

Exploring Challenges and Opportunities in the Pottery Industry of the Northern Zone of Bangladesh

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Abstract

The aim of this study is to identify and analyze the barriers that impede the advancement of the pottery sector in the northern zone of Bangladesh. This study employed a qualitative methodological approach, utilizing purposive sampling to select 24 respondents directly involved in the pottery industry. Open-ended face-to-face interviews were conducted to collect data using a semi-structured questionnaire. The findings of the research shed light on the multifaceted challenges faced by the pottery industry, along with potential avenues for future development. Despite its cultural significance, the pottery industry is often overlooked and marginalized. This lack of recognition, coupled with labor shortages and raw material scarcity, has contributed to the stagnation of the industry, particularly in the northern region of Bangladesh. The research underscores the need for policymakers to recognize and address the systemic challenges faced by the pottery industry. Policy interventions focused on providing financial support, access to markets, gender equity, and training programs can facilitate the modernization and expansion of pottery businesses.

Keywords: Pottery Industry, Challenges, Future Direction, Northern Zone.

1. Introduction

One important prehistoric development that led to the Neolithic revolution in human civilization was the ability to make pottery. Pottery is significant in a nation that is primarily rural, has a relatively low income, and has basic requirements. Its impact led to the emergence of new cultural practices and

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drastically altered the way human cultures colonized the world. This tradition is still followed by a very small number of traditional groups worldwide (Kasemi, 2014). The skills and knowledge needed to make pots are passed down through the generations within the Potters group. This craft is exclusive to economies based on agriculture. High-quality pottery is now produced by a vast number of small and large-scale businesses throughout Bangladesh, making it a rather sizable business. These days, government intervention through the implementation of legislation to support traditional arts and crafts has led to research and development in the pottery industry (Qureshi, 1990). The heritage of pottery is losing oneself to the uses of excessive aluminum, iron, and silver products (Ali, 2014; Hossain et al. 2022). In the modern era, local production of pottery is not adequate to fill people's customized and sophisticated needs (Riehle et al. 2023). Because of inadequate financial support, marketing promotional activities, vocational training and lack of constrictive interaction between young educated person and old artist, pottery industry losing its quality production. Moreover, the local manufacturers cannot compete with the other alternate industries without using upgraded equipment due to the majority of the pottery industry's family-run businesses, the workforce's high proportion of unskilled laborers, the use of antiquated tools, and the workers' widespread illiteracy. The previous studies focused on the barrier to the development of the pottery industry in the southwest zone of Bangladesh but no research has been conducted on the barriers that hindering the development of the pottery industry in the northern zone of Bangladesh. Despite extensive research on pottery production across diverse regions and historical contexts, there remains a gap in understanding the barriers hindering the development of the pottery industry in the northern zone of Bangladesh. While existing literature sheds light on the socio-economic influences on pottery consistency, ornamentation, and production techniques worldwide, limited attention has been given to the specific challenges faced by pottery makers in this region. Understanding these barriers is crucial for developing effective strategies to support the growth and sustainability of the pottery industry in Bangladesh's northern zone. Therefore, the purpose of this study is to determine and examine the obstacles impeding the growth of the pottery industry in Bangladesh's northern region. Ultimately contributing to the formulation of targeted interventions and policies to address these challenges.

The article's remaining sections are laid out as follows. First, the research methodology have been described then data Analysis and Findings. The article concludes with discussion of finding, implication, limitation, and directions for future research.

2. Literature Review

Arthur (2014) conducted a comprehensive exploration into the interplay between the social and economic structures of the Gamo community in southwestern Ethiopia and their impact on pottery shape and ornamentation consistency. Through a comparative analysis within the community, the study investigated the hypothesis regarding the specialization of potters, particularly those dedicated as full-time artisans in a caste-based society marked by complexity. The research posited that distribution channels, including market dynamics and patron-client relationships, significantly influence the observed consistency in pottery morphology and decoration. Research in prominent women's pottery communities within Igboland by (Arthur 2014) revealed a decline and, in some cases, disappearance of traditional Igbo pottery due to the adoption of Western technology and education. Despite modernization's adverse effects, certain scholars underscored the persistence of pottery tradition in specific regions of Igboland due to its cultural significance.

