# جامعة الـشرق الأوسط MIDDLE EAST UNIVERSITY

Amman - Jordan

# The exploration of the mediating role of strategic agility on the impact of strategic thinking on performance: A systematic organizational literature review

استكشاف الدور الوسيط للرشاقة الاستراتيجية في أثر التفكير الاستراتيجي على الأداء التنظيمي: مراجعة الأدبيات المنتظمة.

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Thesis submitted in the fulfillment of the requirements of master's degree in business administration

Business Department Facility of business Middle East University June, 2022

## Authorization

I, **Mais Hassan Subhi Saleh**, authorize the Middle East University to provide copies of my thesis on paper and electronically to libraries, organizations, and institutions concerned with scientific research and studies upon request.

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## **Thesis Committee Decision**

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## "يَرْفَعِ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ وَاللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ "

سورة المجادلة: الآية 11

للهم لَكَ الْحَمْدَ وَالشُّكْرَ فِي الْأَوْلَى وَلَكَ الْحَمْدَ وَالشُّكْرَ فِي الْأُخَرَةِ وَلَكَ الْحَمْدَ وَالشُّكْرَ مِنْ قَبْلَ وَلَكَ الْحَمْدَ وَالشُّكْرَ مِنْ بَعْدَ حَمْدًا لَا يَنْفَدُ أَوَلَهُ وَلَا يَنْقَطِعُ أُخَرُهُ اللَّهُمَّ لَكَ الْحَمْدَ فَأَنْتَ أَهْلٌ من تَحْمَدَ وَتَعَبُّدُ وتَشَكُّرٌ.

I stand helpless to find the right words and phrases to offer my pride and gratitude to the one who has the greatest credit for presenting this humble work, Prof. Dr. Ahmad Ali Salih. You were the father, supervisor and teacher who always pushes me to give the best. Nevertheless, the expressions of thanks and appreciation are not enough, but stand helpless in front of what you have given me.

I extend my sincere wishes for your health and lasting success, and I also extend my sincere thanks and gratitude to the Middle East University, its staff and all those who contributed to provide assistance during the study period.

The researcher

Mais Hassan Saleh

## **Dedication**

My family, who were nothing but supportive, to my strength, my mother, to the source of safety, my father, to those whom I am proud of, my siblings.

My life partner, my companion and my other half you were always pushing me to succeed and to be the best version of myself.

My son Adam, my eternal grace that has been engraved in my heart, mind and soul, you are my main motivation and all I wish is to be a source of pride to you.

My In laws, thank you for your support, otherwise I would not have been able to reach my goals.

My friends and relatives I send you thanks deeply from my heart.

Grandma, your constant prayer makes me feel safe.

And those whom I remember and miss, my grandfather Sobhi, my grandmother Zeina, my grandfather Salah and my uncle Marwan.

To all of you I dedicate my thesis.

The researcher

Mais Hassan Saleh

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## The exploration of the mediating role of strategic agility on the impact of strategic thinking on organizational performance: A systematic literature review

# Prepared by: Mais Hassan Subhi Saleh Supervised by: Prof. Ahmad Ali Salih

#### Abstract

The study aimed to explore the mediating role of strategic agility on the impact of strategic thinking on organizational performance using the systematic literature review method, the search process was conducted through five search engines according to the study protocol which were Emerald Insight, EBECO, Pro Quest, Scopus, and Google scholar using the following keywords; strategic thinking, Strategic agility, and Organizational performance. As a result, a total of 181 articles were collected and presented as the study population, after the collection process, the researcher performed the inclusion-exclusion criteria on the collected articles which resulted in a final sample of 130 articles related to the scope of the study, afterward the researcher conducted a deep analysis on the sample of the study to extract the desired data to fulfill the study objectives.

The study contributed with several results, the most important of which are: there is an impact of strategic thinking on organizational performance, there is an impact of strategic thinking on strategic agility, and there is an impact of strategic agility on organizational performance. The most frequently used dimensions of strategic thinking were systems thinking, transformational leadership, transactional leadership, opportunism, and creative thinking, as for strategic agility the most frequently studied dimensions were flexibility, strategic sensitivity, resource fluidity, collective commitment, and technological capabilities. Finally, organizational performance most frequently studied dimensions were financial performance, market share, growth, and stakeholder's satisfaction.

In the light of the presented results, the study provided recommendations, the most notable is the necessity to invest in the interrelationships between strategic thinking and strategic agility and organizational performance by all business organizations, this will aid in securing improvements in performance, continuous growth, and sustaining competitive advantage using tools such as attracting strategic thinkers in the selection and recruiting process, continuous environmental scanning and information gathering, and Organizations must create a positive attitude toward change. The study suggested a number of future studies, where the most important was the use of meta-analysis methodology which allows to statistically analyze the results of the current study.

# Keywords: Strategic Thinking, Strategic Agility, Organizational Performance, Systematic Literature Review.

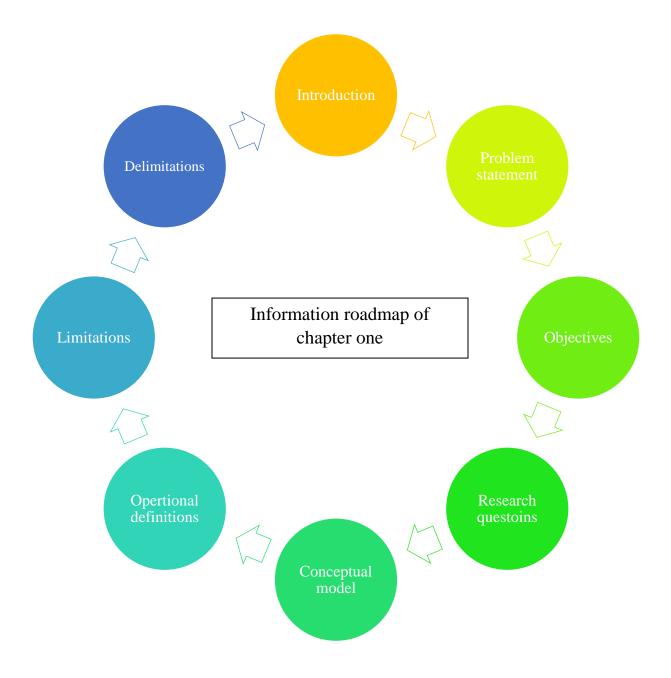
هدفت الدراسة إلى استكشاف الدور الوسيط للرشاقة الإستراتيجية في أثر التفكير الإستراتيجي على الأداء النتظيمي باستخدام منهجية مراجعة الأدبيات المنتظمة، وقد أجريت عملية البحث من خلال خمسة محركات بحث Emerald Insight EBECO, Pro quest, Scopus, and Google scholar باستخدام الكلمات المفتاحية التالية وفقا لبروتوكول الدراسة؛ التفكير الإستراتيجي، الرشاقة الإستراتيجية، والأداء التنظيمي. ونتيجة لذلك؛ تم جمع 181 مقالة مثلت مجتمع الدراسة، وبعد الانتهاء من عملية الجمع قام الباحث بتطبيق معايير التضمين والاستبعاد على المقالات التي تم جمعها والذي أسفر عن عينة نهائية بمقدار 130 مقالة متعلقة بنطاق الدراسة، وبعد ذلك اجرت الباحثة تحليلا عميقا لمحتوى المقالات وبما ينسجم مع تحقيق اهداف الدراسة.

وتوصلت الدراسة لعدة نتائج أهمها: وجود أثر للتفكير الاستراتيجي على الأداء التنظيمي، وأثر للتفكير الاستراتيجي على الأداء التنظيمي، وأثر للتفكير الاستراتيجية على الأداء التنظيمي. كانت الأبعاد الأكثر استراتيجي على الرشاقة الاستراتيجية على الأداء التنظيمي. كانت الأبعاد الأكثر استخداما للتفكير الإستراتيجي هم التفكير المنظومي، والقيادة التحويلية، القيادة التبادلية، اقتناص الفرص، التفكير الإبداعي. أما بالنسبة للرشاقة الإستراتيجية فكانت الأبعاد الأكثر التفكير الانتراتيجية على الأداء التنظيمي. كانت الأبعاد الأكثر استخداما للتفكير الإستراتيجي هم التفكير المنظومي، والقيادة التحويلية، القيادة التبادلية، اقتناص الفرص، التفكير الإبداعي. أما بالنسبة للرشاقة الإستراتيجية فكانت الأبعاد التي تمت دراستها بشكل متكرر هم المرونة، التفكير الإستراتيجية، سيولة الموارد، الإلتزام الجماعي، القدرات التكنولوجية. أما أخيرا فلأبعاد الأكثر دراسة الحساسية الإستراتيجية، الموارد، الإلتزام الجماعي، القدرات التكنولوجية. أما أخيرا فلأبعاد الأكثر دراسة المالي، الحصة السوقية، النمو، رضى أصحاب المصالح.

وفي ضوء النتائج قدمت الدراسة توصيات أبرزها: ضرورة الاستثمار في العلاقات بين التفكير الاستراتيجي والرشاقة الاستراتيجية والأداء التنظيمي من قبل جميع منظمات الأعمال هذا سيساعد في تحسن الأداء، النمو المستمر، الحفاظ على الميزة التنافسية باستخدام أدوات مثل جذب المفكرين الاستراتيجيين في عملية الاختيار والتوظيف، المسح البيئي وجمع المعلومات باستمرار ويجب على جميع منظمات الأعمال خلق موقف إيجابي تجاه التغيير. واقترحت الدراسة عدد من الدراسات المستقبلية أهمها استخدام منهجية ما وراء التحليلية (التلوية)

الكلمات المفتاحية: التفكير الإستراتيجي، الرشاقة الاستراتيجية، الأداء التنظيمي، مراجعة الأدبيات المنتظمة.

# Chapter ONE The Study Background And Importance



#### **1-1 Introduction**

Globalization, environmental issues, technological acceleration, and other challenges that affect organizations are making the environment more complex, ambiguous, and dynamic. As a result, organizations need to find the best fit with different strategic variables, be proactive, flexible and have a long-term perspective to endure these difficulties and achieve long-term excellence.

Due to the continuous growth of research, the amount of data available is enormous 2.5 quintillion bytes is generated on daily basis (Marr, 2018). As a result, the systematic literature review method has become more essential. According to Higgins , et al., (2011); Cook, Sackettzt, & Spitzer, (1995); Davis, Mengersen, Bennett, & Mazerolle, (2014) a systematic literature review is the process of searching, allocating, collecting, and analyzing studies available on a specific topic using specified criteria while minimizing prejudice. In this regards, Xiao & Watson, (2019) argued that using systematic literature review will aid in determining the extent of the available literature and define knowledge gaps for further research.

One of the most important strategic variables that contributes in enhancing the organization ability to face competitive challenges is strategic thinking. Strategic thinking is widely used as a general term it doesn't consist of a particular way of thinking it covers all aspects of thinking about strategy (Liedtka, 1998). According to Bonn (2001); Salih, (2017); Smriti, Dhir, & Dhir, (2021) strategic thinking is essential to maintain a sustainable competitive advantage in the dynamic environment organizations operates in.

According to Bouhali, Mekdad, Lebsir, & Ferkhad, (2015); Smriti, Dhir, & Dhir, (2021) the distinction between strategic thinking and planning is not yet full, strategic planning is sometime used as synonym for strategic thinking although they are different. In addition AlQershia, (2021)

defined strategic planning as a more scheduled, programmed, and traditional route while strategic thinking is a more diversified process that allows more innovation and creativity.

Salih, (2017); Arayesh, Golmohammadi, Nekooeezadeh, & Mansouri, (2017); Smriti, Dhir, & Dhir, (2021) argued that individual strategic thinking may shape the future of organizations if organizational culture embrace strategic thinking from top management all the way to the employees.

Iuliana & Maria, (2016); Anwar & Abdullah, (2021) argued that it's hard to find a comprehensive definition of performance. Furthermore, organizational performance can defined in terms of different measures such as financial indicators as return on invesment ROI and profitability, human-resource-related performance indicators as loyalty and job satisfaction, and finaly indicators related to the organization as a whole as organition learning and productivity (Singh, Darwish, & Potocnik, 2016); (Abubakar, Elrehail, Alataila, & Elçi, 2019).

The mediator variable is a third variable that mediates the relationship between two related variables. It is used to either comprehend the nature of the relationship or how the relationship functions or to clarify it (Hair, Hult, Ringle, & Sarstedt, 2017). It functions as two paths; the first path is the direct relationship between the independent variable and the dependent variable, whereas the indirect relationship conveyed through the mediator from the independent variable (predictor) to the dependent variable is the second path (Baron & Kenny , 1986); (MacKinnon, 2015); (Schoemann, Boulton, & Short, 2017).

Having a mediator in the relationship betweeen strategic thinking and organizational performance will help complete the picture and increase effectivness, therefore strategic agility comes as the rational variable to play this role.

Strategic agility gives organizations the capability to be proactive; meaning to be highly adaptive, responsive, and to think strategically about any potential change (weber & Tarba, 2014); (Khoshnood & Nematizadeh, 2017); (Clauss T., Abebe, Tangpong, & Hock, 2019). According to a survey by McKinsey & Company, 81% of the respondents reported an increase in their performance after switching to more agile activities in different parts of their organizations (Ahlbäck, Fahrbach, Murarka, & Salo, 2017).

Proofing the relationship between these three variables directly through empirical or applied studies is a difficult task and may result in useless repeated outcomes that cost a lot of time and effort. Exploring the relationship using the systematic literature review method will eliminate suspicion by proving or denying the relationship; this clears the path for empirical and applied research while reducing the cost and effort of researchers.

In the light of what was presented, the researcher indicates that it's critical to study and investigate the relationship between the three variables together. Consequently, this study aims to explor the mediating role of strategic agility on the impact of strategic thinking on organizational performance using the systematic literature review method.

#### **1-2 Problem statement**

According to Sekaran & Bougie, (2019) the research problem addresses two aspects: the study purpose and research questions, they also added that an excellent problem statement must be engaging, relevant, and feasible in the time and money frame available.

Xiao & Watson,(2019) argued that an empirical study should be preceded by a systematic literature review study as it plays a part in finding knowledge gaps and determining the limits of the existing body of knowledge. Systematic literature review also aids in highlighting topics that are sufficiently researched and may not require further investigation as well as topics that require additional research. (Okoli, 2015).

Presented with the value of using the systematic literature review method, the researcher discovered a gap in the Arab world studies; the researcher did not find a wide range of practices using the systematic literature review method in the Arab world by reviewing five search engines: Emerald Insight, EBECO, Pro Quest, Scopus, and Google scholar.

The strategic thinking, strategic agility, and organizational performance relationship have a lack of coverage in the existing body of literatur (Salih & Alnaji, 2014), and still is. By reviewing the previous search engines the researcher did not find many studies with the three aforementioned variables together but found a wide range of studies exploring the realtionship between two of the three variables such as; strategic thinking is a requirement for having agility (Tooranloo & Sagha, 2019), strategic thinking enhances performance (AlQershia, 2021; Alatailat, Elrehail, & Emeagwali, 2019; Shaik & Dhir, 2021) and embracing strategic agility will enhance performance (Arokodare, Asikhia, & Makinde, 2019; Arokodare & Asikhia, 2020).

According to Kalea, Aknar, & Başar,(2019) through the years, the definition of agility has evolved but it was first introduced by (Roger & Dove, 1991) as a concept of having an agile production system that allows organizations to have high responsiveness to the changing demand of markets. Furthermore, there is a lack of literature on the mediating role of strategic agility. Haider & Kayani, (2020) discovered a link between customer knowledge management and performance using strategic agility as a mediator, another study discovered that strategic agility mediates the relationship between supply chain management activities and firm performance (Suradi, Mahrinasari , & Hasnawati, 2020). Considering the previous studies; strategic agility might have a mediating role in the relationship of strategic thinking on organizational performance.

The problem of this study revolves around a research knowledge gap with three intellectual trends, first the lack of systematic literature review studies in the Arab world, second, the limited availability of literature exploring the mediating role of strategic agility on the impact of strategic thinking on organizational performance, finally the lack of enlightenment about the most frequently studied and tested dimensions of each variable (strategic thinking, strategic agility, and organizational performance).

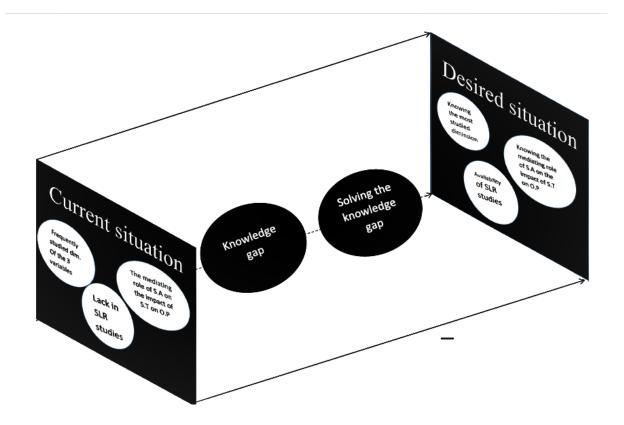


Figure 1-1: The establishment of the knowledge gap and problem statement features

## **1-3 Objectives**

- The main objective of this study is to explore the mediating role of strategic agility on the impact of strategic thinking on organizational performance through:
  - 1. Exploring the impact of strategic thinking on organizational performance through collecting, sorting, classifying, including, excluding, analyzing, and summarizing studies.
  - 2. Exploring the impact of strategic thinking on strategic agility through collecting, sorting, classifying, including, excluding analyzing, and summarizing studies.
  - 3. Exploring the impact of strategic agility on organizational performance through collecting, sorting, classifying, including, excluding, analyzing, and summarizing studies.
- Discovering the most frequently studied dimensions of each variable (strategic thinking, strategic agility, and organizational performance).

## **1-4 Research questions**

- > What is the nature of the impact of strategic thinking on organizational performance?
- > What is the nature of the impact of strategic thinking on strategic agility?
- > What is the nature of the impact of strategic agility on organizational performance?
- What are the most frequently studied dimensions of each variable (strategic thinking, strategic agility, and organizational performance)?

### **1-5** Conceptual model

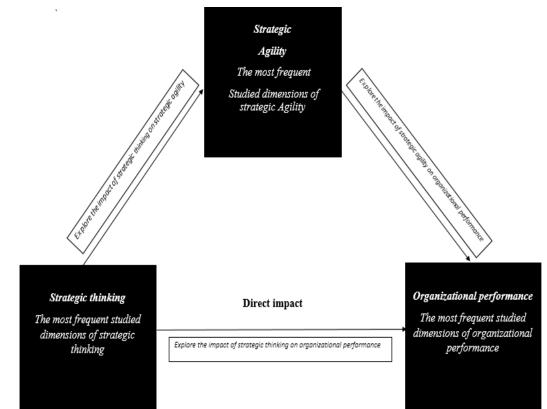


Figure 1-2: Conceptual model

Reference: A development of the mediating role theory (Hair, Hult, Ringle, & Sarstedt, 2017)

#### **1-5 Study terms operational definitions**

Systematic literature review: is a sequence of steps that enables researchers to identify, gather, select, and critically evaluate studies based on defined criteria to answer research questions objectively regarding a specific topic.

Strategic thinking: an advanced mental process that includes the use of strategic foresight, creativity, innovation, and critical thinking in planning, seeing organizations as a whole, and influencing groups and individuals to achieve organizational objectives and sustain competitive advantage.

Organizational performance: a multidimensional assessment of the actual position and final results of an organization versus the desired position associated with both financial and non-financial measurements.

Strategic agility: the continuous evaluation and change of all aspects of an organization in the light of the dynamic environment it operates in, therefore it allows the organizations to be flexible, responsive, and adaptive instead of staying captive to existing rigid plans.

The mediating variable: is strategic agility and is considered an independent variable by itself, where it enters into a relationship to complete it between an independent variable which is strategic thinking and a dependent variable which is organizational performance. One of the mediator's conditions is that the literature, studies, and research proves that strategic agility is affected by strategic thinking and affects organizational performance. When the mediator is tested using field applied studies, its role can take three forms: Either a total mediator; the relationship between strategic thinking and organizational performance does not work without it, or a partial mediator; the relationship between strategic thinking and organizational performance is incomplete without it, or no mediator; the relationship between strategic thinking and organization performance works completely without it.

The intellectual contribution of this study comes by linking the strategic thinking, strategic agility, and organizational performance together.

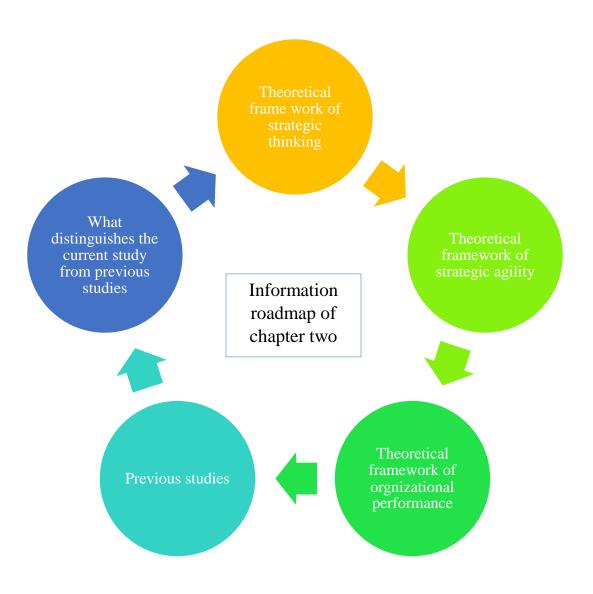
#### **1-6 Limitations**

- 1. Limited number of studies collected because of the chosen search engines.
- 2. Studies chosen did not cover all geographic areas and industries.
- 3. Scarcity of studies using the systematic literature review methodology in the Arab world.

## **1-7 Delimitations**

- 1. The exploration of the mediating role of strategic agility on the impact of strategic thinking on the organizational performance.
- 2. Focus on the frequently studied dimensions of each variable (strategic thinking, strategic agility, and organizational performance).
- Five search engines were chosen for data collection: Emerald Insight, EBECO, Pro Quest, Scopus, and google scholar.
- 4. The study was conducted in 2021-2022

# **Chapter TWO Theoretical literature and previous studies**



#### **2-1 Theoretical framework**

This chapter will present the historical development, definitions, importance, and dimensions of each research variable.

#### Strategic thinking

By 1970 a wide range of firms adopted the concept of long-term planning (Salih & Alnaji, 2014); (Salih, Building a Modelto Measure Strategic Thinking from the Perspective of Arab Chiefs Executives -A Qualitative Study, 2017); (Mason, 1986). Due to the failure of planning by projecting available historical data into the future, the concept of strategic thinking emerged at the beginning of the 1980s. Consequently, organizations must take both internal and external environments into consideration (Salih, Building a Modelto Measure Strategic Thinking from the Perspective of Arab Chiefs Executives -A Qualitative Study, 2017), to think and act strategically to enhance firms responsiveness to changes in markets and competition (Wheelen, Hunger, Hoffman, & Bamford, 2017) as well as sustaining and improving firm's competitive advantage (Liedtka, 1998).

The distinction between strategic thinking and strategic planning is central to the history of strategic thinking. Mintzberg, (1994) claimed that strategic planning and strategic thinking are not interchangeable and that strategic planning can obstruct strategic thinking, whereas Bonn,(2001); Heracleous, (1998); Ken, Cheadle, & Bluestone, (2012) argued that strategic planning and strategic thinking complete each other by performing strategic planning after strategic thinking. Graetz, (2002) and Heracleous, (1998) also acknowledged that strategic planning must support strategic thinking to achieve effective strategic management.

Bonn, (2001) in accordance with (Chatman, Bell, & Staw, 1986) explained that strategic thinking must appear in two levels individual and organizational then Bonn, (2005) developed it into a multidimensional level approach that constitutes three levels (individual, group, and organizational) two of which are micro-focused and one is macro-focused.

Heracleous, (1998) and Mintzberg, (1994) defined strategic thinking as a method of synthesizing that emphasizes creativity and anticipation. While Liedtka, (1998) argued that to consider a way of thinking strategic thinking; it must consist of several features such as thinking in time, generating and testing hypotheses, etc.

Strategic thinking is defined by Graetz, (2002) and Ken, Cheadle, & Bluestone, (2012) as a way of thinking using the right side of the brain that promotes innovation, creativity, and facilitates the communication of ideas and solutions to encounter unexpected challenges in today's dynamic economy. As for Bonn, (2005); O'Shannassy, (2006) strategic thinking is a specific way of thinking that integrates both generative and rational processes to solve strategic issues at all levels.

In his definition of strategic thinking, Salih, (2017) argued that it's a high-level mentality way of thinking composed of skills and capabilities that must be practiced at all levels to achieve strategic apex. According to Zorlu, (2018) Leadership and strategic thinking are interconnected, as the use of strategic thinking by mangers requires a set of leadership skills.

The importance of strategic thinking comes from managing the unavoidable changes in the complex, dynamic, and uncertain environment (Shaik & Dhir, 2020); (Ken, Cheadle, & Bluestone, 2012) to be able to create a sustainable competitive advantage (Mahdavian, Mirabi, & Haghshenas , 2014); (Ken, Cheadle, & Bluestone, 2012). In addition, strategic thinking is critical for the decision-making process and contributes to enhancing the performance of the organization (Adiguzel, 2020); (Bonn, 2005). This is because it's concerned with the organization's history,

current position, and how it will survive and excel in the future (Steptoe-Warren, Howat, & Hume, 2011)

To fully comprehend strategic thinking, Sanjay, Dhir, & Samanta, (2018) investigated four key dimensions: reflection, trend analysis, organizational awareness, and pattern recognition. Whereas Bonn, (2005) focused on three strategic thinking elements: systems thinking, vision, and creativity.

As for Alatailat, Elrehail, & Emeagwali, (2019); (Liedtka, 1998) system perspective ,focused intent, intelligent opportunism, thinking in time, and hypotheses driven were the strategic elements the researchers investigated. As for (Salih & Alnaji, 2014) the focus was on five dimensions of strategic thinking: nature of the problems, proposed solutions to problems, information overload, intuition, and risk-taking.

Based on what has been presented this far, the researcher believes that the importance of strategic thinking in the dynamic environment in which organizations operate in should not be underestimated. Furthermore, there is a wide range of strategic thinking dimensions used in the available literature; emphasizing the significance of this study.

#### **Strategic agility**

The term "agile" was first introduced as agile manufacturing described by an integrated customer-supplier relationship for designing, manufacturing, marketing products in order to increase competitiveness (Gunasekaran, 1999).

