

The Significant Role of ICT in The Economic Upliftment of Rural Artisans of Assam

Prabanchi Pathak

Research Scholar
Department of Business Administration, Tezpur University

Tridib Ranjan Sarma

HOD, & Associate Professor

Department of Business Administration, Tezpur University

ABSTRACT

Handicraft is a form of handmade art produced by the artisans with their unique skills. These artisans preserve the cultural heritage of a nation. Technology plays an essential role in the growth of handicraft industries. With the adoption of modern and advanced technology, both productivity and production can be enhanced. Use of information technology helps in design, advertising, marketing, and selling of products. The present study deals with use of ICT, its effectiveness, and previous and present income of the rural artisans. For the study Barpeta district of Assam has been selected. Artisans specialized in the production of handicraft products that are assamese jewellery, cane and bamboo, firecrackers, areca nut leaf products and bell metal industry are considered as population. Samples are drawn from this targeted population, where the sample size is 60. The findings shows most of the rural artisan are using ICT for promotion, advertising, to receive orders. The effectiveness of digital measure depends on the level of using digital devices by the artisans. Thus, policy makers should focus on adopting different development programs to enhance the current usages of ICT.

Keywords – Handicrafts, rural artisans, information and communication technology, digital measures.

INTRODUCTION

The term 'handicraft' refers to the processing of raw materials by the artisans with their unique skill, manually by using simple tools to produce different products. Handicrafts are the oldest tradition witnessed in the oldest civilization which is the Indus Valley Civilization. India is a country rich in diversity, which is reflect in its handicraft. Handicrafts of India are famous all over the world. India's cultural diversity is visualized through its handicrafts. Every state of India has its own history of different empires and it is reflected in its handicraft they are well known for. In India, in the past centuries, everyone seemed to respect the artisans and also admire them for their work. During the colonial period, Indian handicraft suffered a lot, as they had to compete with the cheap machine-made British goods. However, after independence different measures were adopted to preserve the Indian handicraft industries. With advancement of science and technology, there is a need for digitalization in the handicrafts sector as it employs large number of rural population. With the help of ICT tools, a small artisan can now sell his or her products to a large number of customers globally by sitting at his home. Assam is well known for different types of handicraft products. Assam culture and its tradition are reflected in its handicrafts. Among all the districts of Assam, Barpeta district is well

known for five different types of handicraft namely cane and bamboo, assamese jewellery, firecrackers, areca nut leaf craft and bell metal. The bell metal industry, assamese jewellery and fire crackers are some of the oldest handicraft which are practiced from the Ahom period in Barpeta district of Assam. Cane and bamboo crafts are considered as the source of income generation for both rural and semi urban artisans. So, for the study area, the Barpeta district is selected. The artisans producing assamese jewellery, cane and bamboo, firecrackers, areca nut leaf products and bell metal industry are taken into consideration. As the sample size is 60 for each type of artisan units 12 respondents are selected.

Information and communication technology

Information and communication technology refers to all the communication devices like radio, television, cell phone, computers, laptops, tablets, satellite, and technology to handle networking system, programming, application, software, audio video conference, monitoring, signal distribution and management and transmission. Thus, ICT is the convergence of telephone networks, computer networks, and telecommunication in terms of how to access, secure, process, transmits and store information.

ICT and economic uplift of rural artisans

ICT helps in the economic development of the rural artisans by expanding the use of technologies related to the Internet, computers, telecommunication, software, etc. With the use of these technologies, it has become more accessible for the rural artisans to connect with a large number of customers, which also makes them more effective. Computers and laptops are used to keep records of their buying and selling, stocks, product details, employee details, etc. Social media platforms are used for advertising, promotion, selling, providing product details, connecting with suppliers, etc. ICT has made artisan's work easier as by sitting at own residence they can interact with a large number of customers at a time. Therefore, ICT provides the following roles for the economic upliftment of rural artisans.

