



SEKOLAH TINGGI ILMU EKONOMI MUHAMMADIYAH JAKARTA

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Sehubungan dengan kewajiban dosen melaksanakan Tri Dharma Perguruan Tinggi yaitu Pendidikan, Penelitian, dan Pengabdian Kepada Masyarakat, Ketua STIE Muhammadiyah Jakarta dengan ini menugaskan:

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The Role of Digital Skills and Technological Innovation in Improving the Performance of Small and Medium Industries: Systematic Literature Review

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Abstract. Tighter market competition and the ongoing COVID-19 pandemic requires small and medium industries to be able to win the market and survive in the competition. Small and medium industries are required to have advantages that can make them able to compete in the market. So it can be said that the success of a company in achieving its goals can be influenced by several aspects, one of which is industrial performance. The inconsistency of research results is still common today, related to the variables that affect the performance of the industry. This makes company management and researchers who want to conduct research related to industrial performance have to be selective in choosing the dominant variables on industrial performance. This study uses a systematic literature review method, this study was made to convey the results of synthesizing various inconsistencies in the influence of digital skills, technological innovation, and entrepreneurial orientation variables on industrial performance. This study was conducted to answer the following questions: RQ1: How does the digital skill variable influence the company's performance; RQ2: How is the influence of technological innovation variable on company performance; RQ3: How is the influence of the entrepreneurial orientation variable on the company's performance? The search results in the online library were taken from as many as 10 journals (national journals and international journals) related to the influence of digital skills on industrial performance, as many as 10 journals (national journals and international journals) related to the effect of technological innovation on industrial performance, and as many as 10 journals (national journals and international journals) related to the influence of entrepreneurial orientation on industrial performance. The benefits of this study are to provide reference material and company considerations in making policies to improve company performance and consider digital skills, technological innovation, and entrepreneurial orientation as aspects related to performance in small and medium industries.

Keywords: Systematic literature · digital skills · technological innovation · entrepreneurial orientation · Business Performance · Small and Medium Industries

1 Introduction

Small and Medium Industry (SMI) is one sector that plays an important role in the Indonesian economy. SMI makes a major contribution to the development of industry and trade as well as to the growth of the Indonesian economy through its contribution to the formation of the Gross Domestic Product (GDP). In addition, SMI is also a provider of employment for millions of people who are not accommodated in the formal sector, as well as a producer of foreign exchange through the export of various types of products produced. The Ministry of Industry believes that industry is the backbone of economic growth. This can be seen from the GDP structure in Semester I of 2020 showing the contribution of the industrial sector to the national GDP reaching 19.87%, the largest among other sectors.

Tighter market competition and the ongoing COVID-19 pandemic require SMEs to be able to win the market and survive in the competition. SMEs are required to have advantages that can enable them to compete in the market. So it can be said that the success of a company in achieving its goals can be influenced by several aspects, one of which is company performance. Performance is a concept that is shown by the organization's prominent employees while fulfilling their tasks. This is why organization's success is directly proportionate to their employees' performance. Business performance is a description of the level of the fulfilled task of business's aim or target according to obtained output/ conclusion at the end of a business period". Performance is a concept shown by employees in the organization in carrying out their duties. This is why the success of organizations is directly proportional to the performance of their employees. Performance is a description of the level of fulfillment of business goals or objectives according to the outputs/conclusions obtained at the end of a business period. Company performance is considered a multidimensional construct and is a measure of the company's success and achievements. A limited set of financial performance measures can harm the long-term viability of the organization, so organizations must develop various performance measures [1].

Company performance can be influenced by several factors that can be explained by theories such as population ecology theory, contingency theory, resource dependence theory, and resource-based theory (RBT).). The theory of population ecology approach explains that the survival and success of the company are determined by the characteristics of the company's environment. This approach model implies that the external environment has a direct effect on the company's performance regardless of the choice of strategy that is carried out by the company. Contingency theory states that the alignment between strategy and the external business environment determines the viability and performance of the company [2]. Resource dependence theory identifies a causal relationship between the concept of power and the concept of dependence which is based on dependence on resources. Companies that have reliable human resources will have an impact on high company performance.

The Covid-19 pandemic has accelerated the digitization process in all fields, including education, sales, and others. This acceleration of digitization was not expected by many industry players. Many industrial players still carry out their business activities manually and do not yet have qualified digital skills. Most industry players are still digitally stuttering and are still slow in implementing digitalization in their industry [3].

The low level of technological innovation and entrepreneurial orientation applied in SMEs is one of the obstacles faced. This can affect the final product, both the delivery of orders that are often not on time, the manufacture of products with quality that is often inconsistent, and also product development that tends to be slow. Technological innovation is considered a key strategic tool for SMEs to improve competitiveness and performance. SMEs that can develop digital innovation is expected to become SMEs that can compete in the current era. SMEs must successfully embrace transformation through digital technology to enable big business enhancements such as enhancing consumer experience and engagement, streamlining operations, and creating new business models [3]. However, if SMI does not do it, it will be unable to compete with competitors who do. Although digital technology offers new opportunities for technology and technology organizations (such as banks, manufacturing, and retail), digital innovation cannot be achieved without a serious commitment to emerging technologies. So digital skills must be possessed by SMEs in applying technology so that they can create digital innovations that can improve the performance of SMEs from various aspects.

Another factor that is assumed to affect company performance is entrepreneurial orientation. Entrepreneurship orientation is touted as the spearhead (pioneer) to realizing sustainable and highly competitive company economic growth. Entrepreneurial-oriented companies will always strive to produce innovative new products and have the courage to face risks. Entrepreneurial orientation and business strategy are seen as having the ability to improve the performance of a company. Entrepreneurship orientation as a company benefits strategy to be able to compete more effectively in the same marketplace. Entrepreneurial orientation refers to processes, practices, and decision-making that lead to new inputs and has three aspects of entrepreneurship, namely always being innovative, [4].

The benefits of this research are to provide reference material and company considerations in making policies to improve company performance and consider digital skills, technological innovation, and entrepreneurial orientation as aspects related to performance in small and medium industries.

1.1 Inconsistency of Digital Skill Effect on Company Performance

The results of the analysis of 10 articles (national journals and international journals) taken randomly from search results via the internet (online) related to the influence of digital skills on company performance, that there are 9 articles [5–10] stated that digital skills have a positive influence on company performance, while one of the research [11] stated that digital skills do not affect company performance.

1.2 Inconsistency of the Effect of Technological Innovation on Company Performance

The results of the analysis of 10 articles (national journals and international journals) taken randomly from search results via the internet (online) related to the effect of technological innovation on company performance, that there are 5 research [12–16] stated that technological innovation has a positive effect on company performance, while 1 article [17] states that technological innovation does not affect company performance.

1.3 Consistency of Entrepreneurial Orientation Influence on Company Performance

The results of the analysis of 10 articles (national journals and international journals) that were taken randomly from search results via the internet (online) related to the influence of entrepreneurial orientation on company performance, that there were 10 articles [18–27] stated that entrepreneurial orientation has a positive influence on company performance.

This study was made to present the results of synthesizing various inconsistencies in research results, so it is very important to know the influence of digital skills, technological innovation, and entrepreneurial orientation on the performance of small and medium industries. To address this goal, the following questions are formulated:

RQ1: How to influence digital skill variables on company performance

RQ2: How to influence technological innovation variables on company performance

RQ3: How the influence of the entrepreneurial orientation variable on the company's performance

The contribution of the results of this research in theory will provide a configuration catalog and provide direction for the development of models for future research. It is very useful for researchers and practitioners to understand the configuration conclusively.

2 Literature Review

2.1 Performance Theory

Benligiray explained that “The concept of performance describes how individuals or groups conclude to attain an aim. Performance is a concept that is shown by the organization's prominent employees while fulfilling their tasks. This is why organizations' success is directly proportionate to their employees' performance. Business performance is a description of the level of the fulfilled task of business's aim or target according to obtained output/ conclusion at the end of a business period” [28]. The concept of performance describes how individuals or groups conclude to achieve a goal. Performance is a concept shown by employees in the organization in carrying out their duties. This is why the success of organizations is directly proportional to the performance of their employees. Performance is a description of the level of fulfillment of business goals or objectives according to the outputs/conclusions obtained at the end of a business period.

According to Whitmore, “performance is an achievement of the target in the form that must be known and communicated to all parties within the organization, and are associated with vision assigned to an organization. Narrowly, business performance reflects the achievement of the economic objectives of an organization that is reflected in the financial indicators” [29]. Performance is the achievement of targets in a form that must be known and communicated to all parties within the organization and is associated with the vision assigned to an organization. In a narrow sense, business performance

reflects the achievement of an organization's economic goals as reflected in financial indicators.