Companies that stick to the same strategies these days may achieve their goals. On the other hand, it can cause companies to develop inertia toward change (Doz & Kosonen, 2008). Here comes the role of strategic agility as it's important in nowadays dynamic and complex

environment; as it aids in the development of approaches to encounter any unpredictable challenges a company may face (Gunasekaran, 1999).

In today's market, the competition between companies has altered from competitor-oriented to market-oriented (Noe, Hollenbeck, Gerhart, & Wright, 2017). Markets, products, and services are highly influenced by customers, in consequence, companies are emphasizing strategic agility and flexibility to meet these rapid changes (Yang & Liu, 2012).

According to Lengnick-Hall & Beck, (2016) strategic agility can be achieved through components, resources, and competencies that differ depending on the situation and circumstances organizations operate in; organizations that operate in a relatively stable environment will need a different set of strategic agility capabilities than others operating in a dynamic environment.

Doz & Kosonen, (2008) defined strategic agility as a concept that emphasizes flexibility to be always prepared to adjust decisions and course of action in response to new information, change, and challenges. As for Idris & Al-Rubaie, (2013) strategic agility enables an organization to maximize its strengths and survive by embracing change, being nimble, and being flexible.

In their definition of strategic agility Brueller, Carmeli, & Drori, (2014); Nurjaman, (2020) argued that it's the ability to perform flexible strategic action fast and with high accuracy. Moreover, strategic agility was defined by Weber & Tarba, (2014) as being proactive and responsive to changes in the environment through implementing quick strategic actions to allow the organization to adapt and survive. As for Lengnick-Hall & Beck, (2016); Ofoegbu & Akanbi , (2012) strategic agility is to rapidly evolve and implement flexible, agile, and dynamic capabilities that promote companies ability to face new situations.

In the dynamic environment companies operate in; stable competencies are not efficient anymore. Therefore the role of strategic agility comes in developing dynamic competencies that adapt to changing circumstances; allowing companies to create a higher value and sustain their competitive advantage (Nurjaman, 2020).

Strategic agility is required for innovation as it allows companies to rapidly sense and determine changes in their environment; allowing them to create innovative ideas, processes, and products (AlTaweel & Al-Hawary, 2021) to rapidly respond to these changes and gain an advantage over competitors (Kumkale, 2016).

Yang & Liu, (2012) argued that strategic agility-focused companies use all their knowledge to understand the changing markets and competition in the environment to maximize synergy and develop strategies that gain a competitive advantage leading to enhancements in organizational performance.

Doz & Kosonen, (2008) and Clauss, Abebe, Tangpong, & Hock, (2019) argued that dimensions that reflects strategic agility were strategic senitivity, resource fluidity, and leadership unity. As for Khoshnood & Nematizadeh, (2017) strategic agility main dimensions were: clarity of vision, understanding core capabilities, selecting strategic targets, shared responsibility, and taking action.

Van Hoek, Harrison, & Christopher, (2001) Studied the agility dimension for the supply chain that constitutes network integration, customer sensitivity, process integration, virtual integration. Sambamurthy, Bharadwaj, & Grover, (2003); Vagnoni & Khoddami, (2016) studied agility as customer agility, partnering agility, and operational agility.

Based on what was presented strategic agility is critical to the survival and competitiveness of organizations as they perform in a rapidly changing environment. The definitions of strategic agility are somehow interconnected; this study will assist in clarifying the relationship of strategic agility with strategic thinking and organizational performance and the most frequently studied strategic agility dimensions.

#### **Organizational performance**

In the 1970s, Warmington, Lupton, & Gribbin, (1977) evolved the concept of organizational effectiveness to include high productivity and satisfaction while lowering turnover rates and enhancing poor working conditions (Jenatabadi, 2015). In the early 1990s, as the performance management revolution initiated in the private sector, its impact was transmitted into the public sector causing organizational performance to receive huge attention. (Peterson, Gijsbers, & Wilks, 2003)

A wide range of approaches is used for evaluating performance throughout organizations, ranging from traditional annual performance appraisals to real-time performance management systems (Murphy, 2020). As for Adam Jr, (1994) he distinguished between different types of performance which are: quality, operating, and financial. Quality consist of the actual quality of product or service, defects rates, components cost, and customer satisfaction. As for operating performance it includes turnover rate, employee satisfaction, and productivity. As for financial performance it contains return on assets (ROA) and sales growth.

Peterson, Gijsbers, & Wilks, (2003); Jenatabadi, (2015) defined orgnizational performance as the extent to which a social system can accomplish their goals without incapacitating their resources or burdening its employees. In their definition of organizational performance Wheelen, Hunger, Hoffman, & Bamford, (2017) stated that its the actual end results of the managerial action and decisions that define the long-term performance of the organization. There is no commonly recognized definition of organizational performance, it's highly dependable on what the organization aspires to achieve (Peterson, Gijsbers, & Wilks, 2003).

Muthuveloo, Shanmugam, & Teoh, (2017) argud that organizational performance incorporates financial aspects such as return of investment (ROI), return on assets (ROA), revenue, and sales growth in addition to, non-financial aspects such as customer satisfaction, reputation, and other intangible outcomes.

Katz & Kahn, (1978) argued that organizational performance consists of effectiveness, efficiency, and relevancy. On the other hand Damanpour, Szabat, & Evan, 1989 used organizational performance interchangeably with effectiveness as the organization's main goal.

Performance was divided into financial criteria defined by return on assets (ROA) and the nonfinancial criteria defined by executives' directors overall effectiveness rating according to (Gopalakrishnan, 2000). While Adam Jr, (1994) explored organizational performance with financial, operating, and quality as its dimensions.

Murphy, (2020) suggested that a well-formed performance evaluation system should focus on why employees are deviating from planes and identifying ways to assist and encourage employees to accomplish planned goals, rather than traditional performance appraisal and management systems which give a great deal of emphasis on controlling the behavior of individual employees.

Changes in the organizational environment that threaten the organizational performance; produce significant changes within the organization (National Research Council, 1997). As a result organization performance is one of the most studied dependent variables in any topic of management (Richard, Devinney, Yip, & Johnson, 2009); (George, Walker, & Monster , 2019).

In addition, Richard, Devinney, Yip, & Johnson, (2009) stated that evaluating organizational performance is critical to know how organizations evolove over time along with evaluating its competitive position.

As presented, organizational performance is a multidimensional concept depending on what is essential for the organization. Additionally, it is worth shedding light on the importance of the continuous evaluation of performance; as it's critical for organizations' survival, this study also will contribute to finding the most frequently studied dimensions for organizational performance.

2-2 previous studies

#### Presentation and discussion of previous studies

Studies between Strategic thinking and organizational performance

• The study of Alatailat, Elrehail, & Emeagwali,(2019) titled: High performance work practices, organizational performance and strategic thinking: A moderation perspective.

The goal of this study was to investigate the relationship between strategic thinking (systems perspective, focused intent, intelligent opportunism, thinking in time and hypothesis-driven analysis) and organizational performance in Jordanian commercial banks, the researchers used stratified random sampling and performed a questionnaire on the sample. 855 questionnaires were distributed to commercial banks throughout Jordan, 428 were received back and only 402 were suitable for examination. The researchers used five dimensions for strategic thinking (systems perspective, focused intent, intelligent opportunism, thinking in time, and hypothesis-driven analysis) and examined their relationship with organizational performance. The findings revealed that four out of the five strategic thinking dimensions (focused intent, intelligent opportunism,

thinking in time, and hypothesis-driven analysis) had a positive impact on organizational performance.

• The study of AlQershi, (2021) titled: Strategic thinking, strategic planning, strategic innovation and the performance of SMEs: The mediating role of human capital.

The purpose of this study was to explore the effect of strategic thinking, strategic planning, strategic innovation, and human capital on the performance of small-medium enterprises (SMEs). A quantitive cross-sectional survey was performed on Yemeni manufacturing small-medium enterprises, a total of 397 questionnaires were distributed to SME managers, yielding 235 responses viable for analysis. The main conclusion was that strategic thinking improves firm performance through human capital which means strategic thinking alone is insufficient to improve performance; SMEs must promote strategic thinking with human capital to improve performance, previously little attention was devoted to examining this relationship as a result, this study recommended future studies especially in the middle east to further investigate this relationship.

• The Study of Shaik & Dhir, (2021) titled: Dynamic modeling of strategic thinking for top management teams and its impact on firm performance: A system dynamics approach.

This study explained how top management teams' psychological factors influence strategic thinking, which in return influences firm performance. The study sample were 30 companies in the Indian automobile industry. The strategic thinking model concerning the firm performance was simulated using a system dynamic approach for five different psychological factors that were extracted from the social media of the executive board of the sample, the researchers used six validation tests to ensure model validity. The findings revealed that the behavior of the firms'

performance changes as the top management team (TMT) thinking process changes and that an increase in strategic thinking has a positive direct impact on the firm performance, the study recommended future researchers to investigate strategic thinking at its three levels as this study only concentrated on the individual level.

• The study of Alqershi, et al.,(2021) titled: Intellectual capital and performance of automotive manufacturers: the role of strategic thinking.

The purpose of the study was to investigate the mediating role of strategic thinking in the relationship between intellectual capital and organizational performance. 228 questionnaires were distributed to CEOs of automotive manufacturers in Malaysia, only 162 of 174 returned responses were suitable for analysis. The results indicate that strategic thinking moderates the relationship between human capital and performance conforming that strategic thinking through specific resources could lead to an improvement in the organization's performance, future studies need to focus on strategic thinking dimensions as they have not been investigated widely.

Studies between Strategic thinking and strategic agility

 The study of SALIH & ALNAJI, (2014) titled: Impact of Strategic Thinking and Strategic Agility on Strategic Performance: A Case Study of Jordanian Insurance Industry Companies.

This study aimed to investigate the impact of strategic agility (Speed, Quality, Company flexibility, Leaders' flexibility, and Focus formation) and strategic thinking (Proposed solutions to problems, Information overload, Intuition, Risk taking) on strategic performance (Satisfaction, Growth, learning, efficiency of internal processes, innovation). In addition, the relationship maximizes the organization's benefit. The population consists of 182 individuals in 25 insurance

companies in Jordan due to time constraints, random sampling was used, yielding a final sample of 60 individuals the questionnaire was performed on including CEOs, deputy CEOs, senior directors, and directors. The study found that both independent variables (strategic thinking and strategic agility) affect the dependent variable (strategic performance). Furthermore, the path that maximizes organizational benefit was strategic thinking as the independent variable, strategic agility as the intermediate variable, and strategic performance as the dependent variable.

 The study of Tooranloo & Sagha, (2019) titled: Investigating the Impact of Using Knowledge Management on Organizational Agility through Competitive Intelligence and Strategic Thinking.

This study aimed to extend the use of knowledge management, competitive intelligence, and strategic thinking (Systematic, Creative, Prospect-oriented, Market-oriented) and to study their impact on organizational agility (Responsiveness, Flexibility, Competence, Speed, Market understanding) in the provinces of Yazd and Kerman ceramic and tile industry. The researchers used interview and questionnaire on the managers of the ceramic and tile industry, a random sample of 370 managers was chosen and 196 responses were valid for analysis. The study indicated that strategic thinking has a significant and positive impact on organizational agility confirming that strategic thinking is crucial for an organization's success in a dynamic environment.

Studies of strategic agility and organizational performance

• The study of Ofoegbu & Akanbi, (2012) titled: The influence of strategic agility on the perceived performance of manufacturing firms in Nigeria.

The study goal was to examine the impact of strategic agility on the perceived performance of manufacturing companies in Kenya. The researchers used three sub-dimensions to measure strategic agility (strategic sensitivity, collective commitment, and resource fluidity). The random sampling approach was used and resulted in the selection of two manufacturing companies (Bond Chemicals and ARMO BYNG), the questionnaire was administered to 230 employees, and only 210 valid responses were used for analysis. Findings showed that strategic agility can impact organizational performance positively and that strategic agility increases the competitive capabilities of the organization's operations, one of the most important recommendations was that firms should ensure sustaining their strategic agility in order to sustain their competitive advantage.

• The study of Arokodare, Asikhia, & Makinde, (2019) titled: Strategic agility and firm performance: The moderating role of organisational culture.

The purpose of the study was to examine the moderating effect of organizational culture on the relationship between strategic agility and firm performance (market share, firm efficiency, competitive advantage, customer satisfaction and firm creativity). The researchers relied on the available body of literature to extract secondary data to examine the direct relationship between strategic agility and firm performance and the moderating effect of organizational culture on the relationship between strategic agility and firm performance. The researchers concluded that companies should strive to adopt strategic agility to increase performance, market share, competitiveness, and ensure stakeholder satisfaction, this study recommended managers to embrace strategic agility to achieve greater performance (market share, firm efficiency, competitive advantage, customer satisfaction and firm creativity).

• The study of Yildiz & Aykanat, (2021) titled: The mediating role of organizational innovation on the impact of strategic agility on firm performance.

The purpose of this study was to examine the mediating role of organizational innovation in the relationship of strategic agility on firm performance. The study population constitutes companies in Sakarya organized industrial zones and a final sample of 216 employees. Data collection was conducted using a quantitative method through a questionnaire. The study concluded a positive effect of strategic agility on firm performance and that it is significant to include organizational innovation as a mediator in the relationship, this study recommended the optimization of strategic agility by organizations to detect, analyze, and take advantage of new opportunities, which in turn improves performance.

• The study of Ogunleye, Adeyemo, Adesola, & Yahaya, (2021) titled: Strategic Agility and Small and Medium Enterprises' Performance: Evidence from Osun State, Nigeria.

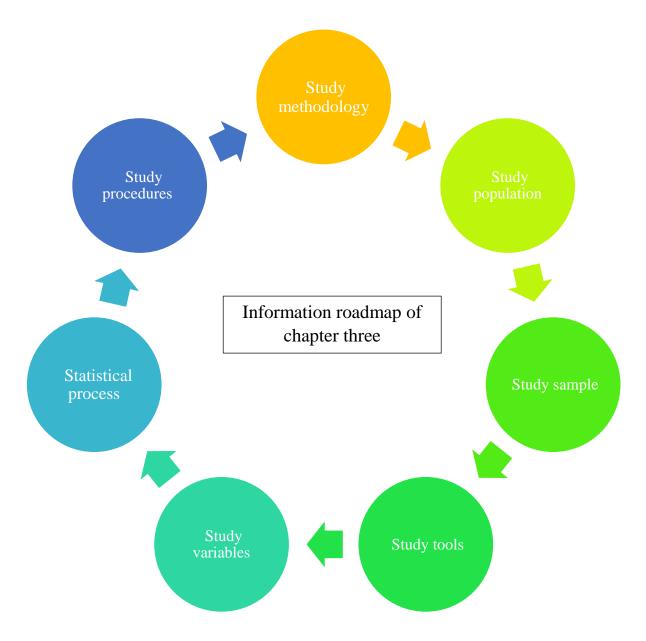
A descriptive study designed to explore the impact of strategic agility (strategic sensitivity, strategic goals selection, clarity of vision, shared responsibility, core capabilities, and collective commitment) on the performance of small-medium enterprises (SMEs) in Osun State, Nigeria. The researchers employed two techniques in determining the sample of the population. First, is the purposive technique used to determine sub-sectors: manufacturing, trading, service, and Oshogbo metropolis. Second, the snowball technique used to determine the number of managers; which equals 50 managers per sector and a total of 200 managers. The questionnaire was distributed to the sample, and 190 responses were received for analysis. The results showed that all four strategic agility dimensions contribute to improving the firm performance and achieving excellence in the dynamic competitive environment.

#### What distinguishes the current study from previous studies

The current study is distinguished from the previous studies by the following aspects:

- The current study links strategic thinking, strategic agility, and organizational performance. And helps in the resolution of discrepancies in opinions by finding agreements on relationships and solves the contrast in the dimensions by identifying the most studied dimensions of each variable.
- The systematic literature review method is used to explore the mediating role of strategic agility on the impact of strategic thinking on organizational performance which was not done in previous studies.
- 3. This study is considered the first Arab study at MBA level (to the extent of the researcher's knowledge) to adopt the systematic literature review method.

# Chapter THREE Research methodology (Methods and procedures)



# **3-1 Study methodology**

The nature of this study is a qualitative study using the systematic literature review (SLR) method. "An SLR is a review of an existing body of literature that follows a transparent and

reproducible methodology in searching, assessing its quality and synthesizing it, with a high level of objectivity." (Kraus, Breier, & Dasí-Rodríguez, 2020: 4)

Characteristics of a systematic literature review: (Rother, 2007)

- Specific questions
- Precise search approach
- Uniformly applied selection criteria
- Qualitative synthesis
- Strict critical evaluation

Kraus, Breier, & Dasí-Rodríguez, (2020) argud that a systematic literature review provides a state-of-the-art view about a specific field in the available extent of knowledge resulting in; identifying research gaps for further studies and potentially developing a research model that can be used in further quantitative studies.

According to Pittaway, Holt, & Broad, (2014) the systematic literature review method contributes in:

- Improving the consistency by providing clear definitions of variables.
- ✤ Utilizing cross-disciplinary research.
- Deepening the researchers understanding of the existing knowledge by creating a rigid theoretical base.
- Pushing researchers to be conscious about the available body of literature on a particular topic before conducting new empirical studies.

The researcher developed and followed this road map in order to perform the systematic literature review methodology:

## 1- Planning:

- **Step one** formulate the study problem.
- **Step two** the review protocol:
- 1- Questions
- 2- Search key words and synonyms
- 3- Inclusion and exclusion criteria
- 4- Search criteria
- 5- Search strategies
- 6- Screening procedures
- 7- Data extraction strategies
- 2- <u>Conducting</u>:
  - Step three search literature (title and keywords)
    - 1- Channels: electronic data, backward and forward search.
    - 2- Stopping rule.
  - **Step four** quality assessment (full text)
  - **Step five** extracting data
  - Step six analyzing and synthesizing extracted data
- 3- <u>Reporting:</u>
  - **Step** eight report findings



Figure 3-1: Method of systematic literature review

## **3-2 Study population**

All the available research articles on Emerald Insight, EBECO, Pro Quest, Scopus, and Google scholar about the research variables or synonyms (strategic thinking, strategic agility, and organizational performance).

The following flowchart represents the procedure followed by the researcher in the search process to identify the study population and the inclusion & exclusion of articles to select the sample:

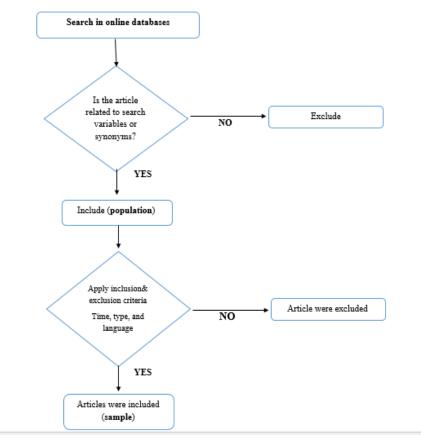


Figure 3-2: Flowchart for defining the study population and selecting its sample Keywords were defined as search criteria and must be found in the title of the article:

- 1- Strategic thinking, leadership, foresight, creative thinking, and systems thinking.
- 2- Strategic agility, strategic flexibility, flexibility.
- 3- Organizational performance, performance.

The researcher scanned the selected search engines using the study keywords and found a convenience sample of 181 articles and it's considered the study population.

Table 1 represents the characteristics of the 181 collected articles (study population) which are: article title, search engine, author name, date of publication, language, article type, and journal.

	Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
1-	Leadership Style and Leadership Flexibility: Some transnational observations	Scopus	<ul><li>Andrew J. Schou</li><li>Peter M. Storm</li></ul>	1980	English	Empirical	Leadership & Organization Development Journal
2-	Strategic flexibility and firm performance in a cyclical industry	Pro Quest	• Stewart C. Malone	1986	English	Empirical	Thesis or dissertation
3-	Strategic flexibility and performance over time	Pro Quest	John Michael     Mankelwicz	1992	English	Empirical	Thesis or dissertation
4-	Managing Strategic Flexibility: Key to Effective Performance	EBSCO Host	<ul><li>T.K. Das</li><li>B. Elango</li></ul>	1995	English	Theoretical	Journal of General Management
5-	Leaders, Leadership, and Flexibility: Influences on Heads of Government as Negotiators and Mediators	Google Scholar	• Margaret G. Hermann	1995	English	Theoretical	The Annals of the American Academy of Political and Social Science
6-	Situational leadership preferences in Australia: Congruity, flexibility and effectiveness	Emerald Insight	• Gayle C. Avery	2001	English	Empirical	Leadership & Organization Development Journal
7-	Modularity, strategic flexibility, and firm performance: a study of the home appliance industry	EBSCO Host	<ul><li>Nicolay Worren</li><li>Karl Moore</li><li>Pablo Cardona</li></ul>	2002	English	Empirical	Strategic Management Journal
8-	Strategy frames, strategic flexibility and firm performance: the moderating role of industry clock speed	EBSCO Host	<ul><li>Sucheta Nadkarni</li><li>V.K. Narayanan</li></ul>	2004	English	Empirical	Academy of Management Proceedings
9-	Strategic flexibility and change: an aid to strategic thinking or another managerial abstraction?	EBSCO Host	Rosemary T. Skordoulis	2004	English	Theoretical	Strategic Change

Table 3-1: characteristics of the collected articles (study population)

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
10- TQM, Structural and Strategic Flexibility and Performance: an Empirical Research Study	EBSCO Host	<ul> <li>JOSE´ MARI´A GO´ MEZ-GRAS</li> <li>ANTONIO J. VERDU´ - JOVER</li> </ul>	2005	English	Empirical	Total Quality Management & Business Excellence
11- Information systems, strategic flexibility and firm performance: An empirical investigation	Google Scholar	Michael J. Zhang	2005	English	Empirical	Journal of Engineering and Technology Management
12- Market orientation, strategic flexibility, and performance: implications for services providers	EBSCO Host	<ul> <li>Rajshekhar (Raj) G.</li> <li>Javalgi, Thomas W. Whipple</li> <li>Amit K. Ghosh</li> <li>Robert B. Young</li> </ul>	2005	English	Conceptual paper	Journal of Services Marketing.
13- Community Orientation, Strategic Flexibility, and Financial Performance in Hospitals	Scopus	<ul><li>Gregory O. Ginn</li><li>Ruby P. Lee</li></ul>	2006	English	Empirical	Journal of Healthcare Management
14- Results Based Strategic Leadership: Strategic Leadership and Determinants of Firm Performance	Pro Quest	Rubina Mahsud	2006	English	Empirical	Thesis or dissertation
15- Strategic schemas, strategic flexibility, and firm performance: the moderating role of industry clock speed	Google Scholar	<ul> <li>Nadkarni, S.</li> <li>Narayanan, V. K.</li> </ul>	2007	English	Empirical	Strategic management journal
16- Strategic sourcing for supply chain agility and firms performance A study of Indian manufacturing sector	Emerald Insight	<ul><li>Khan K, A.</li><li>Pillania R.K.</li></ul>	2008	English	Empirical	Management Decision
17-Enhancing strategic flexibility and performance through risk management: the enabling role of it integration	Google Scholar	<ul> <li>Vicky Arnold</li> <li>Tanya Benford</li> <li>Joseph Canada</li> <li>Steve G. Sutton</li> </ul>	2008	English	Empirical	Institute of Internal Auditors Research Foundation

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
18- Debate: Systems thinking and public sector performance: Does lean enhance public services?	Google Scholar	<ul><li>John Seddon</li><li>Carlton Brand</li></ul>	2008	English	Theoretical	Public Money & Management
19- CEO personality, strategic flexibility, and firm performance: the case of the Indian business process outsourcing industry	EBSCO Host	<ul><li>SUCHETA NADKARNI</li><li>POL HERRMANN</li></ul>	2010	English	Empirical	Academy of Management Journal.
20- Embedding strategic agility: A leadership agenda for accelerating business model renewal	Scopus	<ul><li>Yves L. Doz</li><li>Mikko Kosonen</li></ul>	2010	English	Empirical	Long Range Planning
21- The importance of innovation leadership in cultivating strategic fit and enhancing firm performance	EBSCO Host	<ul><li>Carmeli, Abraham</li><li>Gelbard, Roy</li><li>Gefen, David</li></ul>	2010	English	Empirical	Leadership Quarterly
22- Managing complexity: Systems thinking as a catalyst of the organization performance	Scopus	Aelita Skarz <sup>*</sup> auskiene <sup>*</sup>	2010	English	Empirical	Measuring Business Excellence
23- Measuring agility as a performance outcome	Emerald Insight	Charlene A. Yauch	2011	English	Empirical	Journal of Manufacturing Technology Management
24- Contribution of Strategic Leadership in Reinforcing the Strategic Flexibility to Business Organizations A Study of the Opinions for a Sample of Strategic Leadership in the General Company for the Manufacture of Medicines and Medical Appliances in Nineveh	Google Scholar	<ul> <li>dr. Maan Al-Maadhedee</li> <li>Ayman Mohammed</li> </ul>	2011	Arabic	Empirical	TANMIYAT AL-RAFIDAIN
25- Sales Force Agility, Strategic Thinking, and Value Propositions	Scopus	Larry B. Chonko and Eli Jones	2011	English	Book chapter	The Oxford Handbook of Strategic Sales and Sales Management

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
26- Nature of the relationship between strategic leadership, operational strategy and organizational performance	Google Scholar	<ul><li>Kobus Serfontein</li><li>Johan Hough</li></ul>	2011	English	Empirical	South African Journal of Economic and Management Sciences
27- Boosting firm performance via enterprise agility and network structure	Emerald Insight	<ul><li>Yang,C.</li><li>Liu, H.</li></ul>	2012	English	Empirical	Management Decision
28- The Influence Of Strategic Agility On The Perceived Performance Of Manufacturing Firms In Nigeria	Google Scholar	<ul><li>Onyema .E. Ofoegbu</li><li>Paul Ayobami Akanbi</li></ul>	2012	English	Empirical	International Business & Economics Research Journal
29- The effects of CEOs' social networks on organizational performance through knowledge and strategic flexibility	Emerald Insight	<ul> <li>Virginia Ferna´ndez- Pe´rez,</li> <li>Victor Jesu´s</li> <li>Garcı´a-Morales</li> <li>Oscar Fernando Bustinza-Sa´nchez</li> </ul>	2012	English	Empirical	Personnel Review
30- Forecasting project performance considering the influence of leadership style on organizational agility	Emerald Insight	<ul> <li>Marco Aure´lio de Oliveira</li> <li>Luiz Veriano Oliveira Dalla Valentina</li> <li>Osmar Possamai</li> </ul>	2012	English	Empirical	International Journal of Productivity & Performance Management
<ul><li>31- Organization Performance</li><li>Evaluation Using System Thinking:</li><li>A Study in Brazilian Chemical</li><li>Organizations Models</li></ul>	Scopus	<ul> <li>Luciana Oranges Cezarino</li> <li>Flavio Hearnoux Junior</li> <li>Hamilton Luiz Correa</li> </ul>	2012	English	Empirical	Systemic Practice and Action Research
32- Identifying the impact of leadership practices on organizational agility	Pro Quest	• Alethea G. Young	2013	English	Empirical	Thesis or dissertation
33- The issue of flexibility in inter- organizational collaboration: an appreciative systems thinking perspective	Scopus	<ul><li>Evangelia Kopanaki</li><li>Steve Smithson</li></ul>	2013	English	Empirical	International Journal of Applied Systemic Studies

