



COVID-19 AND CHANGING DIMENSION OF DIGITAL ENTREPRENEURSHIP IN ODISHA: A STUDY

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Abstract

Covid-19 has inevitable impact on entrepreneurship. Business houses going through several crisis due to sudden outbreaks of corona virus. However, this crisis also helps to invent and adopt new things and methods to meet this unfavourable situation. One of the change made in this time is rapid adoption of digital tools in Business. The lockdown and shutdown emerge the significant role of digital entrepreneurs. The purpose of this study is to analyse the changing performance of digital entrepreneurs in Odisha due to Covid-19. To determine the change in performance of digital entrepreneurs the current research use statistical tools like one sample t-test and repetitive ANOVA. The findings of the research highlights emerging need of digital entrepreneurs in Odisha.

(Key Words: Covid-19, Digital Entrepreneurship, Business, Digital tools, Performance)

Introduction:

The COVID 19 pandemic create acute urgency in the use of digital technology due to social distancing norms & lockdown. People adjust with new ways of living. It put inevitable impact on economic environment, socio cultural environment, political environment, legal environment, and technological environment etc.COVID-19 creates a remarkable change in business world. The adverse effect of COVID-19 put negative impact on entrepreneurial activities. This pandemic encourage digitalisation of business activities. That motivate more entrepreneurs to accept digital entrepreneurship in place of traditional Business. Digital transformation is very firstly alternating the traditional functions of Business. The advance use of technology, development of digital infrastructure, availability of internet facilities at the time of lockdown, invention of various digital platform & lockdown itself force many entrepreneurs to accept digitalisation.

In simple word we can said that digital entrepreneurship is the combination of digital technology & entrepreneurship that means creating or adopting digital technology in Business. It consists of creating a

business through using internet, selling services or products online i.e. e-commerce business, online teaching, content creator (You Tuber), online author, online photographer, sale of digital info products, drop shipping etc. These are the recent examples of digital entrepreneurship. Covid-19 is the answer of the lingering doubts of need of digital transformation in business. In the contactless world at the time of shutdown use of digital technology was the only way of interaction between employee, owner, customers etc. In grass root level use of digital technology is the only way to sustain in business from that mandate shutdown. It likes “Go Digital Or Go Dark”. This pandemic pampers digitalisation every sectors. Covid-19 changes doubtful mind-set of business owner and customers towards digitalisation of entrepreneurship. There are many digital entrepreneurs like Neil Patel the influential guru, Saurabh Bhatnagar business mentor, Sahan Goel founder purple prachi , Kanik Yadav founder of Whyte Farms, Meenakhshi Hiwasa the founder of Arto Gift, Sammer Maheswari & Prashant Tandon founder of Health Kart etc. are already proved their potentiality in this competitive market. In this time of Covid-19 the role of digital transformation realise the significance of digital entrepreneurship & motivates many unemployed young mass for digital entrepreneurship.

Review of Literature:

Satalkina and Steiner (2020) analyse the impact of determinants of digital Entrepreneurship with three core dimensions like behaviours of entrepreneurs, entrepreneurial practices, and its relevant ecosystem on innovative system. They found that digital entrepreneurship are more fruitful than traditional entrepreneurial activities for innovative practices.

Finkle and Olsen (2019) made an exemplary assessment on development of business model in the digital era by taking case study of two students Smith & Jones. In their study they proposed possible business models for entrepreneurial activities in this Digital Era.

Hall et al.(2007) studies the difference between conventional entrepreneurship and digital entrepreneurship with this they study the typology of digital entrepreneurship. They found that there are significant differences between conventional entrepreneurship and Digital entrepreneurship. The typology of Digital Entrepreneurship classified in to mild, moderate, extreme. According to author extreme digital entrepreneurship might be new for world but it is here to stay.

Zhao et al.(2015) explore the emerging concept of digital entrepreneurship from multidisciplinary perspective. This paper develops conceptual model with three well established theories (social networking theories, social capital theories, institutional theories). At the end of the study they recognise growing importance of digital entrepreneurship. So author suggest digital entrepreneurship itself paves the way for future research in underexplored area of digital entrepreneurship.

Purbasari et al. (2021) advocated importance of digital entrepreneurship in the era of Covid-19 pandemic by taking cases from digital technology based SMEs in Indonesia. The study concluded with a note that in Indonesia digital industries growing rapidly it also carried by SMEs of this countries. For smooth flow of this activities there is need of proper internet and technical support to these sectors.