1. Communication- With the use of ICT, communication has become cheaper and more accessible than ever before. The use of social media platforms connects the buyer and seller without physical interaction between them. Thus it has a beneficial impact on the business of the artisans. With the change through ICT, online market is becoming more popular than the physical market.
2. Cost effective- Digital technologies reduce the cost of advertising, selling, transportation. As entrepreneurs become more independent, the requirements of workers also decrease. Again, as direct connections are made between buyers and sellers, there is no cost of intermediaries. The cost of internet is significant as compared to its benefits.

3. Information- Artisans can share their necessary information and ideas through online platforms like Facebook, WhatsApp, Email, website, Youtube etc with a number of customers at a time. Even the required information is collected through searching on the internet.
4. Competitiveness- Digital technology provides a platform for rural artisan to enter the international market. Internet replaced traditional trading with cost-effective online trading, which enables independent entrepreneur to participate in the global market. Simply, through digital technology, artisan can enter the international market without crossing the physical boundaries.
5. Efficiency- The technological advancement and development of ICT result in an overall change in the work environment of artisans as significant changes are seen in marketing, services, production, payment, ordering, delivery, promotion etc. All these have a positive impact resulting in higher profits and making them more efficient and productive.
6. Revenue growth – ICT results in the growth of revenue for rural artisans. Previous literature has already proven that the use of social media platforms increase the sale of the rural artisans. Hence, it generates more revenue than earlier.

Background of the study

Before industrialization, the Indian villages were self sufficient, as they were mainly based on agriculture and handicrafts. Handicraft is the source of livelihood for the rural artisans. The colorful handicraft products of Assam play a significant role in the economic development of the rural artisans of Assam. Rural artisans refer to those who are engaged in the production of some traditional handicrafts that are produced manually with the locally available raw materials. This traditional handicraft work is the sole primary income source for most rural artisans. These artisanal works are done in their home with the help of their family members. The cost of production is meager. So, whatever they earn can maintain their subsistence level. Rural artisans are deprived of the formal education and basic facilities due to their low level of income. This is because of the presence of intermediaries. The earnings from this sector are not equal with their productivity. This inequality can be eliminated with the use of ICT. They are engaged in crafts like pottery, blacksmithing, weavers, goldsmithing, bell metal and brass metal industry, etc. Bell metal is one of the traditional craft of Assam practiced from the Ahom period. More three or four artisans assemble at a place where production takes place called “Garhsal” and the artisans are known as “Kanhar”. Bell metal utensils are used to perform religious rituals in Assam. Bortaal (cymbal) which is played in Satras and Namghar while singing Naam (religious song) is made of bell metal. In Assamese wedding, parents of the bride gifted her utensil made of bell metal for used in her new home. On the day of Jorun (day before wedding), organized in bride home, both bride and groom’s mother exchange Xorai made of bell metal. Firecrackers of Barpeta are non-polluting as compared to Sivkashi and Chinese crackers. There is a tradition of lighting firecrackers in wedding when groom comes in bride house for

marriage. Barpeta is famous for dol utsav (holi festivals), the festival started with lighting of firecrackers. Cane and bamboo products are used in Bihu festival of Assam. Bahi (musical instrument) made from bamboo. In temples, namghar and satras mats are used for sitting made of cane and bamboo.

Review of Literature

Rural artisans play a significant role in the cultural, social and economic development of Assam (Jyoti, 2017). They are engaged in activities that help to generate employment in rural areas; as such activities are mostly based on labour-intensive method (Choudhury, 2019). Das, (2023) in her paper, focuses on the socio – economic condition of females who make products from bamboo. The State Institute of Rural Development has provided different programs for the development of skill and managerial abilities (Hazarika, 2016). Yadav, 2012 discuss about the problems and challenges faced by the rural artisans and also about the initiative taken by the government. In his findings, he mentioned that present generation is aware of the benefits of modern technology, but they did not show interest in their family tradition of producing handicraft goods.

