

# Surviving For Business Longevity Amid Digital Era: The Case of Traditional Pottery of Basang Tamiang

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**Abstract.** This research examines the efforts of traditional pottery artisans in Basang Tamiang customary village, Badung Regency, to sustain their business in the digital technology era. For generations, the people of Basang Tamiang have practiced this traditional pottery craft, based on local wisdom and community beliefs that continuing traditional crafts helps avoid hardship and misfortune in life. However, the business practices which still reliant on traditional work methods now face huge challenges in an increasingly digitally connected economy. The Bali government has recognized this traditional pottery as an intangible cultural heritage and registered it as communal intellectual property. Ensuring the longevity of this traditional craft is important to maintain socio-economic benefits felt by the community, as well a way to preserve one of Bali's intangible heritages. This study employed a case study methodology with in-depth interviewing procedures and a literature review. In their quest to become more proficient, traditional potters must overcome several significant obstacles. To ensure the survival and growth of this historic craft business, policy involvement is required. When paired with more adaptability, digital technology can help manage craftsmen's enterprises and operate more efficiently.

**Keywords:** pottery, longevity, digital, cultural heritages, dynamic capabilities

## 1 Introduction

Bali has a rich cultural heritage that contributes significantly to the advancement of the local economy. Traditional pottery crafts are an integral component of Balinese culture, as they play a significant role in the execution of Hindu religious events. This contributes to the survival of intangible cultural heritage in contemporary society [1]. Using basic equipment and methods, such as the rotary technique, this traditional pottery is manufactured and burned at a temperature between 800 and 900 degrees Celsius. The firing process takes place in a closed tank furnace [2]. Five traditional ceramic craft centres can be found in Bali, with Basang Tamiang, in Kapal Village, Badung Regency, being one of them.

Generations have been crafting potteries using the ancient techniques of the Basang Tamiang people. According to Mudra (2018), craftsmen employ traditional knowledge and the conviction that their line of work is necessary to elude peril and adversity in life. Both earning a living and upholding tradition are achieved through this line of work. Their first creations

were primarily "apparatuses" for Balinese Hindu rites. In addition to creating vases and decorations for homes, villas, and restaurants, potters are also expanding their trade as the tourism industry grows.

The singular character and enduring legacy of the Basang Tamiang Pottery Craft has motivated the Government of Bali Province to designate the time-honoured pottery making of Basang Tamiang as an intangible cultural heritage and communal intellectual property. By registering the long-standing Basang Tamiang pottery craft as Communal Intellectual Property, the administration is duty-bound to safeguard and sustain Communal Intellectual Property.

Interestingly, the traditional pottery industry is facing significant challenges to its longevity. The use of plastic-based products, increased competition from other regions and countries, and the rise of digital technology and e-commerce are all factors contributing to this decline. A recent study conducted by Mudra (2018) on the traditional pottery craftsmen of Basang Tamiang found that the availability of cheaper plastic products was one of the main reasons for the decrease in demand for pottery products. This is in addition to the competition posed by other pottery products from Java and West Nusa Tenggara, as well as imported pottery products from China.

Empowering the artisans of Basang Tamiang to support their businesses is crucial due to the socio-economic impact it has on the local community. Additionally, by empowering them, there is a potential for preserving one of Bali's intangible cultural heritages. Given these circumstances, it is essential to undertake efforts to revitalize and enhance the business longevity of traditional pottery artisans. This will ensure the preservation of Badung Regency's intangible cultural heritage while providing economic advantages for the local indigenous communities involved. Enhancing performance is the key to ensuring their business longevity, therefore, traditional pottery crafting remains a beneficial socio-economic activity for the artisans.

## **2 Literature Review**

The intangible cultural heritage is an important aspect that contributes to sustainable development by working as a catalyst and driving force [4]. This practice can be used to preserve traditions and help families earn a living. The presence of different cultural heritages, particularly intangible cultural heritage, has significant potential to boost the local economy as intangible heritage is still active in society, unlike tangible heritage. One example of intangible cultural heritage that is in use among some Indonesian people is traditional pottery.

Research conducted by Yang *et al.* (2018) in Pakistan elucidated the myriad factors impeding the advancement of conventional craft enterprises, encompassing industrialization, mass production, the disinclination of younger cohorts to uphold traditional artisan vocations, inadequate innovation and technological resources, as well as deficiencies in educational and training amenities. Following a review undertaken by Riviezzo *et al.* (2015), there exist three primary frameworks frequently employed in diverse studies on business sustainability, serving as explanatory factors: environmental attributes, organizational traits, and the entrepreneurial characteristics of individuals.

