Systematic Literature Review: Increasing Performance of Women MSMEs Through Competitive Advantage Based on Digital Transformation and Innovation

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Abstract. MSME have great potential to be developed, so their activities need to be further encouraged and developed further to improve their business performance. The empowerment of MSMEs in the midst of globalization and high competition has forced MSMEs to be able to face global challenges, such as increasing product and service innovation, developing human resources and technology, and expanding the marketing area. Research on the effects of digital transformation, innovation, daytime advantage and the performance of MSMEs has been widely carried out. The inconsistency of the measurement model of the research variables has occurred until now, both inconsistencies in the number of dimensions in each variable and the differences in the dimensions of each model. This makes researchers who want to do research in this field feel like entering the wilderness of science and are hesitant to determine the right steps. By using the Systematic literature review method, this study was made to convey the results of synthesizing the various inconsistencies of the above dimensions and their consequences, so it is very important to examine the effect of digital transformation and innovation on competitive advantage to improve MSME performance. To answer the following questions; (RQ1: How to measure performance variables in SMEs); (RQ2: How to measure digital transformation variables in SMEs); (RQ3: How to measure the innovation variable in MSMEs); (RQ4: How to measure the variable of competitive advantage in SMEs). As a result, 91 publications were found to investigate thoroughly, namely articles on the effect of digital transformation on MSME performance in 2022 search for 30 articles. There are 39 articles on the influence of innovation on the performance of SMEs. There are 34 articles on the effect of competitive advantage on the performance of SMEs. There are 42 articles on the performance of MSMEs. 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. Although this study has described indicators of each measurement dimension in all variables, further research can modify or add indicators as needed, according to the strategy of each business.

Keywords: Systematic Literature Review · Digital Transformation · Innovation · Competitive Advantage · MSME Performance

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1 Introduction

MSMEs have an important role in completing the Sustainable Development Goals (SDGs), especially to stimulate innovation, creativity, and create decent jobs for all. Specifically, the SDGs formulated Goal 8 (target number 3) and Goal 9 (target number 3) to strengthen MSMEs through improving access to financial services. This function provides the foundation for the Indonesian government to reinforce its commitment to the development of MSMEs, as specified in the National Medium-Term Development Plan's primary plan (RPJMN) [1].

There are three things that underlie why MSMEs in Indonesia are very important for the national economy, including: (1) MSME performance tends to be better at generating a productive workforce; (2) as part of its dynamics, MSMEs often achieve greater productivity via innovation and technological development; and (3) it is commonly assumed that MSMEs have a flexibility advantage over large companies [2].

In theory, small and medium-sized enterprises (SMEs) have a great deal of growth potential; thus, their activities must be further supported and expanded in order to enhance their commercial performance. MSMEs have shown their ability to endure adversity; thus, they are urged to speed the digital transformation process, particularly during the COVID-19 pandemic. Technology is necessary to enhance performance and production [3]. Some experts reveal that SMEs need the role of digital technology to improve performance and productivity [4]. Performance itself can be characterized as the company's ability to produce acceptable outputs [5].

However, on top of the enormous role of MSMEs in the national economy, There are evidence that demonstrate the poor quality of MSME resources, particularly in the sectors of management, organization, technological expertise, and marketing. In general, small and medium-sized company owners rely on experience to operate their enterprises. Increasing capacity is still not a top concern. The low level of education and competence of small and medium-sized company owners has a number of negative effects, including: (1) low creativity, (2) poor business management, (3) low productivity, (4) poor product quality, and (5) limited access to services. Startup Capital [6].

In the context of globalization and intense competition, the empowerment of MSMEs necessitates that they be able to tackle global issues, such as growing product and service innovation, improving human resources and technology, and extending their marketing area [7]. The goal is to be able to compete on local and international goods that are rapidly flooding industrial and manufacturing hubs in Indonesia, given that MSMEs are an economic sector that can thrive in the period of globalization, which is characterized by intense rivalry.

Women's economic empowerment and inclusion via MSMEs is essential to reaching the Sustainable Development Goals of 2030, and technology is a vital facilitator. Digitization in many industries has the potential to accelerate the empowerment of women and lower the gender gap in labor force participation by 25 percent in G20 nations by 2025 [8].

At the organizational level, it is stated that organizations must establish a "plan that embraces the implications of digital transformation and promotes greater operational performance" in order to innovate with technology [9]. At the same time, the government also realizes the importance of increasing the competitive advantage of MSMEs

through increasing business capacity in the hope that micro-enterprises can upgrade to small businesses, small businesses become medium-sized businesses and so on [10]. Competitive advantage results from a company's capacity to capitalize on its internal strengths to exploit external opportunities while avoiding external threats and internal weaknesses [11]. Competitive advantage is defined as organizational elements that enable a firm to outperform its rivals [12].

1.1 Inconsistency in Measurement of MSMEs Performance Dimensions

In an effort to comprehend the performance of micro, small, and medium-sized enterprises (MSMEs), academics have devised several measuring models, such as this one, which combines financial and non-financial metrics [13]. In order to provide important success factors on the firm or stakeholder side, performance is measured uniformly from a variety of simultaneous views in four dimensions: financial perspective, customer perspective, internal business perspective, and innovation and learning perspective. All views may aid businesses in answering four fundamental issues. (1) How can corporations produce shareholder value from a financial standpoint? (2) How do our consumers see us (customer viewpoint)? (3) What are our benefits (from an internal company standpoint)? (4) Can we continue to develop and produce value (view of innovation and learning)?

Unfortunately, this strategy is not ideal for micro, small, and medium-sized enterprises (MSMEs) since the circumstances are vastly different from those of major corporations, despite their widespread usage. Due to the particular properties of SME's, specific measurements are required [14]. This model's dimensions and size must be modified in order for it to be applicable to SMEs [15]. There is one component that is seldom quantified, and that is the intrinsic entrepreneurial performance element of company. The features of small and medium-sized enterprises (SMEs) in which the owner is also the owner-manager make it hard to distinguish corporate success from entrepreneurial performance, since it influences every business decision.

MSME performance can be measured by two approaches, namely quantitative and qualitative. MSME performance with a quantitative approach in large companies usually uses (1). financial outcomes such as Return on Assets (ROA); Return On Investment (ROI); and Return On Equity (ROE), (2). production, for example the number of good sold and operating expenses ratio, (3). Marketing for example the number of consumers, (4). efficiency [16]; [17]. Meanwhile, the performance of SMEs with a qualitative approach can use the achievement of goals, level of discipline, effectiveness, perceptions of leaders in organizational performance, and individual behavior in organizations. The use of qualitative performance appraisals is considered to have more benefits than financial statement performance indicators, for example in cross-sectional studies, company profits in different industries cannot be compared with differences in the level of capital intensity.

