



Innovation in technology-based creative industries

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ABSTRACT

The purpose of this research is to explain the importance of innovation strategies in efforts to improve corporate performance and the competitive advantage of technology-based creative industries. The descriptive qualitative approach is used in this study to analyze technology-based innovative industrial entrepreneurs. Using the snowball technique to collect responders or informants. In-depth interviews, observation, and documentation studies were used to collect data. After collecting data in the field, the data will be validated using data source triangulation techniques. Qualitative data was processed in three stages: data reduction, data presentation, and conclusion drafting. According to the findings of the study, technology-based creative entrepreneurs are open to new ideas and concepts in building the company's business and have made innovation a part of their business strategy. However, only a small percentage of respondents made investments to grow their businesses.

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INTRODUCTION

The creative economy is a catalyst for economic growth in central Indonesia slowing global economic growth. Therefore, the conditions for strategic collaboration become very important to do. The Indonesian Ministry of Tourism and Creative Economy is paying attention more towards the creative industry sector to maximize the potential and opportunities of the Creative Economy. However, the roles of each party have not been organized so that this collaboration is currently ongoing not working optimally (Nurfatmala et al., 2023).

Creative Economy is an activity an economy where input and output are the idea of economic activity in society which takes up most of his time to generate ideas, not only do routine and repetitive thing (A. Hidayat et al., 2023; Khoirunisa et al., 2023). The creative economy has the potential to develop as a major new force in the national economy, capable of regularly

contributing significantly. To be able to develop value-added products in a sustainable manner, the creative economy, which comprises creative industries, relies heavily on ideas, creativity, and innovation from renewable resources (Rofaida et al., 2020).

In today's highly competitive corporate world, value-added innovation is critical. Aside from that, the original and creative goods of this creative industry provide value. To be successful in today's digital competitive environment, the creative industry must certainly develop its business. Creative entrepreneurs must have a digital strategy in place (Maulana et al., 2023). Because of global market characteristics such as a more competitive environment than ever before, fast technical breakthroughs, and shorter product and technology life cycles (Dadfar et al., 2013), many organizations, particularly those in the creative industries, must stress innovation as a crucial driver of long-term success.

The main aspect in being able to adapt to the business environment is creativity and invention in response to changes in the business rivalry environment, which has resulted in digitalization. Sufficient human, financial, or technological resources are required for the process to yield long-term innovation (Povolna, 2019). Resources have a significant impact on organizational capabilities in all industries, especially the creative industries (Jardon & Martos, 2013). Business actors in the creative industry should be competent to overcome challenges and design competitive strategies to achieve their business goals (Halim et al., 2011). Consumer-focused innovation is often utilized as the foundation of a creative competitive strategy in order to survive and compete in global business problems. Business executives that are aware of innovation can generate long-term growth.

According to the Ministry of Tourism and Creative Economy (2020), the creation of added value based on ideas originating from creative human resources (creative people) and knowledge-based resources, such as culture and technological heritage, is referred to as the creative economy. Ideas are the input and output of the creative economy (Howkins, 2013). The ability to provide added value based on ideas and creativity can be realized by utilizing the creative industry. Creative industries use individual creativity, skills and talents to exploit individual creativity and innovation to create income and jobs. The creative industry is characterized by the strategic role that individuals play through their creativity, skills and talents (Adinata et al., 2023). It is an economic enterprise that involves the production or use of knowledge and information.

Currently, the growth of added value in the creative economy is expected to become an economic driver national level in accordance with the direction of the Ministry of Tourism and Creative Economy's policies and strategies (Economic Strategic Plan Creative 2020-2024). Apart from relying on the innovation created, the growth of the industrial value chain creativity also requires the role of other stakeholders known as the Pentahelix concept, namely synergistic collaboration to realize innovation supported by various resources interact synergistically (Hidayat et al., 2020).

Business continuity in the creative industry is currently experiencing a decline of around 60% experienced a severe impact and another 40% experienced a moderate impact (Ministry of Industry, 2020). The right innovation and strategic pentahelix collaboration are very necessary to revive creative industrial business

Innovation is a critical tool for ensuring a company's competitive position in the industrial sector. In fact, innovation is a process fraught with uncertainty, and the correct innovation strategy can assist businesses in guiding the process so that they can enjoy long-term competitive advantages in a volatile environment (Smith, 2010). As a result, businesses can endeavor to design the innovation strategies they want to pursue in order to accomplish corporate objectives (Cooper & Edgett, 2010).