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
34- Strategic Leadership: Values, Styles, and Organizational Performance	EBSCO Host	<ul><li>Carter, Suzanne M.</li><li>Greer, Charles R.</li></ul>	2013	English	Theoretical	Journal of Leadership & Organizational Studies.
35- The influence of strategic leadership on firm inventive and innovative performance	Google Scholar	Franky Supriyadi	2013	English	Empirical	Thesis or dissertation
36- Confirmatory factor analysis on strategic leadership, corporate culture, good corporate governance and company performance	Google Scholar	<ul> <li>Elidio De Araujo</li> <li>Budiman Christiananta</li> <li>Lena Ellitan</li> <li>Bambang Widjanarko Otok</li> </ul>	2013	English	Empirical	Academic Research International
37- Improving loss prevention implementation and performance through systems thinking and leadership transformation	Pro Quest	• Devin C. Bennett	2013	English	Empirical	Thesis or dissertation
38- From striving to thriving: Systems thinking, strategy, and the performance of safety net hospitals	Scopus	<ul> <li>Jonathan Clark</li> <li>Sara Singer</li> <li>Nancy Kane</li> <li>Melissa Valentine</li> </ul>	2013	English	Empirical	Health Care Management Review
39- The relationships among network ties, organizational agility, and organizational performance: A study of the flat glass industry in Taiwan	Google Scholar	<ul><li>Yu-Muo Lee</li><li>Chyan Yang</li></ul>	2014	English	Empirical	Journal of Management & Organization
40- Strategic flexibility and SME performance in an emerging economy A contingency perspective	Emerald Insight	<ul><li>Hai Guo</li><li>Zhi Cao</li></ul>	2014	English	Empirical	Journal of Organizational Change Management

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
41- A study of network-building HR practices for TMT, strategic flexibility and firm performance the moderating role of environmental uncertainty.	Emerald Insight	<ul><li>Yaqing Lin</li><li>Shuming Zhao</li><li>Na Li</li></ul>	2014	English	Empirical	Nankai Business Review International
42- Impact of Strategic Thinking and Strategic Agility on Strategic Performance: A Case Study of Jordanian Insurance Industry Companies	Google Scholar	<ul><li>Ahmad Ali Salih</li><li>LOAY ALNAJI</li></ul>	2014	English	Empirical	International Review of Management and Business Research
43- Paradoxical Leadership to Enable Strategic Agility	Google Scholar	<ul> <li>Marianne W. Lewis</li> <li>Constantine Andriopoulos</li> <li>Wendy K. Smith</li> </ul>	2014	English	Empirical	California management review
44- A study of the impact of strategic thinking on the performance of Mashhad municipal managers	Google Scholar	<ul><li>Mahdi Mahdaviana</li><li>Vahid Reza Mirabib</li><li>Farideh Haghshenasb</li></ul>	2014	English	Empirical	Management Science Letters
45- Choice of entry mode, strategic flexibility and performance of international strategy in hotel chains: an approach based on real options	Google Scholar	<ul> <li>Alfonso Vargas-Sánchez</li> <li>Elena García de Soto- Camacho</li> </ul>	2015	English	Empirical	European Journal of Tourism Research
46- Strategic agility of Korean small and medium enterprises and its influence on operational and firm performance	EBSCO HOST	<ul> <li>Hojung Shin</li> <li>Jae-Nam Lee</li> <li>DaeSoo Kim</li> <li>Hosun Rhim</li> </ul>	2015	English	Empirical	International Journal of Production Economics.
47- The moderating roles of organizational learning and strategic flexibility on marketing strategic change and business performance: evidence from firms in Thailand	Emerald Insight	Amonrat Thoumrungroje	2015	English	Empirical	International Marketing in the Fast Changing World

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48- Creating value through foresight: First mover advantages and strategic agility	Scopus	Riccardo Vecchiato	2015	English	Theoretical	Technological Forecasting and Social Change
49- The effect of strategic thinking on organizational performance in nonprofit organ procurement organizations	Pro Quest	Jennifer McNary- McIlvain	2015	English	Empirical	Thesis or dissertation
50- How Strategic Purchasing Orientation and Transformational Leadership Impact Performance: The Mediating Role of Information and Communication Technologies	EBSCO Host	<ul> <li>Camarero Izquierdo Carmen</li> <li>Garrido Samaniego, M. José</li> <li>San José Cabezudo, Rebeca</li> </ul>	2015	English	Empirical	Journal of Business-to- Business Marketing
51- The relationship between leadership styles, innovation and organizational performance: a systematic review	Google Scholar	<ul><li>Tebogo Sethibe</li><li>Renier Steyn</li></ul>	2015	English	Systematic literature review	South African Journal of Economic and Management Sciences
52- The mediating role of leadership and people management practices on HRD and organizational performance	Google Scholar	<ul><li>Meera Alagaraja</li><li>Denise M. Cumberland</li><li>Namok Choi</li></ul>	2015	English	Empirical	Human Resource Development International
53- Strategic Agility Capabilities, Factors and their Effect on Organizational Performance: A Case Study of Iranian Banks	EBSCO Host	<ul> <li>Orojloo Mehdi</li> <li>Feizi Kamran</li> <li>Najafabadi Maryam Hojati</li> </ul>	2016	English	Empirical	International Journal of Humanities.
54- A Relational Study of Supply Chain Agility and Firms' Performance in the Services Providers	Google Scholar	<ul> <li>Ghazal Bargshady</li> <li>Ali Chegeni</li> <li>Shayan Kamranvan</li> <li>Seyed Mojib Zahraee</li> </ul>	2016	English	Empirical	International Review of Management and Marketing
55- Strategic agility enablers and performance of insurance brokerage firms in Kenya	Google Scholar	KELVIN WAWERU	2016	English	Empirical	Thesis or dissertation

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
56- Green Practices and Organizational Design as Sources of Strategic Flexibility and Performance	EBSCO Host	<ul> <li>Miguel Perez-Valls</li> <li>Jose Cespedes-Lorente</li> <li>Juan Moreno-Garcia</li> </ul>	2016	English	Empirical	Business Strategy & the Environment
57- The effect of change capability, learning capability and shared leadership on organizational agility	Pro Quest	Majed Najrani	2016	English	Empirical	Thesis and dissertations
58- Digital Leadership Through Service Computing: Agility Driven by Interconnected System and Business Architectures	Scopus	<ul><li>Mohan Tanniru</li><li>Jiban Khuntia</li></ul>	2016	English	Theoretical	Lecture Notes in Business Information Processing
59- Case Study: Business Management School at the Turkish Republic of North Cyprus and how Strategic Thinking and Planning Can Improve the Performance of the Organization to Maintain Stable between Competitors	Google Scholar	<ul> <li>Nader Muhammad Saleh Al-Jawarneh</li> </ul>	2016	English	Empirical	Invention Journal of Research Technology in Engineering & Management
60- Strategic Thinking and Organization Performance: Study of Nigeria Firms	Google Scholar	<ul><li>Ibrahim Olaniyi M.</li><li>Elumah Lucas O.</li></ul>	2016	English	Empirical	Journal of Business Administration Research
61- The Impact of Strategic Thinking on Organizational Performance A Case Study of Uchumi Supermarket Limited	Google Scholar	<ul><li>Gerald A. Juma</li><li>Prof. David Minja</li></ul>	2016	English	Empirical	International Journal of Supply Chain Management
62- Using meta-analytic structural equation modeling to advance strategic management research: guidelines and an empirical illustration via the strategic leadership-performance relationship	EBSCO Host	<ul> <li>Bergh, Donald D</li> <li>Aguinis, Herman</li> <li>Heavey, Ciaran</li> <li>Ketchen, David J.</li> <li>Boyd, Brian K.</li> <li>Su, Peiran</li> <li>Lau, Cubie L. L.</li> <li>Joo, Harry</li> </ul>	2016	English	Empirical	Strategic Management Journal

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
63- A comparative study of leadership, strategic direction and reward on employee performance	Pro Quest	• D.M.S Gopal	2016	English	Empirical	Thesis or dissertation
64- Strategic Leadership And Organizational Performance In Not- For-Profit Organizations In Nairobi County In Kenya	Google Scholar	<ul> <li>Daniel Mwendwa Kitonga, Walter Okibo Bichanga, Benjamin Kyalo Muema</li> </ul>	2016	English	Empirical	INTERNATIONA L JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH
65- The effect of strategic thinking and social responsibility on organizational performance (case study: Yazd governor employees)	Google Scholar	<ul><li>Reza Saliani</li><li>Hossain Eslami</li></ul>	2016	English	Empirical	IIOAB JOURNAL
66- Application of Critical Systems Thinking to Performance Auditing Practice at the Indonesian Supreme Audit Institution: Issues and Challenges	Scopus	<ul><li>Agus Bambang Irawan</li><li>Janet McIntyre-Mills</li></ul>	2016	English	Empirical	Systems Research and Behavioral Science
67- The Impact of Enterprise Risk Management, Strategic Agility, and Quality of Internal Audit Function on Firm Performance	Pro Quest	<ul><li>Ai Ping Teoh</li><li>Kaih Yeang Lee</li><li>Rajendran Muthuveloo</li></ul>	2017	English	Empirical	International Review of Management and Marketing
68- The impact of supply chain agility on business performance in a high level customization environment	Google Scholar	• Juneho Um	2017	English	Empirical	Operations management research
69- Relationship between strategic agility and organization performance	Google scholar	<ul><li>Ogolla Judith Atieno</li><li>Dr. Thomas A. Senaji</li></ul>	2017	English	Empirical	Africa International Journal of Management Education and Governance

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
70- Improving strategic flexibility with information technologies: insights for firm performance in an emerging economy	EBSCO Host	<ul> <li>Yang Chen</li> <li>Yi Wang</li> <li>Saggi Nevo</li> <li>Jose Benitez</li> <li>Gang Kou</li> </ul>	2017	English	Empirical	Journal of Information Technology
71- Strategic flexibility, innovative HR practices, and firm performance A moderated mediation model	Emerald Insight	<ul> <li>Lin Xiu</li> <li>Xin Liang</li> <li>Zhao Chen</li> <li>Wei Xu</li> </ul>	2017	English	Empirical	Personnel Review
72- The Effects of Strategic and Manufacturing Flexibilities and Supply Chain Agility on Firm Performance in the Fashion Industry	EBSCO HOST	<ul> <li>Alan T.L.</li> <li>Chan1, Eric W.T. Ngai1</li> <li>Karen K.L. Moon2</li> </ul>	2017	English	Empirical	European Journal of Operational Research.
73- Strategic agility and performance of small and medium enterprises in NAIROBI central business district, KENYA	Google Scholar	• Haggai, Kiprotich K	2017	English	Empirical	Thesis or dissertation
74- Patterns of thinking according to Hermann's perspective and their impact on the agility of the leadership / applied research	Google Scholar	<ul> <li>Fares Al –Taan</li> <li>IbtssamaRaad Ibrahim</li> </ul>	2017	Arabic	Empirical	Economics and administration studies journal (EASJ)
75-Reducing risk through strategic flexibility and implementation leadership in high-velocity markets	Scopus	<ul> <li>Rifat Kamasak</li> <li>Meltem Yavuz</li> <li>Tulay Yazar Ozturk</li> </ul>	2017	English	Theoretical	Contributions to Management Science
76- The impact of strategic management and strategic thinking approaches on business performance of companies operating in the retail industry	Google Scholar	Miloš Lončar	2017	English	Exploratory research	European Project Management Journal

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
77- Intervention for supervisors, based on social skills and leadership, in order to improve organizational climate perception and organizational performance outcomes.	Emerald Insight	<ul> <li>Alejandro Adrian</li> <li>cuadra-peralta Constanza Veloso-Besio</li> <li>Jose Iribaren</li> <li>Rodrigo Pinto</li> </ul>	2017	English	Empirical	International Journal of Business Excellence
78- The impact of leadership on trust, knowledge management, and organizational performance: A research model	Emerald Insight	<ul> <li>Alex Koohang</li> <li>Joanna Paliszkiewicz</li> <li>Jerzy Gołuchowski</li> </ul>	2017	English	Empirical	Industrial Management & Data Systems
79- Corporate Foresight and its effect on Innovation, Strategic Decision Making and Organizational Performance (Case Study: Iranian Banking Industry)	Emerald Insight	<ul> <li>Mahdi Joneidi Jafari</li> <li>Seyed Akbar NiliPourTabataba'i</li> </ul>	2017	English	Empirical	Foresight
80- The effect of The Organizational Agility On High Performance( Applied Search )	Google Scholar	<ul><li>Shfaa alazawi</li><li>Enas aldbag</li></ul>	2018	Arabic	Empirical	Journal of Economic and Administrative Sciences
81- The contributions of organizational agility towards business performance within small and medium scale enterprises in Gauteng province	Google Scholar	Sithembiso Govuzela	2018	English	Empirical	Thesis or dissertation
82- Technological Configuration Capability, Strategic Flexibility, and Organizational Performance in Chinese High-Tech Organizations	Pro Quest	<ul> <li>Jin Li.</li> <li>Lulu Zhou.</li> <li>Xufan Zhang.</li> <li>Zhihong Chen.</li> <li>Feng Tian.</li> </ul>	2018	English	Empirical	Sustainability

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
83- The Influence of Strategic Agility & Tackling Competitive Challenges toward Improving Performance among Jordanian Pharmaceutical Companies	Google Scholar	• Shaker Ahmed Al-Qudah	2018	English	Empirical	International Journal of Academic Research in Business and Social Sciences
84- Strategic Agility and Firm Performance Relationship: A Research in Manufacturing Firms	Google Scholar	<ul> <li>Özlem Yaşar Uğurlu</li> <li>Emre Çolakoğlu</li> <li>Emre Öztosun</li> </ul>	2018	English	Empirical	International Applied Social Science Congress.
85- The effects of leadership behaviors on organization agility: a quantitative study of 126 U.S based business units	Pro Quest	Gretchen Gagel	2018	English	Empirical	Thesis and dissertations
86- The Influence of Sustainable Leadership and Strategic Agility on Business Sustainability	Google Scholar	<ul><li>Yu Yin Lim</li><li>Ai Ping Teoh</li></ul>	2018	English	Theoretical	International Conference on Entrepreneurship and Business Management
87- Mediation effect of dynamic capability in the relationship between knowledge management and strategic leadership on organizational performance accountability	Emerald Insight	<ul> <li>Kamariah Najmi</li> <li>Abdul Rahman Kadir</li> <li>Muh. Isa Ansari Kadir</li> </ul>	2018	English	Empirical	International Journal of Law and Management
88- Strategic Leadership and Organizational Performance: A Critical Review of Literature	Google Scholar	<ul><li>Alex A. Jaleha</li><li>Vincent N. Machuki,</li></ul>	2018	English	Literature review	European Scientific Journal

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
89- Impact of strategic leadership on organizational performance, strategic orientation and operational strategy	Scopus	<ul> <li>Normy Rafida Abdul Rahmana</li> <li>Mohd Zainul Fithri Othmanb</li> <li>Mohd Shukri Ab Yajida</li> <li>Siti Fatimah</li> <li>Abdul Rahmanc</li> <li>Abdul Malek Yaakobd Ridzuan Masrie</li> <li>Suriana Ramlia</li> <li>Zairina Ibrahimf</li> </ul>	2018	English	Empirical	Management Science Letters
90- Impact of Leadership Styles on Organizational Performance	Google Scholar	• Ebrahim Hasan Al Khajeh	2018	English	Empirical	Journal of Human Resources Management Research
91- A Systems Thinking Approach to the Structure, Conduct and Performance of the Agricultural Sector in Ghana	Scopus	<ul><li>Kwamina E. Banson</li><li>Nam C. Nguyen</li><li>Ockie J. H. Bosch</li></ul>	2018	English	Empirical	Systems research and behavioral science
92- How feedback about leadership potential impacts ambition, organizational commitment, and performance	Scopus	<ul> <li>Niklas K. Steffens</li> <li>Miguel A. Fonseca</li> <li>Michelle K. Ryand</li> <li>Floor A. Rink</li> <li>Janka I. Stoker</li> <li>Anne Nederveen Pieterse</li> </ul>	2018	English	Empirical	Leadership Quarterly
93- Strategic Agility and Firm Performance: The Moderating Role of Organizational Culture	EBSCO Host	<ul> <li>Arokodare M. A.</li> <li>Professor Olalekan Asikhia</li> <li>Grace Makinde</li> </ul>	2019	English	Theoretical	Business Management Dynamics.

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
94- The effect of supply chain agility on export performance The mediating roles of supply chain responsiveness and innovativeness	Emerald Insight	<ul><li>Haya Fawzi Ayoub</li><li>Ayman Bahjat Abdallah</li></ul>	2019	English	Empirical	Journal of Manufacturing Technology Management
95- Organizational agility, business best practices and the performance of small to medium enterprises in South Africa	Google Scholar	<ul><li>Govuzela Sithembiso</li><li>Mafini Chengedzai</li></ul>	2019	English	Empirical	South African Journal of Business Management
96- Organizational Performance Measurement Based on Competitive Intelligence and Strategic Flexibility in the Food Industry: Kalleh Dairy Company in Iran Case Study	Google Scholar	<ul><li>Mohammadali Shahbandi</li><li>Hesam Farrokhshad</li></ul>	2019	English	Empirical	Journal of Research in Marketing
97- Absorptive capacity and firm performance: The mediating role of strategic agility	Google Scholar	<ul><li>Emine Kalea,</li><li>Ahmet Aknar</li><li>Özlem Başar</li></ul>	2019	English	Empirical	International Journal of Hospitality Management
98- Strategic flexibility, manufacturing flexibility, and firm performance under the presence of an agile supply chain: a case of strategic management in fashion industry	Google Scholar	<ul><li>Uman R.,</li><li>Sommanawat K.</li></ul>	2019	English	Empirical	Polish Journal of Management Studies
99- Role of network capability, structural flexibility and management commitment in defining strategic performance in hospitality industry	Emerald Insight	<ul> <li>Abdul Majid</li> <li>Muhammad Yasir</li> <li>Zahid Yousaf</li> <li>Hassan Qudratullah</li> </ul>	2019	English	Empirical	International Journal of Contemporary Hospitality Management
100- Strategic Flexibility, Manager Personality, and Firm Performance: The Case of Indian Automobile Industry	Scopus	<ul><li>Kumar Shalender</li><li>Rajesh Kumar Yadav</li></ul>	2019	English	Empirical	Global Journal of Flexible Systems Management

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
101- Beyond Learning Outcomes: Impact of Organizational Flexibility on Strategic Performance Measures of Commercial E-Learning Providers	Scopus	• Srikanta Acharya	2019	English	Empirical	Global Journal of Flexible Systems Management
102- Investigating the Impact of Using Knowledge Management on Organizational Agility through Competitive Intelligence and Strategic Thinking	Google Scholar	<ul> <li>Hossein Sayyadi Tooranloo</li> <li>Sepideh Saghafi</li> </ul>	2019	English	Empirical	Journal of Information & Knowledge Management
103- Investigate the role of distributed leadership and strategic flexibility in fostering business model innovation	Emerald Insight	<ul> <li>Suqin Liao</li> <li>Zhiying Liu</li> <li>Lihua Fu</li> <li>Peichi Ye</li> </ul>	2019	English	Empirical	Chinese Management Studies
104- The Influence of Ethical Leadership and Green Organizational Identity on Employees' Green Innovation Behavior: The Moderating Effect of Strategic Flexibility	Scopus	<ul><li>Liangcan Liu</li><li>Longying Zhao</li></ul>	2019	English	Theoretical	IOP Conference Series: Earth and Environmental Science
105- The Role Of Organizational Intelligence In Achieving Strategic Agility By Using The Complexity Leadership Theory	Scopus	<ul><li>Zainab M. Mahmood</li><li>Ali A. Faris</li><li>Ameer G. Wadi</li></ul>	2019	English	Empirical	Opcion
106- High performance work practices, organizational performance and strategic thinking A moderation perspective	Emerald Insight	<ul> <li>Maher Alatailat</li> <li>Hamzah Elrehail</li> <li>Okechukwu Lawrence Emeagwali</li> </ul>	2019	English	Empirical	International Journal of Organizational Analysis
107- The relationship of strategic thinking to performance Regulatory: a field study on Jordanian insurance companies	Google Scholar	Mohammad Almarshad	2019	Arabic	Empirical	IUJ Journal of Economics and business

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
108- Effect of Strategic Leadership on Organizational Performance through Knowledge Management	EBSCO Host	<ul> <li>Abdul Samad Dahri</li> <li>MadihaRIAZ</li> <li>Shaheera Amin</li> <li>Muhammad Waseem</li> </ul>	2019	English	Empirical	Journal of Managerial Sciences
109- The impact of strategic leadership on the excellence of marketing performance in private Jordanian hospitals	Google Scholar	<ul><li>Asef Ali Said</li><li>Khalid Alshaikh</li></ul>	2019	Arabic	Empirical	IUJ Journal of Economics and business
110- Strategic leadership and sustainability performance of small and medium enterprises	Pro Quest	<ul> <li>Solomon Akpoviroro Kowo</li> <li>Olufemi Amos Akinbola</li> </ul>	2019	English	Empirical	Ekonomicko- manazerske spektrum,
111- Strategic Leadership Practices and Performance of Banking Sector in Kenya: A Case Study of Equity Bank Limited, Head Office	Google Scholar	<ul><li>Mukhwana Teresa Wanyama</li><li>Juster Nyaga</li></ul>	2019	English	Empirical	Journal of Human Resource & Leadership
112- The Relationship between Corporate Strategy, Strategic Leadership and Sustainable Organizational Performance: Proposing a Conceptual Framework for the South African Aviation Industry	Google Scholar	<ul><li>Maluta Mukhezakule</li><li>Orthodox Tefera</li></ul>	2019	English	Empirical	African Journal of Hospitality, Tourism and Leisur
113- The moderating effect of legal factors on the relationship between strategic leadership practices and performance of deposit taking Saccos in Kenya	Google Scholar	<ul> <li>Odero, J. A.</li> <li>Egessa, R.</li> <li>Oseno, B.</li> </ul>	2019	English	Empirical	The Strategic Journal of Business & Change Management
114- Strategic thinking in high performance teams in public universities	Scopus	<ul> <li>William Alejandro NIEBLES</li> <li>Yaneth Patricia ROMERO Alvarez</li> <li>Lorena HOYOS Babilonia</li> </ul>	2019	English	Empirical	Espacios

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
115- Fostering sustainable performance in services through systems thinking	Scopus	<ul><li>Ayham A. M. Jaaron</li><li>Chris J. Backhouse</li></ul>	2019	English	Empirical	Service Industries Journal
116- Determinants of organizational performance: some implications for top executive leadership in Korean firms	Google Scholar	<ul><li>Jungwon Yoon</li><li>Moon-Gi Suh</li></ul>	2019	English	Empirical	Asia Pacific Business Review
117- How effective leadership of knowledge management impacts organizational performance	Scopus	Mostafa Sayyadi	2019	English	Theoretical	Business information review
118- Internal corporate social responsibility and leadership effects on voice management and organizational performance: analysis of collaborator perceptions across organizations in Mexico	Scopus	<ul> <li>Andrée Marie López- Fernández</li> </ul>	2019	English	Empirical	International Journal of Business Excellence
119- Leveraging Technology for Talent Management: Foresight for Organizational Performance	Scopus	<ul><li>Brijesh Sivathanu</li><li>Rajasshrie Pillai,</li></ul>	2019	English	Empirical	International Journal of Sociotechnology and Knowledge Development
120- The impact of e-commerce capabilities on agricultural firms' performance gains: the mediating role of organizational agility	Emerald Insight	<ul> <li>Lei Li</li> <li>Jiabao Lin</li> <li>Ofir Turel</li> <li>Peng Liu</li> <li>Xin (Robert) Luo</li> </ul>	2020	English	Empirical	Industrial Management & Data Systems
121- The mediating impact of sustainability on the relationship between agility and operational performance	Google Scholar	<ul><li>Raed El-Khalil</li><li>Mohamad Ali Mezher</li></ul>	2020	English	Empirical	Operations Research Perspectives

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
122- Strategic business performance through network capability and structural flexibility	Google Scholar	<ul> <li>Muhammad Khalid Anser</li> <li>Zahid Yousaf</li> <li>Muhammad Usman</li> <li>Seemab Yousaf</li> <li>Naseem Fatima</li> <li>Hadi Hussain</li> <li>Junaid Waheed</li> </ul>	2020	English	Empirical	Management Decision
123- The influence of strategic agility on firm performance	Google Scholar	• Miruna Florina LUNGU	2020	English	Empirical	Proceedings of the International Conference on Business Excellence
124- Strategic agility and performance of small and medium enterprises in the phase of Covid-19 pandemic	Google Scholar	<ul> <li>Emejulu Gerald1</li> <li>Agbasi Obianuju</li> <li>Nosike Chukwunon</li> </ul>	2020	English	Empirical	International Journal of Financial, Accounting, and Management,
125- The impact of balanced agile project management on firm performance: the mediating role of market orientation and strategic agility	EBSCO HOST	<ul> <li>Randy Kurniawan</li> <li>Dyah Budiastuti</li> <li>Mohammad Hamsal</li> <li>Wibowo Kosasih</li> </ul>	2020	English	Empirical	Review of International Business & Strategy.
126- Investigation the Relationship Between Supply Chain Management Activities and Operational Performance: Testing the Mediating Role of Strategic Agility	Google Scholar	<ul> <li>Majd Mohammad Omoush1</li> </ul>	2020	English	Empirical	International Business Research
127- The Effects of Firm Age and Firm Size on Strategic Agility and Performance	Pro Quest	Jonathan Henry Reed	2020	English	Empirical	Thesis or dissertation