Based on research [18], The development of MSMEs in Indonesia is influenced by the operational system of MSMEs in Indonesia, most of which operate based on traditional systems, both in production and marketing. Furthermore, research on the performance of MSMEs by [19] using internal organizational variables such as aspects: entrepreneurial, human resource competence, innovation and sustainability.

For the variety of perspective performance measurement variables used by [20] namely profit, cash flow position, and budget vs. actual for the financial dimension, as well as product quality and customer satisfaction for the non-financial dimension. According to [21] the following are indicators of MSME performance, 1. sales growth, 2. customer growth, 3. profit growth. According to [22] MSME performance is measured in financial and non-financial dimensions, financial indicators are profit and market. While non-financial indicators are increased work productivity, increased production costs, customer satisfaction, employee satisfaction, and organizational reputation. [23] assessing the dimensions of MSME performance measurement into two, namely financial and business growth. Financial indicators in the form of profit growth indicators business growth. Another statement stated by [24] which measures the performance of MSMEs financially and non-financially. Financial indicators are sales growth, sales increase and profits. While non-financial market competition, market, distribution, reputation, market access. Whereas [25] measure the performance of MSMEs based on profit and success indicators.

Then, [26] demonstrates that non-financial performance measurements aid firms in implementing and managing new projects more effectively than financial performance indicators. [27] Divides non-financial performance into six categories: product quality, employees, customers, internal efficiency, product growth and development, and corporate social responsibility. Financial performance (e.g., profitability, return on investment), product performance (e.g., product reliability, number of unique product features), and market performance (e.g., market share, customer satisfaction) are a few measures of firm performance. Two groups of actions can serve as the basis for performance evaluation.

Furthermore [28] using three dimensions as a point of view in measuring business performance, namely effectiveness, efficiency, and adaptivity. Effectiveness is related to the comparison of conditions and the level of success of the company. The efficiency of the firm may be determined by analyzing its sales growth, market share, customer retention, customer happiness, and customer complaints. Meanwhile in research [29] Business performance measurement can be divided into five parts, namely market, suppliers, processes, people, and customers.

1.2 Inconsistency in Measurement Dimensions of Competitive Advantage

Competitive advantage is embraced as a better management or economic concept to conventional economic measures such as profitability, productivity, or market share [30]. However, conventional indicators can only represent quantifiable facts from the past. To provide consumers better value and happiness than their rivals, businesses must be operationally efficient, cost-effective, and quality-minded. In addition to financial and market-based measures, additional indicators like innovation, ethical standards, social responsibility, and working conditions for workers should be taken into account [31] believes that the only explanatory element of a company's performance is not an adequate indication of competitiveness. Therefore, competitiveness is seen as a multidimensional construct that is measured by a variety of indicators that have been designed to work together.

In earlier research, competitive advantage has been linked to cost-based, product-based, and service-based value and quality dimensions [32]. The cost-based advantage includes both reduced manufacturing costs and lower product prices. Product-based benefits include superior product quality, packaging, and design. Additionally, businesses may attain service-based excellence via product adaptability, accessibility, delivery speed, and technical assistance. These empirical studies on competitive advantage focused on operational efficiency, cost-effectiveness, quality, marketing, information technology, and innovation.

1.3 Inconsistency in Measurement Dimensions of innovation

Service innovation (service innovation) is referred to as a reference to the extent to which MSMEs achieve competitive advantage [33]. Service innovation is a change made by the company to improve marketing performance by accelerating the existing service work system. According to [34] Service innovation is a change made by a company to be better and able to meet market needs. According to [35] that the measurement of service innovation can be done through: use of technology, interaction with customers, development of new services, service delivery systems.

[36] also mentioned that product innovation is not just finding new things or products, but these new things must intersect with added value or added value in goods. So if a new product is created or a new inventor that does not offer added value in it, it cannot be called product innovation. Added Value is a measure that consists of two aspects. The first aspect is desire or desirability, and the second aspect is functionality. Product innovation is the result of radical product creation and introduction or modification of existing products [37].

Recognize that introducing anything new or considerably enhancing the product is an innovation. Based on the kind, innovation is thus split into three categories. In the first place, product innovations are the introduction of wholly new or significantly improved products or services. Second, process innovations, or the use of wholly novel and significantly improved manufacturing, service, or delivery techniques. In terms of product design, location, and promotion, as well as price, marketing innovations refers to the execution of a new marketing strategy [38].

Product innovation and process innovation are the two categories of innovation. in accordance [39], A process innovation is the introduction of a new or considerably enhanced way of production or distribution. This comprises considerable modifications to engineering, equipment, and/or software. Process innovation might be designed to lower unit production or delivery costs in order to increase quality, or to manufacture or supply a new or substantially better product. According to [37] Process innovation stresses new operational approaches through establishing new technology or enhancing old ones. Sources of innovation that describe the execution of innovation activities, regardless of whether the innovation concept originated from internal or external organizations, or both. Product innovation is the process of incorporating new technologies into a product to increase its value [40]. Through innovation, one may increase the value of a company's goods, services, work processes, marketing, and distribution networks not just for the company's shareholders but also for society as a whole. Capacity to use imagination to solve difficulties and seize chances to better one's life. According

to studies, product innovation dimensions include: [41] There are three dimensions of product innovation, including: Line extension, new product, completely new product. While the measurement of process innovation in improving the production process to produce a product [42] namely: speed and efficiency of the production process, reliability of the production process and technology, trying to keep the production process ahead of competitors.

1.4 Inconsistency in Measurement Dimensions of Digital Transformation

The six steps of digital transformation are as follows: (1) Understanding digital literacy; (2) planning the needed resources and understanding the demands of digital consumers; and (3) implementing the digital transformation. (3) redesign; (4) build a budget; (5) establish technical/operational collaborations. (6) implementation [43].

Digital transformation drivers are the variables that allow and encourage enterprises to implement digital transformation within their operations [44]. According to reports [45], In digital transformation, technologies like as mobile tools and applications, social media, Internet of Things (IoT), analytics tools and applications, platforms for communication and data exchange, and application collaboration play a significant role. In light of this, digital technology is seen as one of the primary drivers of digital transformation. On the contrary, [46] contends that the use of digital technology alone is insufficient to propel digital transformation. A corporation must have appropriate digital capabilities, digital strategy, culture, and personnel development to guarantee a successful digital transition. Another research identified various characteristics, including consumer behavior, customer expectations, digital industry transformations, and a shifting competitive environment [47], and regulatory changes [48] may serve as a catalyst for digital change. Additionally, digital transformation can be motivated by opportunities to improve business performance, such as profitability and new revenue growth, customer satisfaction, increased operational efficiency, convenience and high-quality technical standards, increased business agility, and increased employee productivity and competitive advantage [49].