Company performance is considered a multidimensional construct and is a measure of the company's success and achievements. A limited set of financial performance measures can harm the long-term viability of the organization, so organizations must develop various performance measures [1].

Porter explains that "business performance is fundamentally driven by the degree of competition in the marketplaces in which the firm chooses to operate, which in turn is a function of the structural characteristics of those marketplaces. Superior business performance is therefore achieved (1) by investing in markets low in competitive rivalry and (2) through gaining positional advantages within these markets that can be sustained through the creation and exploitation of market imperfections that limit competition [30]. Business performance is driven by the level of competition in the market in which the firm chooses to operate, which in turn is a function of the structural characteristics of that market. Superior business performance is achieved by investing in low-competitive markets and by gaining an advantageous position in these markets that can be maintained through the creation and exploitation of market imperfections that limit competition.

Performance is the result of work in quality and quantity achieved by the organization in carrying out its operational activities [31]. Performance is an achievement of the work of a person or group of people in an organization and a certain period following the scope of their respective responsibilities and authorities as an effort to achieve organizational goals and carried out under morals and ethics and legally without breaking the law. Organizational performance is the total of the work achieved by the organization. The organizational performance or company performance is an indicator of the level of achievement that can be achieved and reflects the success of entrepreneurs [32].

Umam cites the opinions of several experts regarding the notion of performance,; [33].

- 1) Performance is a record of the effects produced on a job function or activity during a certain period related to organizational goals.
- 2) Performance is defined as behaviors or actions that are relevant to the achievement of organizational goals (goal-relevant action). These goals depend on the authority of the assessor to determine what goals the employee must achieve. Performance is not the result of action or behavior, but the action itself.
- 3) Performance shows the achievement of work targets related to quality, quantity, and time.

Company performance is measured by operational performance, financial performance, and market performance. Organizational performance can be seen as a multi-dimensional construct consisting of more than just financial performance [34]. Organizational performance is described as the extent to which the organization can meet the needs of its stakeholders and its own needs to survive [35].

2.2 Digital Skill Theory

“Digital skill is the high-level capability of a company to leverage intelligent, connected products and data analytics to facilitate the development and delivery of services and products to create differentiated value [36]. Digital skill is a high-level enterprise capability to leverage intelligent, connected products and data analytics to facilitate the development and delivery of services and products to create differentiated value.

“Defined digitalization skills as the ability that enables companies to broadly incorporate digital assets and business resources and leverage digital networks to innovate products, services, and processes to achieve organizational learning and customer value. In addition, from the application areas of digital capabilities, digital capabilities are divided into three dimensions: product, business relationship, and software development” [36]. Skills Digitization is defined as the capability that enables enterprises to broadly combine digital assets and business resources and leverage digital networks to innovate products, services, and processes to achieve organizational goals and customer value. In addition, from the application area of digital capabilities, digital capabilities are divided into three dimensions: product, business relationships, and software development.

Digitization describes the process of the conversion of analog and noisy information into digital data. Digitization (ie the process of converting analog data into digital data sets) is the framework for digitalization, which is defined as the exploitation of digital opportunities. Digital transformation is then defined as the process that is used to restructure economies, institutions, and society on a system level [37]. Digitization describes the process of converting analog information and noise into digital data. Digitization (the process of converting analog data into digital data sets) is a framework for digitization defined as the exploitation of digital opportunities. Digital transformation is then defined as the process used to restructure the economy, institutions, and society at the system level.

“Digital transformation is the driver for changes in the corporate world because they establish new technologies based on the internet with implications for society as a whole” [38]. Digital transformation is a driver of change in the business world because they build new internet-based technologies that have implications for society as a whole.

“In contemporary society, digital technology skills are intrinsically intertwined with all other sets of abilities required in workplaces and entrepreneurial activities. The interaction with other people, whether in personal or professional terms, is increasingly being arbitrated by the immediatism of digital applications and devices. Future professional activities will require more and more individuals can demonstrate a range of abilities that cross with digital skills. Information literacy is a competence that has been crucial for employees in all economic segments over the last few decades. In the digital age that we live in today, digital technology provides the medium for communication, immensurable information for strategic business decisions, and the means for sharing and self-promoting creative and artistic expression” [39].

Digital technology skills are intrinsically linked to all other skills required in the workplace and entrepreneurial activities. Interactions with others, whether personal or professional, are increasingly mediated by digital applications and devices. Future professional activities will require more and more individuals who can demonstrate a wide range of abilities that intersect with digital skills. Information literacy is a very important

competency for employees in all segments of the economy over the past few decades. In the digital age, digital technology provides a medium for communication, immeasurable information for strategic business decisions and a means to share and promote creative and artistic expression.

“Digitalization has extreme importance in providing digital environments that support and promote creative work, thus encouraging the importance of digital literacy skills for creative professionals. The empowerment provided by digital technology development is the driving force propelling the creative workforce to seek and maintain digital literacy skills” [39]. Digitization is critical in providing a digital environment that supports and promotes creative work, thereby reinforcing the importance of digital literacy skills for creative professionals. The empowerment provided by the development of digital technology is a driving force that encourages creative workers to seek and maintain digital literacy skills.

Digital skills cover all skills related to digital technology ranging from basic skills or literacy, generic skills for all workers, and specific skills for information technology professionals [40].

Skills are the ability to use reason, thoughts and ideas, and creativity in doing, changing, or making something more meaningful to produce value from the work. Skill is the ability to translate knowledge into practice so that the desired work results are achieved [41]. Skill is one of the factors to achieve the success of achieving organizational goals. The purpose of skill ownership is to make it easier for someone to complete each job effectively and efficiently without any difficulties to produce an optimal work result.

2.3 Technological Innovation Theory

Rogers explains “innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption. It matters little, so far as human behavior is concerned, whether or not an idea is ‘objectively’ new as measured by a lapse of time since its first use or discovery. The perceived newness of the idea for the individual determines his or her reaction to it if the idea seems to be new to the individual, it is an innovation” [42]. Innovation is an idea, thought, practice, or object that is deemed to find a new use that needs to be recognized by one or all of the existing groups. Innovation refers to the occurrence of changes that are more attractive and desirable than before after improving by creating something that already existed.

William in his book *Creativity, Invention and Innovation*, “innovation can be described as the art of applying the new and the better, and more specifically the process by which entrepreneurs are catalysts for change by converting opportunities into marketable realities [43]. Innovation can be described as the art of implementing the new and the better, and more specifically the process by which the entrepreneur catalyzes change by turning opportunities into marketable realities.

“An enterprise to be competitive with other enterprises, it has to produce specific and sustainable factors that are different and innovation is a pathway by which enterprises can create these different factors. Entrepreneurial innovation takes different forms, for example, product, process, organization, market, and market innovation among others” [44]. For a company to be able to compete with other companies, it must produce different specific and sustainable factors and innovation is the path through which the company

can create these different factors. Entrepreneurial innovation takes various forms, for example, products, processes, organizations, markets, and market innovations among others.

“Innovative capability is also described as the capacity to gain access to, develop and implement innovative technologies for designing and manufacturing. Innovation-based capability is the integrative process of applying the collective knowledge, skills, and resources of a firm to achieve innovation activities relating to technical innovations (i.e., products or services; and production process technology) and non-technical innovations” (i.e., managerial, market, and marketing) [24]. Innovative capability is described as the capacity to gain access to, develop and apply innovative technologies for design and manufacturing. Innovation-based capabilities as an integrative process of applying collective knowledge, skills, and company resources to achieve innovation activities related to technical innovation (i.e., product or service; and production process technology) and non-technical innovation (i.e., managerial, market, and marketing).

“Innovation involves a process of improving the internal functioning of the firm and it takes various forms, such as the development or creation of techniques and systems. Like technology innovation, expertise, methods, equipment, and techniques that are used in the transformation process or in the process of producing a product” [44]. Innovation involves the process of improving the company’s internal functions that take various forms, such as the development or creation of techniques and systems, such as technological innovations, expertise, methods, tools, and techniques used in the transformation process or in the process of producing a product.

“Technology is the result of man’s learned and acquired knowledge or technical skills regarding how to do things well. Technological innovation provides the lifeblood of economic activities. Technological innovation is a tool for economic growth and the application of those inventions to meet emerging business opportunities and to meet social needs and environmental challenges. For any organization to be able to compete, it must be technologically innovative. Technological innovation and core competitiveness enjoy a symbiotic relationship. Technological innovation capability is an important component of the core competitiveness of the manufacturing industry, and core competitiveness plays a role in promoting or influencing technological innovation. Technology should be so designed to be able to match the marketing capability of the organization and be seen as reflected in the strategic plan of the firm and its overall success. Innovation should match resource inputs, technology, and the market”.