Thebe (2017) argued that learning networks are instrumental in shaping the distinct boundaries observed in pottery crafting methods in southeastern Botswana, with language and ethnic ties playing a negligible role. Meanwhile, Wayessa (2011) highlighted the value of ethno archaeological research in comprehending the methods used by the Oromo people in western Wallaga, a region in southwest Ethiopia's highlands, to create pottery. Pottery making in this region is a generational practice within Oromo families, characterized by unique technical methods distinct from neighboring non-Oromo communities in terms of material properties and production processes. Sterba et al. (2009) carried out a controlled experiment in which they prepared several pastes from identical commercially available raw clay and then used Instrumental Neutron Activation Analysis for chemical analysis. This experiment aimed to provide insights into the impact of different tempers on pottery composition. Results indicated that while two distinct sampling methods (drilling and grinding) minimally affected the chemical composition, exceptions were observed in the concentrations of elements of As, Zr, and Hf. This variance may be attributed to the unpredictability of certain compounds like arsenic or the presence of zircon crystals (containing Zr and Hf), which may be partially lost when drilling. Furthermore, the experiment revealed that three different firing temperatures did not significantly alter the outcomes.

Ghazinoory (2020) highlights a challenging landscape within the industry, marked by declining demand for consumer goods and intensified competition from competitors. In response to these pressures, the imperative for innovation becomes paramount. However, the current capacity for innovation is constrained.

Ghazinoory (2020) adopts an "innovation ecosystem" perspective to address these challenges. Utilizing interviews, the study aims to elucidate the historical trajectory of the industry, assess its present status, pinpoint barriers and enablers of innovation, and devise a strategy for rejuvenation. Fouriki (2023) undertook an exhaustive examination of three collections from Chania spanning the entire Post-palatial period, from LM IIIA1 to LM IIIB2. Using petrographic examination of a range of fine and coarse ceramic objects, the research extensively investigated pottery manufacturing practices throughout the LM III era and identified primary pottery formulations. The study probed into questions concerning origin, production techniques, and the utilization of diverse raw materials for crafting various types of wares, from domestic coarse wares to fine and semi-fine ceramics kept in storage and transportation of essential goods and liquids.

Budi (2016) identifies the principal challenge faced by home-based industries as the limited lifespan of certain products, restricting their shipping beyond the Java and Bali islands. Moreover, insufficient use of technology for marketing, including social media and websites, coupled with a shortage of skilled human resources, presents additional obstacles for these businesses. Lack of inter-industry or community organizations further hampers the growth of these enterprises. Mangone (2008) distinguishes between two different production processes used in Monte Sannace in the fourth century BC to create red-figured Apulian vases. Some vases were crafted employing the conventional Attic technique, while others employed an alternative method, previously unidentified, entails covering the clay paste with a layer of crimson engobe before adding black gloss paint.

According to Botticelli (2020), two primary sources of raw materials are identifiable at Khalet al-Jam'a. During the Early and Middle Bronze Age, ceramics were produced using Moza-clay, characterized by its richness in calcium carbonate and the prevalence of limestone, calcite grains, dolomite, and occasional sedimentary siliceous rock fragments. In contrast, pottery production in the Iron Age is associated with clay derived from calcareous-foraminiferous-Rendzina soil, featuring a higher proportion of silty quartz and fewer microfossils. Firing temperatures were determined based on mineral composition, with samples indicating different firing temperatures ranging from below 800°C to 850–950°C, depending on the presence of specific minerals such as calcite, gehlenite, and wollastonite.