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
128- The moderating role of strategic agility on the relationship between entrepreneurial orientation and organizational performance	Google Scholar	• Deon Govender	2020	English	Empirical	Thesis or Dissertation
129- Strategic flexibility, TMT cognitive capability and firm performance: a review of literature	Google Scholar	<ul><li>Kahingo, Caroline. M. K</li><li>Dr. Muchemi, Anne. W</li></ul>	2020	English	Review of literature	African Journal of Emerging Issues
130- Driving sustainability in SMEs' performance: the effect of strategic flexibility	Emerald Insight	<ul> <li>Abdullahi Hassan Gorondutse</li> <li>Darwina Arshad</li> <li>Ahmad Said Alshuaibi</li> </ul>	2020	English	Empirical	Journal of Strategy and Management
131- Effect of Strategic Thinking on Productivity of Staff in Sports and Youth Departments of West of Country with Mediating Role of Organizational Agility	Google Scholar	<ul> <li>Mehrdad Moharramzadeh</li> <li>Mohammad Seayvan Nouri</li> </ul>	2020	Iranian	Empirical	Journal of Human Resource Management in Sport
132- The Role of Strategic Thinking in Achieving Strategic Lightness - An exploratory study of the opinions of managers in a sample of small and medium business organizations in Dohuk Governorate	Google Scholar	<ul> <li>Mohammed A. Mohammed</li> <li>Khider Kh. Shexo</li> </ul>	2020	Arabic	Empirical	Academic Journal of Nawroz University
133- The impact of transformational leadership on strategic agility an empirical study at the Aqaba special economic zone authority	EBSCO Host	<ul> <li>Maddallah basheer aboud Al – nwaiqah</li> </ul>	2020	English	Empirical	Journal of Economic Sciences: Theory & Practice
134- Transformational leadership, strategic agility and performance of state corporations in Kenya	Google Scholar	JUDITH ATIENO OGOLLA	2020	English	Empirical	Thesis or dissertation

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
135- Towards SMEs' digital transformation: The role of agile leadership and strategic flexibility	Google Scholar	<ul> <li>Olivia Fachrunnisa</li> <li>Ardian Adhiatma</li> <li>Najah Lukman</li> <li>Md Noh Ab. Majid</li> </ul>	2020	English	Empirical	Journal of Small Business Strategy
136- Strategic flexibility, strategic leadership and business sustainability nexus	Scopus	<ul><li>Chijioke Nwachukwu</li><li>Hieu Minh Vu</li></ul>	2020	English	Empirical	International Journal of Business Environment
<ul> <li>137- Strategic Agility: Achieving Superior Organizational Performance through Strategic Foresight</li> </ul>	Google Scholar	<ul><li>Arokodare M. A.</li><li>Olalekan Asikhia</li></ul>	2020	English	Theoretical	Global Journal of Management and Business Research
138- Impact of personnel creativity on achieving strategic agility: The mediating role of knowledge sharing	Google Scholar	• Amineh A. Khaddama	2020	English	Empirical	Management Science Letters
139- Designing and developing the strategic foresight capabilities of medical universities in the accidents and crises of the country with emphasis on human resource agility	Scopus	<ul> <li>Hosseinali Rastegari</li> <li>Seyed Hasan Hosseini</li> <li>Hasanali Ghayoor</li> </ul>	2020	English	Empirical	International Journal of Logistics Systems and Management
140- Evaluating the Impact of Strategic Management and Strategic Thinking on Performance in the Public Health Sector	Google Scholar	• Zafer Adiguzel	2020	English	Theoretical	Multidimensional Perspectives and Global Analysis of Universal Health Coverage
141- Impact of six sigma methodology and strategic thinking on operational performance of tourism operations	Scopus	<ul> <li>Ala Abdlameer Ahmed</li> <li>Sally Ibrahim Ahmed</li> <li>Sajjad Mohemmed Atiyah</li> </ul>	2020	English	Empirical	African Journal of Hospitality, Tourism and Leisure

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
142- Strategic leadership and performance of secondary schools in Samburu central Subcounty	Google Scholar	<ul> <li>Njukunye Peter Leseketeti</li> <li>Dr. Paul Waithaka</li> </ul>	2020	English	Empirical	International Academic Journal of Human Resource and Business Administration
143- Strategic leadership, strategic performance and core competencies in Lebanon's education	Scopus	<ul><li>Ahmad Taha Kahwaji</li><li>Hayan Nasser Eddin</li><li>Ramo Palalic</li></ul>	2020	English	Empirical	Periodicals of Engineering and Natural Sciences
144- Understanding The Impact Of Strategic Leadership Style On Innovation And Company Performance-A Systematic Review	Google Scholar	Awais Qurni	2020	English	Systematic Review	ACADEMIA
145- How innovativeness mediates the effects of organizational culture and leadership on performance	Scopus	TAGHRID SUIFAN	2020	English	Empirical	International Journal of Innovation Management
146- The role of ethical behavior and entrepreneurial leadership to improve organizational performance	Scopus	<ul> <li>Anak Agung Dwi Widyani</li> <li>Nengah Landra</li> <li>Nengah Sudja</li> <li>Mateus Ximenes</li> <li>Wayan Gde Sarmawa</li> </ul>	2020	English	Empirical	Cogent Business & Management
147- The Mediating Role of Innovation Capability on the Relationship between Strategic Agility and Organizational Performance	Emerald Insight	<ul> <li>Ibrahim Rashed AlTaweel</li> <li>Sulieman Ibraheem Al- Hawary</li> </ul>	2021	English	Empirical	World Journal of Entrepreneurship, Management and Sustainable Development
148- Relationships between digital maturity, organizational agility, and firm performance: An empirical investigation on SMEs	Pro Quest	<ul><li>Büşra Alma Çallı</li><li>Levent Çallı</li></ul>	2021	English	Empirical	Business & Management Studies: An International Journal

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
149- The mediating role of organizational innovation on the impact of strategic agility on firm performance	Emerald Insight	<ul><li>Tayfun Yildiz</li><li>Zafer Aykanat</li></ul>	2021	English	Empirical	World Journal of Entrepreneurship Management and Sustainable Development
150- Strategic Agility and Small and Medium Enterprises' Performance: Evidence from Osun State, Nigeria	Google Scholar	<ul> <li>P. O. Ogunley</li> <li>S. A. Adeyemo</li> <li>M. A. Adesola</li> <li>Yakubu Yahaya</li> </ul>	2021	English	Empirical	South Asian Journal of Social Studies and Economics
151- The role of strategic agility towards the firm performance of logistics service providers in Indonesia	Google Scholar	<ul> <li>Risris Nurjaman</li> <li>Agus Rahayub</li> <li>Lili Adi Wibowo</li> <li>Widjajania</li> </ul>	2021	English	Empirical	Management Science Letters
152- The Relationship between Strategic Agility and Resource Base View of the Firm Performance in Manufacturing Industry: The Research Framework	Google Scholar	<ul> <li>R Nurjaman</li> <li>A Rahayu</li> <li>LA Wibowo</li> <li>Widjajani</li> <li>Mujiarto</li> </ul>	2021	English	Theoretical	In Journal of Physics: Conference Series
153- Influencing mechanism of strategic flexibility on corporate performance: the mediating role of business model innovation	EBSCO Host	<ul><li>Hongjun Xiao</li><li>Zhen Yang</li><li>Yelin Hu</li></ul>	2021	English	Empirical	Asia Pacific Business Review.
154- Network capability and strategic performance in SMEs: the role of strategic flexibility and organizational ambidexterity	EBSCO Host	<ul><li>Abdul Majid</li><li>Muhammad Yasir</li><li>Zahid Yousaf</li></ul>	2021	English	Empirical	Eurasian Business Review
155- Strategic flexibility and business performance: The need for cross- dimension alignment.	Emerald Insight	• independent writer	2021	English	Briefing	Strategic direction

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
156- Antecedents and influence of strategic agility on organizational performance of private higher education institutions in Malaysia	EBSCO HOST	<ul><li>Josephine Ie Lyn Chan</li><li>Rajendran Muthuveloo</li></ul>	2021	English	Empirical	Studies in Higher Education
157- The impact of strategic agility on employees' performance in commercial banks in Jordan	Google Scholar	Mohammad Izzat Al Halalmeha	2021	English	Empirical	Management Science Letters
158- Strategic Agility, Business Model Innovation and Firm Performance: An Empirical Investigation	EBSCO HOST	<ul> <li>Thomas Clauss</li> <li>Michael Abebe</li> <li>Chanchai Tangpong</li> <li>Marianne Hock</li> </ul>	2021	English	Empirical	IEEE Transactions on Engineering Management.
159- The Improve Company Performance Through Knowledge management Capabilities, Strategic Flexibility and Strategic Agility; The Mediating Role of Business Model Innovation	Google Scholar	<ul> <li>Yaghoub Rashnavadi</li> <li>Faraz Sadeghvaziri</li> <li>Rasoul NosratPanah</li> </ul>	2021	Iranian	Empirical	Journal of Innovation Management In Defensive Organizations
160- Does Uncertainty Moderate the Relationship between Strategic Flexibility and Companies' Performance? Evidence from Small and Medium Pharmaceutical Companies in Iran	Google Scholar	<ul> <li>Allam Yousuf</li> <li>Vahid Zeynvand Lorestani</li> <li>Judit Oláh</li> <li>János Felföldi</li> </ul>	2021	English	Empirical	Sustainability
161- Fostering individual creativity in startups: comprehensive performance measurement systems, role clarity and strategic flexibility	Emerald Insight	<ul><li>Anderson Betti Frare</li><li>Ilse Maria Beuren</li></ul>	2021	English	Empirical	European Business Review.
162- Strategic agility, environmental uncertainties and international performance: The perspective of Indian firms	EBSCO Host	<ul> <li>Mohammad Faisal Ahammad</li> <li>Shubhabrata Basu</li> <li>Surender Munjal</li> <li>Jeremy Clegg</li> <li>Ofra Bazel Shoham</li> </ul>	2021	English	Empirical	Journal of World Business.

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
163- The impact of customer knowledge management capability on project performance-mediating role of strategic agility	Scopus	<ul><li>Syed Arslan Haider</li><li>Umar Nawaz Kayani</li></ul>	2021	English	Empirical	Journal of Knowledge Management
164- Social Media Engagement, Organizational Agility and Digitalization Strategic Plan to Improve SMEs' Performance	Scopus	<ul> <li>Hasan Abdul Rozak</li> <li>Ardian Adhiatma</li> <li>Olivia Fachrunnisa</li> <li>Tina Rahayu</li> </ul>	2021	English	Empirical	IEEE Transactions on Engineering Management
165- Increasing agility to boost organizational performance: Some critical factors to focus on	Scopus	• independent writer	2021	English	Briefing	Strategic Direction
166- Strategic Thinking and Flexibility of Deposit Money Banks in South-South, Nigeria	Google Scholar	<ul> <li>Adim, Chidiebere Victor</li> <li>Mezeh, Akpobolokami Andy</li> <li>Unaam, Akaninyene Okon</li> </ul>	2021	English	Empirical	Asian Journal of Economics, Business and Accounting
167- Kerala's Innovations and Flexibility for Covid-19 Recovery: Storytelling using Systems Thinking	Scopus	• Arun A. Elias	2021	English	Empirical	Global Journal of Flexible Systems Management
168- Between fit and flexibility? The benefits of high-performance work practices and leadership capability for innovation outcomes	EBSCO Host	<ul> <li>Peter Gahan</li> <li>Max Theilacker</li> <li>Mladen Adamovic</li> <li>Daejeong Choi</li> <li>Bill Harley</li> <li>Joshua Healy</li> <li>Jesse E. Olsen</li> </ul>	2021	English	Empirical	Human Resource Management Journal.
169- Dynamic modeling of strategic thinking for top management teams and its impact on firm performance: a system dynamics approach	Emerald Insight	<ul><li>Aqueeb Sohail Shaik</li><li>Sanjay Dhir</li></ul>	2021	English	Empirical	Journal of Management Development

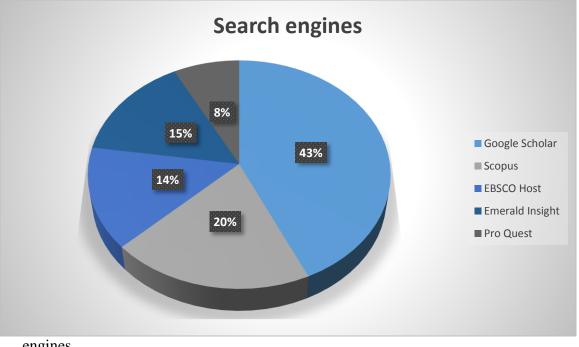
Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
170- The impact of business process reengineering on organizational performance during the coronavirus pandemic: moderating role of strategic thinking	Google Scholar	<ul> <li>Nur Shahira Shahul Hameed</li> <li>Yashar Salamzadeh</li> <li>Noor Fareen Abdul Rahim</li> <li>Aidin Salamzadeh</li> </ul>	2021	English	Empirical	Foresight
171- Intellectual capital and performance of automotive manufacturers: the role of strategic thinking	Scopus	<ul> <li>Nagwan Abdulwahab Alqershi</li> <li>Wan Fauzia Wan Yusoff</li> <li>Md Asrul Nasid Bin Masrom</li> <li>Norhadilah Binti Abdul Hamid</li> <li>Sany Sanuri Mohd Mokhtar</li> <li>Mohammed AlDoghan</li> </ul>	2021	English	Empirical	International Journal of Productivity and Performance Management
172- What drives organizational performance: strategic thinking, technological change, strategic risks? A modified total interpretive structural modelling approach and MICMAC analysis	Emerald Insight	<ul><li>Aqueeb Sohail Shaik</li><li>Sanjay Dhir</li></ul>	2021	English	Empirical	Journal of Indian Business Research.
173- Strategic thinking, strategic planning, strategic innovation and the performance of SMEs: The mediating role of human capital	Google Scholar	• Nagwan AlQershia	2021	English	Empirical	Management Science Letters
<ul> <li>174- Strategic Thinking and</li> <li>Performance of Small and Medium</li> <li>Sized Dairy Processing Firms in</li> <li>Kenya</li> </ul>	Google Scholar	<ul><li>Joyce Muthoni Mbaya</li><li>Samuel Maina</li><li>Mary Namusonge</li></ul>	2021	English	Empirical	ESJ Social Sciences

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
<ul><li>175- The Effect of Strategic Leadership on Competitive Strategy and Business Performance: Evidence from Indonesian SME's</li></ul>	Google Scholar	<ul> <li>Sidik Priadana</li> <li>Denok Sunarsi</li> <li>Wahyitno</li> <li>Aden Prawiro Sudarso</li> <li>Agustina Mogi</li> <li>Farida Agustin</li> <li>Laila Irawati</li> <li>Supriyadi</li> <li>Heri Sapari Kahpi</li> <li>Didi Wandi</li> <li>Agus Purwanto</li> </ul>	2021	English	Empirical	Annals of the Romanian Society for Cell Biology
176- Strategic leadership and performance of small and medium enterprises: the role of strategic interventions	Google Scholar	<ul> <li>Niyi Israel AKEKE</li> <li>Hezekiah Olufemi ADETAYO</li> <li>Adenike Rita AKEKE</li> <li>Mathew Olufemi OYEBANJI</li> </ul>	2021	English	Empirical	MODERN MANAGEMENT REVIEW
177- Effect of organization structure on the relationship between strategic leadership and performance of international non- governmental organizations in Kenya	Google Scholar	<ul> <li>Joan Anyango Oracha</li> <li>Prof. Martin Ogutu</li> <li>Prof. Peter K'obonyo</li> <li>Dr. Medina Twalib.</li> </ul>	2021	English	Empirical	African Journal of Emerging Issues
<ul> <li>178- The Influence of Strategic</li> <li>Leadership, Business Continuity</li> <li>Planning and Supply Chain</li> <li>Resilience on Organizational</li> <li>Performance: Instrument Validation</li> </ul>	Google Scholar	<ul><li>Mosaab A Habani</li><li>Suzilawati Kamaruddin</li></ul>	2021	English	Empirical	Business Management and Strategy

Article Title	Search engine	Authors	Date of publication	Language	Article type	Journal
179- Leadership, Communication, and Resistance Influence Organizational Performance	Scopus	<ul> <li>Leandro Ricardo Sabino</li> <li>Mário Teixeira Reis Neto</li> <li>Greiciele Macedo Morais</li> <li>Valdeci Ferreira dos Santos</li> </ul>	2021	English	Empirical	Latin American Business Review
180- Strategic IT-business alignment capability and organizational performance: roles of organizational agility and environmental factors	Emerald Insight	• Sukanya Panda	2022	English	Empirical	Journal of Asia Business Studies
181- Scenario Planning and Strategic Innovation: The mediating effects of Strategic Thinking and Strategic Flexibility	Google Scholar	<ul> <li>Esmaeil Malekakhlagh</li> <li>Mohammad Safarib</li> <li>Shahrokh Beigi</li> <li>Mohammad Reza Rokhideh</li> </ul>	2022	English	Empirical	Journal of International Marketing Modeling

After the search stage, the researcher extracted a total of 181 articles related to the scope of the study from the chosen search engines and will be classified in accordance to search engines, date of publication, study type, and journal type:

This search process was conducted by screening several search engines to identify available literature related to the study topic. Five search engines have been chosen as they're frequently used in searching for academic publications in management and business fields: Google Scholar, Emerald Insight, Scopus, EBSCO Host, and Pro Quest. After what was presented in table 1, Google scholar has the highest number of articles with 43 percent followed by Scopus with 20 percent, Emerald Insight with 15 percent, EBSCO Host with 14 percent, and finally Pro Quest with 8 percent. Google Scholar collects articles from different search engines which explain the high percentage in accordance with the other



engines.

Figure 3-3: Percent of articles per search engines

The articles' time distribution shows the peak at 2021 with 18.23 percent of total articles, followed by 2020 with 14.92 percent, 2019 with 14.92 percent, 2016 with 7.73 percent, 2017 with 7.18 percent, 2018 with 7.18 percent, 2015 with 4.42 percent, 2013 with 3.87 percent, 2014 with 3.31 percent, 2012 with 2.76 percent, 2011 with 2.21 percent, 2010 with 2. 21 percent, 2008 with 1.65 percent, 2022 with 1.11 percent, 2006 with 1.11 percent, 2005 with 1.11 percent, 2004 with 1.11 percent, 1995 with 1.11 percent, 2007 with .55 percent, 2001 with .55 percent, and finally 1980 with .55 percent.

Due to the growing environmental complexity, uncertainty, importance, and need of the study topic, the researcher found that recent years (2020 and 2021) had the highest levels of publications. As for the year 2022, this does not represent the complete number of research because the process of searching for articles was at the beginning of 2022.

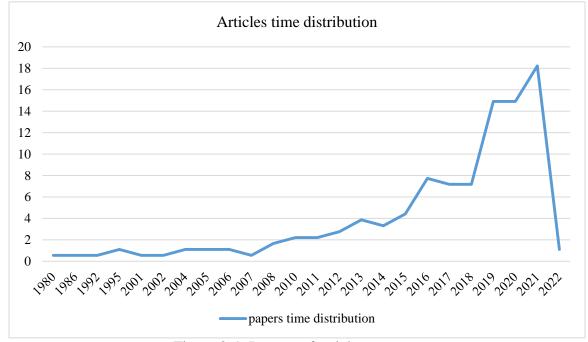
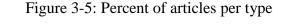
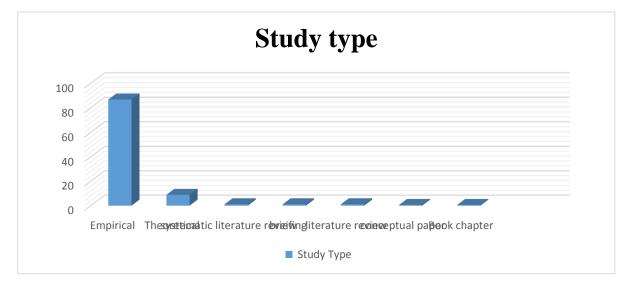


Figure 3-4: Percent of articles per year

• The researcher found that the primarily used methodology was empirical with 86.7 percent, followed by theoretical with 8.83 percent, systematic literature reviews and literature reviews and briefings with 1.11 percent each, and conceptual papers and book chapters with .55 percent each. Indicating an emphasis on using the systematic literature review methodology as the percent of articles that used it is considered very low confirming the current study knowledge gap. In addition, the highest percentage of empirical articles will be valuable for the current study; because using the systematic literature review methodology requires the included articles to be empirical and it is one of this study's inclusion-exclusion criteria.





• The researcher found an enormous variety of journals and subjects; this indicates that the research variables were used in multiple business subjects, industries, and geographic areas; this will be useful in the generalization of results conducted after analyzing and synthesizing the articles included in the study sample.

#### 3-3 Study sample

After completing the collection of articles and considering any relevant article to the study variables or their synonyms, the researcher performed the inclusion & exclusion criteria presented in table 2 to select the study sample.

Criteria	Inclusion	Exclusion
Time period	Within the time period	Earlier than 2012
	2012-2022	
Language	English	Any other language than
		English
Study type	Empirical	Any other type than
		empirical

To include as many articles as possible while removing any bias, the researcher kept the inclusion & exclusion criteria straightforward and simplistic.

Table 3-2: Inclusion & exclusion criteria

Justifications of the chosen inclusion & exclusion criteria:

- In order to form a time series that gives objective indicators of judgment and allows the collection of a large number of articles, the time series is considered to be 10 years from 2012-2022
- 2. Because this thesis was prepared in English, all articles under the umbrella of this study must be in English
- 3. One of the most important condition of the systematic literature review methodology is that the all analyzed articles must be an empirical study.

Table 3 shows which articles were included and which were excluded and the reason for the exclusion.

# Table 3-3: Inclusion & exclusion of articles

	Inclusion		Exclusion	Reason For exclusion
1.	Boosting firm performance via enterprise agility and network structure	1.	Leadership Style and Leadership Flexibility: Some transnational observations	Out of the time period
2.	The Influence Of Strategic Agility On The Perceived Performance Of Manufacturing Firms In Nigeria	2.	Strategic flexibility and firm performance in a cyclical industry	Out of the time period
3.	The effects of CEOs' social networks on organizational performance through knowledge and strategic flexibility	3.	Strategic flexibility and performance over time	Out of the time period
4.	Forecasting project performance considering the influence of leadership style on organizational agility	4.	Managing Strategic Flexibility: Key to Effective Performance	Out of the time period and not empirical
5.	Organization Performance Evaluation Using System Thinking: A Study in Brazilian Chemical Organizations Models	5.	Leaders, Leadership, and Flexibility: Influences on Heads of Government as Negotiators and Mediators	Out of the time period and not empirical
6.	Identifying the impact of leadership practices on organizational agility	6.	Situational leadership preferences in Australia: Congruity, flexibility and effectiveness	Out of the time period
7.	The issue of flexibility in inter-organizational collaboration: an appreciative systems thinking perspective	7.	Modularity, strategic flexibility, and firm performance: a study of the home appliance industry	Out of the time period
8.	The influence of strategic leadership on firm inventive and innovative performance	8.	Strategy frames, strategic flexibility and firm performance: the moderating role of industry clock speed	Out of the time period
9.	Confirmatory factor analysis on strategic leadership, corporate culture, good corporate governance and company performance	9.	Strategic flexibility and change: an aid to strategic thinking or another managerial abstraction?	Out of the time period and not empirical
10.	Improving loss prevention implementation and performance through systems thinking and leadership transformation	10	. TQM, Structural and Strategic Flexibility and Performance: an Empirical Research Study	Out of the time period
11.	From striving to thriving: Systems thinking, strategy, and the performance of safety net hospitals	11	. Information systems, strategic flexibility and firm performance: An empirical investigation	Out of the time period

Inclusion	Exclusion	Reason For exclusion
12. The relationships among network ties, organizational agility, and organizational performance: A study of the flat glass industry in Taiwan	12. Market orientation, strategic flexibility, and performance: implications for services providers	Out of the time period and not empirical
13. Strategic flexibility and SME performance in an emerging economy A contingency perspective	13. Community Orientation, Strategic Flexibility, and Financial Performance in Hospitals	Out of the time period
14. A study of network-building HR practices for TMT, strategic flexibility and firm performance the moderating role of environmental uncertainty.	14. Results Based Strategic Leadership: Strategic Leadership and Determinants of Firm Performance	Out of the time period
15. Impact of Strategic Thinking and Strategic Agility on Strategic Performance: A Case Study of Jordanian Insurance Industry Companies	15. Strategic schemas, strategic flexibility, and firm performance: the moderating role of industry clock speed	Out of the time period
16. Paradoxical Leadership to Enable Strategic Agility	16. Strategic sourcing for supply chain agility and firms performance A study of Indian manufacturing sector performance A study of Indian manufacturing sector	Out of the time period
17. A study of the impact of strategic thinking on the performance of Mashhad municipal managers	17. Enhancing strategic flexibility and performance through risk management: the enabling role of it integration	Out of the time period
18. Choice of entry mode, strategic flexibility and performance of international strategy in hotel chains: an approach based on real options	18. Debate: Systems thinking and public sector performance: Does lean enhance public services?	Out of the time period and not empirical
19. Strategic agility of Korean small and medium enterprises and its influence on operational and firm performance	19. CEO personality, strategic flexibility, and firm performance: the case of the Indian business process outsourcing industry	Out of the time period
20. The moderating roles of organizational learning and strategic flexibility on marketing strategic change and business performance: evidence from firms in Thailand	20. Embedding strategic agility: A leadership agenda for accelerating business model renewal	Out of the time period
21. The effect of strategic thinking on organizational performance in nonprofit organ procurement organizations	21. The importance of innovation leadership in cultivating strategic fit and enhancing firm performance	Out of the time period

Inclusion	Exclusion	<b>Reason For exclusion</b>
22. How Strategic Purchasing Orientation and Transformational Leadership Impact Performance: The Mediating Role of Information and Communication Technologies	22. Managing complexity: Systems thinking as a catalyst of the organization performance	Out of the time period
23. The mediating role of leadership and people management practices on HRD and organizational performance	23. Measuring agility as a performance outcome	Out of the time period
24. Strategic Agility Capabilities, Factors and their Effect on Organizational Performance: A Case Study of Iranian Banks	24. Contribution of Strategic Leadership in Reinforcing the Strategic Flexibility to Business Organizations A Study of the Opinions for a Sample of Strategic Leadership in the General Company for the Manufacture of Medicines and Medical Appliances in Nineveh	Out of the time period and not in English.
25. A Relational Study of Supply Chain Agility and Firms' Performance in the Services Providers	25. Sales Force Agility, Strategic Thinking, and Value Propositions	Out of the time period and not empirical
26. Strategic agility enablers and performance of insurance brokerage firms in Kenya	26. Nature of the relationship between strategic leadership, operational strategy and organizational performance	Out of the time period
27. Green Practices and Organizational Design as Sources of Strategic Flexibility and Performance	27. Strategic Leadership: Values, Styles, and Organizational Performance	Not empirical
28. The effect of change capability, learning capability and shared leadership on organizational agility	28. Creating value through foresight: First mover advantages and strategic agility	Not empirical
29. Case Study: Business Management School at the Turkish Republic of North Cyprus and how Strategic Thinking and Planning Can Improve the Performance of the Organization to Maintain Stable between Competitors	29. The relationship between leadership styles, innovation and organizational performance: a systematic review	Not empirical
30. Strategic Thinking and Organization Performance: Study of Nigeria Firms	30. Digital Leadership Through Service Computing: Agility Driven by Interconnected System and Business Architectures	Not empirical