Technology is the result of the knowledge that humans learn and acquire or their technical skills about how to do things well. Technological innovation is a tool for economic growth and the application of such inventions to meet emerging business opportunities and to meet social needs and environmental challenges. For any organization to be competitive, it must be technologically innovative. Technological innovation and core competitiveness enjoy a symbiotic relationship. Technological innovation capability is an important component of the manufacturing industry’s core competitiveness and core competitiveness plays a role in promoting or influencing technological innovation. Technology must be designed in such a way as to match the marketing capabilities of the organization and be seen as a reflection of the company’s strategic plan and its overall success. Innovation must match the input of resources, technology, and markets.

Technological innovation is considered a key strategic tool for companies to improve competitiveness and performance. Companies that can develop technological innovations are expected to be the best companies and can compete in the current era. Technological innovation is defined as the creation of market offerings, business processes, or models resulting from the digital use of technology, which includes a range of innovation outcomes, such as new products, platforms, and services as well as new customer experiences and other value pathways. This is made possible as a result of the use of digital technology and digital processes [45].

Technological innovation is the development of new products, services, or solutions using digital technology. Technological innovation is contextualized to innovative digital solutions that can transform other organizations' products, services, and businesses [46]. Technological innovation is the willingness of individuals to try several information systems. Innovation is defined as the training of traditional management principles, processes, practices, or a shift from the old organizational form and has a significant influence on the way management is run [47].

Innovation is the introduction of something new as a manifestation of the success of a new thing that makes something better. Innovation can be expressed as the embodiment, combination, or synthesis of original, relevant knowledge, a new product of value, or a process or service. Innovation usually involves creativity, but the two are not identical. Innovation involves creative actions or ideas to make some specific and tangible difference in the domain in which the innovation is made. Innovation includes the transformation of knowledge into new products, which can also be processed in the form of services to meet customer needs. Innovation includes technical, physical, and knowledge processes that are primarily aimed at developing people [48].

William and Sawyer, information technology is a technology that combines computing (computers) with high-speed communication lines that carry data, voice, and video. Technology is a technique for collecting, storing, processing, preparing, analyzing, publishing, and/or disseminating information. Technology is often identified as a tool. Technology is no longer defined only as a cumulative stock of tools, machines, and various other artifacts of modern civilization, but can also be interpreted as a certain way of knowing and doing things. Technology is more than just applied knowledge or engineering as in the traditional understanding of the academic world, but can be viewed as a universalistic approach to problem-solving (technique).

2.4 Entrepreneurial Orientation Theory

Mishra explains "entrepreneurially oriented organizations are absorptive, agile, situationally alert, and proactively adaptive. Further, the entrepreneurial firms are opportunity-focused notwithstanding their current resource position. They constantly seek superior value opportunities and actively learn to build new resources and competencies to enhance the business model mechanism where the firm's competitiveness lies. Thus the firm's search for value opportunities drives the accumulation of the resources, instead of the current resources determining the choice of the value opportunities as postulated by the resource-based theory. The management logic drives the search for the value 8 opportunities to influence the firm's strategic position that determines the value activities. further [49].

Rauch et al. stated “As entrepreneurial orientation relates to entrepreneurial behaviors and strategies that orient the businesses to start new ventures or invest in new opportunities in the marketplace. It is proved to affect firm performance in terms of profitability and reputation” [25]. Entrepreneurial orientation is concerned with entrepreneurial behavior and strategies that direct businesses to start new ventures or invest in new opportunities in the marketplace. This is proven to affect the company’s performance in terms of profitability and reputation.

Gupta & Batra explain “entrepreneurial orientation receives extensive theoretical and empirical attention in organizational research, emerging as one of the most widely accepted firm-level constructs in the entrepreneurship literature. Wiklund & Shepherd stated, “entrepreneurial attitude and conduct are important in utilizing new and existing knowledge when an organization discovers opportunities” [24]. Entrepreneurial orientation receives extensive theoretical and empirical attention in organizational research, emerging as one of the most widely accepted firm-level constructs in the entrepreneurship literature. Entrepreneurial attitudes and behaviors are important in leveraging new and existing knowledge when an organization finds opportunities.

“Entrepreneurial orientation plays an essential role in creating a firm’s growth and adaptation to environmental changes. Entrepreneurial orientation significantly affects behaviors and beliefs, with an emphasis on proactively acquiring entrepreneurial opportunities. By establishing different types of innovations, entrepreneurial orientation helps increase a firm’s ability to respond to environmental fluctuations. In general, entrepreneurial orientation can be seen as the firm’s trend to depart from the usual road and move to the unknown” [25]. Entrepreneurial orientation plays an important role in creating company growth and adaptation to environmental changes. Entrepreneurial orientation strongly influences behavior and beliefs with an emphasis on proactively obtaining entrepreneurial opportunities. Through the growth of various types of innovation, entrepreneurial orientation helps improve the company’s ability to respond to environmental fluctuations. Entrepreneurial orientation can be seen as a company’s tendency to depart from the usual path and move into the unknown.

Entrepreneurial orientation is one of the resources and capacities of a company. Entrepreneurial orientation refers to the extent to which an organization is entrepreneurial in its plans and activities and includes organizational processes, structures, and behaviors for leveraging new technologies, being aware of market trends, and being capable of making assessments of new potentials [50].

Entrepreneurial orientation is the search for opportunities, the courage to take risks, and the decision to act as an organizational leader. Entrepreneurial orientation is a company value system that will determine the direction of movement or company strategy. Entrepreneurial orientation is the strategy-making practice that businesses use to identify and launch enterprise ventures [51].

Entrepreneurial-oriented organizations are absorptive, agile, situational alert, and proactive adaptive. Entrepreneur-oriented companies focus on opportunities regardless of their current resource position. They are constantly on the lookout for superior value opportunities and are actively learning to build new resources and competencies to improve the business model mechanisms in which the company’s competitive position lies. The firm’s search for value opportunities drives the accumulation of resources,

the current resources that determine the choice of value opportunities as postulated by the resource-based theory. The management logic that drives the search for value opportunities affects the strategic position of the firm that determines value activities.

3 Method

A systematic literature review or often abbreviated as SLR or in Indonesian called systematic literature review is a literature review method that identifies, assesses, and interprets all findings on a research topic, to answer research questions that have been previously determined. [52] The SLR method is carried out systematically by following stages and protocols that allow the literature review process to avoid bias and subjective understanding of the researchers. The purpose of this method is to collect as many studies or previous research as possible that are relevant to the research topic [53]; [54]; [55]. The SLR method is used to identify, review, evaluate, and interpret all available research with topic areas of interest to phenomena, with specific and relevant research questions. [56]. With the use of the SLR method, a systematic review and identification of journals can be carried out, which in each process follows the steps or protocols that have been set.

Systematic reviews can help us find out the available evidence by first knowing what is known, what support it has, and what has not been explained [57] and very much depends on when the measurement is carried out and how the stages are [58] Reviewing various studies spread across various digital libraries is very important to know various kinds of theoretical developments, issues, and research models on certain topics.

The literature review will follow the same structure as proposed by [59] The process is divided into five phases, as shown in the following Fig. 1:

Phase 1, methodological framework. This stage is the key to determining the direction of the analysis carried out. This stage defines the purpose, research area, and scope that will be used for the search and analysis of academic papers. Based on the research problem, there are inconsistencies in the results of research on the influence of digital skills, technological innovation, and entrepreneurial orientation on industrial performance.

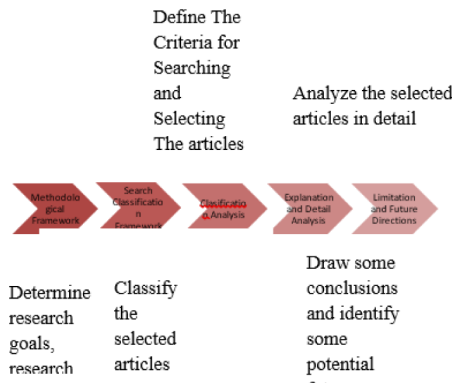


Fig. 1. Phase. Systematic literature review

Phase 2, research classification framework. This stage determines the search criteria and article selection. For this study, the selected research articles are from 2010 to 2022. Study [60] on “A Systematic Review and Quantitative Meta-Analysis of The Accuracy of Visual Inspection for Cervical Cancer Screening: Does Provider Type or Training Matter?” Using studies for the last 7 years. Studies [61] on “A Systematic Review of The Antecedents, Mediators, and Outcomes of Authentic Leadership in Healthcare” using studies over the past 13 years. Because using a range point higher than 12 years would hinder the purpose of this analysis as it would not evaluate all the important details. In addition, different online databases have been used for the literature review. An electronic search on the following main portals was identified as the data source of the relevant studies. This electronic search includes a variety of relevant and accessible publishers [52]: (1) <https://www.elsevier.com/en-xs>, (2) <https://scholar.google.com/>, (3) ScienceDirect (<http://www.sciencedirect.com>), (4) <https://www.scopus.com/home.uri>, (5) SpringerLink (<http://link.springer.com>), (6) <https://harzing.com/blog/2021/10/publish-or-perish-version-8>.

