Baghatpat Road, Rohta Road, Saket etc), Shopping Malls (Shopprix and PVS), LLRMC, CCS University, Subharti University, IIMT University, NAS College, Meerut College, Anand Hospital, Metro Hospital, City Railway Station, Garh & Bhainsali Bus Station etc.

**5.9 Survey Instrument was 'Structured Questionnaire'** having close ended questions (Dichotomous mainly 'yes' or 'no') for the ease of respondents. Questionnaire was completely administered by the researchers themselves. Pilot testing was conducted among ten nearby (researchers resident) respondents and found that there was no requirement for lengthy questionnaire as respondents were not willing to provide too much time. Though scientific calculation was not performed for reliability analysis but other questions had been found to be consistent. As an outcome demographic and socio economic background questions were removed except the necessary ones. Finally both the researchers after taking print out, acted as an enumerator/interviewer, personally contacted/interviewed these food fixed hawkers and collected responses with them after explaining the questions and mark the responses. The questionnaire was designed in 'English' but enumerated into 'Hindi' to make the respondent understand. Many respondents had shown their inability/reluctance attitude being rush hours of business etc. Even some respondent had provided incomplete and vague responses which had not been considered for the purpose of the study. The organisation of questionnaire was as follows:

- First five questions were related to respondents' demographic profile related to name, education, income, background and time in business.
- Next series of questions were related to major variables of the study as digital process as means of incremental sales, digital process as means of only online payments, digital process for maintaining CRM, home delivery and repeat orders, security of online payment and economic sustainability of online business with various modes of online payments by customers.
- Last question was open ended in nature asking the general viewpoint of the hawkers/vendors in relation to their business.

**5.8 Time frame of the study was three months** (January 2021 to March 2021).

**5.9 Data Analysis Technique** – After collecting responses from 130 respondents only 100 valid responses were considered. Necessary editing, refinement and modifications were conducted and data was physically entered in excel by the researchers as per the coding (1, 2, 3, 4, 5 for Strongly Disagree, Disagree, neutral, Agree & Strongly Disagree). Tabular representation and interpretation of data had been performed after calculating the required frequencies through COUNTIF function. The data had been subjected to descriptive analysis (through EXCEL) as per requirement and hypothesis testing (inferential statistics) for reaching at the conclusion. Correlation and Multiple Regression Analysis techniques had been used through **Microsoft EXCEL**.

## VI. SURVEY ANALYSIS, INTERPRETATION

Survey analysis part was classified into tabulation, descriptive analysis and inferential analysis (hypothesis testing through correlation and multiple regression analysis) using EXCEL.

### 6.1 Tabulation:

#### 6.1.1 For how long you are in this food hawking business?

Table 2: Continuity in business					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Less than 1 year	06	06	06	06
	1-5 Years	18	18	18	24
	5-10 Years	32	32	32	56
	10-15 Years	16	16	16	72
	More than 15 Years	28	28	28	100
		100	100	100	

The information presented the in the Table 2 indicated that mostly the respondents were having more than five years of experience of hawking business.

#### 6.1.2 What is your background?

Table 3: Background of hawkers					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Rural	68	68	68	68
	Urban	32	32	32	100
		100	100	100	

As presented in the above Table 3 demonstrated that mostly respondents are from rural background.

#### 6.1.3 What is your education?

Table 4: Education of hawkers					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Less than High School	28	28	28	28
	High School	42	42	42	70
	Intermediate	22	22	22	92
	Graduation and above	08	08	08	100
		100	100	100	

The data presented the in Table 4 supported that majority of the respondents were less educated till 'High School' only. However only 8% respondents were simple graduates and they were operating this business at good scale.

#### 6.1.4 What is your approx. monthly income from this business?

Table 5: Monthly income of hawkers					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Less than Rs. 10000	20	20	20	20
	Rs. 10001 – 15000	42	42	42	62
	Rs. 15001 – 20000	34	34	34	96
	Above Rs. 20000/-	04	04	04	100
		100	100	100	

As per the data presented the in Table 5 indicated that majority of the respondents were earning monthly income of Rs. 10000/- to 20000/- from this hawking business in Meerut City.

#### 6.1.5 Do you use digital online mode for you business by any means?

Table 6: Use of digital/online mode for business					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Yes	91	91	91	91
	No	08	08	08	100
		100	100	100	

As per the Table 6, it had been demonstrated that 91% of the respondents were having the smart phone and aware of digital processes. Even rest of the respondents though not having the smart phones but still they knew about the online payments as well.