The traditional pottery businesses in Malang and Kasongan are facing several challenges that put their sustainability in jeopardy. These include a decline in consumers, difficulties in sourcing raw materials, a decrease in the number of willing workers, and constraints in distribution. A study conducted by Ismail *et al.* (2019) sheds light on the factors affecting pottery production in Kasongan, Yogyakarta. The study reveals that several factors have implications for the sustainability of traditional pottery craftsmen in the region, such as a diminishing demand for pottery products, high prices of raw materials, a decrease in the workforce, limited financial resources, weak institutional support and collaboration, and intensifying market competition.

According to Gomes *et al.* (2013), the maintenance of business longevity hinges on the ability of business actors to implement an effective management framework and manufacture goods in alignment with the standards stipulated by the global market. In the realm of business sustainability within conventional small-scale sectors, circumstances seem to diverge owing to distinctive attributes and a range of constraints. This poses a fundamental quandary and issue encountered by participants in traditional industries like the Basang Tamiang traditional pottery artisans, as the efficacy and longevity of the pottery enterprise will wield influence over revenue generation and the safeguarding of cultural heritage.

The study of factors influencing business longevity is one of the important research topics in the development of small-scale industries [9]. According to Rossato & Castellani, (2020), research on corporate business longevity has attracted the attention of experts from various scientific fields since the 1990s. Their research focuses on the factors that support a company's development and competitiveness over the long term.

Song (2022) demonstrated that the utilization of digital technology among pottery artisans is shaped by societal influences, conducive circumstances, and individual drive. The involvement of micro and small-scale players in the industry, such as traditional pottery craftsmen, remains limited in terms of technological adoption. This limitation may stem from constraints in financial resources and knowledge, or be attributed to philosophical, religious, and cultural rationales [12]. The impact of technological elements on the longevity of businesses, particularly in the realm of traditional crafts, represents a focal point that still contains research gaps. As elucidated by Rossato & Castellani (2020), the connection between digitalization and the longevity of a company's operations is not extensively explored in existing literature.

The presence of digital technology does not immediately lead to potential enhancements in a firm's performance. It is essential to have a prerequisite in place that can facilitate the process of technology adoption, subsequently impacting the firm's performance positively. This is where the significance of dynamic capabilities comes into play as a mechanism for enabling adoption that promotes change. The notion of dynamic capabilities was first introduced by Teece *et al.* (1997) to elucidate how organizations attain and sustain their competitive edge. Dynamic capabilities concentrate on the measures implemented by firms to modify their assets continually to adapt and construct a competitive edge in a dynamic setting. As a result, dynamic capabilities are essential for instigating alterations, which ultimately enhance a firm's performance [14].

The performance of a firm can be categorized into two main groups; namely operational and financial performance as outlined by Guo & Xu (2021). Azam (2015) elaborates on the notion of organizational performance as an outcome of the organizational process at a specific period,

encompassing profit expansion, sales growth, market share, productivity enhancement, and firm competitiveness. As indicated by Sijabat & Prasetya (2023), the variables influencing firm performance are manifested through four key indicators: financial aspects, customer relations, internal business procedures, and growth and development. The intricate nature of these dimensions and indicators may vary when applied to evaluate the performance within a traditional pottery firm due to the absence of sophisticated performance evaluation methods. This investigation delves into the concept of performance through data regarding the rise in sales.

### **3. Methodology**

This study employed a case study approach, focusing on the utilization of digital technology by traditional pottery artisans in Basang Tamiang, Kapal Village, Badung Regency. Given the preliminary nature of this investigation, specific data and information were sought through the purposive sampling of five craftsmen with over a decade of experience in the traditional pottery sector in Basang Tamiang. Structured interviews were carried out with these craftsmen using a questionnaire comprising six sections: informant profiling, business details, financial accessibility, digital technology usage, personal digital technology experiences, and recent sales information. Furthermore, insights and comparisons were drawn from relevant literature and previous studies to enrich the research findings.

### **5. Findings and Discussion**

The present study discovered that the conventional pottery artisans in Basang Tamiang exhibit a degree of dynamic capabilities to maintain their traditional enterprise longevity amidst the digital age. In terms of digital technology utilization, each of the five artisans possesses access to the Internet and has integrated Internet and digital technology into their business operations.

The craftsmen interviewed revealed that their use of the internet and digital technology is quite new, having adopted these tools less than three years ago. They do not employ advanced technology, relying instead on their existing landline phone in combination with a basic mobile phone. This approach was preferred for its simplicity and ease of use. As the craftsmen were already habituated to utilizing mobile phones for daily communication needs, both business and personal, accessing the internet via their handset was a straightforward extension requiring minimal effort on their part. Overall, this passage indicates that the adoption of digital technology by these craftsmen is recent and incremental, building upon their existing familiarity with mobile phones in a way that leverages simplicity and convenience.