Busari (2023) underscores the multifaceted roles of pottery items in contemporary society, serving both traditional and religious functions while remaining economically accessible. Particularly in Ìjàyè, pottery not only preserves a rich cultural heritage but also satisfies economic, religious, and aesthetic needs across

diverse societal strata. Leclerc (2019) highlights the remarkable diversity in fabric types within the Lapita pottery collection, mirroring similar collections in the region. The assortment of fabrics found at Teouma suggests a lack of strict cultural directives regarding raw materials, indicating that material choice may not significantly influence the perception of finished pottery products. Experimental trials, as detailed by Moroni (2006), reveal the complex interplay of physical and chemical factors influencing firing processes, with heating rate and clay calcite content emerging as critical determinants. Biscuit firing temperatures ranged from 850 to 1050 °C for tiles and from 950 to 1050 °C for wares.

Overholtzer (2020) demonstrates that intricately adorned pottery from Xaltocan flourished during periods of political dominance and economic marginalization, indicating a decentralized approach to Aztec ceramic production that persisted despite changing governance structures. Jackson (2009) discusses the potential benefits of studio potters cultivating stronger cooperative relationships, though challenges in nurturing such connections persist, largely dependent on the nature of dyadic relations mirroring network governance frameworks. Mommsen (2016) notes that in a collection of red-figure vases from Olympia, local production predominated over imports from southern Italy, with locally crafted vases showing uniform clay composition. Saha (2019) outlines various challenges encountered in pottery production processes, including storage and preparation of raw materials, clay drying and coloring, product polishing, marketing, traditional design methods, packaging, and sales.

Furthermore, researchers have conducted numerous studies exploring the socio-economic influences on pottery production across different regions and historical periods. These studies have highlighted the impact of social and economic structures on pottery consistency and ornamentation, such as in the Gamo community of southwestern Ethiopia and the decline of traditional Igbo pottery in certain regions of Igboland due to modernization. Additionally, they address the significance of learning networks in southeastern Botswana and the generational practice of pottery constructing among the Oromo of western Wallaga, Ethiopia. Moreover, experimental analyses have explored chemical composition and firing temperatures, while studies have examined the obstacles encountered by home-based pottery industries and the differentiation of pottery production methods in historical contexts such as Monte Sannace in the 4th century BC and Khalet al-Jam'a during different ages.

Despite the extensive literature on pottery production and its socio-economic influences across various regions and historical periods, there exists a notable gap concerning the barriers that hindering the development specific to the pottery

industry in the northern zone of Bangladesh. While previous studies have explored factors such as social and economic structures affecting pottery consistency, ornamentation, and production techniques globally, there is limited research focusing on the challenges unique to pottery makers in this particular region. This literature gap highlights the need for a more nuanced understanding of the barriers constraining the development of the pottery sector in the northern zone of Bangladesh. Addressing this gap is essential for devising targeted interventions and policies to support the growth and sustainability of the pottery industry in this region.

3. Methodology

This study utilizes a qualitative methodology to achieve its objectives. The aim of qualitative research is to comprehend human ideas, behaviors, attitudes, and perceptions regarding specific social or non-social issues within their contextual circumstances. By employing open-ended questions, qualitative research methods encourage participants to freely articulate their opinions and beliefs. The objective of qualitative research extends beyond understanding "what" individuals believe to also uncovering the reasons "why" they hold those beliefs. Participants provide explanations for their choices and beliefs in their responses, and qualitative research techniques analyze the resulting data to generate findings that can be applied to a broader group of comparable cases. Disciplines such as sociology, anthropology, and psychology heavily influence qualitative research, enabling researchers to delve deeply into the data collection process and gather as much qualitative data as possible without constraints on the types of questions asked or responses received from participants.