Khatri, et al., 2020, in their review paper, discuss about the impact of digitalization, and problems in the export of handicraft products. Nowadays, online selling is creating interest among the new entrepreneurs (Nusrulloh, et al., 2019). Online advertising and the online portal market create consumer awareness on a wide scale compared to offline advertising (Ghosal, et al., 2020). Information technology is used for promotion, sales, to make payments, services, product information, etc. Beardsley, et al., 2010, discuss about the socio-economic benefits of ICT in health, education and service sector. By using Internet, mobile, laptop, computers, tablets, ICT generate economic growth. Use of ICT and e-commerce changes the livelihood of rural artisans in Mexico. By incorporating ICT they are able to adopt new marketing strategies which change the traditional way of buying and selling goods (Rehbein, 2013). The socio-economic characteristics of the rural artisans of Nigeria influence the use of mobile phones (Onayinka, 2015). Social media platforms help to increase brand awareness among the consumer which has a positive impact on consumer purchases (Guha, et al., 2021).

Research Gap

While reviewing the existing literature it has been found that in few studies about the use of ICT in growth and development, socio-economic benefits of ICT in different sectors, use of ICT and e-commerce in changing the livelihood of rural artisans, socio-economic characteristic of rural artisan of Nigeria in influencing the use of mobile phones, etc. So, there is a need to study the purpose of using ICT and its effectiveness by the rural artisans in the study area.

Need and Objectives of the Study

Rural artisans are engaged in the tradition of producing colorful handicrafts which represent the cultural richness of the region. With the change in market economy artisans are adopting modern technology to enhance growth. Use of ICT is nowadays witnessed in every field like health, education, agriculture, industry, service sector etc. Rural artisans are adopting ICT for online payments, promotion, brand awareness, product information, etc. Barpeta district of Assam is well known for different handicrafts from centuries.

Therefore, there is a need to study the use of ICT in Barpeta district by the rural artisans. The main objectives of the study are as follows:

1. To know about the uses of information technology by the artisans in handicraft sectors.
2. To know how ICT promotes economic growth.

Hypothesis

The following hypothesis is to be tested

- 1) There is no significant difference in the effectiveness of using digital measures with the level of using digital devices.
- 2) There is no significant difference between previous income and current income after the adoption of ICT.

METHODOLOGY

The following research methodology is adopted for the study:

- 1) Research design - For the study descriptive research design is used.
- 2) Data collection - To achieve the objectives both secondary and primary data are essential. For primary data collection interview schedule is formulated with close ended questions. The required secondary data is collected from research paper, journals, articles, etc.
- 3) Sample size - For the study, the sample size is 60. From five types of craft twelve respondents are selected.
- 4) Type of questions – Close ended.
- 5) Instrument – Interview schedule
- 6) Study area - The geographical area that is selected is the Barpeta district of Assam. Barpeta district is well known for five different types of crafts namely cane and bamboo, assamese jewellery, firecrackers, areca nut leaf craft and bell metal.
- 7) Sampling technique - Purposive sampling techniques

Analysis of data

A. Demographic Statistics of the respondents

Table - 1 : Demographic Profile of the Respondents

<i>Sex</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Other sources of income</i>	<i>Frequency</i>	<i>Percentage</i>
Male	50	83.3	Daily wage earning	2	3.3
Female	10	16.7	Self employment	1	1.7
Total	60	100.0	Farming/ Husbandry	8	13.3
<i>Education</i>			Other occupation	1	1.7
Primary	7	11.7	None	48	80.0
Middle School	18	30.0	Total	60	100.0
Secondary	13	21.7	<i>Place of work</i>		
Higher Secondary	17	28.3	Own residence	42	70.0
Graduation	3	5.0	Rented	11	18.3
Higher Education	2	3.3	Govt. Land	7	11.7
Total	60	100.0	Total	60	100.0
<i>Source of income</i>			<i>Your involvement as</i>	<i>Frequency</i>	<i>Percentage</i>
Primary	54	90.0	Owner	43	71.7
Secondary	6	10.0	Employee	17	28.3
Total	60	100.0	Total	60	100.0

Source: Field Survey

The respondents consist of 83.3% of male and 16.7% of female. 30% of them attain middle school and 3.3% are highly educated. For 90% of the respondents artisanal work is their primary source of income and for 10% it is their secondary source of income. It has been also found that 80% do not have other source of income while 13.3% engaged in farming, 3.3 % are daily wage earners and 1.7% involved in other occupations. 70% of them work in their own residence, 18.3% of then worked in rented place and 11.7 % in government areas. Out of the total respondents 71.7% are owners and 28.3% are employees.