Based on their current perception, using handphones, social media, and chat applications for sales and promotion is easy. However, if we try to dig a little deeper to see if these craftsmen have adopted a more sophisticated digital technology, it seems that at present they have found it difficult to adopt. No one has adopted email in doing business. However, three out of two have adopted Microsoft Excel software for taking notes on their day-to-day transactions. These three advanced digital adopters have adopted bank transfer code for digital payment, whereas the other two have not; although they have started using the internet and digital technology in the last three to five years.

When we asked if they also use digital technology in production, such as 3D printing to design their products, they all said that they don't use that kind of technology. They said that their production process is still traditional, which is delivered in the same manner as their predecessors by using their hands and fire pit.

The majority of the craftsmen, who have been using the internet for three to five years, do not have a subscription plan for internet access. Instead, they pay for internet quota for around Rp 50,000 per month. Only two of them have a subscription plan which costs between Rp 50,000 to Rp 100,000 per month. We did not ask them why they made this choice as they might have thought it was the best option for them.

Although digital technology and the internet offer several advantages in running a 24-hour business, two craftsmen stated that they only use it during their working hours. However, they believe that integrating digital technology and the internet can improve their selling and marketing capabilities, despite being in a rudimentary stage. According to their feedback, their sales and marketing performance has improved due to the use of the internet and digital technology. Most artisans mentioned that by using the internet and digital technology, their sales could increase by approximately ten to thirty percent, while only two of them mentioned a ten percent increase.

When asked about customer growth after integrating the internet and digital technology, three of them believe they can expand their customer base by about ten to thirty percent, while the other two predict a ten percent increase in customers before using the internet for business. However, all artisans reported that they sold more than thirty pottery pieces in the past two months (October to November 2023).

The progress of digital technology has entered a new stage, presenting opportunities and challenges for traditional pottery craftsmen of Basang Tamiang. Studies have shown that digital technology can create new opportunities for small businesses, like traditional pottery craftsmen. This includes accessing information, advertising products, and improving efficiency to enhance competitiveness and performance among craftsmen.

However, if artisans fail to adjust to technological progress that can help them become more sustainable and improve their business outcomes, they may face obstacles. Artisans may struggle to promote and grow their businesses, finding it challenging to compete with other artisans' promotions and marketing efforts in different regions or with mass-produced plastic products. Nevertheless, when used effectively, this progress in technology has the potential to propel craftsmen forward in improving their business through enhanced promotion, marketing strategies, product quality, and cost efficiency.

The progress of digital technology has introduced a new era that presents both opportunities and obstacles for conventional pottery artisans in Basang Tamiang. Various researchers have conducted studies showing that digital technology can provide small businesses, like traditional pottery craftsmen, with opportunities to access information, market products, improve efficiency, and enhance competitiveness, ultimately leading to improved performance for craftsmen. Difficulties may also emerge, particularly when artisans fail to adjust to technological developments that promote sustainability and enhance their business productivity. Craftsmen are facing challenges in marketing and growing their businesses due to tough competition from products made by other craftsmen, as well as plastic mass-produced items, impacting their ability to promote and advertise effectively [3]. However, when harnessed effectively, this technological advancement has the potential to act as a catalyst for

artisans to enhance and expand their business through improved promotion, marketing, product variety, and quality, as well as cost-effectiveness.

Craftsmen in Basang Tamiang have started using the internet and digital technology to keep up with current business trends. They are motivated to adopt technology in order to remain competitive in the evolving landscape. These traditional pottery makers have acquired dynamic capabilities as described by Teece *et al.* (1997). They use the internet and digital technology in their daily business activities, which has helped them to create a competitive edge. Even though they are still in the early stages of technology adoption, they persistently utilize it to stay ahead of the competition. They know that they must compete with the contemporary plastic industry by offering cheaper alternative products. They also face competition from pottery products made on other islands and pottery products imported from China.

## 5.2 Discussion

The artisans of Basang Tamiang continue to produce pottery in a traditional manner that has been handed down through generations. The traditional pottery of Basang Tamiang has been recognized by the government as a part of Bali's intangible cultural heritage. Despite this, there have been minimal efforts to support these artisans in enhancing their skills and adapting to the competitive environment and changing digital landscape.

The challenges are recognized by the traditional pottery artisans of Basang Tamiang. They attempt to adapt to these changes by utilizing the Internet and various forms of digital technology. The use of this technology was still new, at a small level and shape. In the last three years, the majority of individuals have begun utilizing the internet and mobile phones, along with social media and messaging apps, to market and advertise their products. Only a small number of artisans have surpassed this barrier by utilizing apps to take notes on their daily dealings and adopting digital payment technology.