Digital transformation is defined in several indicators including; Active presence online; Coordinated sales; Collaborative [50], Operation simplification [51], The target is to improve service and accuracy [52]. Capitalization and data usage [51], Survive during the pandemic [53], The process of using digital technology [52], Digitization can change the value [54].

The inconsistency of the measurement model of the variables above has occurred until now, both inconsistency in the number of dimensions in each variable and the difference in the dimensions of each model [55]. This makes researchers who want to do research in this field feel like entering the wilderness of science and are hesitant to determine the right steps.

This study was made to convey the results of synthesizing the various inconsistencies of the above dimensions and their consequences, so it is very important to examine the effect of digital transformation and innovation on competitive advantage to improve MSME performance. To overcome this goal, the following is the formulation of the question;

RQ1: How to measure performance variables in SMEs
RQ2: How to measure digital transformation variables in SMEs
RQ3: How to measure innovation variables in SMEs
RQ4: How to measure the competitive advantage of SMEs

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 Study Literature

2.1 Performance

Company performance is a measurement of how well a business is able to achieve its aims and objectives in comparison to its main rivals [56]. Profitability, expansion, and market value are typical indicators of a company's exceptional success [57]. As could be anticipated, a substantial amount of scientific research has been devoted to elucidating the causal structure of company performance and explaining differences in performance across competing enterprises [58].

Financial performance and non-financial performance are often included in business performance [59]; [60]. On one side, financial performance is used to characterize a company's performance in terms of monetary value and financial operations. Non-financial performance, on the other hand, is the performance of a firm that cannot be quantified in monetary terms, including brand reputation, customer happiness, organizational performance, and innovation activities. Financial success is often related with the firm's short-term survival, but non-financial performance is more likely to be associated with long-term growth that is sustainable. Consequently, financial success is, to a certain degree, more important than non-financial performance, particularly for startups and early-stage firms. [61]; [62] However, it is the most crucial to manage and combines the two kinds of startup development performance [59].

[63] explains that business success is the consequence of achieving corporate objectives via the use of effective strategies and processes. The performance of a firm is an essential metric used by economic entities to evaluate the success of a business. Performance is a summary of the organizational unit's objectives [58]. Therefore, it is in the best interest of every firm to demonstrate that its performance meets the organization-wide accomplishment criteria that have been established and agreed upon. As a reference for evaluating corporate success, the standardization of performance indicators becomes crucial. Future planning requires the standardization of size as a criterion and evaluative material.

The performance of a company according to [64] is the company's ability to create activities and results received. Furthermore [17] stated that the performance of MSMEs can be seen from the satisfaction of owners or managers on profitability, turnover, and business development.

In general, performance is the outcome or evaluation of industrial activity accomplished by a person or group with the division of operations into tasks and positions at a certain time in accordance with predetermined industry standards [64]. Meanwhile, the

understanding of MSME performance was conveyed by [65] which claimed that MSME performance is the outcome of a process or product that has been properly performed and then compared with objectives, targets, and criteria that have become guidelines and have been jointly agreed upon in an industry where assets and revenue are decided. based on the requirements established by the relevant legislation.

2.2 Competitive Advantage

Competitive advantage results from a company's capacity to capitalize on its internal strengths to exploit external opportunities while avoiding external threats and internal weaknesses [11]. [12] argues that competitive advantage is the capacity of a corporation to outperform competitors in the same sector or market by virtue of its qualities and resources. After Porter created the notion, the topic of competitive advantage became increasingly prominent. In their push for greater growth and diversification, however, many businesses have lost sight of their competitive edge after decades of growth and success. Competitive advantage is an expansion on the reality of management, which is a procedure for identifying, developing, and implementing a genuine advantage. All firm resources that contribute to a competitive advantage are often employed as research to inform the formulation of management plans [66]; [12].

According to [67] competitive advantage is the company's ability to create value or advantages that are not owned by other companies and cannot be imitated by competitors, the five dimensions of measurement used are price, quality, delivery reliability, product innovation, time to market. In addition, according to [68], Competitive advantage is the company's ability to implement low cost and differentiation strategies so that it can answer and meet market needs.

Competitive advantage originates from a company's capacity to optimize the efficiency of its manufacturing processes, to generate products and services of higher quality, and to provide services that consumers react to with a high level of satisfaction. Competitive advantage refers to the comparative market position that enables a business to outperform its rivals. Competitive advantage may arise from products and services that vary significantly from conventional offerings in their respective markets or have lower prices than rivals [69].

2.3 Innovation

Innovation has long been a major issue in the literature on company strategy. Innovation may be described as the introduction of novel concepts, procedures, goods, or services [70]; [71]. Innovation is not ordinary, substantial, and entails modifications to current organizational skills [72]. In an increasingly competitive business environment, innovation is acknowledged as a crucial factor for firms aiming to generate value and maintain a sustainable competitive advantage [73]. Innovation can be described into two levels, namely: improvement and new direction [74]. While a refinement is a new solution intended at fulfilling an existing optimum definition of a value or an established issue, a modification is a new solution targeted at satisfying an existing optimal definition of a value or [74], Innovation in a new direction generates a whole new set of value propositions and new avenues. The focus on innovation has prompted practitioners and

academics alike to conduct extensive study on the impact of innovation in corporate success [75]. Not surprisingly, organizations with stronger innovation have proven a greater capacity to build new skills and adapt to changing business environments, resulting in improved performance [76].

Leadership orientation can be divided into two, namely first to the market and second to the market. This is supported by [77]: 'leadership' innovation, i.e. innovation where the company aims to be first to market, based on technological leadership and 'followership' innovation, ie where the company is late to market. Service innovation (service innovation) is referred to as a reference to the extent to which MSMEs achieve competitive advantage [33]. Service innovation is a change made by the company to improve marketing performance by accelerating the existing service work system. According to [34] service innovation is a change made by a company to be better and able to meet market needs. According to [35] that the measurement of service innovation can be done through: use of technology, interaction with customers, development of new services, service delivery systems.

2.4 Digital Transformation

Digital Transformation refers to changes that are based on and driven by digital technological underpinnings. Digital transformation is the transition of an organisation to big data, analytics platforms, the cloud, mobile, and social media. In reaction to shifting business environments, organizations are continually altering and developing, ushering in novel developments in company operations, business processes, and value generation [78]. Digital technology and artificial intelligence are solutions for fostering innovation, altering business models, and investing in the business operations of enterprises [79]; [80]; [81]. For example [78] According to the definition, digital upgrade is the use of digital technology to increase the efficiency and effectiveness of a company's business processes, whereas digital transformation is the use of digital technology to radically alter overall business operations, value creation, and in some cases the introduction of new digital products..

Via digital transformation, firms are able to incorporate digital technology into many facets of their operations and engage consumers through the digitalization of their service [82]. Traditional IT capabilities imply the ability to go digital and transform [83]. Companies that have effectively implemented digital transformation are better at earning income with current resources, according to the available evidence [80]. Consequently, businesses that have embraced digital transformation may use digital connections and communication amongst crucial partners.