Sahut et al.(2021) study the circumstances and reasons those helps in promotion of digital entrepreneurship and also the researcher focus on the way digital entrepreneurs creating digital values by accruing, processing and distributing Digital information's. Authors concluded that digital entrepreneurship has significant effect in the process of value creation in business.

Research Gap:

Literature in the context of digital entrepreneurship with relation to Covid-19 is rare and needs further research in the same area. Though repetitive ANOVA, and one sample t-test are well acceptable tool but many studies not used to measuring the relation of Covid-19 with Digital entrepreneurship. Our study an attempt to present the real picture of Covid-19 impact on digital Entrepreneurship in Odisha.

Objective of The Study:

The present study has the following objective.

To evaluate the change in performance of digital entrepreneurs due to Covid -19 in Odisha.

Hypothesis:

On the basis of the above objective the following hypothesis has been framed.

H₀-There are no significant differences in the performance of respondent (Digital entrepreneurs) due to Covid-19

H₁-There are significant differences in the performance of respondent (Digital entrepreneurs) due to Covid-19

Research Methodology:

- **Data Collection:** Data collected from primary sources through questionnaires which is designed by 7 point likerts Scale and from secondary sources like books, research papers, online portals, and magazines etc.
- **Sampling Design:** Data collected from 300 respondents from various districts of Odisha (Cuttack, Khorda, Sambalpur &Rourkela).
- **Statistical Tools:** Different statistical tools like mean, standard deviation and ANOVA tests have been used for the present study .IBM SPSS statistics 20.0 has been used for analysis.
- **Methodology:** The relative performance of digital entrepreneurs has been studied for different time period i.e. before lockdown, within Lockdown, and after lockdown for analysing the impact of Covid-19 on Digital Entrepreneurship in Odisha.

Why Digital Entrepreneurship?

Covid-19 pandemic has been creating a lot of uncertainty in business world. It's put negative impact all over every sector. In connection to business, Entrepreneurial activities also going through several crisis. The most important crisis facing by entrepreneurs in this pandemic situation to connecting with customers and suppliers. Amid shutdown and lockdown create barriers for physical purchase and supply of goods & services. In this crisis time digital technology is the only way to connect with customers and suppliers. The use of digital tools has contributed to the emergency of multisided platforms as avenue of value creation, innovation etc. Many digital changes going on around the world in this period of Covid-19.Digital acceptance is need of the hour for every business. It is the high time for both organisations and the end users should accept the digital

transformation. From small business houses to big scale business need to know use of innovative digital platforms.

At present digital platform is inseparable from life of entrepreneurs. We can say that need of digital entrepreneurs increasing in this time. To ensure sustainability of business in this pandemic there is need of digitalisation of business. Any person can be a digital entrepreneurs from small business to large scale with a good knowledge of digital tools. It was estimated that digital economy already contributes up to 8% of GDP in G20 countries. The prime advantage of digital business model is that one should not need to invest a huge fund in order to be a digital entrepreneur, A digital entrepreneur can do his business with professional & personal responsibilities, A digital entrepreneurs needs less fund for marketing because they use various digital platform like Facebook, mail, intstagram etc. for their marketing, A digital entrepreneur is flexible than others, any person without any prior experience and professional course can start a business, It helps to develop sales channels by staying in home, scope for wider reach and lower cost of client facing operational costs, Improve customer relation with social media, last but not the least Covid-19 motivates many house wife, jobless person, and students to be a digital entrepreneur.

Data Analysis and Interpretation:

To analyse the change in performance of digital entrepreneurs in Odisha due to Covid-19 we examine ten selected performance indicators which are most significant for any digital entrepreneurs. These indicators are Business Expansion, Competition, Demand for the product and services, Digital Knowledge, Online fraud, self-confidence, Digital transactions, motivation, collaboration with online platforms, and self confidence

Demographic Profile of Respondent:

Table :1

Gender	
Male	122
Female	178
Total	300
Age Group	
Between 18 to 25	98
Between 25 to 35	180
More than 35	22
Total	300
Nature Of Business	
Online Garment Business	100
Online tutor	20
You tuber	47
Online grocery provider	23
Online Art Seller	20
App Builder	10
Book writer	26
Online handmade products	27
Online beauty product seller	25
Online vegetable seller	2
Total	300
Experience	
2 years	88
3 years	115
1.5 years	97
Total	300

The table no:1 showing the demographic profile of the respondent in our research study. This table demonstrate that from total respondent there are 122 male respondent and 178 female respondents. The age group between 25 to 30 have highest digital entrepreneurs that reflects this group have more techno saviour, In the category of nature of Business online garment Business seller are highest(100) and online vegetable sellers are lowest(2).In the head of Experience ,Digital entrepreneurs having 3years experience are highest quantity.