B. Nature of artisanal work

Table - 2 , Nature of artisanal work

<i>Type of product</i>	<i>Frequency</i>	<i>Percentage</i>		<i>Frequency</i>	<i>Percentage</i>
Conventional	17	28.3	<i>Learn present work</i>		
Decorative	5	8.3	Family member	44	73.3
Both	38	63.3	Relatives/Friends	14	23.3
Total	60	100.0	Non Govt Agencies	2	3.3
<i>Reason for being engaged in the artisan activity</i>			Total	60	100.0
Hereditary occupation	27	45.0	<i>Nature of work</i>		
To keep tradition alive	1	1.7	Full time	56	93.3
Interested in the craft	8	13.3	Part time	4	6.7
Source of income for the family	14	23.3	Total	60	100.0

All of the above	10	16.7			
Total	60	100.0			

Source: Field Survey

From the study it has been found that 28.3% of respondents produce conventional products, 8.3% produce decorative products and 63.3% produce both conventional and decorative products. 45% of respondents engaged in the activity because it is their hereditary occupation, 1.7% engaged to keep the tradition alive, 13.3% are interested in the craft, 23.3% involve in the activity as it is their source of income and 16.7% involve because they in all of the above reasons. The study also focused that 73.3% of respondents learn the activity from family members and the remaining 23.3% from relatives/ friends. 93.3% of the respondents work as full time and 7.7% work as part time.

C. Devices used for artisanal work

Table – 3, Devices used for artisanal work

Devices	Frequency	Percentage
Mobile		
Yes	60	100.0
Total	60	100.0
Computer		
Yes	4	6.7
No	56	93.3
Total	60	100.0
Laptop		
Yes	4	6.7
No	56	93.3
Total	60	100.0
Tablet		
Yes	3	5.0
No	57	95.0
Total	60	100.0

Source: Field Survey

From the above table it was found that 100% of the respondents are using mobile. 7% are using computer and laptop, and 5% of the respondents are using tablets.

D. Level of using the digital devices

Table – 4, Level of using the digital devices

Level of using digital measures	Frequency	Percentage
Most frequently	29	48.3
Frequently	19	31.7
Least frequently	12	20.0
Total	60	100.0

Source: Field Survey

The above table shows that 48.3% of the respondents used digital measures most frequently, 31.7% used frequently and 20% used least frequently.

E. Current usages of ICT

Table- 5, Current usages of ICT

Particulars		Count	Column N %
<i>Use Email for communication</i>	Yes	33	55.0%
	No	27	45.0%
	Total	60	100.0%
<i>For seeking new customers</i>	Yes	56	93.3%
	No	4	6.7%
	Total	60	100.0%
<i>To receiving orders from customers</i>	Yes	55	91.7%
	No	5	8.3%
	Total	60	100.0%
<i>For placing job vacancies</i>	Yes	12	20.0%
	No	48	80.0%
	Total	60	100.0%
<i>Offering information about the unit and products</i>	Yes	34	56.7%
	No	26	43.3%
	Total	60	100.0%
<i>To sell and purchase goods</i>	Yes	56	93.3%
	No	4	6.7%
	Total	60	100.0%
<i>To find out about competitors</i>	Yes	11	18.3%
	No	49	81.7%
	Total	60	100.0%
<i>To find out about suppliers</i>	Yes	7	11.7%
	No	53	88.3%
	Total	60	100.0%
<i>Offering online payment options</i>	Yes	60	100.0%
	No	0	0.0%
	Total	60	100.0%
<i>To build customer connections</i>	Yes	16	26.7%
	No	44	73.3%
	Total	60	100.0%
<i>Product and market research</i>	Yes	12	20.0%
	No	48	80.0%
	Total	60	100.0%
<i>Contact with government agencies</i>	Yes	5	8.3%
	No	55	91.7%
	Total	60	100.0%
<i>Video/ Video Conferencing</i>	Yes	3	5.0%
	No	57	95.0%
	Total	60	100.0%
<i>To give staff formal training on the Internet</i>	Yes	1	1.7%
	No	59	98.3%
	Total	60	100.0%
<i>For the management of accounts</i>	Yes	4	6.7%