The primary data for this study were collected through in-depth interviews 24 respondent's within pottery industry of the north zone of Bangladesh. Here, 24 respondents have been selected because the data saturated in this point of sample which means the results must be capable of some degree of generalization (Boddy, 2016). As a guide to sample size the idea of saturation is very helpful at the conceptual level, it provides little guidance for estimating actual sample sizes, prior to data collection (Guest et al., 2006). The selected respondents are directly or indirectly involved in management, making them relevant to the study's objectives. Due to their deep knowledge in their respective fields, the information provided by the respondents is of high quality, and the interviews took place in person. The purposive selection of these twenty four respondents ensured that the researchers obtained the necessary information relevant to the study topic. The respondents were asked open-ended semi-structured questions about various aspects of challenges faced by pottery industry and future prospects of pottery industry. Each

interview lasted approximately one hour, with permission granted for audio recording, and note-taking was employed where necessary. Careful adherence to interview protocols was maintained throughout the process. Table 1 displays the respondents' demographic characteristics.

Thematic analysis was applied to the collected interview data in a systematic manner because it is the 'go to' technique in much 'qualitative' research and popularity in 'qualitative' research which is designed to aid grounded theory's methods of coding and analysis (Blaikie, 2018; Byrne, 2015). Interviews were recorded using audio recorders, including those conducted online, and transcriptions were produced from the recordings. Additionally, note-taking techniques were utilized when recording interviews was not feasible. The transcriptions were thoroughly reviewed, and important issues or keywords were coded individually. Subsequently, the researchers created subcategories based on these codes to organize the interview data effectively.

Table 1: Demographic Profile of the Respondents

Sl. No.	Respondents Code	Gender	Age	Occupation	Involvement in pottery	Education	Monthly Income	Monthly Expenses
1.	PE1	M	50	Potter	40 Years	Illiterate	10000	10000
2.	PE2	M	70	Potter	55 Years	Illiterate	8000	8000
3.	PE3	M	57	Potter	50 Years	Illiterate	12000	10000
4.	PE4	M	65	Potter	50 Years	Illiterate	10000	10000
5.	PE5	M	31	Potter	20 Years	Primary	13000	13000
6.	PE6	M	27	Potter	10 Years	HSC	15000	17000
7.	PE7	M	40	Potter	27 Years	Illiterate	12000	12000
8.	PE8	M	18	Potter	2 Years	HSC	10000	10000
9.	PE9	M	50	Potter	37 Years	Illiterate	15000	15000
10.	PE10	M	65	Potter	50 Years	SSC	10000	10000
11.	PE11	M	31	Potter	18 Years	Primary	13000	13000
12.	PE12	F	50	Potter	36 Years	Illiterate	10000	10000
13.	PE13	F	70	Potter	53 Years	SSC	9000	8000
14.	PE14	F	57	Potter	30 Years	Primary	12000	10000
15.	PE15	M	65	Potter	50 Years	Illiterate	10000	10000
16.	PE16	M	31	Potter	20 Years	Primary	13000	13000
17.	PE17	M	27	Potter	10 Years	HSC	15000	17000
18.	PE18	M	40	Potter	27 Years	Illiterate	12000	12000
19.	PE19	F	34	Potter	12 Years	Primary	14000	11000
20.	PE20	M	50	Potter	40 Years	Illiterate	16000	11000
21.	PE21	F	70	Potter	45 Years	Illiterate	8000	8000
22.	PE22	M	57	Potter	50 Years	Illiterate	12000	10000
23.	PE23	M	65	Potter	50 Years	Primary	10000	10000
24.	PE24	F	31	Potter	20 Years	Primary	16000	14000

The respondents are predominantly male. Ages range from 18 to 70 years, indicating a diverse age group involved in pottery. The occupation of all respondents is pottery, suggesting a homogeneous sample in terms of occupation. Years of involvement in pottery vary, with some respondents having decades of experience while others have relatively fewer years. Education levels vary from illiterate to HSC, indicating a range of educational backgrounds among respondents. Monthly income and expenses vary among respondents, reflecting differences in earning capacity and financial management practices within the pottery industry. Overall, the table provides insight into the demographic and socioeconomic characteristics of individuals involved in the pottery industry, which can be useful for understanding the industry's workforce composition and economic dynamics.