Inclusion and exclusion criteria are applied to relevant publications. These criteria are aligned with the research objectives and questions, and are defined as follows:

Inclusion Criteria:

- Inclusion 1, Publications published in Indonesian and English.
- Inclusion 2, Publications published between 2010 and 2022
- Inclusion 3, Publications related to topics of digital skills, technological innovation, entrepreneurial orientation, and industrial performance.
- Inclusion 4, Publication presenting a quantitative analysis

It is important to define the selection criteria and the filtering of the article data, and the previously entered keywords. To do this, a data selection and filtering process has been carried out [62]. Each article has been carefully and critically examined to avoid bias at the end of the analysis. Therefore, neither published nor research articles were excluded. Articles expressing subjective opinions or hypotheses are also excluded because clarity, conciseness, accuracy, and reliability must be of paramount importance when conducting analysis [63].

Phase 3, classification analysis. This stage makes the classification of the selected articles. The journals or academic articles chosen are those that are not paid. A criterion was applied to select articles in different journals and databases. Because every online library provides a slightly different search feature. The search results in the online library were taken from as many as 10 journals (national journals and international journals) related to the influence of digital skills on industrial performance, as many as 10 journals (national journals and international journals) related to the effect of technological innovation on industrial performance, and as many as 10 journals (national and international journals). International journals) related to the influence of entrepreneurial orientation on industrial performance. To achieve the ultimate goal, each article is thoroughly and critically examined, and fully available and finished articles. The selection of academic papers is done by following a list of keywords (keywords from bibliographic publications must be filtered to determine the field of research) based on the field of research.

To confirm the truth, as stated in [64], keywords must appear in the title, abstract, or keywords of the related article section. Moreover, some articles were excluded when the topic did not fit the research area. To carry out a deeper analysis and observe the methodological coherence of the approach, the keyword co-citation technique [65] was used. When two or more keywords on a particular research topic appear in the same journal, they have an important relationship. That is, the greater the co-occurrence between the two keywords, the closer the relationship [66]. Cluster analysis has usually been used in traditional joint citation analysis.

In phase 4 and Phase 5, selected articles/journals are analyzed in depth, their contents explained and conclusions drawn to produce a simple roadmap for researchers wishing to better understand the field.

4 Results and Discussion

4.1 Classification Analysis

Classification analysis was carried out on 28 articles (national and international) that were screened, including both articles and conferences from academic journals. In the following, general findings regarding the variables of digital skills, technological innovation, entrepreneurial orientation, and company performance are presented (Table 1).

Table 1. General Findings Related to Digital Skill Variables, Technological Innovation, Entrepreneurship Orientation, and Company Performance

| No | Journal/Article | Variable | | | | Research methods |
|----|--|----------------|--------------------------|------------------------------|-------------|------------------|
| | | Digital Skills | Technological Innovation | Entrepreneurship Orientation | Performance | |
| 1 | The Influence of Innovation, Information Technology, and Entrepreneurship Orientation on Business Performance | ✓ | ✓ | ✓ | ✓ | Quantitative |
| 2 | Information Technology Capability, Company Performance, and Company Value | ✓ | | | ✓ | Quantitative |
| 3 | Digital Technology Mediates the Impact of Business Strategy on MSME Performance in West Nusa Tenggara | ✓ | | | ✓ | Quantitative |
| 4 | The Effect of Digitalization on Organizational Practices and Operational Performance at PT. Yogyakarta International IGP | ✓ | | | ✓ | Quantitative |
| 5 | The Influence of Information Technology and Innovation on SME Performance | ✓ | ✓ | | ✓ | Quantitative |

(continued)

Table 1. (continued)

| No | Journal/Article | Variable | | | | Research methods |
|----|---|----------------|--------------------------|------------------------------|-------------|------------------|
| | | Digital Skills | Technological Innovation | Entrepreneurship Orientation | Performance | |
| 6 | <i>How do digital capabilities effect firm performance? The mediating role of technological capabilities in the “new normal”</i> | ✓ | | | ✓ | Quantitative |
| 7 | <i>The Impact of Digital Transformation on Business Performance</i> | ✓ | | | ✓ | Quantitative |
| 8 | <i>IT Capability and Digital Transformation: A Firm Performance Perspective</i> | ✓ | ✓ | | ✓ | Quantitative |
| 9 | <i>Effect of Use of Information Technology on Innovation Capability, Competitiveness, and Firm Performance: Case of Manufacturing Industry in South Sulawesi</i> | ✓ | ✓ | | ✓ | Quantitative |
| 10 | <i>Effects of the use of digital technologies on the performance of firms in a developing country: are there differences between creative and manufacturing industries?</i> | ✓ | | | ✓ | Quantitative |
| 11 | Technological Innovation Mediates the Effect of Intellectual Capital on MSME Performance | | ✓ | | ✓ | Quantitative |
| 12 | Effect of Process Innovation, Product Innovation, and Technology on Operational Performance | | ✓ | | ✓ | Quantitative |
| 13 | Company Performance Strategy Influenced by Innovation, Product Quality, Company Reputation Through Competitive Advantage | | ✓ | | ✓ | Quantitative |
| 14 | Analysis of the Effect of Innovation on MSME Performance in Creative Industries in Padang City | | ✓ | | ✓ | Quantitative |
| 15 | <i>The Influence of Innovation on Business Performance Mediated by The Entrepreneurial Spirit of PT. Pegadaian (Persero) Agents</i> | | ✓ | | ✓ | Quantitative |

(continued)

Table 1. (continued)

| No | Journal/Article | Variable | | | | Research methods |
|----|--|----------------|--------------------------|------------------------------|-------------|------------------|
| | | Digital Skills | Technological Innovation | Entrepreneurship Orientation | Performance | |
| 16 | <i>Effects of Innovation Types on Firm Performance</i> | | ✓ | | ✓ | Quantitative |
| 17 | <i>Impact of Information Technology on Innovation in Determining Firm Performance</i> | ✓ | ✓ | | ✓ | Quantitative |
| 18 | <i>The Impact of Technological Innovation on Organizational Performance</i> | | ✓ | | ✓ | Quantitative |
| 19 | The Effect of Entrepreneurship Orientation and Market Orientation on MSME Performance | | | ✓ | ✓ | Quantitative |
| 20 | The Influence of Digital Literacy and Entrepreneurship Orientation on MSME Business Performance | | | ✓ | ✓ | Quantitative |
| 21 | The Role of Competitive Advantage in Mediating Market Orientation and Entrepreneurship Orientation with SME Performance | | | ✓ | ✓ | Quantitative |
| 22 | The Role of Market Orientation, Entrepreneurship Orientation and Competitive Strategy to Improve SME Performance | | | ✓ | ✓ | Quantitative |
| 23 | The Influence of Entrepreneurship Orientation and Market Orientation on Company Performance through Competitive Advantage | | | ✓ | ✓ | Quantitative |
| 24 | Entrepreneurial Orientation and Network Capability in Efforts to Improve Performance in SMI Tannery in Sukastret Garut Regency | | | ✓ | ✓ | Quantitative |
| 25 | <i>The Effect of Entrepreneurial Orientation, Innovation Capability and Knowledge Creation on Firm Performance: A Perspective on Small Scale Entrepreneurs</i> | | ✓ | ✓ | ✓ | Quantitative |
| 26 | <i>The Impact of Entrepreneurial Leadership on SMEs' Performance: The Mediating Effects of Organizational Factors</i> | | ✓ | ✓ | ✓ | Quantitative |

(continued)

Table 1. (continued)

| No | Journal/Article | Variable | | | | Research methods |
|----|--|----------------|--------------------------|------------------------------|-------------|------------------|
| | | Digital Skills | Technological Innovation | Entrepreneurship Orientation | Performance | |
| 27 | <i>Effect of Entrepreneurial Orientation on Business Performance</i> | | | ✓ | ✓ | Quantitative |
| 28 | <i>Effects of Entrepreneurial Orientation on Business Performance: The Mediating Role of Customer Satisfaction-A Formative-Reflective Model Analysis</i> | | | ✓ | ✓ | Quantitative |

4.2 Inconsistency of the Effect of Technological Innovation on Company Performance

The results of the analysis of 10 articles (national journals and international journals) taken randomly from search results via the internet (online) related to the influence of digital skills on company performance, that there are three articles [5, 6, 9] stated that digital skills have a positive influence on company performance, while 1 article [11] states that digital skills have no effect on company performance (Table 2).