Digital transformation is, in general, a significant and thorough change in the use of technology with the objective of enhancing business performance. Digital transformation is a shift produced or affected by the use of digital technology in every element of human existence, according to one definition. When companies are forced to alter owing to the Covid-19 outbreak, web apps might be used for advertising [84]. Digital transformation may be successful if there is a commitment from managers of small and medium-sized enterprises, such as supplying items through social media and providing discounts, etc. Digital transformation may be used for four purposes, including 1) ensuring the firm stays competitive, 2) improving the efficiency of business operations, 3) enhancing customer

happiness, and 4) facilitating the strategic decision-making of business professionals [85].

3 Research Design

Systematic literature review, also known as SLR or systematic literature review in Indonesian, is a literature review process that finds, evaluates, and analyzes all data on a study subject in order to answer previously specified research questions [86]. The SLR approach is carried out systematically by adhering to phases and rules that enable the literature review procedure to prevent researcher bias and subjectivity. The objective of this strategy is to gather as many relevant papers or prior research as possible [87]; [88]; [89]. Using particular relevant research questions, the SLR approach is used to find, assess, evaluate, and interpret all existing research on the subject area of the phenomena of interest [90]. Using the SLR approach, a systematic review and identification of journals may be conducted, with each procedure following the predetermined phases or protocols.

[91] stated that it is very important for researchers to know the difference between real and assumed knowledge. Systematic review can help us find out the available evidence, by first knowing what is known, what support is had, and what has not been explained [92], and is very dependent on when the measurement is taken and how the stages are [93]. Reviewing various studies spread across various digital libraries is very important in order to be able to find out various kinds of theory developments, issues, and research models on certain topics.

The literature review will follow the same structure as proposed by [94]; [95]. The process is divided into five phases, as shown in Fig. 1.

Stage 1. Methodological Framework
This step is crucial for identifying the direction of the analysis conducted. This phase establishes the objective, study area, and scope for the search and analysis of academic articles. Based on the research problem, there is an inconsistency in measuring the dimensions of the digital transformation variables, innovation, competitive advantage and performance. The research objectives and questions about how to measure each

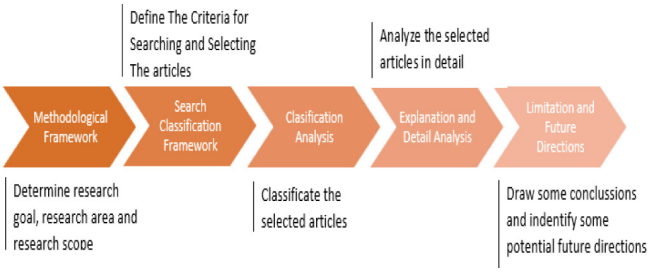

Fig. 1. Phases Of the Literature Review

variable were formulated, a pilot search was assessment of the breadth and refinement of the search string for future thorough searches.

Stage 2. Research Classification Framework.
At this stage determine the search criteria and article selection. For this study, the selected research articles are from 2010 to 2022, while the book is not published in the year of manufacture. Study [96] 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. The study [97] on "A Systematic Review of The Antecedents, Mediators and Outcomes of Authentic Leadership in Healthcare" used studies over the past 13 years. Because choosing a range point older than 12 years will hamper the goal of this study by preventing a thorough evaluation of the relevant information, a range point older than 12 years is inapplicable. In addition, a variety of internet resources were used for the literature study. To conduct this study, the following academic publication databases were consulted:

An electronic search on the following main portals was identified as the data source of the relevant studies. This electronic search includes a range of relevant and accessible publishers [86]:

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 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 the topics of Digital Transformation, Innovation, Competitive Advantage and MSME Performance.
- Inclusion 4- Publications presenting quantitative and qualitative analysis

By including studies that investigate qualitatively, we aim to enrich the findings and strengthen the conclusions drawn from the literature.

Exception Criteria:

- Exclusion 1- Publications that are not explicitly related to Digital Transformation, Innovation, Competitive Advantage and MSME Performance

It is important to define the selection criteria and the filtering of the article data, the previously entered keywords. To do this, a data selection and filtering process has been carried out [98]. Each article has been carefully and critically examined to avoid bias at

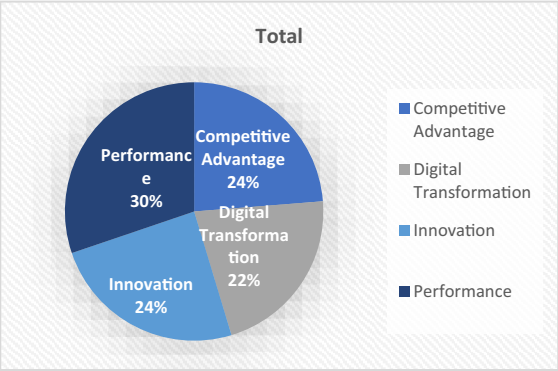

Fig. 2. Publication findings from various search media

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 should be of paramount importance when conducting analysis [99].

Stage 3. Classification Analysis
In this stage, classify 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.

Search results in online libraries with the keywords innovation and MSME Performance yielded 76 publications, digital transformation and MSME performance yielded 100 publications, competitive advantage and MSME Performance yielded 55 publications, MSME Performance yielded 154 publications.

To achieve the ultimate goal, each article is thoroughly and critically examined, and the articles are fully available (open access). Selection of academic papers is done by following keywords.

Before applying the inclusion and exclusion criteria, each publication must have a minimum of the title, abstract, and keywords. This stage involves using inclusion and exclusion criteria to identify relevant articles. 30 articles on the impact of digital transformation on the performance of small and medium-sized enterprises (SMEs) in 2022 were located after a search for 91 publications on the topic. There are 39 articles about the impact of innovation on the performance of small and medium-sized enterprises. There are 34 articles about the impact of competitive advantage on the performance of small and medium-sized enterprises. There are 42 articles on MSMEs' performance. Following is a visual representation of the results of synthesizing the whole article with the inclusion and exclusion of the factors you choose to explore, both alone and in conjunction with other variables (Fig. 2).

To ensure correctness, as stated in [100], 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 [101]

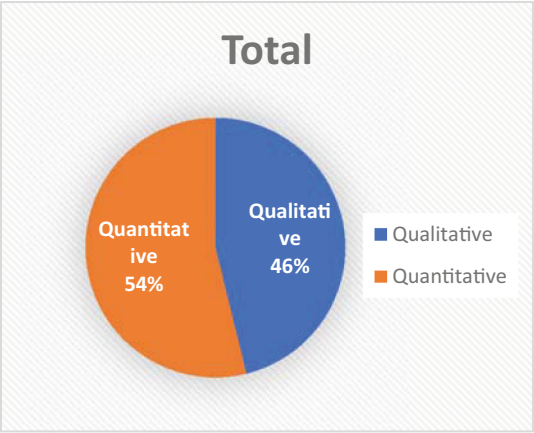

Fig. 3. Research findings using qualitative and quantitative methods

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 [102]. Cluster analysis has usually been used in traditional joint citation analysis.