4. Data Analysis and Findings

4.1 Challenges faced by pottery industry

One historic craft that needs to be given more prominence is pottery, but it doesn't get the credit it deserves. In the southern region, the pottery industry was in a slump due to a lack of raw materials and a labor shortage (Veluchamy, 2011). Pottery artists still perform their old tasks and are either uninformed about contemporary technology or lack the resources and self-assurance to adopt new technologies (Sanyal, Banerjee, and Majumder, 2010). Few artists gradually relocate to the surrounding cities in quest of employment. Despite being the initial traders, they now lack production and marketing expertise.

“According to the PE1, PE17, PE20, PE23 and PE24, Now-a-days most of the potter’s have raw material problems such as soil scarcity but in earlier they don’t have the problems. They also added that raw materials problems raise their production cost but the product price are not increase as per the growth of raw material cost.”

However, *“PE4, PE8 and PE10 stated that there is gender base problems in this industry. Men are usually search secured job on the other women thought that they didn’t get equal payment as men. But traditionally few numbers of women are working in this industry for their economic development as well as family support.”*

This statement supported by Yadav, 2022 and argued that women have participated in pottery industry due to the need of improving their socioeconomic expansion (Growth in the digital sphere, finance, economy, society, politics, and sustainability) of the entire community by comprehending their viewpoints.

In the words of Shabab (2014), pottery is highly sought after as an artistic item in larger metropolitan marketplaces, but it is more difficult to penetrate larger markets due to its lesser manufacturing and marketing capability. Another major issue is that there is a lack of information and promotion about Lalejin's pottery industry in travel brochures, despite the fact that this sector has the greatest rate of inflow exchange for Hamedan. However, the majority of potters lack understanding about contemporary marketing strategies and export goods due to the wide range of product dimensions and inadequate packing, which hinders their ability to promote and market their products.

“PE1, PE3, PE13, PE22, PE23 and PE24 stated that most of the potter’s are old ages and gradually losses their capacity to long distances marketing. They also added that there is no promotional activities of this product in modern area.”

“By supporting the statement PE4 and PE8 revealed, young generation are ignored the profession so that new marketing policy didn’t apply in this sectors.”

Experts and potters have also brought up topics related to technology and technical matters. The necessary equipment, moulds, and patterns are still made by native people and welders in pottery workshops, which can lower productivity and lower the calibre of the finished goods (Afrakhtehet, et. al. 2016). Another issue is structural and infrastructural weaknesses, such as the regional workshops' improper distribution and mismatch in style and industrial activity.

PE11, PE12, PE16, PE18 and PE20 reveal that

“Due to the innovation of steel, aluminum and plastic product, the demand of pottery product have diminished. The steel, aluminum and plastic product are designed by up-to- dated technology but pottery product are designed traditionally. For the reasons obsolete technology can’t meet the sophisticated demand of the consumers.”

The manufacturer must contend with obstacles like inadequate procedures for education and advancement, inexperienced painters, problems with the supply and marketing chains, and a dearth of understanding in modern pottery.

PE7, PE8, PE9, PE10, PE14 and PE16 Worried and told that.

“Young educated people’s perception have change and thought that pottery industry is traditional and old culture because new education systems are business, science and technology based. So they are not concern about their culture and history. They argued that there some economic perspectives such as Young educated people search sustainable future but the future of pottery industry is unstable and it sifted in new craft and innovation.”

Other concerns that have been brought up include money, which limits the potters' ability to upgrade their conventional kilns and ovens and utilize gas pipe systems (Afrakhtehet, et. al., 2016). This being said, failure to compete with Chinese items can also be attributed to imitation products, a lack of creativity, and recurring and monotonous patterns and forms. According to Miah (2007), the two biggest obstacles facing SMEs in Bangladesh, such as the pottery industry, are a lack of sufficient funding and high bank loan interest rates. Quy (2016) suggests that government measures should include financial support, marketing research expansion, information sharing about trademarks for SMEs like pottery, and strengthening connections with BSCIC and other organizations.