Digital capabilities are combined capabilities driven by emerging digital technologies. It not only emphasizes the use of certain digital technologies (such as big data and artificial intelligence) to collect, integrate and deploy specific enterprise resources, but also emphasizes the establishment of comprehensive capabilities through the use of various digital technologies. The digital infrastructure, sphere of influence, application area, and value creation logic of digital capabilities are fundamentally different from information technology-related capabilities. Information technology-related capabilities support enterprise information transformation and automation, while digital capabilities support enterprise digital and intelligent transformation. Digital capabilities not only affect innovation, organizations, and management processes within the enterprise, but also enables the delivery of customized services by triggering, initiating, and facilitating interactions between enterprises and customers, enabling customized services. Delivery, thereby improving business performance. Through empirical analysis, it was found the impact of digital capabilities on internal and external companies, indicating that external digital capabilities mainly affect company performance through the creation of shared value.

“Digitalization has extreme importance in providing digital environments that support and promote creative work, thus encouraging the importance of digital literacy skills for creative professionals. The empowerment provided by digital technology development is the driving force propelling the creative workforce to seek and maintain digital literacy skills” [39]. Digitization is critical in providing a digital environment that supports and promotes creative work, thereby reinforcing the importance of digital literacy

Table 2. Research Results on the Effect of Digital Skills on Industrial Performance

| No | Journal/Article | Research methods | Research result | Source |
|----|--|------------------|--|---|
| 1 | The Influence of Innovation, Information Technology, and Entrepreneurship Orientation on Business Performance | Quantitative | There is a positive and significant influence of information technology on business performance | Academic Journal, Vol.9, No.2, 2020, https://uia.e-journal.id/academic/article/view/914 |
| 2 | Information Technology Capability, Company Performance and Company Value | Quantitative | Information technology capability has no effect on company performance | Integrated Journal of Accounting Research, Vol.13, No.1, 2020, pp.54–66 |
| 3 | Digital Technology Mediates the Impact of Business Strategy on MSME Performance in West Nusa Tenggara | Quantitative | There is a positive and significant influence of digital technology on the performance of MSMEs | Equity: Journal of Economics and Finance, Volume 3, Number 5, September 2021: 300–320 |
| 4 | The Effect of Digitalization on Organizational Practices and Operational Performance at PT. Yogyakarta International IGP | Quantitative | Digitalization has a positive effect on operational performance | Selekta Management: Journal of Business & Management Students, Vol.01, No.03, 2022, pp.16–23, https://journal.uui.ac.id/selma/index |
| 5 | The Influence of Information Technology and Innovation on SME Performance | Quantitative | Information technology has a significant positive effect on the performance of SMEs | Journal of Accounting and Banking Research, Vol.15 No.1, February 2021 |
| 6 | <i>How do digital capabilities effect firm performance? The mediating role of technological capabilities in the “new normal”</i> | Quantitative | <i>Digital capabilities positively influence firm performance</i> | <i>Journal of Innovation & Knowledge</i> 7 (2002) 100171, https://www.journals.elsevier.com/journal-of-innovation-and-knowledge |
| 7 | <i>The Impact of Digital Transformation on Business Performance</i> | Quantitative | <i>The positive significant digital transformation (role of big data, CPS, and interoperability in enhancing) SMEs performance</i> | <i>Engineering, Technology & Applied Science Research</i> , Vol.9, No.6, 2019, 2056–5061, www.etasr.com |
| 8 | <i>IT Capability and Digital Transformation: A Firm Performance Perspective</i> | Quantitative | <i>The positive significant IT capability on firm performance</i> | <i>Thirty Seventh International Conference on Information Systems, Dublin 2016</i> |

(continued)

Table 2. (continued)

| No | Journal/Article | Research methods | Research result | Source |
|----|---|------------------|---|--|
| 9 | <i>Effect of Use of Information Technology on Innovation Capability, Competitiveness, and Firm Performance: Case of Manufacturing Industry in South Sulawesi</i> | Quantitative | <i>The positive significant information technology on firm performance</i> | <i>IOP Conference Series: Earth and Environmental Science</i> 235 (2019) 012008, IOP Publishing |
| 10 | <i>Effects of the use of digital technologies on the performance of firms in a developing country: are there differences between creative and manufacturing industries?</i> | Quantitative | <i>The positive significant digital technologies (broadband, intranet, digital training, digital consulting, website, online selling, social networks, extranet, EIS) on firm performance</i> | <i>International Journal of Information Systems and Project Management</i> , Vol.10, No.1, 2022, 73–91, ijispm.sciencesphere.org |

skills for creative professionals. The empowerment provided by the development of digital technology is a driving force that encourages creative workers to seek and maintain digital literacy skills.

Digital capabilities can complement a company's digital orientation because only companies that have the skills to manage the new technology will be ready to adopt the technology. Companies must be able to commit to transforming technology into new products. Likewise digitally, companies need to be committed and ready to embrace new technologies by developing new products that have an impact on company performance.

"Digital skill refers to the attitude and ability of individuals to appropriately use digital technology to identify, access, generate, integrate and evaluate digital resources, building new knowledge, creating media expressions and communicating with others. An individual is considered digitally literate when they can demonstrate technical and operational skills to use digital technology in their daily activities. The digitally literate individual should be a critical thinker, who can responsibly make use of the Internet, who can select software appropriate to their needs and use it with the capability to seek and evaluate digital information for learning and performing tasks". Digital ability refers to an individual's attitude and ability to appropriately use digital technology to identify, access, generate, integrate and evaluate digital resources, build new knowledge, create media expressions and communicate with others. An individual is considered digitally literate when they can demonstrate the technical and operational skills to use digital technology in their daily activities. Digitally literate individuals must be critical thinkers, who can responsibly use the Internet, who can choose the software that fits their needs and use it with the ability to search and evaluate digital information to study and perform tasks.

4.3 The Effect of Technological Innovation on Company Performance

The following is the answer to the RQ2 question about how the influence of technological innovation on industrial performance is based on an in-depth analysis of selected journals, as follows (Table 3):

Table 3. Research Results on the Effect of Technological Innovation on Industrial Performance

| No | Journal/Article | Research methods | Research result | Source |
|----|--|------------------|--|---|
| 1 | Technological Innovation Mediates the Effect of Intellectual Capital on MSME Performance | Quantitative | Technological innovation has a positive and significant impact on MSME performance | JPPI (Jurnal of Indonesian Education Research), Vol.7, No.4, 2021, pp.658–669, https://jurnal.iicet.org/index.php/jppi |
| 2 | The Influence of Process Innovation, Product Innovation, and Technology on Operational Performance At PT. Pagilaran UP Pagilaran Batang Central Java | Quantitative | Innovation (process innovation, product innovation, technological innovation) has a significant and positive effect on operational performance | Indicators: Journal of Economics and Business, Vol.3 (1)(2021), http://indicators.iiseisemarang.or.id/index.php/jebis |
| 3 | The Influence of Innovation, Information Technology, and Entrepreneurship Orientation on Business Performance | Quantitative | There is a significant and significant effect of innovation on business performance | Academic Journal, Vol.9, No.2, 2020, https://uia.e-journal.id/academic/article/view/914 |
| 4 | Company Performance Strategy Influenced by Innovation, Product Quality, Company Reputation Through Competitive Advantage | Quantitative | The innovation variable has no significant effect on the company's performance | Journal of Social and Technology (SOSTECH), Volume 1, Number 10, October 2021, https://greenpublisher.id/ |
| 5 | Analysis of the Effect of Innovation on MSME Performance in Creative Industries in Padang City | Quantitative | Innovation in the organization has an influence on all types of MSME performance | Procuratio: Scientific Journal of Management, Vol.8 No.4, December 2020 (450–465), http://www.ejournal.Pelitaindonesia.ac.id |
| 6 | <i>The Influence of Innovation on Business Performance Mediated by The Entrepreneurial Spirit of PT. Pegadaian (Persero) Agents</i> | Quantitative | <i>There is a positive influence between Innovation on business performance</i> | <i>Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management Singapore, March 7–11, 2021</i> |

(continued)

Table 3. (continued)

| No | Journal/Article | Research methods | Research result | Source |
|----|--|------------------|--|--|
| 7 | <i>The Impact of Technological Innovation on Organizational Performance</i> | Quantitative | <i>The positive impact of technological innovation on organizational performance in the manufacturing industry</i> | <i>Industrial Engineering Letters</i> , Vol.4, No.3, 2014, https://www.researchgate.net/publication/338046184 |
| 8 | <i>Effect of Use of Information Technology on Innovation Capability, Competitiveness, and Firm Performance: Case of Manufacturing Industry in South Sulawesi</i> | Quantitative | <i>The positive significant innovation on firm performance</i> | <i>IOP Conference Series: Earth and Environmental Science</i> 235 (2019) 012008, IOP Publishing |
| 9 | <i>Effects of Innovation Types on Firm Performance</i> | Quantitative | <i>The positive effects of innovation on firm performance in manufacturing industries</i> | <i>Journal of Engineering and Natural Sciences</i> , 34956 Orhanli-Tuzla, Istanbul, Turkey |
| 10 | <i>Impact of Information Technology on Innovation in Determining Firm Performance</i> | Quantitative | <i>Strong positive relationship exists between innovation and firm performance</i> | <i>African Journal of Science Technology Innovation and Development</i> , July 2018, https://www.researchgate.net/publication/326616844 |

The results of the analysis of 10 articles (national journals and international journals) taken randomly from search results via the internet (online) related to the influence of technological innovation on company performance, that there are 9 articles [12–16] stated that technological innovation has a positive influence on company performance, while 1 article [17] states that technological innovation has no effect on company performance.