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

Figure 3 is the findings of articles conducted by researchers, about the research methods used for the four variables above, for research with quantitative methods as many as 49 articles and research with qualitative methods as many as 42 articles.

4 General Findings

4.1 Classification Analysis

The general findings of a total of 91 articles that have been screened according to the previous process can be seen in detail in Table 1.

Table of General Findings on Digital Transformation (A), Innovation (B), Competitive Advantage (C) And Performance (D) Variables.

4.2 Analysis of the Results Obtained

This section's primary objective is to describe the most significant parts of the previously cited and researched scholarly papers. Taking into consideration all of the acquired data, it will be feasible to construct a considerably more expansive and evolutionarily specific picture of the industry. The section will conclude with a short description of the findings gathered and collected from the table shown in this part. Given that 91 academic publications were discovered, it is probable that not all of them will be detailed in length in order to retain the emphasis on the study.

Table 1. General findings made by researchers

No	Journal/Article	Variable				Research Methods
		A	B	C	D	
1	Digital Marketing Strategy and Its Implications on the Competitive Advantage of SMEs in Indonesia, [103]			√		Quantitative
2	Digital Transformation And Business Development Strategy Of Adaptive And Sustainable Msme Post Covid-19 Pandemy, [104]	√				Qualitative
3	The Effect Of Innovation On Business Competitiveness Of Small And Medium Enterprise In Indonesia, [105]		√	√		Quantitative
4	The Effect Of Corporate Governance, E-Business And Innovation On Competitive Advantage And Implication On Financial Performance, [106]		√			Quantitative
5	The effects of market orientation and innovation on competitive advantage and business performance of textile smes, [107]		√	√	√	Quantitative
6	The Influence of Innovation Strategy on Competitive Advantage in the Creative Industry (Case Study of Small and Medium Enterprises in the Handicraft Sector in Bandung City), [108]			√	√	Quantitative
7	The Influence of Innovation, Entrepreneurship and Market Orientation on the Competitive Advantage of Culinary SMEs, [109]			√	√	Quantitative
8	Innovation And Performance In Spanish Manufacturing Smes, [110]		√		√	Qualitative
9	Analysis of the Effect of Networks, Information and Communication Technology, and Innovation on Competitive Advantage and Business Performance (Study on MSMEs in Purwokkerto), [111]		√	√	√	Quantitative
10	The Effect of Product Innovation and Product Differentiation on Competitive Advantage at Cimahi Spicy Cassava Chips Industry Center, [112]		√	√		Quantitative
11	The Relationship Knowledge, Learning, Innovation And Competitive Advantages: A Conceptual Model By And (Embrapa), [113]		√	√		Qualitative
12	Using The Competitive Dimensions To Achieve Competitive Advantage A Study On Jordanian Private Hospitals, [114]		√	√		Quantitative
13	Innovation Strategy and Financial Performance In Manufacturing Companies: An Empirical Study, [115]		√	√		Quantitative

(*continued*)

Table 1. (*continued*)

No	Journal/Article	Variable				Research Methods
		A	B	C	D	
14	The influence of market orientation and product innovation on the competitive advantage and its implication toward Small and Medium Enterprises (UKM) performance., [116]		√	√	√	Qualitative
15	Increasing the competitive advantage of SMEs through innovation capacity in the MEA era with a gender perspective, [117]		√	√		Quantitative
16	The Impact Of Digital Transformation On Business Performance A Study Of Pakistani Smes, [118]	√				Quantitative
17	The Effect of Digital Transformation, [119]	√	√		√	Quantitative
18	Does Digital Transformation Enhance A Firm's Performance? Evidence From China, [120]	√			√	Qualitative
19	The Effects Of Digital Transformation On Firm Performance: Evidence From China's Manufacturing Sector, [121]	√			√	Qualitative
20	It Capability And Digital Transformation: A Firm Performance Perspective, [122]	√	√		√	Qualitative
21	Application of Digital Transformation in SMEs During the Covid-19 Pandemic in Denpasar Cit, [123]	√				Qualitative
22	Effect of Social Media Marketing Strategy on the Performance of Women Owned Micro and Small Enterprises in Kasarani Division, Nairobi County, Kenya, [124]				√	Quantitative
23	The Effect Of Corporate Governance, E-Business And Innovation On Competitive Advantage And Implication On Financial Performance, [106]		√	√		Quantitative
24	Entrepreneurial Women: Innovation, Recognition of Opportunities and Market Orientation to MSME Marketing Performance in DKI Jakarta, [125]		√		√	Quantitative
25	Relationship Of Intellectual Stimulation, Innovations And Smes Performance: Transformational Leadership A Source Of Competitive Advantage In Smes, [126]		√		√	Quantitative
26	It Capability And Digital Transformation: A Firm Performance Perspective, [122]	√	√		√	Quantitative
27	Analysis of Entrepreneur Leadership and Digital Innovation on Competitive Advantage and Its Impact on Organizational Performance in Facing Industry 4.0 [127]		√	√	√	Quantitative

(*continued*)

Table 1. (*continued*)

No	Journal/Article	Variable				Research Methods
		A	B	C	D	
28	The influence of market orientation and product innovation on the competitive advantage and its implication toward Small and Medium Enterprises (UKM) performance, [116]		√	√	√	Qualitative
29	Innovation and the entrepreneurial performance in women-owned small and medium-sized enterprises in Pakistan, [128]		√		√	Qualitative
30	Analysis of the Effect of Entrepreneurship and Market Orientation and Innovation on Productive Economic Performance of Joint Business Groups (Uep Kube) in Bukittinggi City, [129]		√		√	Quantitative
31	The Influence of Innovation Strategy on Business Performance with Financial Literacy as an Intervening Variable in Tanggulangin Sidoarjo Bags and Suitcases SMEs, [130]		√		√	Quantitative
32	Competitive Advantage as a Mediation Variable on the Effect of Differentiation Strategy and Market Orientation on MSME Business Performance in Purbalingga Regency, [131]			√	√	Q uantitative
33	The Influence of Market Orientation, Innovation, Entrepreneurship Orientation Through Competitive Advantage on Marketing Performance, [132]		√	√	√	Quantitative
34	Analysis of the Effect of Market Orientation and Competitive Advantage on Marketing Performance (Case Study of Tinutuan Culinary SMEs in Manado), [133]			√	√	Quantitative
35	Competitive Advantage: Influence on Marketing Performance (Study on Food and Beverage SMEs in Kendal Regency) [134]			√	√	Quantitative
36	Analysis of the Effect of Market Orientation and Innovation on Competitive Advantage in Order to Improve Business Performance (Empirical Study on Small and Medium Scale Garment Industry in Kudus Regency), [135]		√	√	√	Quantitative
37	The Impact Of Supply Chain Management Practices On Competitive Advantage And Organizational Performance, [67]			√	√	Quantitative
38	Qos In the Internal Supply Chain: The Next Lever of Competitive Advantage And Organisational Performance. Prod. Plann, [136]			√	√	Quantitative