The statements by PE2, PE4, PE6 and PE10

“Told that primarily the financial organization agreed to provides loan but after knowing that it is pottery industry. They are not interest to approve the loan. He also added that sometime they get small amount of loan in high interest and sometimes it is too difficult to repay the loan in due time for excessive production cost and low revenue.”

On the other hand,

“Some agencies circulate the government have intention to support small industry and take lot of initiative. But we didn’t get proper facilities from government. We need training to cope with new technology and government financial support. Sometime BSCIC arranged some program but it have lot of formalities so that it is quite difficult to take it.” Stated by PE11, PE13, PE21 and PE24

4.2 Future Prospects of Pottery Industry

These days, there is a huge demand for ceramic products such as insulators, tiles, sanitary ware, dinnerware, and pottery on both the domestic and foreign markets. Product variations, use of technology in production, better transportation system, proper marketing channel, skilled potters, and co-operative society among potter community can bring back those golden days of pottery industry (Hossain, et. al., 2022). Both govt. and non govt. support such as provide much financial support the exhibition cum sale of different traditional and unique products of various art forms of Bengal with a vision to develop the endangered crafts like Sitalpati, Madurkathi, Terracotta and Pottery, Patachitra, Dokra, Wooden Mask and Clay Doll making, Kanthaetc as craft hub connected to national and international markets. But this type of hub is required in every district to ventilate our products for bigger population and for gaining more popularity.

PE1, PE3, PE6, PE8, PE11, PE13 and PE16 suggested that

“Not only that the young generation should be given lessons and awareness about our traditional art forms and its importance in our culture. If all the traditional art form became the part of our school syllabus as extra-curricular activities then more and more people will be interested to sustain these endangered art forms.”

There is an urgent requirement of female entrepreneur and participation of women as lead positions (Saha, 2019). Women are more convincing and obedient related to loan recovery and sustainability of business strategies. Potters need to pay much attention on new technology to adopt as well as the consumer sophisticated need based production.

PE2, PE8, PE13, PE20, PE22, PE23 and PE24 expected that

We need up to date training related to marketing and promotion as well as technological support to compete with new market rivalry. They also added, govt. support need for both financial and socio-economic development.

Table 2: Distribution of Construct on the Basis of Respondent

Constructs	PE1	PE2	PE3	PE4	PE5	PE6	PE7	PE8	PE9	PE10	PE11	PE12	PE13	PE14	PE15	PE16	PE17	PE18	PE19	PE20	PE21	PE22	PE23	PE24
Challenges faced by pottery industry	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓
Future prospects of pottery industry	✓	✓	✓			✓		✓			✓		✓		✓	✓			✓	✓		✓	✓	✓

5. Discussion of the Findings

The findings from the research shed light on the multifaceted challenges faced by the pottery industry, along with potential avenues for future development. Despite its cultural significance, the pottery industry is often overlooked and marginalized. This lack of recognition, coupled with the dearth of labor and raw material scarcity, has contributed to the stagnation of the industry, particularly in the northern region, supported by Veluchamy, 2011. Urgent attention is needed to address these systemic issues and elevate the status of pottery as a valuable craft. Gender-based challenges persist within the pottery industry, with women facing