#### 6.1.6 Does digital process contributes in providing incremental sales/revenue?

Table 7: Digital process contributing incremental revenue					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Yes	76	76	76	76
	No	24	24	24	100
		100	100	100	

The information presented the in the Table 7 indicated that majority of the respondents agreed that digital processes contribute incremental sales/revenue.

#### 6.1.7 Do customers nowadays want to pay online even for smaller payments (fast)?

Table 8: Customers willingness to pay online					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Yes	64	64	64	64
	No	36	36	36	100
		100	100	100	

The data presented the in the Table 8 supported that majority of the respondents agreed that customers nowadays want to pay online for fast payments.

#### 6.1.8 Does 'Digital process (whatsapp)' help in maintaining and obtaining repeat customers?

Table 9: Digital process as a medium of CRM					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Yes	70	70	70	70
	No	30	30	30	100
		100	100	100	

As per the Table 9, it was clear that digital process help in building strong CRM in food hawking business.

#### 6.1.9 Does 'Digital process (whatsapp)' help in providing information to customers?

Table 10: Digital process as a medium of information provider to customers					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Yes	70	70	70	70
	No	30	30	30	100
		100	100	100	

The data provided in Table 10 strongly projected that digital processes help in providing timely information to the customers.

#### 6.1.10 Do 'Digital process (whatsapp)' help in increasing sales by making home deliveries/attracting footfalls?

Table 11: Digital process as a medium of making home deliveries/attracting footfalls					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Yes	49	49	49	49
	No	51	51	51	100



		100	100	100	
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As per the Table 11 it was clear that digital process help making home deliveries and increasing footfalls.

#### 6.1.11 Do 'online payment by the customers' only feature of digital/online business?

Table 12: Online payment is considered the only feature of digital process					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Yes	59	59	59	59
	No	41	41	41	100
		100	100	100	

The information presented in Table 12 indicated that food hawkers did not strongly feel that online payment by the customers only feature of digital processes; however it is one of the most significant and visible.

#### 6.1.12 Are the online payments more secure than physical payments?

Table 13: Security of online payments Vs physical payments					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Yes	69	69	69	69
	No	31	31	31	100
		100	100	100	

Majority of respondents felt that online payments are more secure than physical payments as supported by the data presented in Table 13.

#### 6.1.13 Do you think you will grow your business continuously by using digital process?

Table 14: Economic sustainability					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Yes	68	68	68	68
	No	32	32	32	100
		100	100	100	

The data provided in Table 14 significantly indicated that the food hawking business was economically sustainable with the application of digital processes especially in this COVID – 19 era. Digital processes are strongly required to beat the competition of online food ordering sites as well.

#### 6.1.14 Which online payment mode customers generally prefer and you accept?

Table 15: Various online mode of payment					
		Frequency	Percent	Valid percent	Cumulative Percent
Valid	Googlepay	23	23	23	23
	Phonepe	24	24	24	47
	Paytm	23	23	23	70
	Any of them or all	30	30	30	100
		100	100	100	

As per the Table 15, it was obvious that all respondents were using normal all general payment modes of online payments. Generally, they supported that customers prefer to scan the code and pay immediately.

#### 6.2 Correlation and Multiple Regression Analysis:

Table 16: Correlation Analysis

Variables	X1
X1	1
X2	-0.0312
X3	0.24526
X4	0.24526
X5	0.17611
X6	-0.1308
X7	0.37666

**Table 17: Multiple Regression Analysis**

Regression Statistics					
Multiple R	0.334477486				
R Square	0.111875188				
Adjusted R Square	0.064634507				
Standard Error	0.415131312				
Observations	100				
ANOVA					
	Df	SS	MS	F	Significance F
Regression	5	2.040603437	0.408120687	2.368195906	0.04525862
Residual	94	16.19939656	0.172334006		
Total	99	18.24			
	Coefficients	Standard Error	t Stat	P-value	Lower 95%
Intercept	0.623070532	0.138192051	4.508729182	1.87965E-05	0.348686982
X2	0.005247278	0.097079037	0.054051607	0.957008759	-0.18750542
X3	0.148716603	0.128486436	1.157449829	0.250021285	-0.106396221
X4	0.143469325	0.123751183	1.159337005	0.249255344	-0.102241543
X5	0.07381171	0.088913335	0.830153436	0.408555457	-0.102727796
X6	0.146748874	0.099625045	-1.473011868	0.144088534	-0.344556732

\*With reference to Table 1 - X1 (intercept) used as a dependent variable and X2-X6 used as independent variables (predictors).