Test of Normality:

Table No: 2

Shapiro-Wilk Test Of Normality	Statistic	df	Sig.
Business Expansion(AL)	0.999	300	0.997
Business Expansion(BL)	0.994	300	0.241
Business Expansion(L)	0.998	300	0.987
Collaboration with Online Platform (AL)	0.995	300	0.355
Collaboration with Online Platform (BL)	0.997	300	0.846
Collaboration with Online Platform (L)	0.997	300	0.847
Competition(AL)	0.997	300	0.819
Competition(BL)	0.996	300	0.629
Competition(L)	0.997	300	0.773
Demand for the product(AL)	0.997	300	0.907
Demand for the product(BL)	0.991	300	0.069
Demand for the product(L)	0.991	300	0.06
Digital Transaction(AL)	0.997	300	0.789
Digital Tansactions(BL)	0.991	300	0.078
Digital Transactions(L)	0.997	300	0.786
Development of New Strategy(AL)	0.995	300	0.459
Development of New Strategy(BL)	0.993	300	0.209
Development of New Strategy(L)	0.997	300	0.883
Digital Knowledge(AL)	0.995	300	0.528
Digital Knowledge(BL)	0.995	300	0.4
Digital Knowledge(L)	0.994	300	0.317
Motivation from Friends & Family(AL)	0.997	300	0.882
Motivation from Friends & Family(BL)	0.996	300	0.937
Motivation from Friends & Family(L)	0.996	300	0.561
Digital Transactions(BL)	0.996	300	0.738
Digital Transactions(AL)	0.997	300	0.917
Digital Transactions(L)	0.991	300	0.074
Self-confidence(AL)	0.996	300	0.643
Self-confidence(BL)	0.998	300	0.983
Self-confidence(L)	0.996	300	0.683

The above table no.2 fulfil Shapiro Wilk test of normality ($P \text{ value} \geq 0.05$) that indicates all the collected data are normally distributed. It means collected data set is ready for further statistical tests

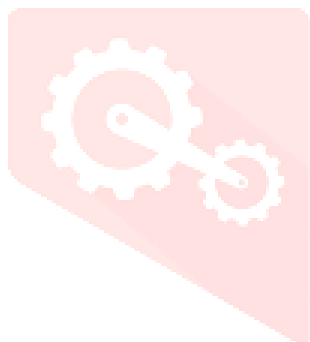
Table No:3

Before Lockdown						
Performance Indicators Of Digital Entrepreneurs	Mean	SD	T-Value	Sig.(2-Tailed)	Rank	
Motivation from Friends & Family	6.6635	0.17243	669.342	0	1	
Online Fraud	6.5349	0.09907	1142.49	0	2	
Competition	6.53	0.204	554.547	0	3	
Digital Knowledge	6.4051	0.22722	488.244	0	4	
Digital Transactions	5.9782	0.15663	661.066	0	5	
Self-Confidence	5.7099	0.14815	667.567	0	6	
Business Expansion	5.6115	0.11533	842.76	0	7	
Demand for the Product	5.5101	0.18088	527.64	0	8	
Development of New Strategy	4.8953	0.09151	926.505	0	9	
Collaboration with Online Platform	4.4248	0.11136	688.196	0	10	
Within Lockdown						
Performance Indicators of Digital Entrepreneurs	Mean	SD	T-Value	Sig.(2-Tailed)	Rank	
Competition	6.8	0.191	617.188	0	1	
Motivation from Friends & Family	6.7581	0.16155	724.56	0	2	
Digital Knowledge	6.5072	0.20326	554.498	0	3	
Digital Transactions	6.1778	0.10765	993.965	0	4	
Demand for the Product	6.0052	0.10338	1006.17	0	5	
Online Fraud	5.9468	0.92586	111.25	0	6	
Business Expansion	5.706	0.123	803.48	0	7	
Self-Confidence	5.0963	0.09848	896.329	0	8	
Development of New Strategy	4.9608	0.91752	93.647	0	9	
Collaboration with Online Platform	4.7008	0.13297	612.313	0	10	
After Lockdown						
Performance Indicators of Digital Entrepreneurs	Mean	SD	T-Value	Sig.(2-Tailed)	Rank	
Digital knowledge	7.0024	0.21162	573.125	0	1	
Competition	6.9	0.181	661.402	0	2	
Motivation from Friends & Family	6.8727	0.13238	899.236	0	3	
Online Fraud	6.7731	0.11412	1027.99	0	4	
Digital Transactions	6.598	0.14094	810.845	0	5	
Demand for the Product	6.1066	0.20827	507.852	0	6	
Business Expansion	5.7997	0.11024	911.24	0	7	
Development of New Strategy	5.5058	0.09999	953.774	0	8	
Self-Confidence	5.2027	0.74074	121.655	0	9	
Collaboration with Online Platform	4.9103	0.18172	468.035	0	10	