	No	56	93.3%
	Total	60	100.0%
<i>To keep records of stock and inventories</i>	Yes	2	3.3%
	No	58	96.7%
	Total	60	100.0%
<i>For promotion and advertising</i>	Yes	57	95.0%
	No	3	5.0%
	Total	60	100.0%
Source: Field Survey			

Table – 5, shows the purpose for which ICT is used by the respondents. 55% of the artisans used ICT for communication by email, whereas 45% do not use email. For seeking new customers 93.3% used digital measures, 91.7% to receive orders from customers, 20% for placing job vacancies, 56.7% for offering information about the unit and products, 93.3% to sell and purchase goods, 18.35% to find competitors and 11.7% to know about suppliers, 100% used it for offering online payment options, 26.7% of respondents used for building connections with customers. 20% used, but 80% do not used for searching product related to market and products. Only 8.3% used for making contact with government agencies, whereas remaining do not use it for such purpose. 98.3% of respondents do not use any digital measures for providing formal training on internet but 1.7% used it for this purpose. Out of the total respondent 6.7% of respondents used ICT for the management of accounts remaining do not have sufficient knowledge for it. The survey also focused that 3.3% of total respondents used digital devices for keeping records of stock and inventories. Again, 95% of respondents used ICT for promotion and advertising of their products

F. Effectiveness of using digital measures or ICT.

Table- 6, Effectiveness of using digital measures or ICT

Statements	N	Minimum	Maximum	Mean	Std. Deviation
<i>It save time as it is easy to share product details on social media</i>	60	2	5	3.83	.886
<i>It is easy to connect with a wide range of customers in same time</i>	60	2	5	3.60	.906
<i>It help to increase the participation level of customers</i>	60	1	5	3.35	1.176
<i>Online payment save time of the artisans as compare to offline payment</i>	60	2	5	3.82	.948
<i>Electronic ordering reduces cost as well as save time</i>	60	1	5	3.60	.867
<i>Engagement on social media do not have any time limitations</i>	60	1	5	3.98	.965
<i>It increases consumer awareness that affect positively on growth of output.</i>	60	1	5	3.73	1.039

<i>Generate more profit to the artisans.</i>	60	1	5	3.35	.880
<i>It reduces the cost of labour</i>	60	1	5	3.30	.850
<i>It enables to process transaction at lower cost</i>	60	1	5	2.78	1.043
<i>It reduces the cost of marketing</i>	60	2	5	3.52	.911
<i>It makes the work of the artisans easier while receiving orders from the clients</i>	60	2	5	3.38	.940
<i>It improves work environment</i>	60	1	5	2.98	.833
<i>It focus on the need to maintain or increase the quality of the products</i>	60	2	5	3.63	.823
<i>It improves overall work efficiency</i>	60	1	5	3.75	.914
Valid N (listwise)	60				
Source: Field Survey					

Table – 6, shows the effectiveness of using digital measures on a five point scale ranging from least agree to completely agree. Respondents have highest mean value at 3.98 literally meaning that engagement on social media do not have any time limitations. Respondents are somewhat agree with mean value 2.78 as it enables to process transaction at lower cost.

G. Hypothesis testing

1) Ho: There is no significant difference in the effectiveness of using digital measures with the level of using digital devices.

H1: There is significant difference in the effectiveness of using digital measures with the level of using digital devices.

Table- 7, Analysis of variance results on the effectiveness of using digital measures with the level of using digital devices.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.080	2	.540	3.352	.042
Within Groups	9.187	57	.161		
Total	10.267	59			

As the p-value is less than 0.05 we reject the null hypothesis. Therefore we accept the alternative hypothesis. Thus we conclude that there is significant difference in the effectiveness of using digital measures with the level of using digital devices.