The Role of Innovation Strategy in the empirical research has focused on the specific categorization of innovation strategy. To begin, three types of tactics can be distinguished: internal

(or make), external (or buy), and collaborative Goedhuys dan Veugelers 2012; Cinta, Roper, dan Vahter 2014). According to the findings of this study, merging internal and external information sources is a vital component of a successful innovation strategy.

A developing new literature studies how strategic resource allocation (defined as the level of external search for new ideas) effects performance. This is closely tied to the role of networks, partnerships, and linkages (Leiponen & Helfat 2010; Leiponen 2012). Second, some empirical works have discriminated between technological product and process innovation strategies and non-technological marketing and organizational innovation strategies in relation to the four forms of innovation described by the Oslo Manual in 2005 (Karlsson dan Tavassoli 2015; Oh, Cho, dan Kim 2015; Tavassoli dan Karlsson 2015). An innovation strategy's major job is to guide decisions about how resources will be employed to accomplish a company's innovation goals and, as a result, generate value and build competitive advantage. The extent and manner in which a firm employs innovation to carry out its business strategy and improve its performance is reflected in its innovation strategy. To attain maximum efficacy and efficiency, a well-planned and communicated innovation strategy is required (van der Panne, van Beers, dan Kleinknecht 2003; Oke 2007).

The essence of an innovation activity is how to do a activities that can increase value (added value) and superiority of conditions at the moment. Ways that can be done including by creating development that is different from products or services that already exist in the market today, or create products or services that if it can create market potential the new one.

The purpose of this study is to empirically investigate the role of innovation strategy in achieving innovation output. This study will particularly reveal which strategies have the best likelihood of enhancing innovation success and whether there is a connection between the innovation strategy utilized and innovation success as measured by product and process innovation.

Empirical studies have attempted to uncover why certain organizations are more inventive than others, as well as how firms might boost their odds of successful innovation in recent decades. There is currently a great deal of study being conducted on the determinants of innovation as well as the effects of innovation on enterprises.

Some of this literature study to boost innovation success is with a defined innovation strategy because this can provide assistance in dealing with strategic challenges such as market entry or product development (Schroeder, 2013). As a result, during the last few decades, the empirical literature has primarily explored the role of innovation strategy by applying the concept of innovation input or output, which reflects a component of the multiple innovation strategies that firms utilize. For example, consider output, product, process, and marketing innovation. (Hervas-Oliver et al., 2014; Tavassoli & Karlsson, 2015). According to empirical literature, a distinction has been made between internal strategy, external strategy, and collaboration strategy (Love et al., 2014).

The purpose of this research is to explain the role of innovation strategies in efforts to improve corporate performance and build a creative competitive advantage in technology-based industries. This study will provide an overview of the current state of innovation strategies among players in the creative industry, notably in the digital business sector. This study is expected to contribute to the basic model of creative business innovation development strategy. Apart from that, the study is expected to provide an overview for policy actors in encouraging creative business actors.

RESEARCH METHOD

A qualitative descriptive technique was employed in this study to investigate technology-based innovative industrial entrepreneurs. Taking respondents or informants employs the snowball technique, in which the number of informants is increased until the information is deemed sufficient and saturated (Sekaran & Bougie, 2013).

In-depth interviews, observation, and documentation studies were used to collect data. In this study, the interview guide takes the form of open, semi-structured interviews, which comprise of questions that provide the informant the option or potential to answer at length and flexibly based on the situations or reality in the field (Sanjaya & Hidayat, 2022). There were 20 informants or respondents in this study. The data in this study relies on data from interviews and observation data. After collecting data in the field, the data will be analyzed using triangulation techniques of research data sources, namely data from interviews, documentation and observations, then examined in three stages: data reduction, data presentation, and drawing conclusions (Miles et al., 2014).

RESULTS AND DISCUSSIONS

Table 1 presents the profiles of respondents who are creative business players using digital technology, such as type of firm, length of business, number of employees, and ownership.