Inclusion	Exclusion	<b>Reason For exclusion</b>
31. The Impact of Strategic Thinking on Organizational Performance A Case Study of Uchumi Supermarket Limited	31. Patterns of thinking according to Hermann's perspective and their impact on the agility of the leadership / applied research	Not in English
32. Using meta-analytic structural equation modeling to advance strategic management research: guidelines and an empirical illustration via the strategic leadership-performance relationship	32. Reducing risk through strategic flexibility and implementation leadership in high-velocity markets	Not empirical
33. A comparative study of leadership, strategic direction and reward on employee performance	33. The impact of strategic management and strategic thinking approaches on business performance of companies operating in the retail industry	Not empirical
34. Strategic Leadership And Organizational Performance In Not- For-Profit Organizations In Nairobi County In Kenya	34. The effect of The Organizational Agility On High Performance( Applied Search)	Not in English
35. The effect of strategic thinking and social responsibility on organizational performance (case study: Yazd governor employees)	35. The Influence of Sustainable Leadership and Strategic Agility on Business Sustainability	Not empirical
36. Application of Critical Systems Thinking to Performance Auditing Practice at the Indonesian Supreme Audit Institution: Issues and Challenges	36. Strategic Leadership and Organizational Performance: A Critical Review of Literature	Not empirical
37. The Impact of Enterprise Risk Management, Strategic Agility, and Quality of Internal Audit Function on Firm Performance	37. Strategic Agility and Firm Performance: The Moderating Role of Organizational Culture	Not empirical
38. The impact of supply chain agility on business performance in a high level customization environment	38. The Influence of Ethical Leadership and Green Organizational Identity on Employees' Green Innovation Behavior: The Moderating Effect of Strategic Flexibility	Not empirical
39. Relationship between strategic agility and organization performance	39. The relationship of strategic thinking to performance Regulatory: a field study on Jordanian insurance companies	Not in English
40. Improving strategic flexibility with information technologies: insights for firm performance in an emerging economy	40. The impact of strategic leadership on the excellence of marketing performance in private Jordanian hospitals	Not in English

Inclusion	Exclusion	<b>Reason For exclusion</b>
41. Strategic flexibility, innovative HR practices, and firm performance A moderated mediation model	41. How effective leadership of knowledge management impacts organizational performance	Not empirical
42. The Effects of Strategic and Manufacturing Flexibilities and Supply Chain Agility on Firm Performance in the Fashion Industry	42. Strategic flexibility, TMT cognitive capability and firm performance: a review of literature	Not empirical
43. Strategic agility and performance of small and medium enterprises in NAIROBI central business district, KENYA	43. Strategic Agility: Achieving Superior Organizational Performance through Strategic Foresight	Not empirical
44. Intervention for supervisors, based on social skills and leadership, in order to improve organizational climate perception and organizational performance outcomes.	44. Evaluating the Impact of Strategic Management and Strategic Thinking on Performance in the Public Health Sector	Not empirical
45. The impact of leadership on trust, knowledge management, and organizational performance: A research model	45. Understanding The Impact Of Strategic Leadership Style On Innovation And Company Performance-A Systematic Review	Not empirical
46. Corporate Foresight and its effect on Innovation, Strategic Decision Making and Organizational Performance (Case Study: Iranian Banking Industry)	46. The Relationship between Strategic Agility and Resource Base View of the Firm Performance in Manufacturing Industry: The Research Framework	Not empirical
47. The contributions of organizational agility towards business performance within small and medium scale enterprises in Gauteng province	47. Strategic flexibility and business performance: The need for cross-dimension alignment.	Not empirical
48. Technological Configuration Capability, Strategic Flexibility, and Organizational Performance in Chinese High-Tech Organizations	48. The Improve Company Performance Through Knowledge management Capabilities, Strategic Flexibility and Strategic Agility; The Mediating Role of Business Model Innovation	Not in English
49. The Influence of Strategic Agility & Tackling Competitive Challenges toward Improving Performance among Jordanian Pharmaceutical Companies	49. Increasing agility to boost organizational performance: Some critical factors to focus on	Not empirical

Inclusion	Exclusion	<b>Reason For exclusion</b>
50. Strategic Agility and Firm Performance Relationship: A Research in Manufacturing Firms	50. Effect of Strategic Thinking on Productivity of Staff in Sports and Youth Departments of West of Country with Mediating Role of Organizational Agility	Not in English
51. The effects of leadership behaviors on organization agility: a quantitative study of 126 U.Sbased business units	51. The Role of Strategic Thinking in Achieving Strategic Lightness - An exploratory study of the opinions of managers in a sample of small and medium business organizations in Dohuk Governorate	Not in English
52. Mediation effect of dynamic capability in the relationship between knowledge management and strategic leadership on organizational performance accountability		
53. Impact of strategic leadership on organizational performance, strategic orientation and operational strategy		
54. Impact of Leadership Styles on Organizational Performance		
55. A Systems Thinking Approach to the Structure, Conduct and Performance of the Agricultural Sector in Ghana		
56. How feedback about leadership potential impacts ambition, organizational commitment, and performance		
57. The effect of supply chain agility on export performance The mediating roles of supply chain responsiveness and innovativeness		
58. Organizational agility, business best practices and the performance of small to medium enterprises in South Africa		
59. Organizational Performance Measurement Based on Competitive Intelligence and Strategic Flexibility in the Food Industry: Kalleh Dairy Company in Iran Case Study		
60. Absorptive capacity and firm performance: The mediating role of strategic agility		

Inclusion	Exclusion	Reason For exclusion
61. Strategic flexibility, manufacturing flexibility, and firm performance under the presence of an agile supply chain: a case of strategic management in fashion industry		
62. Role of network capability, structural flexibility and management commitment in defining strategic performance in hospitality industry		
63. Strategic Flexibility, Manager Personality, and Firm Performance: The Case of Indian Automobile Industry		
64. Beyond Learning Outcomes: Impact of Organizational Flexibility on Strategic Performance Measures of Commercial E-Learning Providers		
65. Investigating the Impact of Using Knowledge Management on Organizational Agility through Competitive Intelligence and Strategic Thinking		
66. Investigate the role of distributed leadership and strategic flexibility in fostering business model innovation		
67. The Role Of Organizational Intelligence In Achieving Strategic Agility By Using The Complexity Leadership Theory		
68. High performance work practices, organizational performance and strategic thinking A moderation perspective		
69. Effect of Strategic Leadership on Organizational Performance through Knowledge Management		
70. Strategic leadership and sustainability performance of small and medium enterprises		
71. Strategic Leadership Practices and Performance of Banking Sector in Kenya: A Case Study of Equity Bank Limited, Head Office		

Inclusion	Exclusion	<b>Reason For exclusion</b>
<ul> <li>72. The Relationship between Corporate Strategy, Strategic Leadership and Sustainable Organizational Performance: Proposing a Conceptual Framework for the South African Aviation Industry</li> </ul>		
73. The moderating effect of legal factors on the relationship between strategic leadership practices and performance of deposit taking Saccos in Kenya		
74. Strategic thinking in high performance teams in public universities		
75. Fostering sustainable performance in services through systems thinking		
76. Determinants of organizational performance: some implications for top executive leadership in Korean firms		
77. Internal corporate social responsibility and leadership effects on voice management and organizational performance: analysis of collaborator perceptions across organizations in Mexico		
78. Leveraging Technology for Talent Management: Foresight for Organizational Performance		
79. The impact of e-commerce capabilities on agricultural firms' performance gains: the mediating role of organizational agility		
80. The mediating impact of sustainability on the relationship between agility and operational performance		
81. Strategic business performance through network capability and structural flexibility		
82. The influence of strategic agility on firm performance		
83. Strategic agility and performance of small and medium enterprises in the phase of Covid-19 pandemic		

Inclusion	Exclusion	Reason For exclusion
84. The impact of balanced agile project management on firm performance: the mediating role of market orientation and strategic agility		
85. Investigation the Relationship Between Supply Chain Management Activities and Operational Performance: Testing the Mediating Role of Strategic Agility		
86. The Effects of Firm Age and Firm Size on Strategic Agility and Performance		
87. The moderating role of strategic agility on the relationship between entrepreneurial orientation and organizational performance		
<ol> <li>Driving sustainability in SMEs' performance: the effect of strategic flexibility</li> </ol>		
89. Impact of personnel creativity on achieving strategic agility: The mediating role of knowledge sharing		
90. Designing and developing the strategic foresight capabilities of medical universities in the accidents and crises of the country with emphasis on human resource agility		
91. Impact of six sigma methodology and strategic thinking on operational performance of tourism operations		
92. Strategic leadership and performance of secondary schools in Samburu central Subcounty		
93. The impact of transformational leadership on strategic agility an empirical study at the aqaba special economic zone authority		
94. Transformational leadership, strategic agility and performance of state corporations in Kenya		

Inclusion	Exclusion	Reason For exclusion
95. Towards SMEs' digital transformation: The role of agile leadership and strategic flexibility		
96. Strategic flexibility, strategic leadership and business sustainability nexus		
97. How innovativeness mediates the effects of organizational culture and leadership on performance		
98. The role of ethical behavior and entrepreneurial leadership to improve organizational performance		
99. The Mediating Role of Innovation Capability on the Relationship between Strategic Agility and Organizational Performance		
100. Relationships between digital maturity, organizational agility, and firm performance: An empirical investigation on SMEs		
101. The mediating role of organizational innovation on the impact of strategic agility on firm performance		
102. Strategic Agility and Small and Medium Enterprises' Performance: Evidence from Osun State, Nigeria		
103. The role of strategic agility towards the firm performance of logistics service providers in Indonesia		
104. Influencing mechanism of strategic flexibility on corporate performance: the mediating role of business model innovation		
105. Network capability and strategic performance in SMEs: the role of strategic flexibility and organizational ambidexterity		
106. Antecedents and influence of strategic agility on organizational performance of private higher education institutions in Malaysia		

Inclusion	Exclusion	Reason For exclusion
107. The impact of strategic agility on employees' performance in commercial banks in Jordan		
108. Strategic Agility, Business Model Innovation and Firm Performance: An Empirical Investigation		
109. Does Uncertainty Moderate the Relationship between Strategic Flexibility and Companies' Performance? Evidence from Small and Medium Pharmaceutical Companies in Iran		
110. Fostering individual creativity in startups: comprehensive performance measurement systems, role clarity and strategic flexibility		
111. Strategic agility, environmental uncertainties and international performance: The perspective of Indian firms		
112. The impact of customer knowledge management capability on project performance-mediating role of strategic agility		
113. Social Media Engagement, Organizational Agility and Digitalization Strategic Plan to Improve SMEs' Performance		
114. Strategic Thinking and Flexibility of Deposit Money Banks in South-South, Nigeria		
115. Kerala's Innovations and Flexibility for Covid-19 Recovery: Storytelling using Systems Thinking		
116. Between fit and flexibility? The benefits of high- performance work practices and leadership capability for innovation outcomes		
117. Dynamic modeling of strategic thinking for top management teams and its impact on firm performance: a system dynamics approach		

Inclusion	Exclusion	Reason For exclusion
118. The impact of business process reengineering on organizational performance during the coronavirus pandemic: moderating role of strategic thinking		
119. Intellectual capital and performance of automotive manufacturers: the role of strategic thinking		
120. What drives organizational performance: strategic thinking, technological change, strategic risks? A modified total interpretive structural modelling approach and MICMAC analysis		
121. Strategic thinking, strategic planning, strategic innovation and the performance of SMEs: The mediating role of human capital		
122. strategic Thinking and Performance of Small and Medium Sized Dairy Processing Firms in Kenya		
123. The Effect of Strategic Leadership on Competitive Strategy and Business Performance: Evidence from Indonesian SME's		
124. Strategic leadership and performance of small and medium enterprises: the role of strategic interventions		
125. Effect of organization structure on the relationship between strategic leadership and performance of international non-governmental organizations in Kenya		
126. The Influence of Strategic Leadership, Business Continuity Planning and Supply Chain Resilience on Organizational Performance: Instrument Validation		
127. Leadership, Communication, and Resistance Influence Organizational Performance		

Inclusion	Exclusion	Reason For exclusion
128. Strategic IT-business alignment capability and organizational performance: roles of organizational agility and environmental factors		
129. Strategic leadership, strategic performance and core competencies in Lebanon's education		
130. Scenario Planning and Strategic Innovation: The mediating effects of Strategic Thinking and Strategic Flexibility		

• Applying the inclusion & exclusion criteria resulted in the inclusion of 72 percent of total articles; 130 articles met all the inclusion criteria and the exclusion of 28 percent of total articles; 51 articles at least one of the inclusion criteria did not apply. This is useful for the current study as a higher percentage of included articles will increase the accuracy of the findings.



Figure 3-6: Percent of included & excluded articles

After assessing the eligibility of the articles based on the set of inclusion & exclusion criteria, 44.83% (26 articles) of the excluded articles were excluded due to the time period constrains, followed by research type 41.38% (24 articles), followed by language 13.79% (8 articles).

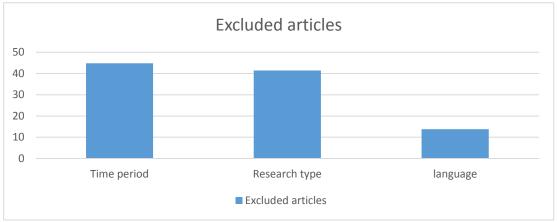


Figure 3-7: Exclusion criteria

• The time series accepted was 2012-2022; 14.29 % of total articles were excluded (26 articles) and 85.71% of total articles (155 articles) were within the time series; this shows an increase in the accumulated knowledge and will assist in the expansion in the range of analysis.

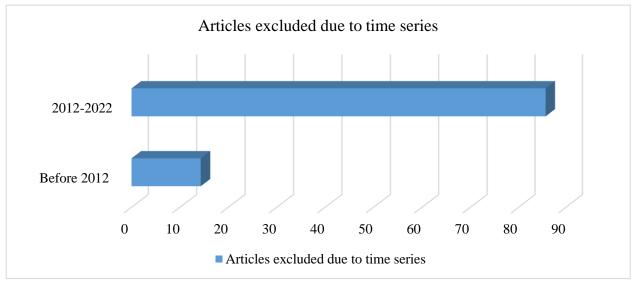


Figure 3-8: Articles excluded due to time series

• Only empirical articles can be included in the sample of a systematic literature review study, 13.19% (24 articles) were excluded due to the research type, and 86.26% were empirical and related to the direction of the search.

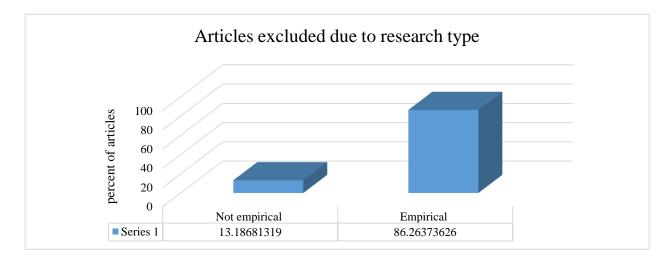


Figure 3-9: Articles excluded due to the research type

 All included articles must be in English 4% (8 articles) were excluded due to the language criteria, 96 % (174 articles) were in English, the large number will increase the objectivity of the findings.

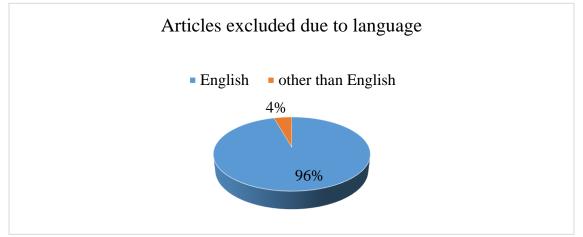


Figure 3-10: Articles excluded due to the language

### **3-4 Study tools**

The current study will completely depend on secondary data represented by books, journal articles, thesis's, dissertations, and websites available on search engines.

#### 3-5 Study variables

- Strategic thinking as the independent variable
- Organizational performance as the dependent variable
- Strategic agility as the mediating variable (both dependent and independent)

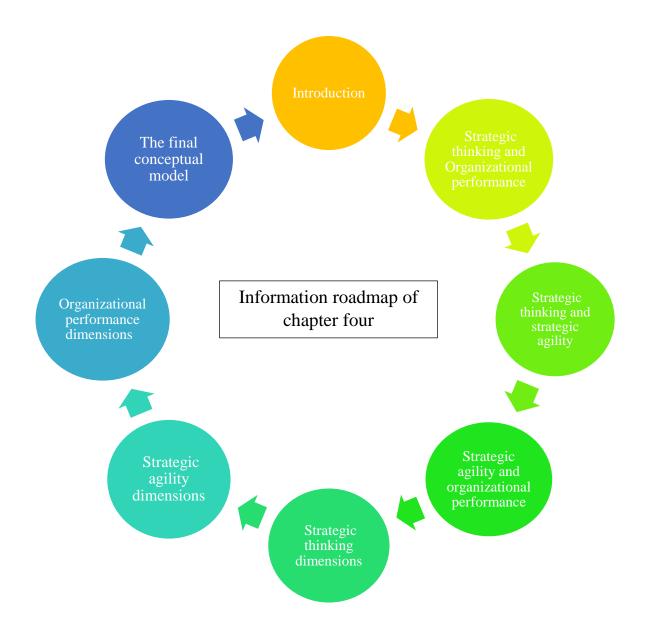
#### **3-6 Statistical process**

The qualitative method is going to be used in classifying and clarifying the mediating role of strategic agility on the impact of strategic thinking on organizational performance and the most frequently studied dimension of each variable. In addition, frequencies, percentages, figures, and illustrations will be used for the description, analysis, and presentation of conclusions.

# 3-7 Study procedures

- Collect previous studies about the research variables according to search keywords and their synonyms.
- Scan the studies collected according to the inclusion exclusion criteria.
- Analyzing and synthesizing the chosen studies to answer the research questions and achieve the study objectives.
- Report the discussion and conclusions.

# **Chapter FOUR Presentation and discussion of results**



#### **4-1 Introduction**

The central objective of this study is to explore the mediating role of strategic agility on the impact of strategic thinking on organizational performance, using the systematic literature review methodology.

Throughout this chapter, the researcher will fulfill the study objectives by answering the study questions, analyzing, synthesizing, and summarizing the included articles about each relationship between the study variables or their synonyms.

#### 4-2 Strategic thinking and Organizational performance

In this section of chapter four, the researcher will fulfill the first study objective; which is collecting, sorting, classifying, including, excluding, analyzing, and summarizing studies that explore the impact of strategic thinking on organizational performance by answering the first study question; what is the nature of the impact of strategic thinking on organizational performance?

The researcher will investigate the articles that studied the relationship between strategic thinking (leadership, foresight, creative thinking, and system thinking) and organizational performance (performance).

Table 4 presents the included articles about the impact of strategic thinking on organizational performance. The researcher gathered data about each article's methodology, sample, where it's applied, study tool, and findings related to the study objectives and questions.

N.	Citation	Methodology	Sample	Where the article	Study tool	Findings
				was applied		
1.	(Cezarino &	Case design	Four companies using	Brazilian chemical	Observations	System thinking is sufficient for
	Correa, 2012)		Non probabilistic	sector	and interviews	organizational performance evaluation, the
			sampling			relationship is supported.
2.	(de Oliveira, Dalla	Case study	96 senior project	R&D of a	Questionnaire	There is a relationship between
	Valentina, &		leaders	worldwide leading	and interviews	transformational leadership and project
	Possamai, 2012)			company.		performance, the relation is supported.
3.	(Supriyadi, 2013)	Empirical	27 firms, which	Biopharmaceutical	observations	Strategic leaders contribute to innovative
		design	employed 87 CEOs and	manufacturers		performance, the relationship is supported.
			88 CSOs during the	operating in the		
			observation period	US.		
4.	(De Araujo,	Research model	100 managers and	Camara Comercio	Questionnaires	Further investigation regarding the direct
	Christiananta,		owners of company	Industria Timor-		and indirect influence between these
	Ellitan, & Otok,			Leste		strategic leadership and performance, the
	2013)					relationship is not supported.
5.	(Bennett, 2013)	Hermeneutic	Six managers	USA in diverse	Interviews	The research did not study the relationship
		phenomenology		industry		between system thinking and performance,
						the relationship is not supported.
6.	(Clark, Singer,	Mixed-method	Stratified sample for	Safety net hospitals	Interviews	Strategic action fully mediates the
	Kane, & Valentine,	design	choosing the 9 hospital	(SNH)		relationship between systems thinking and
	2013)					performance, the relationship is not
						supported
7.	(Salih & Alnaji,	Case study	Random sample	Insurance	Questionnaire	Strategic thinking affect strategic
	2014)		resulting of 60 CEO,	companies in	and interviews	performance, the relationship is supported
			deputy CEO, senior	Jordan		
			director, and director			

Table 4-1: Articles about the impact of strategic thinking on organizational performance