2) Ho: There is no significant difference between previous income and current income after the adoption of ICT.

H1: There is significant difference between previous income and current income after the adoption of ICT.

Table- 8, Paired samples test of previous income and current income after the adoption of ICT.

	Paired Differences					t	df	Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Previous income- Current income	-.51667	.72467	.09355	-.70387	-.32947	-5.523	59	.000
Pair 1 Current income- Previous income	.51667	.72467	.09355	.32947	.70387	5.523	59	.000

As the p-value of t-statistics (-5.523) is .000 which is less than 5% level of sig., so we reject the null hypothesis which means that there is sig. diff in previous income and current income after the adoption of ICT.

Challenges faced by the artisans

From the survey it is found that the level of education is low because of which the use of smart phones is limited. They are not able to utilize the benefits of e-commerce platforms. Due to financial issues or for low income artisans are using smart phones that belong to their children. It creates problem for them to use one device for different purpose. Again there are some artisans who prefer only the traditional way of buying and selling because of lack of technological knowledge.

Suggestions

By organizing skill development programs and workshops artisans are made aware of the digital technologies. Government can provide financial assistance for setting up of their business. Provision should be made to provide formal business knowledge to the rural artisans as artisan prefers the traditional way of doing business. Formal knowledge of business helps them to earn better profits. The cultural heritage of our country can be preserve by encouraging everyone to use these local handmade products. It is necessary to involve and encourage the present generation to assist their parents in using digital measures for artisanal work.

Conclusion

Rural artisans are the backbone of rural economy. With less investment and by using labor intensive techniques they are able to compete with the machine made goods. The primary source of income for both male and female artisans is producing traditional crafts. The study reveals that the number involvement of male artisans is more as compared to female. The level of education is low among them. They are interested in the occupation as it is hereditary. Mobile phones are mostly used by them to receive orders, make online payments, for advertising and promotion, to provide information to the customers. Use of digital devices is effective for them, but it depends on the level of using it. The use of ICT has a positive impact on their current income. By using digital technology more opportunities which are very much effective are open for rural artisans of handicraft industry. Thus, they are able to overcome the physical boundaries and enter the global market with cost advantages. But, there is a

need to train the skilled artisans so that they can improve themselves in every aspect. Government should organized capacity building programmes for increasing the usability of ICT among the rural artisans. The study is limited to the use of ICT by the rural artisans of Barpeta district of Assam. Further research can be conducted on other districts of Assam either individually or as a whole in a broader scale.

Acknowledgements

We would like to express our sincere gratitude to the officials of District Industries and Commerce Centre, Barpeta, for providing the necessary information. We would also like to thank all the participants for accomplishing the survey.

Conflict of interests

The authors declare that no competing interests exist.

Author's contributions

Both the authors contributed equally to the theoretical development, analysis, interpretation and writing of the manuscript.

Funding information

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

REFERENCES

- Bhandari, G. (2023). Cane and Bamboo craft of Assam. *International Journal of Novel Research and Development*, 8(1), 482-507.
- Beardsley, S. C., Enriquez, L., Bonini, S., Sandoval, S., & Brun, N. O. E. M. I. E. (2010). Fostering the economic and social benefits of ICT. *Dutta and Mia (2010). The Global Information Technology Report2009, 2010*, 61-70.
- Choudhury, B. (2019). Rural non-farm employment opportunities in Assam. *ACADEMICIA: An International Multidisciplinary Research Journal*, 9(8), 21-31.
- Das, J. (2023). A Study on the Socio-Economic Condition of Bamboo Mat Manufacturing Female Artisans of Assam with special reference to Kuriha Village. *Journal of Survey in Fisheries Sciences*, 10(3), 102-110.
- Das, R., & Das, A. K. (2011). Industrial cluster: An approach for rural development in north east India. *International Journal of Trade, Economics and Finance*, 2(2), 161.
- Dutta, D. (2017). An ethnographic account of indigenous bell metal art of Assam. *Journal of the Anthropological Survey of India*, 66(1-2), 161-182.
- Dutta, K. (2020). Cultural Value of Bell metal Utensils in the Assamese Society. *Journal of Arts, Humanities and Social Sciences*, 3(3), 12-15.
- Handique, K. J. (2017). Rural handicrafts: A case study in Sivasagar district of Assam. *Asian Journal of Research in Business Economics and Management*, 7(9), 125-132.
- Karmakar, D., & Nath, B.D. (2017). A Study on Assamese Traditional Ornaments of Barpeta District of Assam. *International Journal of Humanities & Social Science Studies*, III(V), 109 – 119