Technological innovation capability is a specific type of resource that requires the effective improvement of existing products, manufacturing processes, and the creation of new products and services. Based on this definition, technological innovation consists of product innovation capabilities and process innovation capabilities. Product innovation capabilities address the group of interrelated steps used to implement different product innovations, such as developing new products and improving existing ones. Process innovation capability relates to the use of manufacturing technologies to develop innovation capabilities and enables companies to strategically select and use these technologies to promote new techniques, processes and production methods. Improving technological innovation capabilities is an important task for every company as global competitiveness increases, product life cycles decrease, and imitation becomes easier. In order to increase productivity and increase sales volume and competitiveness, companies must take innovation as a platform. Innovation ability can have a positive impact on industry performance, especially when the industry to achieve organizational goals, explore new ideas; developing new ways of doing things; engage in new product development; and be

creative in operation. In addition, the industry's ability to create knowledge is also important for its innovation capabilities. In order to increase productivity and increase sales volume and competitiveness, companies must take innovation as a platform. Innovation ability can have a positive impact on industry performance, especially when the industry to achieve organizational goals, explore new ideas; developing new ways of doing things; engage in new product development; and be creative in operation. In addition, the industry's ability to create knowledge is also important for its innovation capabilities. In order to increase productivity and increase sales volume and competitiveness, companies must take innovation as a platform. Innovation ability can have a positive impact on industry performance, especially when the industry to achieve organizational goals, explore new ideas; developing new ways of doing things; engage in new product development; and be creative in operation. In addition, the industry's ability to create knowledge is also important for its innovation capabilities and be creative in operation. This means that the more often innovation is carried out in the industry, the higher the industrial performance that will be achieved. Innovation is the extent to which a company or business is involved in finding new ideas, experiments, novelty, and creativity in products or services that will be provided both in solving problems and in obtaining new opportunities. If the operating industry has an effort to find and develop new ideas, experimentation and creativity in providing products and services, it will also get good results.

“Innovation enables the creation of new resources, products, processes, supply of raw materials, new markets among others and these enhance the performance of the firm. Innovation is widely recognized as a critical driver of improving the productivity, the performance and the survival of businesses in a globalized and changing climate” [44] Innovation enables the creation of new resources, products, processes, supply of raw materials, new markets among others and can improve company performance. Innovation is widely recognized as an important driver for improving productivity, performance and business viability in a globalized and changing climate.

Thompson defines innovation as the generator, acceptance and implementation of new ideas, processes, products or services. Innovation is key in maintaining and improving organizational performance. The study of small and medium enterprises only covers two aspects, namely creativity and product technology used. The product aspect shows that businesses produce creative products as a result of their innovation and the technology used to help companies gain a competitive advantage that allows the company to produce better products than its competitors, while modern technology will bring about increased product quality, new product development, productivity and efficiency [67]. Improving technological innovation competence is an important task for every company as global competitiveness increases, product life cycles decrease, and imitation becomes easier. In order to increase productivity and increase sales volume and competitiveness, companies must take innovation as a platform.

Technological innovation is considered a key strategic tool for companies to improve competitiveness and performance. Companies that are able to develop digital innovation are expected to be the best companies and can compete in the current era. Companies must successfully embrace transformation through digital technologies to enable big business enhancements such as improving customer experience and engagement, streamlining

operations and creating new business models but if they do not do so they will face destruction at the hands of their competitors who do. So it can be said that companies must be able to run technology in order to create digital innovations that can improve company performance from various aspects.

4.4 The Influence of Entrepreneurship Orientation on Company Performance

The following is the answer to the RQ3 question about how the influence of entrepreneurial orientation on industrial performance is based on an in-depth analysis of selected journals, as follows (Table 4):

The results of the analysis of 10 articles (national journals and international journals) that were taken randomly from search results via the internet (online) related to the influence of entrepreneurial orientation on company performance, that there were 10

Table 4. Research Results on the Effect of Entrepreneurship Orientation on Industrial Performance

| No | Journal/Article | Research methods | Research result | Source |
|----|---|------------------|---|---|
| 1 | The Effect of Entrepreneurship Orientation and Market Orientation on MSME Performance | Quantitative | There is a positive and significant influence of entrepreneurial orientation on the performance of SMEs | JSHP, Vol.4, No.1, 2020 |
| 2 | The Influence of Digital Literacy and Entrepreneurship Orientation on MSME Business Performance | Quantitative | There is a positive and significant influence of entrepreneurial orientation on business performance | Transeconomy: Accounting, Business and Finance, Volume 2 Issue 6 (2022), https://transpublika.co.id/ojs/index.php/transekonomika transekonomika |
| 3 | The Role of Competitive Advantage in Mediating Market Orientation and Entrepreneurship Orientation with SME Performance | Quantitative | Entrepreneurial orientation has a positive and significant impact on the performance of SMEs | INOBI: Indonesian Journal of Business and Management Innovation, Volume 1, Number 2, March 2018 |
| 4 | The Role of Market Orientation, Entrepreneurship Orientation and Competitive Strategy to Improve SME Performance | Quantitative | Entrepreneurial orientation has a positive and significant impact on the performance of SMEs | Equity: Journal of Economics and Finance, Volume 19, Number 2, June 2015: 241–259 |
| 5 | The Influence of Entrepreneurship Orientation and Market Orientation on Company Performance through Competitive Advantage | Quantitative | Entrepreneurial orientation affects company performance | Optimal Journal, Vol.18, No.1, February 2021: 27–40 |

(continued)

Table 4. (continued)

| No | Journal/Article | Research methods | Research result | Source |
|----|--|------------------|---|---|
| 6 | Entrepreneurial Orientation and Network Capability in Efforts to Improve Performance in SMI Tanners in Sukastre, Garut Regency | Quantitative | There is a significant influence between entrepreneurial orientation on the performance of SMEs | Journal of Economic Discourse, Vol.19, No.01, 2019: 001–012, www.journal.uniga.ac.id |
| 7 | <i>The Effect of Entrepreneurial Orientation, Innovation Capability and Knowledge Creation on Firm Performance: A Perspective on Small Scale Entrepreneurs</i> | Quantitative | <i>Entrepreneurial orientation a significant on firm performance</i> | Journal of Management 48 (2016) 187–200, https://ejournal.ukm.my/pengurusan/article/view/16218 |
| 8 | <i>The Impact of Entrepreneurial Leadership on SMEs' Performance: The Mediating Effects of Organizational Factors</i> | Quantitative | <i>Entrepreneurial orientation not effect on business performance</i> | <i>Heliyon Journal homepage: www.cell.com/heliyon, 7(2021) e07326</i> |
| 9 | <i>Effect of Entrepreneurial Orientation on Business Performance</i> | Quantitative | <i>Innovative entrepreneurial orientation had a significant effect on business performance</i> | <i>International Journal of Civil Engineering and Technology (IJCIET)</i> , Volume 8, Issue 9, September 2017, pp.82-90 http://www.iaeme.com/ijciet/issues.asp?Jtype |
| 10 | <i>Effects of Entrepreneurial Orientation on Business Performance: The Mediating Role of Customer Satisfaction-A Formative-Reflective Model Analysis</i> | Quantitative | <i>Entrepreneurial orientation positively influences business performance</i> | <i>SAGE Open April-June 2019: 1–14, journal.sagepub.com/home/sgo</i> |

articles [18–27] stated that entrepreneurial orientation has positive influence on company performance.