Table 1. Respondent Profile

Types of Creative Businesses Based on Digital Technology	Description
Types of Digital Business	Web Developer (44%), Application/programmer 32%) Social Media (14%), Animation (10%)
Length of business	< 5 years (13%), 6-10 years (67%), 10-15 (12%), > 15 years (8%)
Number of employees	< 5 (98%), 5-10 (2%)
Ownership	Cooperation (87%), Personal (13)

Based on Table 1, it shows that most types of digital businesses are dominated by applications or programmers at 32%. This field is engaged in creating or developing applications related to daily life activities such as education, community services, health and trade economics. The duration of most technology-based creative businesses is between 6 and 10 years, 67%. In terms of number of employees, this industry does not require many employees, and the majority of employees are less than 5 people (98%). Meanwhile, in terms of business ownership, the majority of these businesses are owned by individuals or individuals.

The Role of Innovation Strategy

The importance of innovation in the development of digital technology-based sectors helps businesses to take advantage of new opportunities (OECD, 2017). Innovation can increase competitiveness and productivity (Abebe, 2014; Hanclova et al., 2015). Table 2 shows a description of the strategic role of innovation in business development.

Table 2. Description of the strategic role of innovation in business development

Indicator	Results Description
Development of new products, services or solutions using digital technology	60% of respondents have developed new products, services or solutions using digital technology
Involving all company components in driving digital business innovation processes	All respondents stated (80%) that company components encourage digital business innovation

The company has a reward system for creative and innovative employees	processes Only 45% of companies have a reward system for creative and innovative employees
The company is open to new ideas for business development	Most (85%) of them are open to new ideas for business development
The company invests in business development	Only a small portion of respondents (38%) made investments to develop their business companies
The company focuses on research and development activities	The majority of respondents, around 78%, stated that they focused on the company's research and business development activities

Based on table 2, it is explained that in general the innovation process in creative industries based on digital technology has shown good performance, such as the development of new products, services or solutions using digital technology (60%), company components encourage digital business innovation processes (80%), and Most companies are open to new ideas for business development (85%). Therefore, innovation is important in winning competition in product development, including in the digital industry.

The creative industry must be able to answer challenges from customers through innovation carried out through three approaches, namely exploration, exploitation and learning. Exploration is an opportunity for new products to be developed and promoted so that the product will be successful in the market. Exploitation is economically successful. Two approaches, exploration and exploitation, are carried out through learning (Hotho & Champion, 2010).

Then the role of digital technology in enabling the creative industry to access these new opportunities as increasing access to talent and skills, expanding access to markets, increasing access to financing, improving communication and collaboration, and expanding access to various technological applications and product development are all part of integral to digital innovation strategy.

Digital technology allows SMEs to compete more effectively with other companies as a result. A digital innovation strategy approach offers advantages such as cost reduction (Rachinger et al., 2019), profitability (Bala & Feng, 2019), globalization (Pergelova et al., 2019), access to product processes (Peón & Martínez-Filgueira, 2020), and business model innovation (Bouwman et al., 2018). According to Mbuyisa dan Leonard (2017), digital technology is seen as an option that allows creative industries to continue through the development stages. This technology can help creative industry players increase their competitiveness and productivity (Abebe, 2014; Hanclova et al., 2015). Field research results based on dimensions according to Paladino (2007) shown in Table 3.

Table 3. Role of technological innovation

Indicator	Description
Development of new products, services or solutions using digital technology	80% of respondents have developed new products, services or solutions using digital technology
The quality of our company's digital solutions is superior to competitors	40% of innovative creative entrepreneurs are worried about digital solutions provided by competitors
Our digital solutions feature differently from competitor	8% of creative entrepreneurs are innovative differentiated from competitors
Digital solutions are different from competitors in terms of product platforms	9% of innovative creative entrepreneurs have digital platform products that differentiate them from competitors
Our new digital solutions are only minor improvements to existing products	100% of innovative creative entrepreneurs work on product development
Some of our new digital solutions for market at launch	There are no innovative digital products on the market

CONCLUSION

Innovation is a critical tool for ensuring a company's competitive position in the industrial sector. Technology-based creative entrepreneurs are receptive to new thoughts and ideas in improving the company's business and have incorporated innovation into their business plan. However, only a small portion of respondents made investments to develop their business companies. Then creative industry companies have implemented new digital solutions as small improvements to the company's products. This description is expected to provide implications in the form of technology-based business innovation strategies. This research has limitations in terms of informants and creative business focus in the field of information technology. Therefore, it is hoped that further research can expand the study of creative business to other fields.

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