(*continued*)

Table 1. (*continued*)

No	Journal/Article	Variable				Research Methods
		A	B	C	D	
39	Competitive Strategy Orientations of Small and Medium Business Owners and their Performance Impacts: The Case of Paint Manufacturing SMEs in South-Western Nigeria, [137]			√	√	Quantitative
40	The Role Of Competitive Advantage In Mediating The Relationship Between Digital Transformation And Msme Performance In Bali, [138]	√		√	√	Quantitative
41	The Influence of Business Model Innovation and Enterprise Risk Management on Sme Performance with Competitive Advantage as a Mediation Variable, [139]		√	√	√	Quantitative
42	The Mediation Role of Competitive Advantage in Determining Factors of SMEs Business Performance at Batik Weaving Centers in Central Java, [140]			√		Quantitative
43	literature analysis on business performance for SMES - subjective or objective measures?, [29]				√	Qualitative
44	Market Orientation and Other Potential Influences in Performance in Small and Medium-Sized Manufacturing Firms, [28]				√	Quantitative
45	The effect of Non-Financial Performance Measurement System on Firm Performance, [27]				√	Quantitative
46	How planning and capital budgeting improve SME performance, [25]				√	Qualitative
47	SME entry mode choice and performance: A transaction cost perspective, [24]				√	Qualitative
48	The Financial and Non-Financial Performance Indicators of Paddy Farmers Organization, [20]				√	Qualitative
49	Analysis of the Effect of Competence on Human Resources, Social Capital and Financial Capital on the Performance of SMEs in the Garment Sector in Klaten Regency, [21]				√	Quantitative
50	Learning capability and business performance: a non-financial and financial assessment, [22]				√	Qualitative
51	The Influence of Financial Aspects and Competence of Human Resources (HR) on the Performance of Micro, Small and Medium Enterprises (MSMEs) in Kasongan Village (Yogyakarta State University), [65]				√	Quantitative

(*continued*)

Table 1. (*continued*)

No	Journal/Article	Variable				Research Methods
		A	B	C	D	
52	The impact of supply chain management practices on competitive advantage and organizational performance, [67]			√		Quantitative
53	Drivers of competitiveness in the manufacturing industry: The case of technology sectors in Greece, [141]			√		Qualitative
54	Analyzing international competitiveness at the firm level: Concepts and measures, [31]			√		Qualitative
55	The relationship between organizational competitive advantage and performance moderated by the age and size of firms, [32]			√	√	Quantitative
56	Competitive advantage of a firm through supply chain responsiveness and SCM practices, [142]			√		Qualitative
57	Empirical analysis of supplier selection and involvement, customer satisfaction, and firm performance, [143]			√		Quantitative
58	Linking Empowering Leadership and Employee Creativity: The Influence of Psychological Empowerment, Intrinsic Motivation and Creative Process Engagement, [144]			√		Quantitative
59	Managing innovation: Integrating technological, market and organizational change, [77]		√			Qualitative
60	Using Value-Based Innovation for New Product Introductions, [36]		√			Qualitative
61	Innovation Strategy: Getting a Head Start on Tomorrow, [39]		√			Qualitative
62	Manajemen Inovasi (Transformasi Menuju Organisasi Kelas Dunia), [37]		√			Qualitative
63	Digital transformation: A multidisciplinary reflection and research agenda, [43]	√				Quantitative
64	Digital Business Transformation: A Conceptual Framework, [45]					Qualitative
65	Is your business ready for a digital future, [46]	√				Qualitative
66	Changes in the Producer Consumer Relationship Towards Digital Transformation., [47]	√				Qualitative
67	Disentangling the Fuzzy Front End of Digital Transformation: Activities and Approaches, [48]	√				Quantitative

(*continued*)

Table 1. (*continued*)

No	Journal/Article	Variable				Research Methods
		A	B	C	D	
68	Analyzing the Effect of Electronic Commerce on Organizational performance: Evidence from Small and Medium Enterprises, [145]				√	Quantitative
69	The Balance Scorecard - Measures that Drive Performance, [146]				√	Qualitative
70	The relationship between the learning organization concept and firms' Financial performance: An Empirical Assessment, [147]				√	Quantitative
71	The digital transformation of healthcare: Current status and the road ahead, [148]	√				Qualitative
72	Innovation diffusion in global contexts: Determinants of post-adoption digital transformation of European companies, [149]	√				Qualitative
73	The role of dynamic capabilities in responding to digital disruption: A factor-based study of the newspaper industry, [150]	√				Quantitative
74	Tackling the digitalization challenge: How to benefit from digitalization in practice, [151]	√				Qualitative
75	Digital transformation strategies, [152]	√				Qualitative
76	Servitization, digitization and supply chain interdependency, [153]	√				Qualitative
77	The impact of digital technology on relationships in a business network, [154]	√				Quantitative
78	Digital transformation: Opportunities to create new business Models, [155]	√				Qualitative
79	Digital ubiquity: How connections, sensors, and data are revolutionizing business, [156]	√				Qualitative
80	Realizing strategic value through center edge digital transformation in consumer-centric industries, [157]	√				Qualitative
81	How chief digital officers promote the digital transformation of their companies, [158]	√				Qualitative
82	The digital transformation of traditional businesses, [159]	√				Qualitative
83	Rapid adaption in digital transformation: A participatory process for engaging IS and business leaders, [160]	√				Qualitative

(*continued*)

Table 1. (*continued*)

No	Journal/Article	Variable				Research Methods
		A	B	C	D	
84	Resource fit in digital transformation – Lessons learned from the CBC bank global e-banking project, [161]	√				Qualitative
85	Digital Transformation of business models — Best practice, enablers, and roadmap, [162]	√				Qualitative
86	Data-driven operations management: Organisational implications of the digital transformation in industrial practice, [163]	√				Quantitative
87	Relations between innovation and firm performance of manufacturing firms in Southeast Asian emerging markets: Empirical evidence from Indonesia, Malaysia, and Vietnam, [164]		√			Quantitative
88	Innovation Management for micro, small and medium enterprises, [165]		√			Qualitative
89	Marketing Management (15th global ed) [166]		√			Qualitative
90	Professional Communication Self-Development Tool, [167]		√			Qualitative
91	Organisational characteristics associated with AMT adoption: towards a contingency framework, [168]		√			Quantitative

Operationalization of variables entails the creation of observable, quantifiable indicators that assist to operationally define the idea [169]. Given the scope of academic effort, only a few verified and reliability-tested indicators have been offered in the literature [170]. Few studies specify the indicators used clearly. In addition, as discussed in this section, the research has not yet consolidated into a collection of widely recognized, usable markers. This section summarizes the indicators utilized to answer the research questions in the primary study.