unequal opportunities and compensation compared to their male counterparts. However, the participation of women in pottery is crucial for their socioeconomic growth and empowerment this statement supported by Yadav, 2022. Efforts should be made to promote gender equality and create an inclusive environment within the industry. Poor marketing strategies and limited exposure to modern marketing techniques have hindered the reach of pottery products to broader markets Shabab, 2014 also argued that. Addressing these challenges requires investments in marketing education and promotional activities to enhance the visibility and competitiveness of pottery products, particularly in urban areas. The traditional methods of pottery production have become outdated in the face of technological advancements (Riehle et al. 2023). To meet the evolving demands of consumers, the pottery industry must embrace modern technology and innovation. This entails investing in research and development, as well as providing training opportunities for artisans to adopt new techniques and tools. Financial challenges, including high-interest rates and limited access to loans, pose significant barriers to the modernization and expansion of pottery businesses. Government policies should prioritize supporting SMEs in the pottery industry by providing financial assistance, access to markets, and training programs. Streamlining bureaucratic processes and reducing formalities can facilitate easier access to resources for pottery artisans. A shift in the perception of pottery as a traditional and outdated craft among young educated individuals poses a significant challenge to the industry's sustainability. Efforts should be made to raise awareness about the cultural significance of pottery and its relevance in contemporary society. Integrating pottery and traditional art forms into school curricula can foster appreciation and preserve cultural heritage among future generations. Despite the challenges, there are opportunities for revitalizing the pottery industry through innovation, collaboration, and policy support. Investments in technology, marketing, and skills development can enhance the competitiveness of pottery products in both local and international markets. Furthermore, fostering a supportive ecosystem for artisans, including female entrepreneurs, and promoting cultural awareness can pave the way for the resurgence of the pottery industry. Addressing the challenges facing the pottery industry requires a comprehensive approach that involves stakeholders at various levels, including policymakers, financial institutions, educational institutions, and the artisan community. By implementing targeted interventions and fostering a conducive environment for growth and innovation, the pottery industry can reclaim its position as a vibrant and sustainable sector contributing to cultural preservation and economic development.

6. Implications of the Study

The research underscores the need for policymakers to recognize and address the systemic challenges faced by the pottery industry. Policy interventions focused on providing financial support, access to markets, and training programs can facilitate the modernization and expansion of pottery businesses. Efforts to promote gender equality within the pottery industry are crucial for fostering an inclusive environment and empowering women artisans. Policies aimed at providing equal opportunities and compensation for women can contribute to their socioeconomic growth and empowerment. Investing in marketing education and promotional activities is essential for enhancing the visibility and competitiveness of pottery products. By leveraging modern marketing techniques, pottery businesses can reach broader markets, particularly in urban areas. Embracing modern technology and innovation is imperative for the pottery industry to meet the evolving demands of consumers. Investments in research and development, along with training opportunities for artisans, can facilitate the adoption of new techniques and tools. Addressing financial challenges, such as high-interest rates and limited access to loans, requires concerted efforts from both government and financial institutions. Streamlining bureaucratic processes and providing easier access to financial resources can facilitate the modernization and expansion of pottery businesses. Raising awareness about the cultural significance of pottery is essential for changing perceptions among young educated individuals. Integrating pottery and traditional art forms into school curricula can foster appreciation and preserve cultural heritage among future generations. Revitalizing the pottery industry requires collaborative efforts from stakeholders at various levels, including policymakers, financial institutions, educational institutions, and the artisan community. By working together and implementing targeted interventions, the pottery industry can reclaim its position as a vibrant and sustainable sector contributing to cultural preservation and economic development. Moreover, this study underscores the importance of addressing the multifaceted challenges facing the pottery industry through comprehensive and collaborative efforts. By implementing targeted interventions and fostering a conducive environment for growth and innovation, the pottery industry can realize its full potential and make valuable contributions to cultural preservation and economic development.

7. Limitations and Future Research Directions

The major weakness of this study is that focused on sample size which does not give a comprehensive view on pottery industry. Therefore, there is need to conduct a comprehensive study with focused groups discussion (FGD) to make concrete conclusions effectively. To acquire a deeper understanding of the objectives of this

study, it is crucial to be aware of the methodological limitations and to supplement qualitative research with quantitative research or mixed-methods techniques. Researchers can provide a more thorough and nuanced assessment of the pottery industry by fusing qualitative insights with more extensive quantitative data. Moreover, future research could also be conducted in different contexts, highlighting the preparedness strategies and action plans for the development of pottery industry.

Competing interest:

The authors declare that they have no competing interest.

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