At the moment, this simple technology is seen as beneficial and user-friendly for expanding their pottery sales and marketing efforts. They desire to sustain this technology in their business to boost pottery sales by ten to thirty percent. This signifies the extent of dynamic capabilities in creating competitive advantages. This discovery indicates that despite being at a preliminary and modest phase, the traditional pottery artisans of Basang Tamiang have embraced digital technology to enhance and expand their business operations.

## References

- [1] I. W. Mudra, I. K. Muka, and N. M. R. Sunarini, "Studi Eksistensi Gerabah Tradisional Sebagai Warisan Budaya di Bali," Denpasar, 2009.
- [2] I. W. Mudra, *Gerabah Bali*. Surabaya: Media Sahabat Cendekia, 2019.
- [3] I. W. Mudra, "Cultura International Journal of Philosophy of Culture and Axiology," vol. 15, no. 1, pp. 49–63, 2018.
- [4] E. A. Pagán *et al.*, "From silk to digital technologies: A gateway to new opportunities for creative industries, traditional crafts and designers. The SILKNOW case," *Sustainability*, vol. 12, no. 19, 2020, doi: 10.3390/su12198279.
- [5] Y. Yang, M. Shafi, X. Song, and R. Yang, "Preservation of cultural heritage embodied

in traditional crafts in the developing countries. A case study of Pakistani handicraft industry,” *Sustainability*, vol. 10, no. 5, 2018, doi: 10.3390/su10051336.

- [6] A. Riviezzo, M. Skippari, and A. Garofano, “Who wants to live forever: exploring 30 years of research on business longevity,” *Bus. Hist.*, vol. 57, no. 7, pp. 970–987, 2015, doi: 10.1080/00076791.2014.993617.
- [7] K. Ismail, S. D. W. Prajanti, and W. Widiyanto, “Strategies for the Development of Earthenware Craft Business,” *Econ. Dev. Anal. J.*, vol. 8, no. 2, pp. 174–188, 2019, doi: 10.15294/edaj.v8i2.31787.
- [8] C. M. Gomes, I. Kruglianskas, F. L. Scherer, R. da L. Neto, and J. M. Kneippe, “Strategies for sustainable business and performance in Brazilian industrial companies,” *J. Technol. Manag. Innov.*, vol. 8, no. SPL.ISS.2, pp. 251–263, 2013, doi: 10.4067/s0718-27242013000300023.
- [9] A. Charina, G. Kurnia, A. Mulyana, and K. Mizuno, “The Impacts of Traditional Culture on Small Industries Longevity and Sustainability: A Case on Sundanese in Indonesia,” *Sustain.*, vol. 14, no. 21, p. 16, 2022, doi: 10.3390/su142114445.
- [10] C. Rossato and P. Castellani, “The contribution of digitalisation to business longevity from a competitiveness perspective,” *TQM J.*, vol. 32, no. 4, pp. 617–645, 2020, doi: 10.1108/TQM-02-2020-0032.
- [11] M. J. Song, “Craftspeople’s new identity: The impact of digital fabrication technologies on craft practices,” *Int. J. Technol. Des. Educ.*, vol. 32, no. 4, pp. 2365–2383, 2022, doi: 10.1007/s10798-021-09687-1.
- [12] P. Gultom and P. Tamara, “Analisis Teknologi Dalam Industri Kecil Kerajinan Gerabah,” *Ind. Inov. J. Tek. Ind.*, vol. 12, no. 2, pp. 127–133, 2022, doi: 10.36040/industri.v12i2.4553.
- [13] D. J. Teece, G. Pisano, and A. Shuen, “Dynamic capabilities and strategic management,” *Strateg. Manag. J.*, vol. 18, no. 7, pp. 509–533, 1997, doi: 10.1093/oso/9780198781806.003.0019.
- [14] D. Ellström, J. Holtström, E. Berg, and C. Josefsson, “Dynamic capabilities for digital transformation,” *J. Strateg. Manag.*, vol. 15, no. 2, pp. 272–286, 2022, doi: 10.1108/JSMA-04-2021-0089.
- [15] L. Guo and L. Xu, “The effects of digital transformation on firm performance: evidence from China’s manufacturing sector,” *Sustain.*, vol. 13, no. 22, pp. 1–18, 2021, doi: 10.3390/su132212844.
- [16] M. S. Azam, *Diffusion of ICT and SME Performance in E-services Adoption: Processes by Firms in Developing Nations*, vol. 23A. 2015.
- [17] E. A. S. Sijabat and A. Prasetya, “The Effect of Dynamic Capability On New Established Company’s Performance: Mediating Role of Entrepreneurial Creativity,” *J. Public Adm. Stud.*, vol. 8, no. 1, pp. 12–20, 2023, doi: 10.21776/ub.jpas.2023.008.01.2.