As per Table 16 'Correlation Analysis' indicated the correlation coefficient between the X1 with other variables of the study, however not a very high degree of positive or negative correlation existed between the variable X1 with other variables.

Similarly 'Multiple Regression Analysis', as per Table 17 was conducted for obtaining the significance level, value of association among the variables and to determine relationship among dependent and independent variables. Both the techniques were applied for hypothesis testing as a tool of inferential statistics. R square value is 0.1118 which means that 11.18% of the variation in the dependent variable had been explained by other independent variables. The significant F value is comparatively low which demonstrated that relationship



had not been highly significant among variables. Even 'p' values were greater than 0.05 which resulted in the probability of 'Null Hypothesis' to be true. However the positive signs of estimated coefficients indicated that all the independent variable positively influence the dependent variable (digital processes contributing towards incremental sales).

## VII. RESULTS & DISCUSSION

**H01:** Overall adoption of digital business processes will positively influence the incremental sales/revenue of fixed food hawkers in Meerut.

As evident from Table 17 and its description below, H01 is accepted.

**H02:** Online payment by the customers (ease and comfort) is the only influencing factor leading to the significant increase in the sales of fixed food hawkers in Meerut City.

As evident from Table 16, the correlation coefficient of X6 to X1(dependent variable) is negative though it is very low. Therefore H02 is rejected. However from Table 17, X6 is positively influencing X1 but not the only variable leading to significant increase in sales/revenue.

**H03:** Economic sustainability of fixed food hawkers is independent to adoption of digital business processes in Meerut City.

As evident from Table 16, the correlation coefficient of X7 to X1(dependent variable) is positive though it is very low. Therefore H03 is rejected resulting that the digital processes were economically sustainable for these food hawkers especially after COVID-19 era.

## VIII. SUGGESTIONS

Some generalized suggestions especially on the basis of open ended question for the fixed food vending business in Meerut City as observed after interaction with them are as follows:

- 8.1 Cleanliness and proper hygiene is highly essential for these food hawkers and vendors' being almost every social class is intended to eat from these hawkers.
- 8.2 Food hawkers and vendors must confine to use good quality raw material, more appropriate presentation and consumer oriented attitude.
- 8.3 Primary business related education or simply maintaining a customer database with implementation of CRM strategies will scale up their business to great heights.
- 8.4 Engaging the under aged children in the same profession must be prohibited.
- 8.5 Local administration of the city must have some concrete plan for the upliftment of these hawkers and vendors.

## IX. CONCLUSION

The study finally reveals that whether educated or not educated, fixed food hawkers in Meerut City are quite conversant with the online business processes as a need of an hour. The opening up of markets after the lockdown due to Covid – 19 has paved the new business transformation for these fixed food hawkers in terms of digitalization. Eventually, this digitalization also helps them to increase their revenue/sales and even the basket size of their customers. However adoption of digital processes does not only mean online payment but it integrates several other factors like CRM, timely delivery, providing information etc. The study has also explained that the future growth of these food hawkers heavily depends upon how effectively they are able to manage the change resulting in the economic sustainability of their business.

## X. LIMITATIONS

The major limitations of this study was limited time frame (three months) with restricted interaction time with respondent (peak business hours), adoption of convenience sampling method depending upon the availability, flexibility and willingness of the respondent etc. The hesitation and reluctant nature of respondents being they are not much educated also created obstacle in conducting this research. Even this paper can be analyzed by using technique like ANOVA, independent samples t-test etc to demonstrate the impact of demographic/socio economic variables on sales/ use of digital process by the food hawkers.

## **XI. SCOPE FOR FUTURE RESEARCH**

There is an immense scope for further and future research in this aspect as the business of food hawkers and vendors has been growing at a phenomenal rate and consumers from various social classes are gradually becoming habitual to this eating culture. More detailed, analytical and comprehensive research could be conducted by increasing the sample size and also by increasing the more number of variables in consideration through elaborative questionnaire. Furthermore, research can be further done for other product categories like vegetables, household products, clothing etc as sold by these hawkers and vendors in Meerut City. Even the same research has to be conducted in other cities and metropolitans as well.

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