*** Level of significance for one tailed test is 0.05**

The respondent in the research area requested to rate the degree of agreement on selected performance indicators of digital entrepreneurs. The performance indicator are measure through 7 point likerts scale from 1 to 7, where 1 symbolise strongly disagree, 2- Disagree,3- Somewhat disagree,4-Neutral,5-Somewhat Agree,6-Agree,7-Strongly agree. The result of descriptive statistics and one sample t-test conducted at 95% significance level. To analyse and highlights the performance indicators of digital entrepreneurs we observe mean value of indicators in three phase i.e before lock down period, within lockdown period, after lockdown period. From the above table it demonstrate that each performance indicators has significant influence over digital entrepreneurs (t value <0.05) .Here ranking is made according to the mean value of indicators. In the period of before lockdown motivation from friends & family has highest rank(mean 6.663).It indicates that before lockdown digital entrepreneurs have strong motivational support from friends and family followed by online

fraud(6.534) and competition in market (6.530),digital knowledge(6.40),digital payment procedure(5.97),self-confidence(5.70),business expansion(5.61),demand for the product(5.51),development of new strategy(4.89) and collaboration with online platforms(4.42).Within the Lockdown period competition taken the highest rank(6.80) which indicates the revolution of digital entrepreneurship scenario. Because in lockdown time everyone started to depend upon digital network for their needed products and services so competition between digital entrepreneurs increases. Followed by competition , motivation from friends & family has 2nd rank(6.75),digital knowledge taken as 3rd rank(6.50),digital transactions taken 4th rank(6.17),Demand for the product has 5th rank (6.005),Online fraud has 6th rank(5.94), business expansion has 7th rank (5.70), self-confidence got 8th rank(5.09),development of new strategy has 9th rank (4.96) and collaboration with online platform(4.700) got 10th rank. Within lockdown period competition as well as digital knowledge among the entrepreneurs increases. After lockdown period digital knowledge among the respondent got highest rank(7.002) which reflects that respondents increases their knowledge regarding digital activities which is the implication of demand of digital entrepreneurs at this time. Competition (6.90)also get 2nd rank that reflects increase of digital entrepreneurship at the same time, motivation from friends & family has 3rd rank(6.87), online fraud got 4th rank (6.77),digital payment procedure has 5th rank (6.59),demand for the product has 6th rank (6.10),business expansion has 7th rank (5.79),development of new strategy has 8th rank (5.50), self-confidence has 9th rank (5.20), collaboration with online platform has 10th rank (4.91).In every phase of time digital collaboration get last ranks it reflects digital entrepreneurs may faces problems and fear for online collaboration with other entrepreneurs.



Repetitive ANOVA Results:

Table No:4

Sl.No	Performance Indicators	Mean			Std.Dev			Sum Square	df	F	Sig.	Hypothesis
		Before Lockdown	Lockdown	After Lockdown	Before Lockdown	Lockdown	After Lockdown					
1	Business Expansion	5.6115	5.706	5.79	0.1153	0.123	0.11024	29299.865	1	2094938.67	0	Rejected
2	Collaboration with Online Platform	4.42	4.7	4.91	0.11	0.13	0.18	6566.93	1	944279.367	0	Rejected
3	Competition	6.5	6.8	6.9	0.21	0.18	0.17	13590.7	1	1060099.79	0	Rejected
4	Demand for the Product	5.51	6.005	6.106	0.1808	0.1033	0.2082	10351.09	1	1154301.29	0	Rejected
5	Development of New Strategy	4.895	4.96	5.505	0.0915	0.9175	0.0999	7866.207	1	81229.786	0	Rejected
6	Digital Knowledge	6.4	6.5	7.002	0.227	0.203	0.211	39659.852	1	931700.677	0	Rejected
7	Digital Transactions	5.97	6.177	6.59	0.1566	0.1076	0.1409	35171.166	1	1782301.24	0	Rejected
8	Motivation from Friends & Family	6.663	6.758	6.872	0.172	0.161	0.132	41185.78	1	1664613.22	0	Rejected
9	Online Fraud	6.534	5.946	6.773	0.099	0.925	0.1141	12358.214	1	123765.349	0	Rejected
10	Self-Confidence	5.709	5.09	5.2	0.148	0.098	0.74	8542.847	1	132179.474	0	Rejected