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
8.	(Mahdavian, Mirabi, & Haghshenas , 2014)	Functional method	Sample equals population equal to 90 senior managers	Mashhad Municipality	Questionnaires	Strategic thinking has a direct effect on performance, the relationship is supported
9.	(McNary- McIlvain, 2015)	Quantitative study	15 executive directors	Nonprofit organ procurement organizations	Questionnaire	Changes in strategic thinking do not contribute to performance, the relationship is not supported.
10.	(Camarero Izquierdo, Garrido Samaniego, & San José Cabezudo, 2015)	Mixed method	Sample of 130 Spanish firms.	Spanish firms	Questionnaire and interviews	Transformational leadership contributes to purchase performance, the relationship is supported.
11.	(Alagaraja, Cumberland, & Choi, 2015)	Quantitative approach	138 HR professionals, operational managers, and leaders	Small business organizations	Questionnaire	Organizational performance is affected by leadership, the relationship is supported.
12.	(Al-Jawarneh, 2016)	Case study	41 top organization's owner, presidents, and directors.	Business Management School at Turkish Republic of North Cyprus	Questionnaire and interviews	Strategic thinking improves organizational performance and competitive advantage, the relationship is supported.
13.	(Ibrahim Olaniyi & Elumah Lucas, 2016)	Mixed-method	Final sample of 285 of business owners	Small and medium Firms in Nigeria	Questionnaire	There is a significant relationship between strategic thinking and firm performance; the relationship is supported
14.	(Juma, Minja, & Mageto, 2016)	Case study	Simple random sampling was used and a final sample of 48 middle and line managers	Uchumi Supermarket Limited in Kenya	Questionnaire and interviews	Strategic thinking does affect the overall performance; the relationship is supported.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
15.	(Bergh, et al., 2016)	Structural equation modeling (Meta-analysis)	All available published empirical articles on the strategic leadership and firm performance relationship from 1980 to 2009 a final sample of 208 articles	Articles from different disciplines	Observations	There is a relationship between strategic leadership and performance, the relationship is supported.
16.	(Gopal, 2016)	Quantitative approach.	582 employee	Financial services sector in three African countries namely Botswana, Lesotho and Namibia	Questionnaire	Immediate leadership has a relationship with employee performance, the relationship is supported.
17.	(Kitonga, Bichanga, & Muema, 2016)	Mixed method approach	Random sampling was used and a final sample of 309 employees	Not-for-profit organizations in Nairobi County in Kenya	Questionnaire and interviews	Using strategic leadership properly can enhance not-for-profit organizations performance, the relationship is supported.
18.	(Saliani & Eslami, 2016)	Case study	166 employees	Yazd Governor	Questionnaire	Strategic thinking enhances organizational performance, the relationship is supported.
19.	(Irawan & McIntyre- Mills, 2016)	Case study	514 auditors and senior auditors	Indonesian Supreme Audit Institution	Questionnaire and interviews	The research used critical systems thinking to reframe performance, which indicates that there is a relationship between the two variables, the relationship is supported.
20.	(Cuadra-Peralta, Veloso-Besio, Iribaren, & Pinto, 2017)	Quasi- experimental	Eight heads of area responsible for strategic units	Industrial company	Questionnaire	Leadership has an effect on organizational performance, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
21.	(Koohang, Paliszkiewicz, & Goluchowski , 2017)	Research model	A final sample of 217 from all levels of management	Different kind of organizations in nine regions of the USA	Questionnaire	There is a significant positive connection between leadership and organizational performance, the relationship is supported.
22.	(Joneidi Jafari & NiliPourTabataba'i , 2017)	Case study	Stratified Sampling method was used and a final sample of 576 employee	Iranian Banking Industry	Questionnaire and interviews	Corporate foresight plays a role in enhancing organizational performance, the relationship is supported.
23.	(Najmi, Kadir, & Kadir, 2018)	Empirical design	100 observations	Four hospitals in Makassar (Indonesia)	Observation	Strategic leadership has no significant direct influence on hospital performance, the relationship is not supported.
24.	(Rahman, et al., 2018)	Exploratory approach	A sample of 48 senior executives, chief, executive officers and members of senior executive group	Automobile industry in Malaysia with a particular focus on Proton	Questionnaire	Direct and positive relationship between strategic leadership and business performance, the relationship is supported.
25.	(Al Khajeh , 2018)	Quantitative approach	Employees of twenty banks were selected through random sampling.	Banks based in Nigeria	Questionnaire	Organizational performance is associated with the leadership style, the relationship is supported.
26.	(Banson, Nguyen, & Bosch, 2018)	Exploratory design	75 agricultural stakeholders	Agricultural Sector in Ghana	Questionnaire	Systems thinking was used as a tool not a part of the relationship therefore the relationship is not supported.
27.	(Steffens, et al., 2018)	Quasi- experimental	Two experimental studies	Wide range of disciplines and a wide range of industries	Observation	An increases in performance among companies with high leadership potential, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
28.	( Alatailat, Elrehail, & Emeagwali, 2019)	Empirical design	Stratified random sampling was used and a final sample of 402 managers, deputy managers, and heads of departments	Commercial banks in Jordan	Questionnaire	Strategic thinking aspects improves organizational performance; the relationship is supported.
29.	(Dahri, Amin, & Waseem, 2019)	Cross-sectional approach	Random sampling was used and a final sample 129 branch managers	Banks in Karachi, Pakistan.	Questionnaire	Strategic leadership influences' organizational performance through knowledge management (full mediation), the relationship is not supported.
30.	(Kowo & Akinbola, 2019)	Cross-sectional approach	Simple random sampling was used, sample of 226 CEO/Director, managers, and supervisors	Small and medium enterprises in Nigeria	Questionnaire and interviews	The return on investment of Small and Medium Enterprise (financial performance) depends on leadership practices, the relationship is supported.
31.	(Wanyama & Nyaga, 2019)	Case study	Random stratified sampling and a final sample of 121 senior level managers, middle level managers and non-management staff	Banking Sector in Kenya (Equity Bank Limited)	Questionnaire	There is a positive correlation between the strategic leadership practices and organizational performance, the relationship is supported.
32.	(Mukhezakule & Tefera, 2019)	Mixed-method	370 employees for questioner was selected through Stratified random sample and 15 senior executive's for the interview selected purposively	South African Aviation Industry	Questionnaire and interviews	There is a relationship between strategic leadership and sustainable organization performance, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article	Study tool	Findings
33.	(Odero, Egessa, &	Descriptive	A sample of 102 senior	was applied Deposit Taking	Questionnaire	There is a relationship between strategic
55.	(Odero, Egessa, & Oseno, 2019)	research design.	managers and a sample	SACCOS in Kenya	and interviews	leadership practices and performance, the
	Oscilo, 2017)	research design.	of 12 CEO's who were	SACCOS III Keliya	and miler views	relationship is supported.
			randomly selected for			relationship is supported.
			the interview.			
34.	(Niebles, Romero	Descriptive	115 informants units in	Public universities	Questionnaire	High performance teams oriented towards
	Alvarez, & Hoyos	design	the faculty of Economic	(University of the		strategic thinking, as a determining factor
	Babilonia, 2019)		Sciences	Atlantic, in the city		for the effectiveness in fulfilling
				of Barranquilla,		organizational objectives, the relationship is
				Colombia)		supported.
35.	(Jaaron &	Mixed approach	183 general directors,	Service	Questionnaire	Systems thinking approach has a significant
	Backhouse, 2019)		operation	organizations	and	impact on social performances but has no
			managers, systems		Observations	direct effect on the economic performance
			thinking team leader,			of such organization, the relationship is
			and person responsible			supported.
			for the development			
36.	(Yoon & Suh,	Empirical	150 Korean business	Korean firms	Observation	Leadership significantly affect
	2019)	design	firms, selected by			organizational performance, the relationship
			stratified random			is supported.
			sampling			
37.	(Lopez-Fernández,	Mixed method	125 collaborators	Organizations in	Questionnaire	The study did not test the direct relationship
	2019)		working in 5 different	Greater Mexico		between leadership on organizational
			organizations	City		performance, the relationship is not supported.
38.	(Ahmed, Ahmed,	Mixed approach	Final sample of 47	Tourism	Questionnaire	The direct effect of strategic thinking on
	& Atiyah, 2020)		employees	companies in Iraq		Operational performance is significant, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
39.	(Njukunye & Waithaka, 2020)	Case study	Purposive sampling and simple random sampling was used to select the respondents.	Secondary schools of Samburu Central Sub- County in Kenya	Questionnaire and interviews	Effective and efficient leadership influences academic performance of schools, the relationship is supported.
40.	(Suifan, 2020)	Exploratory design	Convenience and purposive sampling were used and a final sample of 288 managers	Jordanian airline industry.	Questionnaire	Leadership styles positively affect performance, the relationship is supported.
41.	(Dwi Widyani, Landra, Sudja, Ximenes, & Sarmawa, 2020)	Empirical design	Stratified random sampling was used and a final sample of 102 chairman, Secretary and treasurer	Management of the Lembaga Perkreditan Desa (LPD) in Bali	Questionnaire and interviews	Entrepreneurial leadership has a significant positive effect on organizational performance, the relationship is supported.
42.	(Ogolla, 2020)	Explanatory research	Final sample of 215 using purposive sampling for the CEOs level and stratified random sampling of top management teams	55 state corporations in Kenya	Questionnaire and interviews	Transformational leadership through its dimensions has a significant positive influence on organizational performance, the relationship is supported.
43.	(Shaik & Dhir, 2021)	Quantitative methodology	Sample of 30 executive board companies	Automobile industry in India	Observation	The strategic thinking style has a major role in enhancing the performance of the firm, the relationship is supported.
44.	(Hameed, Salamzadeh, Rahim, & Salamzadeh, 2021)	Quantitative approach	103 managers, senior managers, directors, senior directors and vice presidents of various	Malaysian electronics manufacturing industry	Questionnaire	Strategic thinking acts as a moderator on the relationship between business processes reengineering and organizational performance, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article	Study tool	Findings
				was applied		
45.	(Alqershi, et al.,	Quantitative	Stratified	Malaysian	Questionnaire	Strategic thinking acts as a moderator in the
	2021)	approach	random sampling was	automotive		human capital and performance
			used and a final sample	manufacturing		relationship, the relationship is supported.
			of 162 CEO's	firms.		
46.	( Shaik & Dhir,	Modified total	Number of available	Existing literature	Observation	Strategic thinking leads to an enhancement
	2021)	interpretive	literature in the areas of			in firm performance, the relationship is
		structural	strategic thinking,			supported.
		modelling	technological change			
			and strategic risk			
47.	(AlQershia, 2021)	Quantitative	235 SME's mangers	SMEs in the	Questionnaire	Strategic thinking is not sufficient to
		approach		manufacturing		improve performance, the relationship is not
				industry of Yemen		supported.
48.	(Mbaya, Maina, &	Explanatory	92 Chief Executive	Small and	Questionnaire	Strategic thinking has a positive and a
	Namusonge, 2021)	research design	Officer, finance	Medium-		significant effect on the performance,
			manager, marketing	Sized Dairy		relationship is supported.
			manager and	Processing Firms		
			production manager.	in Kenya		
49.	(Priadana, et al.,	Quantitative	Simple random	SMEs in	Questionnaire	Strategic leadership has a significant effect
	2021)	approach	sampling was used and	Tangerang		on business performance, the relationship is
			a final sample of 150	(Indonesia)		supported.
			employee			
50.	(Akeke, Adetayo,	Descriptive	834 operators, owner	SMEs in	Questionnaire	Strategic leadership has a significant effect
	Akeke, &	research design	managers, and CEOs	Southwest states of		on performance, the relationship is
	Oyebanji, 2021)		using a multistage	Nigeria		supported.
			sampling method was			
			used.			

N.	Citation	Methodology	Sample	Where the article	Study tool	Findings
				was applied		
51.	(Oracha, Ogutu, &	Descriptive	Stratified random	International non-	Questionnaire	Strategic leadership has a significant
	K'obonyo, 2021)	research designs	sampling was used and	governmental		positive effect on the performance,
			a final sample of 189	organizations in		relationship is supported.
			directors	Kenya		
52.	(Habani &	Instrument	47 top managers or	Food and beverage	Questionnaire	Further studies are suggested to empirically
	Kamaruddin, 2021)	Validation	CEO's	industry in Saudi		test the proposed model in this paper, the
				Arabia		relationship is not supported.
53.	(Sabino, Reis Neto,	Explanatory	Non -probabilistic	Service companies	Questionnaire	Leadership does not directly influence
	Morais, & Santos,	approach	sampling was used and	in Metropolitan		performance, the relationship is not
	2021)		a final sample of 352	region of Belo		supported.
			employees	Horizonte in		
				Brazil.		
54.	(Kahwaji, Eddin, &	Quantitative	Convince sampling was	Lebanon's	Questionnaire	The direct effect of strategic leadership on
	Palalic, 2020)	approach	used and a final sample	education		strategic performance is not significant, the
			of 106			relationship is not supported.
55.	(Gahan, et al.,	Descriptive	3743 different type of	Workplaces in	Questionnaire	The study did not examine the direct
	2021)	design	leaders using Stratified	Australia		relationship between leadership and
			random sampling			performance, the relationship is not
						supported.

#### Methodology

The study of strategic thinking and organizational performance was carried out through various types of methodologies; the most used were quantitative design and case study design with 18.2% each, followed by mixed method design (both quantitative and qualitative) with 14.5 %, followed by descriptive design and empirical design with 9.1% each, followed by exploratory and explanatory designs with a 5.5 % percent each, followed by cross-sectional design, quasi-experimental, structure modeling and research modeling with 3.6% each, and finally instrument validation, functional design and hermeneutic phenomenology with 1.8% each.

This will aid in knowing the types of methodologies used, which are the most common, and knowing where the studies are heading. Therefore, it helps the researcher to complete the systematic literature review and provide appropriate recommendations for future studies.

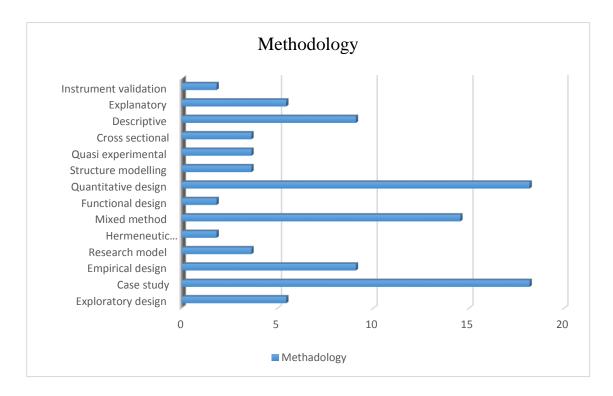


Figure 4-1: Methodology used in strategic thinking and organizational performance articles

### Location

Strategic thinking and organizational performance articles were distributed all over the world. The highest percentage of articles did not specify the location with a total of 16.4 %, followed by Kenya being the most studied country with 14.4%, followed by Indonesia with 9.1%, followed by Nigeria with 7.3%, followed by USA, Malaysia, and Iran with a 5.5% each, followed by Brazil and Africa with 3.6% each, and finally Spain, Turkey, Ghana, Colombia, Australia, Lebanon, Saudi Arabia, Yamen, Iraq, India, Mexico, Korea and Pakistan with a 1.8% each.

This will aid in knowing which countries focused on this study topic. Therefore, it helps the researcher complete the systematic literature review and provides appropriate recommendations for future studies.

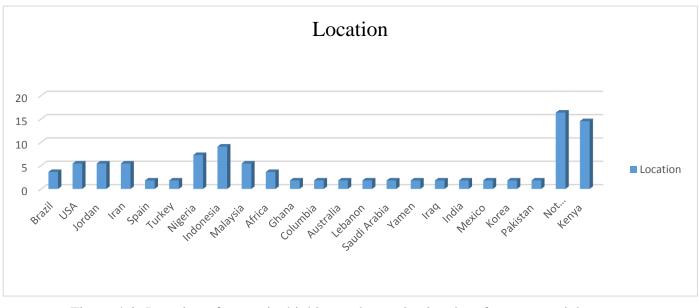


Figure 4-2: Location of strategic thinking and organizational performance articles

#### Industry

Strategic thinking and organizational performance articles were implemented in various types of industries. There was a focus on service industry sectors such as banks, education, and retailers with 32.7%, followed by articles that did not specify an industry with 23.6%, followed by SMEs with 12.7%, followed by the industrial sector with 5.5%, followed by healthcare with 3.6%, and finally R&D, pharmaceutical, insurance, agriculture, food and beverage and governmental with 1.82% each.

This will aid in knowing if available research focused on a specific industry. Therefore, it helps the researcher complete the systematic literature review and provides appropriate recommendations for future studies.

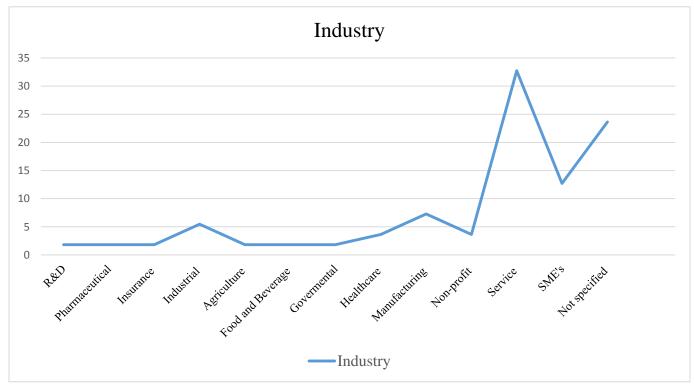


Figure 4-3: Industries of strategic thinking and organizational performance articles

#### **Sampling method**

For the sampling method, 50.8 percent of articles did not mention the method used for sampling, as for the articles that clarified the method used within; stratified random sampling was the most used with 18.6%, followed by random sampling with 15.2%, followed by purposive sampling with 6.8%, followed by convincing sampling and non-probabilistic sampling with 3.4% each, and finally multistage sampling with 1.7%.

This will aid in finding out which sampling methodologies are the most commonly used and which are less focused on. Therefore, it helps the researcher complete the systematic literature review and provides appropriate recommendations for future studies.

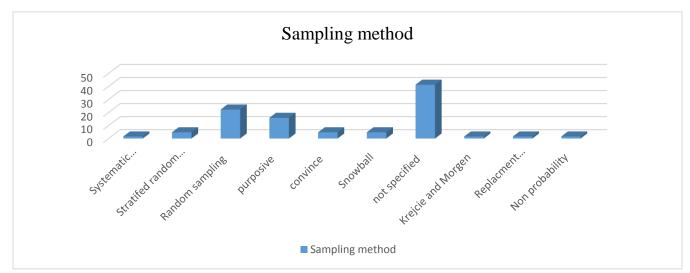


Figure 4-4: Sampling method of strategic thinking and organizational performance articles

#### Instrument

There were three instruments used in the data collection process within the strategic thinking and organizational performance articles. The majority used the questionnaire tool with 63.4%, followed by 23.9% of articles used the interview tool, and finally, 12.7% of articles used the observation tool. In addition, the majority of articles 71% used one tool for data collection and 29% used two tools; which helps increase the accuracy and validity of the data collected.

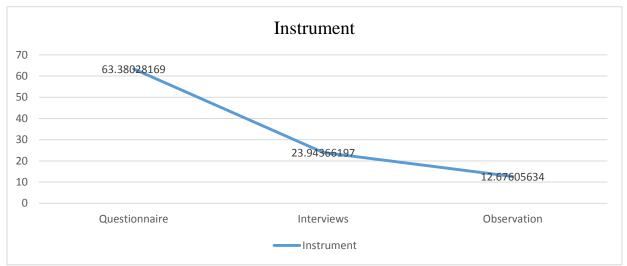


Figure 4-5: Strategic thinking and organizational performance data collection instruments

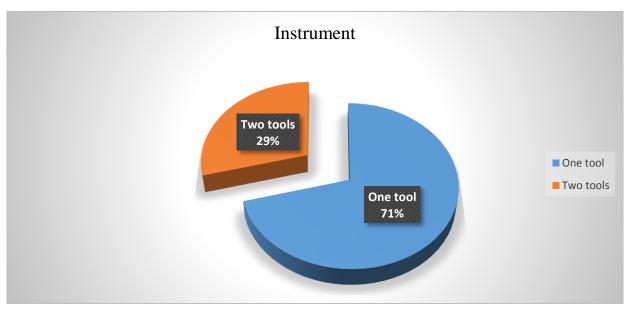


Figure 4-6: Number of tools used in strategic thinking and organizational performance articles

## **Findings**

The majority of articles 76% confirmed that there is an impact of strategic thinking on organizational performance (or their synonyms); the relationship is supported, 13% of the articles did not support having a relationship between strategic thinking and organizational performance (or their synonyms), and 11% of the articles did not examine the direct relationship between strategic thinking and performance (or their synonyms).

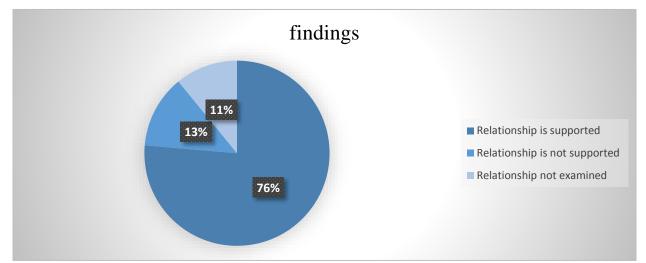


Figure 4-7: Findings of strategic thinking and organizational performance articles

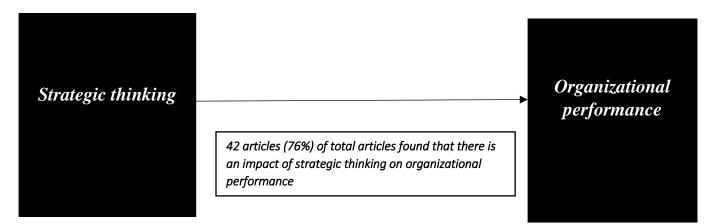


Figure 4-8: The impact of strategic thinking organizational performance

### 4-3 Strategic thinking and strategic agility.

In this section of chapter four, the researcher will fulfill the second study objective; which is collecting, sorting, classifying, including, excluding analyzing, and summarizing studies that explored the impact of strategic thinking on strategic agility through answering the second study question; what is the nature of the impact of strategic thinking on strategic agility?

The researcher will investigate the articles that studied the relationship between strategic thinking (leadership, foresight, creative thinking, and systems thinking) and strategic agility (strategic flexibility and flexibility).

Table 5 presents the included articles about the impact of strategic thinking on strategic agility. The researcher gathered data about each article's methodology, sample, where it's applied, study tool, and findings related to the study objectives and question.

N.	Citation	Methodology	Sample	Where the article	Study tool	Findings
				was applied		
1.	(de Oliveira, Dalla	Case study	96 senior project	Research and	Questionnaire	There is a considerable relationship
	Valentina, &		leaders	development of a	and interviews	between transformational leadership and
	Possamai, 2012)			worldwide leading		organizational agility, the relationship is
				company.		supported.
2.	(Young, 2013)	Case study	Convenience and	Two universities and	Questionnaire	Leadership affects organizational agility,
			snowball sampling,	one financial	and interviews	the relationship is supported.
			19 employees.	institution		
3.	(Kopanaki &	Multiple cases	Two multinational	Multinational	Observation	Systems thinking was used as a perspective
	Smithson, 2013)	design	suppliers and two	suppliers and	and interviews	not in a relationship with flexibility, the
			multinational	retailers		relationship is not supported.
			retailers			
4.	(Salih & Alnaji,	Case study	Random sample	Insurance companies	Questionnaire	The relationship between strategic thinking
	2014)		resulting of 60	in Jordan	and interviews	and strategic agility, the relationship is
			CEO, deputy CEO,			supported.
			senior director, and			
			director			
5.	(Lewis,	Multiple cases	Astro Studios,	Firms operating in a	Observation	Leadership is central to manage the
	Andriopoulos, &	design	Digital Divide	diverse range of	and interviews	tensions of strategic agility, the
	Smith, 2014)		Data, IBM Global	industries and areas		relationship is supported.
			Services Canada,			
			Lego, and Unilever			
6.	(Najrani, 2016)	Quantitative	Using a formal	Southern California	Questionnaire	Organizations can achieve agility by
		approach	method developed			developing shared leadership, the
			by Tabachnick,116			relationship is supported.
			employees and			
			managers			

Table 4-2: Articles about the impact of strategic thinking on strategic agility

N.	Citation	Methodology	Sample	Where the article	Study tool	Findings
7.	(Raeisi & Amirnejad, 2017)	Descriptive research design	100 managers were selected through simple random	was applied National Iranian Drilling Company.	Questionnaire	There is a significant and positive impact of organizational leadership on organizational agility, the relationship is
8.	(Gagel, 2018)	Quantitative design	sampling Random selection and convenience sampling, a final sample of 126	U.Sbased business units of foreign-held organizations	Questionnaire	supported. A part of leadership elements have a positive correlation other found to have a negative correlation to organization agility but both have a relationship, the
9.	(Tooranloo & Sagha, 2019)	Case study	business units Random sample was used and a final sample of 196 managers and supervisors	Ceramic and tile industry of the provinces of Yazd and Kerman( Iran)	Questionnaire and interviews	relationship is supported. Strategic thinking has a meaningful and positive impact on the agility of an organization, the relationship is supported.
10.	(Liao, Liu, Fu, & Ye, 2019)	Empirical design	Stratified random sampling was used and a final sample of 347 senior managers and 296 CEOs	Chinese high-tech companies	Questionnaire and interviews	Leadership has a positive significant effect on strategic flexibility, the relationship is supported.
11.	(Mahmood, Faris, & Wadi, 2019)	Applied design	125 associates who hold senior management positions	Iraqi private universities for the Middle Euphrates.	Questionnaire	There is a positive significant effect of leadership on strategic agility, the relationship is supported.
12.	(Khaddam, 2020)	Descriptive research design	A random sampling was used and a final sample of 76 employee.	Sama Jordan for Food and Industrial Investments	Questionnaire	There is a significant effect of personal creativity on strategic agility, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
13.	(Rastegari, Hosseini, & Ghayoor, 2020)	Applied research	Managers and experts, who overall were 160 people	Universities of Medical Sciences of Isfahan, Shahre Kord, Kashan and Yazd (Iran)	Questionnaire	There is a significant and positive correlation between strategic foresight capabilities and human resources agility, the relationship is supported.
14.	(Al-nwaiqah, 2020)	Applied research	Simple random sample was used and a final sample of 264 employee	Aqaba special economic zone authority	Questionnaire	There is an impact of transformational leadership dimensions on strategic agility dimensions, the relationship is supported.
15.	(Ogolla, 2020)	Explanatory research	Stratified random sampling was used and a final sample of 215 top leadership and management	55 state corporations in Kenya	Questionnaire and interviews	There is a mediating role for strategic Agility on the relationship between transformational leadership and organizational performance, the relationship is supported
16.	(Fachrunnisa, Adhiatma, Lukman, & Ab Majid, 2020)	Cross-sectional research design	Purposive sampling was used and a final sample of 519 owners and middle- level managers	SMEs in Indonesia and Malaysia	Questionnaire and interviews	Agile leadership has a positive and significant moderation effect on the interaction between strategic flexibility and digital transformation, the relationship is supported.
17.	(Nwachukwu & Vu, 2020)	Empirical design	Purposive sample was used, a final sample of 311 employees.	Microfinance banks operating in Nigeria.	Questionnaire	Strategic leadership moderate significantly the impact of strategic flexibility on innovation performance, the relationship is supported.
18.	(Adim, Mezeh, & Unaam, 2021)	Cross-sectional design	Census sampling was used, 30 regional Managers.	Deposit Money Banks in South- South, Nigeria	Questionnaire	There is a significant relationship between strategic thinking and flexibility, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article	Study tool	Findings
				was applied		
19.	(Elias, 2021)	Empirical design	Participant from	South Indian state of	Interviews	Linking flexible systems management with
			different profession	Kerala		systems thinking, the relationship is
			and industries			supported.
20.	(Frare & Beuren,	Mixed-methods	91 owner/manager	Brazilian startups in	Questionnaire	There is no relation between strategic
	2021)	approach	of the startup	the e-		flexibility and individual creativity, the
				commerce, retail and		relationship is not supported.
				wholesale		
21.	(Malekakhlagh,	Applied research	Simple random	Manufacturing	Observation	The direct relationship between strategic
	Safari, Beigi, &		sampling was used,	companies of	and	thinking and strategic flexibility variables
	Rokhideh, 2022)		a final sample of	Bushehr province	Questionnaire	was not tested, the relationship is not
			176 managers and	(Iran)		supported.
			222 observations			

## Methodology

Various types of methodologies were used in studying the impact of strategic thinking on strategic agility or their synonyms. The most used was case study design with 28.6%, followed by applied design with 19%, followed by empirical design with 14.3 %, followed by cross-sectional, descriptive, and quantitative designs with 9.5% each, and finally explanatory design and mixed-method (using both quantitative and qualitative) with 4.76% each.

This will aid in knowing the types of methodologies used, which are the most common, and knowing where the studies are heading. Therefore, it helps the researcher to complete the systematic literature review and provide appropriate recommendations for future studies.

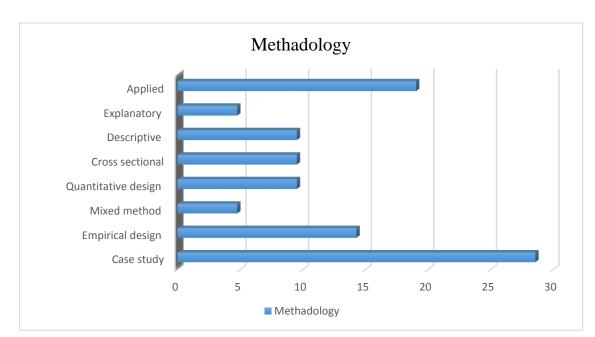


Figure 4-9: Methodologies used in strategic thinking and strategic agility articles.

#### Location

Strategic thinking and strategic agility articles were distributed all over the world. 14.4% of articles did not specify their location, as for the articles that clarified their location; the highest percent of articles were in Iran with a total of 19%, followed by Jordan with 14.4%, followed by

Nigeria and the USA with 9.5% each, and finally Brazil, Indonesia, Malaysia, Iraq, India, Kenya, and China with a 4.8% each.

This will aid in knowing if available research focused on a specific industry. Therefore, it helps the researcher complete the systematic literature review and provides appropriate recommendations for future studies

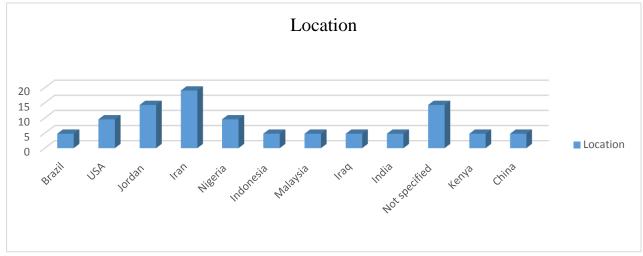


Figure 4-10: Location of strategic thinking and strategic agility articles

#### Industry

Strategic thinking and strategic agility articles were implemented in various types of industries. 26% of articles did not specify their industry, as for the articles did the majority were applied to the service industry 43.8%, followed by manufacturing with 8.9%, and finally, R&D, insurance, food & beverage, SMEs, suppliers, and the technology sector with 4.3% each.