- Karmakar, D., & Nath, B. D. (2017). Exploring Atoshbaji (Fireworks) Industry of Barpeta. *Pratidhwani the Echo*, VI(II), 136-145.
- Khatri, P., & Kothari, H. Handicraft Smes and Digitalization: Results From recent Literature.
- Ghosal, I., & Prasad, B. (2019). Inspiring digitalization of handicraft market: An empirical approach. *Parikalpana: KIIT Journal of Management*, 15(1and2), 199-209.
- Gogoi, M. (2020). Cane and bamboo based traditional handicraft industry: A profitable business for youth self help group of Assam. *Indian Journal of Applied Research*, 10(12), 31-32.
- Guha, S., Mandal, A., & Kujur, F. (2021). The social media marketing strategies and its implementation in promoting handicrafts products: a study with special reference to Eastern India. *Journal of Research in Marketing and Entrepreneurship*, 23(2), 339-364.
- Gupta, C. S. (2008). Clay-traditional material for making handicrafts.
- Handique, K. J. (2017). Rural handicrafts: A case study in Sivasagar district of Assam. *Asian Journal of Research in Business Economics and Management*, 7(9), 125-132.
- Hazarika, S. (2016). Skill development for rural entrepreneurship: A study on state institute of rural development (SIRD), Assam. *International Journal of Research and Analytical Reviews*, 3(3), 61-66.
- Mishra, D. V., & Mishra, M. (2011). Rural Products & its market in India". *International Journal of Management & Business Studies*, 1, 151.
- Nasrulloh, M. Y., & Putra, Y. H. (2020, January). The Role of Information Technology in Handicraft and Entrepreneurship Subjects on the Students' Entrepreneurial Interest. In *International Conference on Business, Economic, Social Science, and Humanities–Economics, Business and Management Track (ICOBEST-EBM 2019)* (pp. 6-8). Atlantis Press.
- Onayinka, T. S., & Dayo, A. (2015). Socio-economic characteristics of mobile phone usage and gratification among artisans in Ogun State, Nigeria. *International Journal of International Relations, Media and Mass Communication Studies*, 1(1), 28-33.
- Rehbein, B. K. (2013). Rural Livelihoods and e-Commerce: a case study of artisans in Guerrero, Mexico.
- Rouse, M. (2022). Information and Communication Technology. Retrieved from <https://www.techopedia.com/definition/24152/information-and-communications-technology-ict>
- Roy, R. (2014). "Entrepreneurship Development of Cluster Industry in Assam" with special emphasis to Bell metal Industry of Sarthebari. *4D Int. J. Mgt. Sci*, 4(2), 117-136.
- Shah, A., & Patel, R. (2016). *E-Commerce and rural handicraft artisans* (No. 2016-12-07).
- Solanki, S. S. (2008). Sustainability of rural artisans. *Economic and Political Weekly*, 24-27.
- Saloi, T., & Barman, D. K. (2020). Attractiveness of Bell metal industry in ASSAM: A study with special reference to Sathebari area in Assam. *International Journal of Management*, 11(10), 1672-1679.
- Khan, W. A., & Amir, Z. (2013). Study of handicraft marketing strategies of artisans in Uttar Pradesh and its implications. *Research Journal of Management Sciences*
- Yadav, M. (2012). Role of artisans in rural development: A study of Mahindergarh district. *International Journal of Research in Economics & Social Sciences*, 2(11).

Corresponding Author: Prabanchi Pathak (E Mail: Prabanchipathak999@gmail.com)