Entrepreneurial orientation refers to the strategic orientation of an organization and its capacity to capture certain market elements and decision-making styles, strategies, and procedures. On the one hand, many researchers show a positive relationship between entrepreneurial orientation and business performance, which means that firms that adopt more entrepreneurial orientation tend to perform better. Similarly, other papers show that companies with an entrepreneurial orientation tend to take advantage of opportunities with their commitment and efforts. However, in some of them, the expected benefits did not materialize, which gave rise to the need to outline the various possibilities. Entrepreneurial orientation is the key used to improve the performance of a

company as well as the resources and capabilities to provide a superior and competitive advantage for the company. An entrepreneurial orientation is very important for an organization and has a positive impact on industry performance. The industry must adopt an entrepreneurial orientation as one of the business strategies. Although this study uses entrepreneurial orientation as a uni-dimensional construct, industries that apply this concept in their business operations must understand that entrepreneurial orientation has five dimensions.

Misra stated that “entrepreneurial organizations constantly seek value opportunities and engage in active learning to build resources, whereas traditional organizations are resource-driven and thus limited to value opportunities that their current resources allow. Traditional organizations resist uncertainty and play it safe, whereas entrepreneurial organizations welcome uncertainty and actively exploit it in the firm’s favor” [3]. Entrepreneurial oriented organizations are constantly looking for value opportunities and engage in active learning to build resources, whereas traditional organizations are resource driven and thus limited to the value opportunities that their current resources allow. Traditional organizations reject uncertainty and play it safe, whereas entrepreneurial organizations welcome uncertainty and actively exploit it for the benefit of the company.

Muchiri and McMurray stated “Entrepreneurial orientation is implemented effectively in the organization using firms’ capabilities and resources. Regarding the direct impact of entrepreneurial orientation, some researchers believe that entrepreneurial orientation can itself determine firm performance, especially for small businesses” [25]. The entrepreneurial orientation is implemented effectively in the organization by using the company’s capabilities and resources. Regarding the direct impact of entrepreneurial orientation, some researchers believe that entrepreneurial orientation itself can determine company performance, especially for small businesses.

“MEs with entrepreneurial orientation have several advantages in reshaping their businesses to respond to changes in a business environment as they are small and flexible. There is also some empirical evidence for a strong positive impact of entrepreneurial orientation on SMEs’ performance. It is undeniable that firms with entrepreneurial orientation seem to outperform their intra-industry rivals. Since they proactively seek new opportunities and make relevant innovations and improvements to satisfy their primary stakeholders and customers, thereby improving product/ service quality, customer satisfaction, sales growth, and reputation” [3]. Companies with an entrepreneurial orientation have several advantages in reshaping their businesses to respond to changing business environments because they are small and flexible. There is also some empirical evidence of a strong positive impact of entrepreneurial orientation on business performance. There is no denying that firms with an entrepreneurial orientation seem to outperform their intra-industry rivals. Because they proactively seek new opportunities and innovate and improve relentlessly to satisfy their key stakeholders and customers, thereby improving product/service quality, customer satisfaction, sales growth and reputation.

5 Conclusion

This study is a systematic literature review to investigate the effect of digital skills, technological innovation, and entrepreneurial orientation variables on the performance

of small and medium industries. The search results in the online library were taken as many as 10 journals (national journals and international journals) related to the influence of digital skills on industrial performance, as many as 10 journals (national journals and international journals) related to the effect of technological innovation on industrial performance, and as many as 10 journals (national and international journals). International journals) related to the influence of entrepreneurial orientation on industrial performance. The benefits of this study are to provide reference material and company considerations in making policies in an effort to improve company performance and considering digital skills, technological innovation, and entrepreneurial orientation as aspects related to performance in small and medium industries.

Based on the research questions that have been determined, the main study is analyzed and relevant information is synthesized to address the problems in the research objectives. This study provides an overview of the influence of digital skills, technological innovation, and entrepreneurial orientation on the performance of small and medium-sized industries including research gaps that must be addressed in future research. It can be used as a comprehensive resource to understand the variables that affect industry performance.

This study offers contributions to both research and practice. Researchers should consider this study as a comprehensive resource that offers clues about the factors investigated in the literature and a basis for future research in this area, whereas practitioners aiming to improve their performance affected by some of the above variables will find a structured review useful. In particular, there is a need for studies that propose and use variables related to industry performance. The literature also reports inconsistencies in the metrics affecting industry performance variables and their impact on effectiveness which should be addressed in future research.

References

1. Kafetzopoulos D, Psomas E. The Impact of Innovation Capability on the Performance of Manufacturing Companies. *Journal of Manufacturing Technology Management* n.d.;26:104–130.
2. Suyono E. Effect of External Business Environment, Strategy Formulation, and Internal Control on Company Performance. *Journal of Economics and Business*, Jenderal Sudirman University; n.d.
3. Ulfiah. *Psikologi Keluarga*. Bogor: Alfabeta; 2016.
4. Rahmadi AN. The Influence of Market Orientation, Innovation and Entrepreneurship Orientation on Competitive Advantage of SMEs on the Streets of Kediri City. *Ekbis Journal of Analysis, Prediction, and Information* n.d.;21:2.
5. Armiani. Digital Technology Mediates the Impact of Business Strategy on MSME Performance in West Nusa Tenggara. *Equity: Journal of Economics and Finance* n.d.;3, Number:300–320.
6. Azlina N. The Influence of Information Technology and Innovation on the Performance of SMEs. *Journal of Accounting and Banking Research* n.d.;15.
7. Heredia J. do digital capabilities effect firm performance? The mediating role of technological capabilities in the “new normal.” *Journal of Innovation &* n.d.;100171.
8. Mubarak MF. The Impact of Digital Transformation on Business Performance. *Engineering, Technology & Applied Science Research* n.d.;9 N.6:5056–5061..

9. Nwankpa JK. IT Capability and Digital Transformation: A Firm Performance Perspective. Thirty Seventh International Conference on Information Systems, Dublin: n.d.
10. Pierre S-LJ. Effects of the use of digital technologies on the performance of firms in a developing country: are there differences between creative and manufacturing industries? *International Journal of Information Systems and Project Management* n.d.;10:1.
11. Sudibyo YA, Bawono IR, Rahayu AK. The Influence Of Accounting Information System In Moderating Relationship Between Understanding And Socialization of Tax to MSMEs Tax Compliance. *Jurnal Akuntansi Dan Bisnis* 2020;20:145–58.
12. Ekayani NNS. Technological Innovation Mediates the Effect of Intellectual Capital on MSME Performance. *JPII (Jurnal of Indonesian Education Research, Vol.7, No.4: n.d., p. 658–669,.*
13. Purnama S, Ulfah M, Machali I, Wibowo A, ... Does digital literacy influence students' online risk? Evidence from Covid-19. *Heliyon* 2021.
14. Adeyeye TC. The Impact of Technological Innovation on Organizational Performance. *Industrial Engineering Letters* n.d.;4:3.
15. Gunday G. Effects of Innovation Types on Firm Performance. *Journal of Engineering and Natural Sciences* n.d.;34956.
16. Naidoo IP. Impact of Information Technology on Innovation in Determining Firm Performance. *African Journal of Science Technology Innovation and Development* n.d.
17. Oktaviani JI. Company Performance Strategy Influenced by Innovation, Product Quality, Company Reputation Through Competitive Advantage. *Journal of Social and Technology* n.d.
18. Wahyudiyono. The Influence of Entrepreneurship Orientation and Market Orientation on Company Performance through Competitive Advantage. *Optimal Journal* n.d.;18:1.
19. Farhan MT. The Influence of Digital Literacy and Entrepreneurship Orientation on MSME Business Performance. *Transeconomy: Accounting, Business and Finance* n.d.;2.
20. Medhika NGAJ. The Role of Competitive Advantage in Mediating Market Orientation and Entrepreneurship Orientation with SME Performance. *INOBI: Indonesian Journal of Business and Management Innovation* n.d.;1, Number.
21. Nuvriasari A. The Role of Market Orientation, Entrepreneurship Orientation and Competitive Strategy to Improve SME Performance. *Equity: Journal of Economics and Finance* n.d.;19, Number:241–259.
22. Elvina. The Influence of Entrepreneurship Orientation and Market Orientation on MSME Performance. *JSHP* n.d.;4:1.
23. Suganda FR. Entrepreneurial Orientation and Network Capability in Efforts to Improve Performance in SMI Tannery in Sukastret Garut Regency. *Journal of Economic Discourse* n.d.;19:1.
24. Omar NA. The Effect of Entrepreneurial Orientation, Innovation Capability and Knowledge Creation on Firm Performance: A Perspective on Small Scale Entrepreneurs. *J Manage* n.d.;48:187–200.
25. Nguyen P v. The Impact of Entrepreneurial Leadership on SME's Performance: The Mediating Effects of Organizational Factors". *Heliyon Journal Homepage: Www.CellCom/ Heliyon* n.d.;7:7326.
26. Musthofa. Effect of Entrepreneurial Orientation on. *Business Performance International Journal of Civil Engineering and Technology* n.d.;8:82–90.
27. Vargas HC. of Entrepreneurial Orientation on Business Performance: The Mediating Role of Customer Satisfaction-A Formative-Reflective Model Analysis. *SAGE. Open* April-June n.d.;2019:1–14,.
28. Hildiz S, Baştürkb F, Bozc T. The Effect of Leadership and Innovativeness on Business Performance. Peer-review under responsibility of the International Strategic Management Conference, n.d., p. 150 785–793. <https://doi.org/10.1016/j.sbspro.2014.09.064>.