This will aid in knowing if available research focused on a specific industry. Therefore, it helps the researcher complete the systematic literature review and provides appropriate recommendations for future studies

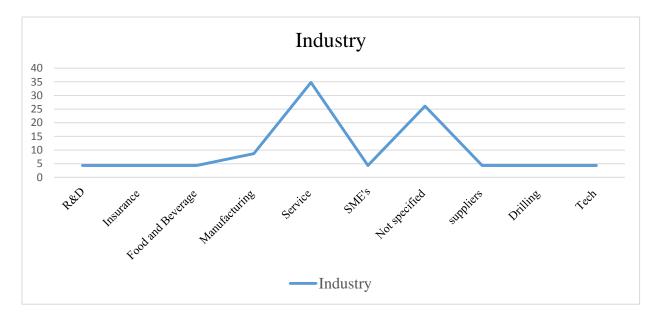


Figure 4-11: Industries of strategic thinking and strategic agility articles

# Sampling method

For the sampling method; 30.4% of articles did not clarify their method. On the other hand, the most used method was random sampling with 30.4%, followed by purposive sampling, convince sampling, and stratified random sampling with 8.7% each, and snowball, census, and Tabachnick sampling with 4.3% each.

This will aid in finding out which sampling methodologies are the most commonly used and which are less focused on. Therefore, it helps the researcher complete the systematic literature review and provides appropriate recommendations for future studies

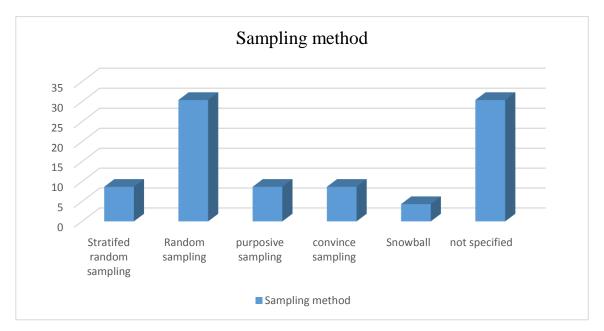


Figure 4-12: Sampling method of strategic thinking and strategic agility articles

### Instrument

There were three instruments used in the data collection process within the strategic thinking and strategic agility articles. The majority used the questionnaire tool 58.1%, followed by 32.3% used the interview tool, and finally, 9.7% used the observation tool. In addition, 52% of articles used one tool for data collection and 48% used two tools; which helps increase the accuracy and validity of the data collected.

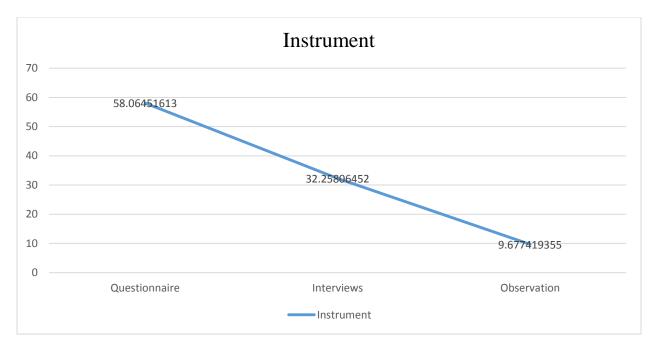


Figure 4-13: Strategic thinking and strategic agility data collection instruments

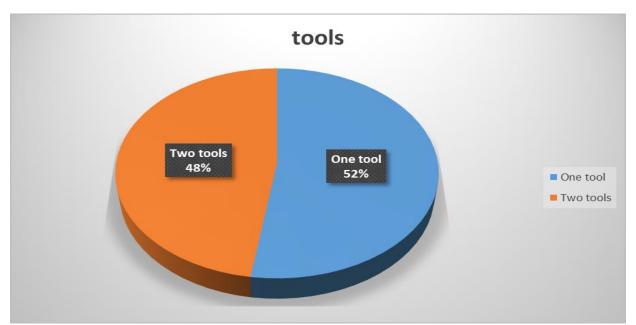


Figure 4-14: Number of tools used in strategic thinking and strategic agility articles

# **Findings**

The majority of articles 86% confirmed the impact of strategic thinking on strategic agility (or their synonyms); the relationship is supported. 9% did not support having a relationship between

strategic thinking and strategic agility (or their synonyms), and 5% did not examine the direct relationship between strategic thinking and strategic agility (or their synonyms).

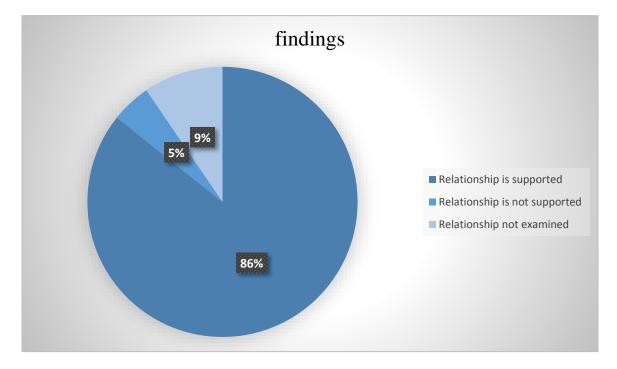


Figure 4-15: Findings of strategic thinking and strategic agility articles

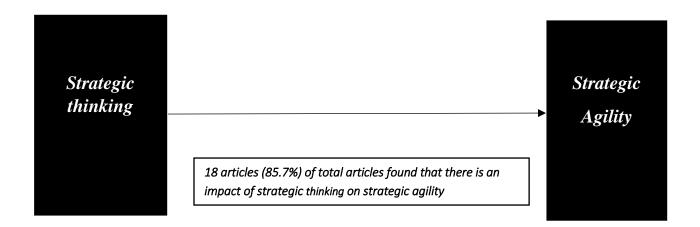


Figure 4-16: The impact of strategic thinking and strategic agility

#### 4-4 Strategic agility and organizational performance.

In this section of chapter four, the researcher will fulfill the third study objective which is collecting, sorting, classifying, including, excluding analyzing, and summarizing studies that explored the impact of strategic agility on organizational performance through answering the third study question; what is the nature of the impact of strategic agility on organizational performance?

The researcher will investigate the articles that studied the relationship between strategic agility (strategic flexibility and flexibility) and organizational performance (performance).

Table 6 presents the included articles about the impact of strategic agility on organizational performance. The researcher gathered information about each article's methodology, sample, where it's applied, study tool, and findings related to the study objectives and questions.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
1.	(Yang & Liu, 2012)	Structural equation modeling	250 general managers or senior managers	Taiwan's glass industry	Questionnaire	Firms with a strong agility capability are found to have high levels of firm performance, the relationship is supported.
2.	(Ofoegbu & Akanbi , 2012)	Descriptive research design	Stratified random sampling was used and a final sample of 210 management, senior, and junior staff	Manufacturing firms in Nigeria	Questionnaire	Strategic agility has a significant impact on the performance of manufacturing firms, the relationship is supported.
3.	(Fernández- Pérez, García- Morales, & Bustinza- Sánchez, 2012)	Empirical design	Systematic random sampling was used and a final sample of 200 CEOs.	Spanish organizations	Questionnaire and interviews	Significant relationship between strategic flexibility and organizational performance, the relationship is supported.
4.	(de Oliveira, Dalla Valentina, & Possamai, 2012)	Case study	96 senior project leaders	Research and development of a worldwide leading company.	Questionnaire and interviews	All agility factors influence project performance, the relationship is supported.
5.	(Lee & Yang, 2012)	Empirical design	Final sample of 250 owners or general managers	Taiwan flat glass	Questionnaire and interviews	Agility is required for improving operational performance, the relationship is supported.
6.	(Salih & Alnaji, 2014)	Case study	Random sample resulting of 60 CEO, deputy CEO, senior director, and director	Insurance companies in Jordan	Questionnaire and interviews	Strategic agility has a direct impact on strategic performance, the relationship is supported.
7.	(Guo & Cao, 2014)	Empirical design	Random sampling was used and a final sample of 166 top managers or heads of key departments	Small medium enterprises in China.	Questionnaire	Strategic flexibility is positively related to firm performance, the relationship is supported.

Table 4-3: Articles about the impact of strategic agility on organizational performance.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
8.	(Lin, Zhao, & Li, 2014)	Empirical design	Convenience and snowball sampling were used, a final sample of 241 mangers	Companies located in Beijing, Tianjin, Shanghai, Jiangsu and Zhejiang(china)	Questionnaire	Strategic flexibility is positively related with firm performance, the relationship is supported.
9.	(García de Soto- Camacho & Vargas-Sánchez, 2015)	Explanatory research design	35 managers of (22 Spanish and 13 foreign-owned)	Hotel chains in Spain	Questionnaire	Conferring sufficient strategic flexibility to adapt to changes, in order to improve organizational performance, the relationship is supported.
10.	(Shin, Lee, Kim, & Rhim, 2015)	Empirical design	A sample of 244 from assistant mangers to CEOs	Korean small and medium enterprises	Questionnaire and interviews	Strategic agility has a positive influence on operational performance but not on financial performance, the relationship is supported.
11.	(Thoumrungroje, 2015)	Empirical design	95 SBUs agreed to participate in this study	Firms in Thailand	Questionnaire	There is a moderating role for strategic flexibility on the positive relationship between marketing strategic change and business performance, the relationship is supported.
12.	(Orojloo, Feizi, & Najafabadi, 2016)	Case study	Purposive sampling was used and a sample of 30 banks	Iranian Banks	Questionnaire	Strategic agility has a significant positive effect on the organizational performance, the relationship is supported.
13.	(Bargshady, Chegeni, Kamranvand, & Zahraee, 2016)	Exploratory design	Final sample of 67 managers and executives of supply chain	Iranian service industry	Questionnaire	Significant connection between supply chain agility and business performance, the relationship is supported.
14.	(Waweru, 2016)	Descriptive research design	Simple random sampling and a final sample of 80 insurance brokerage firms top executives	Insurance brokerage firms in Kenya	Questionnaire	Strategic agility enablers promote organizational performance, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
15.	(Perez- Valls, Cespedes- Lorente, & Moreno- Garcia, 2016)	Empirical design	A sample of 109 CEO's and Chief Operations Managers.	European passenger air transport Enterprises	Questionnaire	There is a mediation for strategic flexibility on the impact of best environmental practices on performance, the relationship is supported.
16.	(Teoh, Lee, & Muthuveloo, 2017)	Empirical design	A total of 137 companies listed on the main board of Bursa Malaysia	Malaysian public listed companies (PLCs)	Questionnaire	Strategic agility has a significant mediates effect on the relationship between enterprise risk management and firm performance, the relationship is supported.
17.	(Um, 2017)	Empirical design	Sample of 156 manufacturing firms	Manufacturing firms	Questionnaire	Supply chain agility does not directly affect business performance, the relationship is not supported.
18.	(Atieno & Senaji, 2017)	Explanatory research design	Stratified random sampling, a final sample of 215 top managers and Senior superior employees	Kenya state corporations	Questionnaire	Strategic agility has a significant and positive relationship with organizational performance, the relationship is supported.
19.	(Chen, Wang, Nevo, Benitez, & Kou, 2017)	Empirical design	The final sample consists of 148 senior IT executives and business executives.	Firms in Northern China	Questionnaire and interviews	Significant positive link between strategic flexibility and firm performance, the relationship is supported.
20.	(Xiu, Liang, Chen, & Xu, 2017)	Empirical design	113 small and medium- sized firms	Firms in China	Questionnaire	Strategic flexibility is positively related to firm performance, the relationship is supported.
21.	(Chan, Ngai, & Moon, 2017)	Empirical design	Random sampling was used and a final sample of 141 senior or middle management employees	Fashion industry in the emerging Asian market	Questionnaire	Strategic flexibility has a significant direct and influence on firm performance, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
22.	(Haggai, 2017)	Descriptive research design	Purposive sample and stratified random sampling, final sample 167 owners and managers of SMEs	Small and medium enterprises in Nairobi Central Business district, Kenya	Questionnaire	All strategic agility variables significantly affect performance, the relationship is supported.
23.	(Govuzela, 2018)	Quantitative approach	Simple random sampling, 564 owner- managers of small to medium enterprises	Small and medium scale enterprises in Gauteng Province (Africa)	Questionnaire	Organizational agility has a significant and positive influence on business performance, the relationship is supported.
24.	(Li, Zhou, Zhang, Chen, & Tian, 2018)	Empirical design	Final sample of 581 top managers	Chinese High- Tech Organizations	Questionnaire	There is a relationship between strategic flexibility and organizational performance, the relationship is supported.
25.	(Al-Qudah, 2018)	Quantitative design	100 managers of pharmaceutical companies	Jordanian Pharmaceutical Companies	Questionnaire	The development of strategic agility is essential for the enhancement of performance, the relationship is supported.
26.	(Uğurlu, Çolakoğlu, & Öztosun, 2018)	Structural equation modeling	88 producers registered in the chamber of industry	Manufacturing Firms in Gaziantep, Turkey	Questionnaire	A part of the strategic agility dimensions have an effect on performance, the relationship is supported.
27.	(Ayoub & Abdallah, 2019)	Empirical design	Convenience sampling was used and a final sample of 290 mangers	Manufacturing Firms in Jordan	Questionnaire	Supply chain agility found to have a direct and positive affect on export performance, the relationship is supported.
28.	(Govuzela & Mafini, 2019)	Quantitative approach	Simple random sampling, a final sample of 564 owner-managers of SMEs.	Small to medium enterprises in South Africa	Questionnaire	Organizational agility has a significant positive influence on business performance, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
29.	(Shahbandi & Farrokhshad, 2019)	Case Study	Krejcie and Morgan tables was used for sampling and a final sample of 108 managers and supervisors of the company	Kalleh Dairy Company in Iran	Questionnaire	Strategic flexibility has a significant positive effect on organizational performance, the relationship is supported.
30.	(Kale, Aknar, & Başar, 2019)	Exploratory design.	210 top mangers	Accommodation establishments in Turkey	Questionnaire and interviews	Strategic agility positively affects firm performance, the relationship is supported.
31.	(Umam & Sommanawat, 2019)	Quantitative approach	Random sampling was used and a final sample of 94 firms	Fashion industry of Malaysia	Questionnaire	There is a direct relationship between supply chain agility and strategic flexibility with firm performance, the relationship is supported.
32.	(Majid, Yasir, Yousaf, & Qudratullah, 2019)	Empirical design	Purposive sampling was used and a final sample of 279 Managerial level employees	Hospitality industry in Pakistan(four and five stars hotels)	Questionnaire	Structural flexibility is positively associated with strategic performance, the relationship is supported.
33.	(Shalender & Yadav, 2019)	Empirical design	A sample of 162 managers from various automobile companies	Indian Automobile Industry	Questionnaire	There is a relationship between strategic flexibility and firm performance, the relationship is supported.
34.	(Acharya, 2019)	Action Research	Random sampling, two organizations	Commercial e- learning providers	observation	Organizational flexibility or agility plays a huge role in achieving the strategic performance goals, the relationship is supported.
35.	(Li, Lin, Turel, Liu, & Luo, 2020)	Empirical design	A sample of 280 mangers	Agricultural firms in China	Questionnaire	Organizational agility dimensions are positively associated with both financial and non-financial performance gains, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
36.	(El-Khalil & Mezher, 2020)	Empirical design	A sample of 212, all top managers at 152 manufacturing facilities	United States automotive manufacturing Industry	Questionnaire and interviews	There is a significant positive relationship between agility and operational performance, the relationship is supported.
37.	(Anser, et al., 2020)	Cross-sectional design	Sampling with replacement 929 senior managers or owners	Large textile firms in Pakistan	Questionnaire	Results shows that structural flexibility mediates the relationship between network capability and strategic business performance, the relationship is supported.
38.	(Lungu, 2020)	Mixed approach	Snowball sampling was used and a final sample of 100 IT stakeholders	IT organizations in Romania	Questionnaire	There is a positive correlation between strategic agility and firm performance, the relationship is supported.
39.	(Gerald, Obianuju, & Chukwunonso, 2020)	Quantitative approach	Final sample of 272 SME owners	Small medium enterprises in Anambra state(Nigeria)	Questionnaire	Strategic agility of SMEs has an impact on performance, the relationship is supported.
40.	(Kurniawan, Budiastuti, Hamsal, & Kosasih, 2020)	Empirical design	150 executive managements of telecommunication technology providers	Telecommunicati on industry in Indonesia	Questionnaire	Strategic agility has a direct significant positive impact on firm performance, the relationship is supported.
41.	(Omoush, 2020)	Practical Study	Simple random sampling was used and a final sample of 139 executives, directors, and supply chain specialists	Pharmaceutical Companies in Jordan	Questionnaire	Strategic Agility partially mediates the relationship between Information Knowledge Sharing and operational performance, the relationship is supported.
42.	(Reed, 2020)	Quantitative study	200 CEO, President, or General Manager of the selected firms, using random sampling	249 firms in the State of Florida	Questionnaire	There is a significant positive relationship between strategic agility and firm performance, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article	Study tool	Findings
				was applied		
43.	(Govender, 2020)	Exploratory	Purposive sampling was	SMEs and CEs in	Questionnaire	Strategic agility is required to improve
		design	used, a final sample size	South Africa		organizational performance; the relationship
			of 138 participant			is supported.
			working in management			
			positions			
44.	(Gorondutse,	Non-experimental	Purposive sampling was	Small medium	Questionnaire	There is a positive influence of strategic
	Arshad, &	design	used and a final sample	enterprises in		flexibility on the SMEs' performance, the
	Alshuaibi, 2020)		of 486 of managers and	Nigeria		relationship is supported.
			owners of chosen			
			enterprises			
45.	(Ogolla, 2020)	Mixed method	215 top leadership and	55 state	Questionnaire	Strategic Agility has a mediation effect on
			management	corporations in	and interviews	the relationship between transformational
				Kenya		leadership and organizational performance,
						the relationship is supported.
46.	(AlTaweel & Al-	Descriptive	Purposive sampling was	Corporations	Questionnaire	There is a significant influence by strategic
	Hawary, 2021)	research design	used and a final sample	listed on the ASE		agility on organizational performance, the
			of 224 senior managers.			relationship is supported.
47.	(Çallı & Çallı,	Empirical design	Convenience sampling	SMEs in the	Questionnaire	Organizational agility has a positive impact
	2021)		was used and a final	Marmara Region		firm performance, the relationship is
			sample of 119	of Turkey		supported.
			participants			
48.	(Yildiz &	Quantitative	Random sampling was	Companies	Questionnaire	Strategic agility has a positive impact on
	Aykanat, 2021)	study	used a final sample of	operating in		firm performance, the relationship is
			216 firms.	Sakarya (Turkey)		supported.
				Organized		
				Industrial Zones		

N.	Citation	Methodology	Sample	Where the article was applied	Study tool	Findings
49.	( Ogunleye, Adeyemo, Adesola, & Yahaya, 2021)	Descriptive research design	Purposive sampling and snowball sampling and a final sample of 200 operators/managers	Small and Medium Enterprises in Osun State, Nigeria	Questionnaire	All strategic agility sub-dimensions have a significant influence on SMEs' performance, the relationship is supported.
50.	(Nurjaman, Rahayu, Wibowo, & Widjajani, 2021)	Quantitative design	Purposive sampling was used and a final sample of 57 owner of LPS company or manager	Logistics service providers in Indonesia	Questionnaire	There is a relationship between strategic agility and firm performance, the relationship is supported.
51.	(Xiao, Yang, & Hu, 2021)	Empirical design	197 middle and senior management personnel and technical personnel	Chinese enterprises	Questionnaire	Corporate strategic flexibility has a positive and significant impact on financial performance and market performance, the relationship is supported.
52.	(Majid, Yasir, & Yousaf, 2021)	Empirical design	Non-probability sampling was used, and a final sample of 769 CEOs and owners or managers of SMEs	Small medium enterprises in Pakistan	Questionnaire	There is a mediating role of strategic flexibility in the relationship between Network capability and strategic performance, the relationship is supported.
53.	(Lyn Chan & Muthuveloo, 2021)	Empirical design	Purposive sampling was used a final sample of 155 president/CEO or Vice-Chancellors	Private higher education institutions in Malaysia	Questionnaire	There is a positive relationship between strategic agility and organizational performance, the relationship is supported.
54.	(Halalmeh, 2021)	Descriptive design	Random sample was selected consisting of 250 senior administrative and supervisory positions	Commercial banks in Jordan	Questionnaire	Strategic agility dimensions influence employee's performance, the relationship is supported.

N.	Citation	Methodology	Sample	Where the article	Study tool	Findings
				was applied		
55.	(Clauss T.,	Empirical design	432 German firms	Electronics	Questionnaire	Strategic agility has a positive effect on firm
	Abebe,			industry in	and interviews	performance, the relationship is supported.
	Tangpong, &			German firms		
	Hock, 2021)					
56.	(Yousuf,	Quantitative	Purposive sampling was	Small	Questionnaire	Strategic flexibility positively affects
	Lorestani, Oláh,	design	used and a final sample	and medium		companies' performance, the relationship is
	& Felföldi, 2021)		228 production manager,	Pharmaceutical		supported.
			marketing manager, and	Companies in		
			sales manager	Iran		
57.	(Ahammad, Basu,	Quantitative	207 Indian firms	Indian firms	Questionnaire	Strategic agility is perceived as an important
	Munjal, Clegg, &	design				factor contributing to the international
	Shoham, 2021)					performance, the relationship is supported.
58.	(Haider &	Quantitative	Simple random sampling	Software	Questionnaire	Strategic agility has a direct impact on
	Kayani, 2021)	design	was used and a final	companies of		project performance, the relationship is
			sample 307 project	Pakistan		supported.
			supervisors and team			
			members in different			
			projects			
59.	(Rozak,	Empirical design	239 middle	Small medium	Questionnaire	There is a positive and significant effect of
	Adhiatma,		level owners and	enterprises in	and interviews	organizational agility on performance, the
	Fachrunnisa, &		managers	Indonesia		relationship is supported.
	Rahayu, 2021)					
60.	(Panda, 2021)	Empirical design	Random sampling was	Regional rural	Questionnaire	Organizational agility sub-dimensions have
			used and a final sample	banks of Odisha,		an impact on organizational performance,
			of 220 IT and bank	India.		the relationship is supported.
			managers			

## Methodology

Various types of methodologies were used in studying the impact of strategic agility on organizational performance. The empirical design was the most used method with 43.3%, followed by quantitative design with 18.3%, followed by descriptive design with 10%, followed by case study design with 6.7%, followed by exploratory design with 5%, followed by explanatory design, mixed-method and structure modeling with 3.3% each, and finally cross-sectional, non-experimental, practical research and action research design with 1.7% each.

This will aid in knowing the types of methodologies used, which are the most common, and knowing where the studies are heading. Therefore, it helps the researcher to complete the systematic literature review and provide appropriate recommendations for future studies.

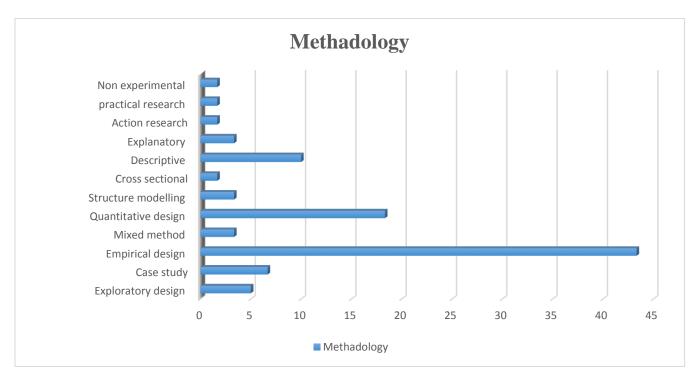


Figure 4-17: Methodologies used in strategic agility and organizational performance articles.

# Location

Strategic agility and organizational performance articles were distributed worldwide, 8.3% of articles did not specify their location. On the other hand, the highest percent of articles were in China with 11.7%, followed by Jordan with 8.3%, followed by Turkey, Nigeria, Pakistan, and Iran with 6.7% each, followed by Indonesia, Malaysia, Africa, India, and Kenya with 5% each, followed by USA, Spain, and Twain with 3.3% each, and finally, Korea, Thailand, Europe, Asia, Romania and Germany with 1.7% each.

This will aid in knowing if available research focused on a specific industry. Therefore, it helps the researcher complete the systematic literature review and provides appropriate recommendations for future studies

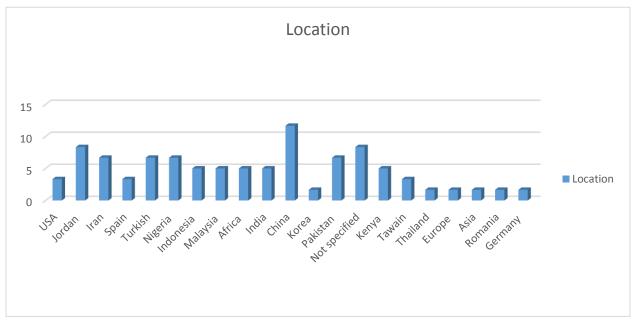


Figure 4-18: Location of strategic agility and organizational performance articles.

### Industry

Strategic agility and organizational performance articles were applied in numerous types of industries. 18.3% of articles did not specify their industry. In the other hand, the majority were applied in SMEs with 20%, followed by the manufacturing industry with 13.3%, followed by the

service industry with 12.7%, followed by the IT industry with 8.3%, followed by pharmaceutical, fashion industry, and accommodation industry with 5% each, followed by insurance companies with 3.3%, and finally, R&D, agriculture, food and beverage, public companies, logistics and, ASE with 1.7% each.

This will aid in knowing if available research focused on a specific industry. Therefore, it helps the researcher complete the systematic literature review and provides appropriate recommendations for future studies

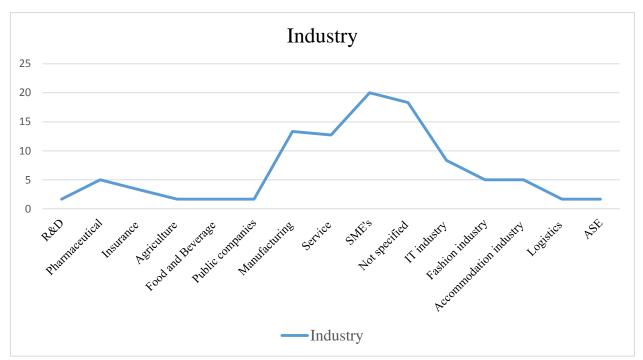


Figure 4-19: Industry of strategic agility and organizational performance articles.

## Sampling methodology

For the sampling method, 41% of articles did not clarify the method used within, as for the articles that clarified the method the most frequently used was random sampling with 22%, followed by purposive sampling with 15.9%, followed by convince sampling, Snowball sampling

and stratified random sampling with 4.8% each, and finally systematic random sampling, Krejcie and Morgen, replacement sampling, and non-probability sampling 1.6% each.