Indicators used to operationalize variables are outlined in the table below, along with the measurement viewpoint, measurement entities, and a major list of research that use them.

To address RQ1 on how to assess the performance of MSME factors by conducting an in-depth analysis of the 42 journals listed in Table 2.

There are several methods for determining and measuring a company's success. However, researchers have found that financial performance, operational performance, and market-based performance are now the most common corporate performance indicators utilized in academic research [145].

Table 2. Measurement of the Dimensions Variable Performance

Variable	Measurement	Dimension	Source
Performance	Financial	Accounting Based, REA, ROE, ROS, Improvement in work productivity Improvement in production cost	[22, 24, 29, 65, 65, 107, 109, 110, 120, 130, 145, 146]
	Operational	Employee satisfaction, Quality in products and services, Organizational reputation	[20, 20, 21, 21, 22, 25, 25, 27, 27–29, 32, 67, 111, 119, 121, 122, 127, 128, 136–139, 147]
	Market	Customers' satisfaction, Growth of number of customers,	[24, 28, 29, 108, 116, 116, 124–126, 129, 131–135, 146, 147],

1. Financial Performance
   Typically, financial performance is evaluated using accounting data or financial data-based metrics. Examples of profitability measurements include the rate of return on assets, rate of return on investment, rate of return on sales, and rate of return on capital. Metrics or criteria based on accounting data are often used to evaluate the success of a firm. All accounting data-based metrics have the disadvantage of focusing on previous performance [146]. Very little information from prior years may indicate a company's future prospects. Financial success is determined by the rate of return on sales, profitability, sales growth, increase in labor productivity, and increase in production costs [22].
2. Operational Performance
   Performance evaluation from a non-financial standpoint has gotten increased attention as more businesses embrace the balanced scorecard method to combine strategy and performance measurement. Utilizing metrics like as market share, new product launches, product/service quality, marketing effectiveness, and customer happiness, operational success may be measured.
3. Market Based Performance
   The ratio or rate of change that includes the company's market value is included in market-based performance measurements. These factors include shareholder return rate, market value added, and yearly earnings [171]. However, market-based remedies may only be applied to publicly traded corporations, not privately held ones. Therefore, the combination of financial performance measurement and operational performance is adequate to reflect the company's entire performance under these circumstances.

In addition to the variables covered in the study framework, there is a large body of literature that investigates variables not included above to establish their impact on performance. This includes the organization's size, whether it is public or private, and the usage of specialist auditing techniques. Future study should also investigate these possible affecting variables further.

Table 3. Measurement of Dimensions Variable Competitive Advantage

Variable	Measurement	Dimension	Source
Competitive Advantage	Price	Lower Price Advantage	[67, 142–144]; [116]; [141]
	Quality	Ability to Offer Products with Better Quality and Performance	[30, 32, 67, 142–144]; [103]; [109]; [113]; [114]; [106]; [127, 138]; [140]; [31];
	Reliability	Ability In Timely and Targeted Delivery	[30–32, 67, 142–144]; [136]; [139]; [67];
	Product Innovation	Innovative Products	[30–32, 67, 142–144]; [105]; [107]; [108]; [111]; [112]; [115]; [117]; [116]; [131]; [132]; [133]; [134]; [135]; [137]
	Time To Market	Be The First In The Market	[67, 144]

To answer the RQ2 question, about how to measure the variable of MSME Competitive Advantage, by analyzing in depth the 33 selected journals, as shown in Table 3.

[172] emphasizes that cost, quality, dependability and speed of delivery are competitive priorities for manufacturing. Several other literatures also mention indicators to measure competitive advantage, such as; [67, 143, 173].

1. Price
   According to [174] The limited view of price is the amount of money invoiced for a product or service, whereas the broader understanding of pricing is the total of the values people trade for the advantages of having or utilizing the product or service..
2. Quality
   According to [175] the company's ability to offer quality products and have good performance can provide more value to consumers
3. Delivery Dependability
   Delivery Dependability is the company's ability to deliver or provide products or services on time, based on the type and volume desired by consumers [67]
4. Product Innovation
   [176] Innovation is defined as a company's mechanism for adapting to a dynamic environment; hence, businesses must be capable of generating new ideas, concepts, and products.
5. Time To Market
   Time to market has been used as a dimension for competitiveness [144]. The company's capacity to offer new items quicker than its rivals is measured by its time to market. Another meaning of Time To Market is the period between the conception of a product's design and the product's release on the market [177].

Table 4. Measurement of the Dimensions of Variables Innovation

Variable	Measurement	Dimension	Source
Innovation	Product	Changes in whole or in part (Invention or creation, Development, Duplication, Synthesis)	[39, 164], [105, 165–167]; [106]; [110]; [115]; [116]; [117]; [125]; [126]; [122]; [130]; [132]; [135]; [77]; [36]; [166]
	Process	Quality production speed (Process innovation increases productivity in operational activities, reduces production process costs, Improves product quality, Increases product value and service)	[36, 37, 39, 77, 168, 178, 179], [107]; [111]; [113]; [114]; [119]; [122]; [106]; [127]; [128]; [129]; [139]; [37]; [164]; [165]; [167];

To answer the RQ3 question, about how to measure the Innovation variable, by analyzing in depth the 34 selected journals, as shown in Table 4.

The growing research shows various results and theories. [178] shows that only process innovation has an effect on operational performance, while product innovation does not. Meanwhile, research conducted [164] shows that process innovation has a significant negative effect on operational performance. This is because process innovation takes time to adapt to the new process.

1. Product innovation
   [165] that product innovation is the result of the development of new products by a company or industry, whether existing or not. According to [166] the innovative character of a product determines the speed of renewal which is supported by five factors, namely relative advantage (relative advantage), compatibility (suitability), complexity (difficulty), division (experimental) and communicability (visible). Product innovation indicators used in this study refer to the opinion of [167] as follows: 1. Invention or creation 2. Development 3. Duplication 4. Synthesis.
2. Process Innovation
   Process innovation is a change in the way products are made and offered. The objectives of process innovation according to [77] are as follows: 1. Process innovation increases productivity in operational activities 2. Reduces production process costs 3. Improves product quality, and 4. Increases product value and service Indicators of process innovation in this study according to [179] are as follows: 1. The level of efficiency of the production process, 2. The level of product quality through the production process 3. The level of product quantity through the production process 4. The accuracy of the delivery process 5. The level of planning costs, TPM (Total Productive Maintenance).