29. Ibrahim R, Primiana I. Influence Business Environment on the Organization Performance. *International Journal of Scientific & Technology Research* n.d.;4.
30. Morgan A. Digital demand and digital deficit: conceptualising digital literacy and gauging proficiency among higher education students. *Journal of Higher Education Policy and Management* 2022;44:258–75. <https://doi.org/10.1080/1360080X.2022.2030275>.
31. Mangkunegara. *Manajemen Sumber daya Manusia Perusahaan*. Bandung: Pt. Remaja; 2005.
32. Soedjono. The Influence of Organizational Culture on Organizational Performance and Employee Job Satisfaction at the General Passenger Terminal in Surabaya. *Journal of Management and Entrepreneurship* n.d.;7:1–5.
33. Islamic MH-TIJ of, 2021 undefined. The Role of Parents in Children Memorizing the Qur'an in Middle School Based on the Amanatul Ummah Islamic Boarding School. *PascaJurnalikhacAcId* n.d. <https://doi.org/10.31538/tijie.v2i2.43>.
34. Jahanshashi AA, Raezaie M, Nawaser K, Ranjbar V, Pitamber BK. Analyzing the Effect of Electronic Commerce on Organizational Performance Evidence from Small and Medium Enterprises. *Journal of Business Management* n.d.;6:6486–6496.
35. Adietya E. Analysis of the Effect of Information Technology and Innovation on Competitive Advantage to Improve Organizational Performance (Study on Food SMEs in Semarang City. *J Econ Bus* n.d.
36. Hardyman W, Garner S, Lewis JJ, Callaghan R, Williams E, Dalton A, et al. Enhancing public service innovation through value co-creation: Capacity building and the 'innovative imagination.' *Public Money & Management* 2022;42:332–40. <https://doi.org/10.1080/09540962.2021.1981042>
37. Brennen JS, Kreiss D. Digitalization. In: Jensen KB, Rothenbuhler EW, Pooley JD, Craig RT, editors. *The International Encyclopedia of Communication Theory and Philosophy*, Wiley-Blackwell, Chichester: 2016, p. 556–566.
38. Unruh G, Kiron D. Digital Transformation on Purpose". *MIT Sloan Manag Rev* n.d.
39. Suellen SC, Nikou S, Widen G. Effect of Digital Literacy on the Use of Digital Technology: Micro-entrepreneurs in the Creative Industries. 33rd Bled eConference-Enabling Technology for a Sustainable Society; n.d.
40. Motyl B, Baronio G, Uberti S, Speranza D, Filippi S. How Will Change the Future Engineers Skills in the Industry 4.0 Framework? A Questionnaire Survey. *Procedia Manuf* n.d.;11:1501–1509.
41. Suprpto T. *Introduction to Communication Theory and Management*. Yogyakarta: Medpress; n.d.
42. Fikri MK. The Influence of Creative, Innovation and Marketing Strategy on Increasing Consumer Purchasing Power. *Journal of Management Science, Economics and Entrepreneurship* n.d.;2:1.
43. Herdiana N. *Sharia Business Management and Entrepreneurship*. Bandung: Faithful Library; n.d.
44. Muathe S, Dushime E. The Interplay of Entrepreneurial Innovation, Government Regulation and Performance: any Lessons for The SMEs A Theoretical Review". *European Scientific Journal*, ESJ n.d.;17. <https://doi.org/10.19044/esj.2021.v17n12p235>.
45. Nambisan S, Lyytinen KM, A., Song M. Digital Innovation Management: Reinventing Innovation Research in a Digital World". *MIS. Quarterly* n.d.;41:1.
46. Fauziah NN. The Effect of Digital Innovation Implementation on Company Performance Based on Employee Perception (Case Study at PT. Indonesia Power UPJP Kamojang)". *Journal of Management Partners (JMM Online* n.d.;4:9.
47. Ancok D. *Leadership and Innovation*. Jakarta: Erlangga; n.d.
48. Ofori D. Innovation and Knowledge Sharing: A New Competitive Advantage in the Mobile Telecommunication Industry in Ghana". *Science Journal of Business and Management* n.d.;3:157–163.

49. Mishra C. Entrepreneurial Orientation. *Entrepreneurship Research Journal* n.d.
50. Hooi HC, Ahmad NH, Amran A, Rahman SA. The Functional Role of Entrepreneurial Orientation and Entrepreneurial Bricolage in Ensuring Sustainable Entrepreneurship. *Management Research Review* n.d.;39:1616–1638.
51. Knight G. *Entrepreneurship and Marketing Strategy: The SME Under Globalization* n.d.;8:12–32.
52. Kitchenham B, Charters S. *Guidelines for Performing Systematic Literature Reviews in Software Engineering*. Technical Report EBSE 2007–001, Keele University and Durham University Joint Report 2007.
53. Arviansyah MR. Faktor untuk Meningkatkan Inovasi di Negara Berkembang – Tinjauan Literatur Sistematis. *Business Innovation and Entrepreneurship Journal* 2020;2(3), 173–.
54. Hardy, H., Afrianty TW, Prasetya A. PERSPEKTIF KARYAWAN DALAM PENELITIAN MANAJEMEN BAKAT: TINJAUAN LITERATUR. *Jurnal Administrasi Bisnis* 104–128 2020.
55. Sunarsi D, Norvadewi, Lestari DA, Purnamasari ED, Setiawan B, Agustin H, et al. Pentingnya Kepemimpinan dan Kerjasama Tim Dalam Implementasi Manajemen Mutu Terpadu. *Al Maal: Journal of Islamic Economics and Banking* 2020.
56. Triandini E, Jayanatha S, Indrawan A, Werla Putra G, Iswara B. Metode Systematic Literature Review untuk Identifikasi Platform dan Metode Pengembangan Sistem Informasi di Indonesia. *Indonesian Journal of Information Systems* 2019.
57. Cooper HM. *Research synthesis and meta analysis a step by step approach*. SAGE Publications, Inc 2016.
58. Rupp DE, Shao R, Jones KS, Liao H. The utility of a multifoci approach to the study of organizational justice: A meta-analytic investigation into the consideration of normative rules, moral accountability, bandwidth-fidelity, and social exchange. *Organ Behav Hum Decis Process* 2014.
59. Tranfield, D., Denyer D, Smart P. Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management* 2003.
60. Driscoll SD. *A Systematic Review and Quantitative Meta-Analysis of the Accuracy of Visual Inspection for Cervical Cancer Screening: Does Provider Type or Training Matter?* Florida Atlantic University Boca Raton, FL 2016.
61. Alilyyani B. *A Systematic Review of the Antecedents, Mediators and Outcomes of Authentic Leadership in Healthcare*. Electronic Thesis and Dissertation Repository 4629 <https://doi.org/10.1016/j.ijnurstu.2018.04.001> 2017.
62. Ngai EWT, Hu Y, Wong YH, Chen Y, Sun X. The application of data mining techniques in financial fraud detection: A classification framework and an academic review of literature. *Decis Support Syst* 2011;50:559–69. <https://doi.org/10.1016/J.DSS.2010.08.006>.
63. Hart C. *doing a literature review: Releasing the social science research imagination*. London: Sage (p 1998) 1998.
64. Gomber, P., Koch JA, Siering M. Digital Finance and FinTech: current research and future research directions. *J Bus Econ* 87, 537–580 (2017) <https://doi.org/10.1007/s11573-017-0852-x>.
65. Moseley D, Higgins S, Bramald R, Hardman F, Miller J. *Ways Forward with ICT: Effective Pedagogy Using Information and Communications Technology for Literacy and Numeracy in Primary Schools*. 1999.
66. Chen, X., Chen J, Wu, D. XieY, Li J. Mapping the research trends by coword analysis based on keywords from funded project. *Procedia Computer Science*, 91, 547–555 2016.
67. Caylina E, Sari RN, Anugerah R. Factors Affecting the Performance of Small and Medium Enterprises (SMEs) in Riau Province (In the Palm Oil Processing Industry Sector. *Journal of Accounting* n.d.;7:137–147.

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