*Level of significance is 0.05

The core objective of this research aims to highlights the significant changes arises in digital entrepreneurship Scenario in Odisha. Ten most important performance indicators for digital entrepreneurs are analysed in three phase of time i.e before lockdown, within lockdown, after lockdown. The above table No:4 is the summary derived from the ANOVA results. This table demonstrate the comparative results of the different time period taken in the study. The results are as follows:

1. One of the most important performance indicators of digital entrepreneurs is business expansion which demonstrate that there is significant differences in between three time period as p value is 0.00 (P value \leq 0.05). As the above table represents mean value before lockdown is 5.61, within lock down is 5.70, after lockdown is 5.79. It means due to lockdown digital entrepreneurs expanded their business because of outstanding business through digital platform.

2. One of the most recent phenomena going on this time is online collaboration of entrepreneurs with different online platforms and different digital entrepreneurs is also a significant performance indicator. As we see here p value is 0.00 which represents there is significant differentiation in the performance between three phases of time. The mean value before lock down is 4.42, within lockdown 4.70, after lockdown 4.91 which demonstrate the increase collaboration from before lockdown period to after lockdown period. But there is moderate increase in the mean value because of online collaboration also need costs and there are chances of fraud too. The respondent taken for the study are small digital entrepreneurs those who are not able to spent more and they have fear to take risk of online frauds.

3. Competition is one of the major performance indicator that reflects there are significant differences between the time phases taken in the study (P value-0). The rapid changes made in this indicator. As it seen mean value before lockdown is 6.5, within lockdown 6.8, after lockdown 6.9. The rapid increase in competition indicates increase demand of digital entrepreneurs in this recent time.
4. Demand for the product of digital entrepreneurs increases from 5.51 to 6.10. It shows due to shut down and lockdown demand for products and services increases through digital platform. It also shows there are significant differences between different time phases for demand of the products.
5. Development of new strategies by digital entrepreneurs also shows positive increase from before lockdown period to after lockdown period. Before lockdown the mean value is 4.89, within lockdown 4.96, and after lockdown 5.50. There are significant differences in the performance of new strategy development between the time phases taken in to study (p value is 0).
6. Digital knowledge one of the pivotal indicator of performance of digital entrepreneurs. Mean value of digital knowledge increases from 6.4 to 7.00 that reflects significant changes in the digital knowledge among the respondent.
7. Digital Transactions also increases from 5.97 to 6.95 it also reflects there are significant changes made in this indicator.
8. Motivation arises from friends and family to digital entrepreneurs also shows significant and positive differentiation. The mean value increases from 6.66 to 6.87 which indicates psychological support also increases due to lockdown.
9. Due to digitalisation online frauds also increases before lockdown period to after lockdown period
10. Self-confidences also shows significant differentiation (p value is 0). But here mean value before lockdown period is 5.70, within lockdown is 5.09, after lockdown is 5.2. It indicates in lockdown self-confidence among digital entrepreneurs getting down due to unexpected changes, economic crisis, health issues etc. due to pandemic. After the lockdown period again the digital entrepreneurs gain their self-confidence.

Conclusion:

From the above discussions, it may be concluded that Covid-19 has a significant impact on the performance of digital entrepreneurs. It not only creates new opportunities for digital entrepreneurs but it also adds values in digital entrepreneurship. The change in time and use of modern technology has also brought many changes in entrepreneurship. This has emerged for the growth and development of digital entrepreneurship in Odisha. The pandemic situation has forced entrepreneurs to become digital. There are emerging trends of digital entrepreneurship. Traditional entrepreneurs are learning digital tools to become digital entrepreneurs. The pandemic has also brought many opportunities for diversification of business at the same time. According to the changing need and demand of customers' digital entrepreneurs are updating themselves. Digital entrepreneurship has many advantages. In digital entrepreneurship it is easy to know the demand of customers, delivery of goods/services according to customer need and know the feedback of customers. For the promotion of digital entrepreneurship, it is necessary to equip with digital knowledge and skill. This study suggests for digital knowledge to micro entrepreneurs who are still using traditional technology in their business. The study

contributes knowledge to the researchers and academicians who are planning and moving in the similar direction.

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