Answering the RQ4 question, about how to measure the Digital Transformation variable, by analyzing in depth the 30 selected journals, as shown in Table 5.

Table 5. Measurement of Dimensional Digital Transformation

Variable	Measurement	Dimension	Source
Digital Transformation	Information systems management	• Leveraging digital technology to facilitate change • Change roles between company, customer and competitor • Create new value	[148, 149] [150, 151] [43, 45, 46, 152]; [104]; [120]; [121]; [43]; [156]
	Marketing management	Reshaping consumer preferences, creating new value for consumers, changing company relationships, developing new value propositions	[43, 45–47, 153, 154]; [155]; [158]
	Strategic management	• Business restructuring with digital technology to achieve competitive advantage • Creating new business opportunities and business models	[43, 46, 155, 158] [156, 157] [159, 160] [123, 161] [122, 138] [48]; [148]; [149, 152] [159, 160] [162, 163]
	Innovation management	Changing the value network of companies, customers and competitors	[43, 45, 46, 162], [122, 123] [138]; [48]; [148, 149] [152, 159] [160, 162] [163]
	Operations management	Connecting products and production systems to a global product network	[43, 46, 122, 163] [157]

In light of the interdisciplinary nature and expansive reach of digital transformation research, we examined the multidisciplinary literature to determine what is known about corporate digital transformation. Rather of focusing on a single discipline, it is necessary to study the intersection of several fields to get a deeper understanding of current knowledge [180]. As digital transformation encompasses a vast array of functional domains, including as marketing, information systems, innovation, strategic management, and operations, inter-disciplinary knowledge sharing facilitates a better understanding of its strategic imperatives. Understanding the many research streams facilitates cumulative research for academics. For practitioners to make solid organizational-wide choices on how to adapt to digital technologies and achieve digital organizational change, they must combine insights from information systems, marketing, strategic management, innovation, and operations management.

Researchers started collecting literature on digital transformation with a discussion of why organizations must transition digitally and found that digital transformation

happens as a consequence of changes in digital technology, more digital competition, and the ensuing digital consumer behavior [43]. Digital transformation requires not just the ownership of digital assets, but also the acquisition or development of digital agility, digital networking, and big data analytics skills. Internally, firms must establish flexible structures with minimal degrees of hierarchy and absorb Information Technology and functional analytic abilities.

Given the multidisciplinary nature of digital transformation and the interdependence of business models, it is imperative that researchers from various fields collaborate to not only expand knowledge of these five measures, but also actively build relationships between these measures to develop a more comprehensive understanding of these five measures. how, why and when digital transformation is effective.

This research aims to give an applicable framework (model) for assessing the factors of Digital Transformation, Innovation, Competitive Advantage, and Performance in MSMEs. Due to the specific features of MSMEs, which vary from those of big enterprises, an adjustment to the measurement model is necessary, according to the logic underpinning the creation of this updated model.

Despite the fact that this study has presented indicators for each measurement dimension in all variables, future research may adjust or add indicators based on each business's strategy. This model is applicable to study on micro, small, and medium-sized enterprises, and there are still chances to enhance and critique this model.

5 Conclusions and Recommendations

In this study, researchers conducted a systematic review of the literature to investigate the indicators used in the variables studied to operationalize or measure each of the variables digital transformation, innovation, competitive advantage, and performance in MSMEs, and to report on the factors believed to influence their relationships.

Search results in online libraries with predefined keywords and after setting inclusion and exclusion criteria resulted in 91 publications that would be thoroughly investigated. The general findings of the study stated that there were 30 articles on digital transformation and its effect on MSME performance, 34 articles on innovation and its effect on MSME performance, 33 articles on competitive advantage and its effect on MSME performance, and 42 articles on MSME performance. In the general findings of the study, it was also found that the research methods were carried out, there were 49 articles with quantitative research methods and 42 studies using qualitative methods.

While the analysis of the findings acquired by combining the measurements for each variable in order to address the study objectives is as follows:

Financial, Operational, and market factors are used to assess the performance of SMBs. Financial measurement dimensions include Accounting Based, REA, ROE, ROS, Improvement in Work Productivity, and Reduction in Production Cost (12 articles); operational measurement dimensions include Employee satisfaction, Quality in products and services, and Organizational Reputation (24 articles); and market measurement dimensions include Customer Satisfaction and Customer Growth (12 articles) (17 articles).

The measurement of Competitive Advantage variables is price, quality, reliability, product innovation and time to market. The price measurement dimension is Lower Price

Advantage (6 articles), the quality measurement dimension is Ability to Offer Products with Better Quality and Performance (15 articles), the reliability measurement dimension is Ability in Timely And Targeted Delivery (10 articles), the product innovation measurement dimension is innovative product (21 articles), the measurement dimension of time to market is Be The First In The Market (2 articles).

The measurement of innovation variable is Product and process. Dimensions of product measurement are Changes in whole or in part (Invention or creation, Development, Duplication, Synthesis) (20 articles), measurement of process variables is Quality production speed (Process innovation increases productivity in operational activities, reduces production process costs, improves product quality, increases product value and service) (23 articles).

Measurement of digital transformation variables is Information systems Management, Marketing management, strategic management, Innovation management, Operations management. Information systems Management measurement dimensions are; Leveraging digital technology to facilitate change, change roles between companies, customers and competitors, Create new value (13 articles). The measurement dimensions of Marketing management are Reshaping consumer preferences, creating new value for consumers, changing company relationships, developing new value propositions (8 articles). Dimensions of strategic management measurement are; Business restructuring with digital technology to achieve competitive advantage, Creating new business opportunities and business models (20 articles). The measurement dimension of Innovation management is Changing the value network of companies, customers and competitors (15 articles). Operations management measurement dimension is Connecting products and production systems to a global product network (5 articles).

Specifically, the performance dimension can be expanded by incorporating welfare or prosperity issues in the form of entrepreneurial indicators. This modified model can be referred to as a multidimensional model because it takes into account not only the elements of the company (financial dimensions and market dimensions), but also the entrepreneurial dimension.

This work contributes to both academic research and clinical practice. Researchers can view this study as a comprehensive resource that provides insight into the investigated factors and a foundation for future research in this area, whereas practitioners seeking to make sound strategic decisions regarding how to improve their performance are influenced by a number of its variables. and will find formal evaluations to be beneficial.

Despite the fact that this study has presented indicators for each measurement dimension in all variables, future research may adjust or add indicators based on each business's strategy.

6 Limitations

This study has a number of shortcomings, most of which stem from the underlying research methodology. This research is based only on empirical studies, and the review's inclusion and exclusion criteria restrict the sorts of articles included. Although this is consistent with the study aims, it presents a threat to the results' completeness and validity.

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