This will aid in finding out which sampling methodologies are the most commonly used and which are less focused on. Therefore, it helps the researcher complete the systematic literature review and provides appropriate recommendations for future studies

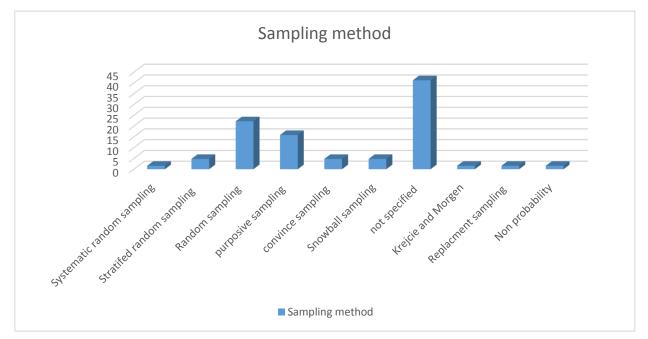
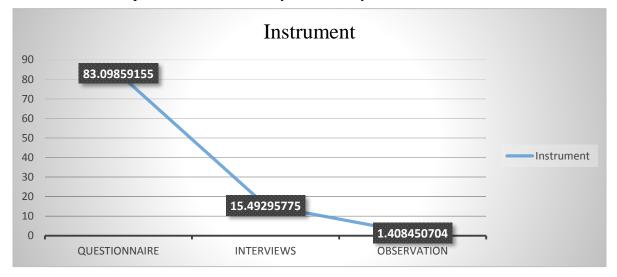


Figure 4-20: Sampling method of strategic agility and organizational performance articles

## Instrument

Three data collection instruments were used in the data collection process of strategic agility and organizational performance articles. The majority of articles 83% used the questionnaire tool, followed by the interview with 15.5%, and only 1.4% of the articles used the observation tool. In addition, the majority of articles 82% used one tool for data collection and 18% of articles used two tools; which helps increase the accuracy and validity of the data collected.



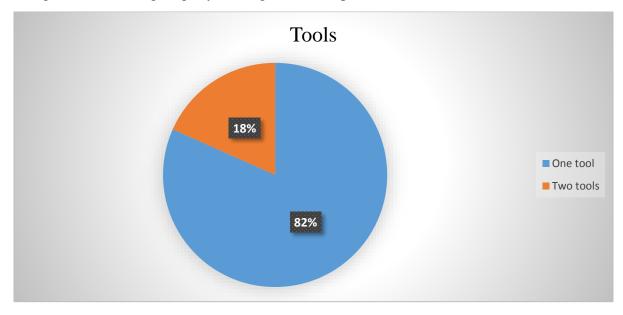


Figure 4-21: Strategic agility and organizational performance data collection instruments

Figure 4-22: Number of tools used in strategic agility and organizational performance articles

# **Findings**

The majority of articles with a total of 98% confirmed the impact of strategic agility on organizational performance (or their synonyms), the relationship is supported. On the other hand, only 2% of articles did not support the relationship between strategic agility and organizational performance (or their synonyms).

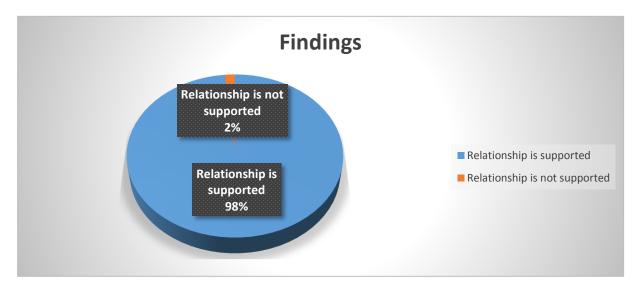


Figure 4-23: Findings of strategic agility and organizational performance articles

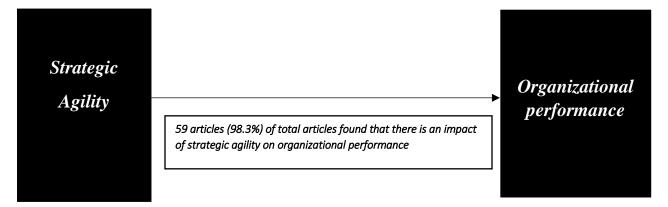


Figure 4-24: The impact of strategic agility on organizational performance

# **4-5 Strategic thinking dimensions**

In this section of chapter four, the researcher will fulfill the fourth study objective which is discovering the frequently studied dimensions of strategic thinking or its synonyms through answering the fourth study question; what are the most studied dimensions of strategic thinking?

The researcher will investigate the articles that have strategic thinking or leadership or foresight or systems thinking or creative thinking as a variable in them.

Table 7 presents strategic thinking and its synonyms dimensions.

Citation	Systems thinking	Opportunism	Strategic intent	Thinking in time	Hypothesis driven	Transformational leadership	Foresight	Cognition	Transactional leadership
(Juma, Minja, & Mageto, 2016)	~		~	✓	~				
( Alatailat, Elrehail, & Emeagwali, 2019)	~	✓	~	✓	~				
(Mbaya, Maina, & Namusonge, 2021)	~		~	✓	✓				
(Adim, Mezeh, & Unaam, 2021)		✓			✓				
(De Araujo, Christiananta, Ellitan, & Otok, 2013)				✓		✓	✓ 		~
(Mahdavian, Mirabi, & Haghshenas , 2014)	~	✓				~	✓	~	
(Saliani & Eslami, 2016)	~	✓					~		
(Joneidi Jafari & NiliPourTabataba'i, 2017)							✓		
(de Oliveira, Dalla Valentina, & Possamai, 2012)						✓			✓
(Cezarino & Correa, 2012)	~								

Table 4-4: Strategic thinking and synonyms dimensions

Citation	Systems thinking	Opportunism	Strategic intent	Thinking in time	Hypothesis driven	Transformational leadership	Foresight	Cognition	Transactional leadership
(Bennett, 2013)	<ul> <li>✓</li> </ul>								
(Clark, Singer, Kane, &	✓								
Valentine, 2013)									
(Banson, Nguyen, & Bosch, 2018)	~								
(Jaaron & Backhouse, 2019)	~								
(Kopanaki & Smithson, 2013)	~								
(Elias, 2021)	~								
(Cuadra-Peralta, Veloso- Besio, Iribaren, & Pinto, 2017)						~			<ul> <li>✓</li> </ul>
(Suifan, 2020)						✓			<ul> <li>✓</li> </ul>
(Gagel, 2018)						√			✓
(Camarero Izquierdo, Garrido Samaniego, &						<ul> <li>✓</li> </ul>			
San José Cabezudo, 2015)									
(Ogolla, 2020)						$\checkmark$			
(Al-nwaiqah, 2020)						$\checkmark$			

Citation	Systems thinking	Opportunism	Strategic intent	Thinking in time	Hypothesis driven	Transformational leadership	Foresight	Cognition	Transactional leadership
(Liao, Liu, Fu, & Ye, 2019)						V			
Total	12	4	3	5	4	10	4	1	5

Citation	Systems thinking	Intuition	Proposed solutions to problems	Risk taking	Creative thinking	Proactiveness	Foresight	Market-oriented
(McNary-McIlvain, 2015)	~	~						
(Salih & Alnaji, 2014)		~	✓	~				
(Dwi Widyani, Landra, Sudja, Ximenes, & Sarmawa, 2020)				~	~	✓		
(Tooranloo & Sagha, 2019)	~				$\checkmark$		~	~
(Khaddam, 2020)					~			
(Frare & Beuren, 2021)					✓			
Total	2	2	1	2	4	1	1	1

Citation	Proposed solutions to problems	Foresight	leading organization	organizationa l culture	Task oriented	Relationship oriented	Leading people	Logical thinking	Creative thinking	Critical thinkin g
(Rastegari, Hosseini, & Ghayoor, 2020)	✓ 	✓ ✓	✓ 	*	~	✓ 				
(Raeisi & Amirnejad, 2017)					~	✓				
(Koohang, Paliszkiewicz, & Goluchowski , 2017)			×				✓			
(Gopal, 2016)			✓							
(Rahman, et al., 2018)			✓				✓	✓		
(Niebles, Romero Alvarez, & Hoyos Babilonia, 2019)					~			✓	~	×
(Irawan & McIntyre- Mills, 2016)										~
Total	1	1	4	1	3	2	2	2	1	2

Citation	Strategic direction	Ethical practices	organizational control	Leading people	Organizational culture	Democratic leadership	Complex leadership	Creative thinking	Opportunism	Adaptive leadership
	✓	· · · · · · · · · · · · · · · · · · ·	✓ <b>·</b>	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · I	····· 1	0		I IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
(Kitonga, Bichanga, & Muema, 2016)	v v	v v	v	v						
(Wanyama & Nyaga, 2019)	~	~	✓							
(Odero, Egessa, & Oseno, 2019)	V	~		~				~		
(Kahwaji, Eddin, & Palalic, 2020)	~		~	√	✓					
(Lopez- Fernández, 2019)		~				~				
(Mahmood, Faris, & Wadi, 2019)						~	~		×	✓
(Lewis, Andriopoulos, & Smith, 2014)							~			
Total	4	4	3	3	1	2	2	1	1	1

Citation	Transactiona 1 leadership	Transformational leadership	Opportunism	Democratic leadership	charismatic leadership	Shared Leadership	Inspirational leadership	Intellectual leadership
(Al Khajeh , 2018)	✓	√	√	✓	✓			
(Njukunye & Waithaka, 2020)	~	~				~		
(Najrani, 2016)						~		
(Akeke, Adetayo, Akeke, & Oyebanji, 2021)					~		×	√
Total	2	2	1	1	2	2	1	1

Dimensions	Repetition	Percent from total articles
Systems thinking	14	12.39%
Transformational leadership	12	10.62%
Transactional leadership	7	6.19%
Opportunism	6	5.31%
Creative thinking	6	5.31%
Foresight	5	4.42%
Thinking in time	5	4.42%
Leading people	5	4.42%
Leading organization	4	3.54%
Strategic direction	4	3.54%
Ethical practices	4	3.54%
Hypothesis driven	4	3.54%
Strategic intent	3	2.65%
Democratic leadership	3	2.65%
Organizational control	3	2.65%
Complex leadership	2	1.77%
Intuition	2	1.77%
Proposed solution for problems	2	1.77%
Risk taking	2	1.77%
Shared leadership	2	1.77%
Organizational culture	2	1.77%
Task oriented	2	1.77%
Relationship oriented	2	1.77%
Logical thinking	2	1.77%
Critical thinking	2	1.77%
Charismatics leadership	2	1.77%
Cognition	1	0.88%
Market oriented	1	0.88%
Adaptive leadership	1	0.88%
Proactiveness	1	0.88%
Inspirational leadership	1	0.88%
Intellectual leadership	1	0.88%
Total	113	

Table 4-5: Strategic thinking and synonyms dimensions' repetition

As presented in the tables 7 and 8 scholars used a variety of strategic thinking dimensions in the relationships with strategic agility and organizational performance, the most used dimensions were systems thinking with 12.39%, followed by transformational leadership with 10.62%, followed by transactional leadership with 6.19%, followed by opportunism 5.31%, and creative thinking with 5.31% each, and so on. A lower focus by scholars on the remaining dimensions as some of the dimensions were only used once such as proactiveness and cognition.

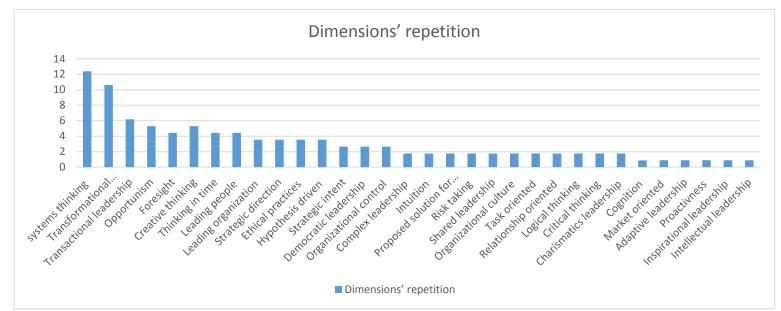


Figure 4-25: Strategic thinking and synonyms dimensions' repetition

Systems thinking 12.39% Transformational leadership 10.62% Transactional leadership 6.19% Opportunism 5.31% Creative thinking 5.31%

Figure 4-262: The most frequent studied dimensions of strategic thinking

# 4-6 Strategic agility dimensions

In this section of chapter four, the researcher will fulfill the fifth study objective which is discovering the frequently studied dimensions of strategic agility or its synonyms through answering the fifth study question; what are the most studied dimensions of strategic agility?

The researcher will investigate the articles that have strategic agility or agility or strategic flexibility or flexibility as a variable in them.

Table 9 presents strategic agility and its synonyms dimensions.

Citation	Customer agility	Supplier agility	Competitor agility	Strategic sensitivity	Collective commitment	Resource fluidity	Responsi veness	Leadership unity	Technology Capability
	uginty	uginty		sensitivity		indicity	( enebs	anity	cupucinity
(Yang & Liu, 2012)	~	~	$\checkmark$						
(Lee & Yang, 2012)	✓	~	√						
(Bargshady, Chegeni,		~							
Kamranvand, & Zahraee, 2016)									
(Ofoegbu & Akanbi , 2012)				✓	✓	✓			
(Atieno & Senaji, 2017)				✓	✓	✓			
(Reed, 2020)				✓	$\checkmark$	~			
(Ogolla, 2020)				✓	$\checkmark$	~			
(AlTaweel & Al-Hawary, 2021)				~	✓	~			
(Yildiz & Aykanat, 2021)				~	$\checkmark$	~			
( Ogunleye, Adeyemo, Adesola,				✓		✓	✓	✓	
& Yahaya, 2021)									
(Nurjaman, 2020)				~	~	~		$\checkmark$	
(Clauss T., Abebe, Tangpong, &				✓		✓		✓	
Hock, 2021)									
(Khaddam, 2020)				✓	✓	✓	<u></u>		
(Al-nwaiqah, 2020)				$\checkmark$			√		$\checkmark$
Total	2	3	2	11	8	10	2	3	1

Table 4-6: Strategic agility and synonyms dimensions

Citation	Flexibility	Market agility	Balancing control	Speed	Competency	Responsiv eness	Quality	Satisfaction	Technology Capability
		uginty	control			Chess			Cupuoliity
(Raeisi & Amirnejad, 2017)	✓			$\checkmark$	✓				
(Tooranloo & Sagha, 2019)	✓	✓		✓	✓	✓			
(Salih & Alnaji, 2014)	✓			✓			✓	✓	
(El-Khalil & Mezher, 2020)					✓	✓	✓		✓
(Kurniawan, Budiastuti, Hamsal, &	✓		✓						
Kosasih, 2020)									
(Li, Zhou, Zhang, Chen, & Tian, 2018)	✓	✓							
(Shahbandi & Farrokhshad, 2019)	✓								
(Umam & Sommanawat, 2019)	✓								
(Malekakhlagh, Safari, Beigi, &	✓								
Rokhideh, 2022)									
(Fernández- Pérez, García- Morales, &	✓								
Bustinza- Sánchez, 2012)									
(de Oliveira, Dalla Valentina, &	✓								
Possamai, 2012)									
(Guo & Cao, 2014)	✓								
(Lin, Zhao, & Li, 2014)	$\checkmark$								
(García de Soto-Camacho & Vargas- Sánchez, 2015)	~								
(Thoumrungroje, 2015)	✓								
(Perez- Valls, Cespedes- Lorente, & Moreno- Garcia, 2016)	~								

Citation	Flexibility	Market agility	Balancing control	Speed	Competency	Responsiv eness	Quality	Satisfaction	Technology Capability
(Char Ware New Deviter & Kar	✓								
(Chen, Wang, Nevo, Benitez, & Kou, 2017)	v								
(Xiu, Liang, Chen, & Xu, 2017)	~								
(Chan, Ngai, & Moon, 2017)	~								
(Majid, Yasir, & Yousaf, 2021)	~								
(Majid, Yasir, Yousaf, &Qudratullah, 2019)	~								
(Xiao, Yang, & Hu, 2021)	✓								
(Yousuf, Lorestani, Oláh, & Felföldi, 2021)	~								
(Nwachukwu & Vu, 2020)	✓								
(Adim, Mezeh, & Unaam, 2021)	✓								
(Frare & Beuren, 2021)	✓								
(Liao, Liu, Fu, & Ye, 2019)	✓								
(Shalender & Yadav, 2019)	✓								
Total	27	2	1	3	3	2	2	1	1

Citation	Strategic sensitivity	Technology Capability	Clarity of Vision	Strategic goals Selection	Shared Responsibilities	Internal Alignment	Collaborative Innovation	Organizational Learning	Human capital	Structure and polices
(Haggai, 2017)							~		~	✓
(Halalmeh, 2021)	~	√	✓	√	~					
(Shin, Lee, Kim, & Rhim, 2015)		~				~	~	$\checkmark$		
(Govuzela, 2018)		~				~	~	√		
(Uğurlu, Çolakoğlu, & Öztosun, 2018)		~				✓	~	~		
(Çallı & Çallı, 2021)		~				~	$\checkmark$	√		
(Rastegari, Hosseini, & Ghayoor, 2020)									~	
Total	1	5	1	1	1	4	5	4	2	1

Citation	Job enlargement	Value creation	Value delivery	Value capture
(Anser, et al., 2020)	~			
(Orojloo, Feizi, & Najafabadi, 2016)		$\checkmark$	$\checkmark$	$\checkmark$
Total	1	1	1	1

Dimensions	Repetition	Percent from total
		articles
Flexibility	27	23.89%
Strategic sensitivity	12	10.62%
Resource fluidity	10	8.85%
Collective commitment	8	7.08%
Technological capabilities	7	6.19%
Collaborative innovation	5	4.42%
Intent alignment	4	3.54%
Responsiveness	4	3.54%
Organizational learning	4	3.54%
Supplier agility	3	2.65%
Leadership unity	3	2.65%
Speed	3	2.65%
Competency	3	2.65%
Customer agility	2	1.77%
Competitor agility	2	1.77%
Market agility	2	1.77%
Human capital	2	1.77%
Quality	2	1.77%
Job enlargement	1	0.88%
Value creation	1	0.88%
Value delivery	1	0.88%
Value capture	1	0.88%
Structure and polices	1	0.88%
Satisfaction	1	0.88%
Clarity of vision	1	0.88%
Strategic goals selection	1	0.88%
Balancing control	1	0.88%
Shared responsibilities	1	0.88%
Total	113	

Table 4-7: Strategic agility and synonyms dimensions' repetition

As presented in the tables 9 and 10 scholars used a variety of strategic agility dimensions in the relationship with strategic thinking and organizational performance, the most used dimensions were flexibility with 23.9%, followed by strategic sensitivity with 10.6%, followed by resource

fluidity with 8.8%, followed by Collective commitment with 7.1%, and so on. A lower focus by scholars on the remaining dimensions as some of the dimensions were only used once such as shared responsibilities, job enlargement, and balancing control.

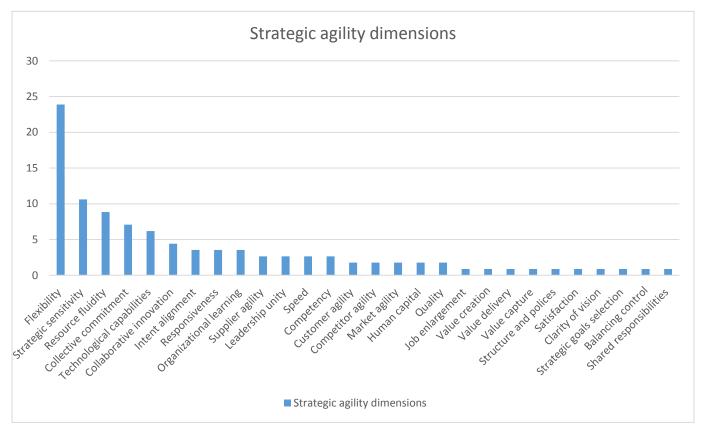


Figure 4-27: Strategic agility and synonyms dimensions' repetition



Figure 4-28: The most frequent studied dimensions of strategic Agility

# 4-7 Organizational performance dimensions

In this section of chapter four, the researcher will fulfill the sixth study objective which is discovering the frequently studied dimensions of organizational performance or its synonyms through answering the sixth study question; what are the most studied dimensions of organizational performance?

The researcher will investigate the articles that have organizational performance or performance as a variable in them.

Table 11 presents organizational performance and its synonyms dimensions

Citation	Return on	ROE	market	growth	productivity	ROS	ROI	financial	stakeholder	business
	assets (ROA).		share					performance	satisfaction	performance
(Fernández- Pérez, García-	✓	✓	✓							
Morales, & Bustinza-										
Sánchez, 2012)										
(Guo & Cao, 2014)	✓	✓	✓	✓	$\checkmark$					
(Um, 2017)	✓			✓		✓				
(Xiu, Liang, Chen, & Xu,	√				$\checkmark$					
2017)										
(Shalender & Yadav, 2019)	√					~	✓			
(Rahman, et al., 2018)	✓									
(Joneidi Jafari &	√	✓	✓			~				
NiliPourTabataba'i, 2017)										
(Juma, Minja, & Mageto,	✓			~	$\checkmark$			✓		
2016)										
(odero, Egessa, &	$\checkmark$								$\checkmark$	
Oseno, 2019)										
(Wanyama &		~					~			
<b>Nyaga, 2019</b> )										
(Bargshady, Chegeni,			✓					✓		
Kamranvand, & Zahraee,										
2016)										
(Haggai, 2017)			✓	✓				$\checkmark$	$\checkmark$	
(Majid, Yasir, Yousaf, &			✓					$\checkmark$		~
Qudratullah, 2019)										
(Reed, 2020)			✓					✓		

Table 4-8: Organizational performance and synonyms dimensions

Citation	Return on	ROE	market	growth	productivity	ROS	ROI	financial	stakeholder	business
	assets (ROA).		share					performance	satisfaction	performance
(Rozak, Adhiatma,			~	✓				$\checkmark$		
Fachrunnisa, & Rahayu, 2021)										
(De Araujo, Christiananta,			~				✓	$\checkmark$		
Ellitan, & Otok, 2013)										
(Xiao, Yang, & Hu, 2021)			~					$\checkmark$		
(Suifan, 2020)			~							
(García de Soto-Camacho &				$\checkmark$				$\checkmark$		
Vargas-Sánchez, 2015)										
(Yildiz & Aykanat, 2021)								$\checkmark$		
(Sabino, Reis Neto, Morais, &										$\checkmark$
Santos, 2021)										
(Kahwaji, Eddin, & Palalic,										$\checkmark$
2020)										
Total	9	4	11	6	3	3	4	10	2	3

Citation	Efficiency	Operational	Market	Growth	Financial	Stakeholder	Non-	Effectiveness	Customer	Learning
		performance	share		performance	satisfaction	Financial		Retention	
(Ayoub & Abdallah,				✓	$\checkmark$					
2019)										
(Uğurlu, Çolakoğlu,									√	√
& Öztosun, 2018)										
(Mbaya, Maina, &	√		✓							
Namusonge, 2021)										
(Panda, 2021)		$\checkmark$	✓							
(Lee & Yang, 2012)			✓		$\checkmark$			$\checkmark$		
(Yousuf, Lorestani,		✓			$\checkmark$	$\checkmark$				
Oláh, & Felföldi,										
2021)										

Citation	Efficiency	Operational performance	Market share	Growth	Financial performance	Stakeholder satisfaction	Non- Financial	Effectiveness	Customer Retention	Learning
(Ahammad, Basu,		✓ v	share		v performance √	satisfaction	Timanciai		Retention	
Munjal, Clegg, &										
Shoham, 2021)										
(Shin, Lee, Kim, &					✓				✓	
Rhim, 2015)										
(Teoh, Lee, &					✓		~			
Muthuveloo, 2017)										
(Li, Zhou, Zhang,					✓		✓			
Chen, & Tian, 2018)										
(Ogolla, 2020)				$\checkmark$	$\checkmark$	$\checkmark$				$\checkmark$
(Ahmed, Ahmed, &		$\checkmark$								
Atiyah, 2020)										
(Kurniawan,					~		✓			
Budiastuti, Hamsal,										
& Kosasih, 2020)										
(Salih & Alnaji,	✓			✓	$\checkmark$					√
2014)										
(Kitonga, Bichanga,	√			✓						
& Muema, 2016)										
Total	3	4	3	4	10	2	3	1	2	3

Citation	Financial	Quality	Businesses	Efficiency	Productivity	Employee	Stakeholder	Planning	Infrastructure	Learning	Cost
	Performance		performance			morale	satisfaction				
(Perez-	✓	✓		✓	$\checkmark$	✓	✓				
Valls,											
Cespedes											
- Lorente,											
&											
Moreno-											
Garcia,											
2016)											
(Mahdavi		✓	$\checkmark$					$\checkmark$	$\checkmark$	√	
an,											
Mirabi, &											
Haghshen											
as, 2014)											
(El-Khalil		✓			$\checkmark$	~					✓
&											
Mezher,											
2020)											
(Chen,		✓									
Wang,											
Nevo,											
Benitez,											
& Kou,											
2017)											
Total	1	4	1	1	2	2	1	1	1	1	1

Citation	Adaptiveness	Effectiveness	Sustainable	Financial	Organization	Stakeholder	Infrastructure	Growth	Learning
			performance	performance	al structure	satisfaction			
(Thoumrungro	$\checkmark$	✓							
je, 2015)									
(Jaaron &			$\checkmark$						
Backhouse,									
2019)									
(Kowo &			$\checkmark$						
Akinbola,									
2019)									
(Mukhezakule			$\checkmark$						
& Tefera,									
2019)									
(Atieno &				$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Senaji, 2017)									
(Yoon & Suh,					$\checkmark$		$\checkmark$		
2019)									
Total	1	1	3	1	1	1	2	1	1

Dimensions	Repetition	Percent from total articles
Financial performance	22	18.80%
Market share	14	11.97%
Growth	11	9.40%
ROA	9	7.69%
Stakeholders satisfaction	6	5.13%
Productivity	5	4.27%
Learning	5	4.27%
ROE	4	3.42%
Business performance	4	3.42%
Efficiency	4	3.42%
Operational performance	4	3.42%
Quality	4	3.42%
ROS	3	2.56%
ROI	3	2.56%
Sustainable performance	3	2.56%
Non-financial performance	3	2.56%
Infrastructure	3	2.56%
Effectiveness	2	1.71%
Customer retention	2	1.71%
Employee morale	2	1.71%
Planning	1	0.85%
Cost	1	0.85%
Adaptiveness	1	0.85%
Organizational structure	1	0.85%
Total	117	

Table 4-9: Organizational performance and synonyms dimensions' repetition

As presented in the tables 11 and 12 scholars used a variety of organizational performance dimensions in the relationship with strategic thinking and strategic agility, the most used dimensions were financial performance 18.8%, followed by market share 11.9%, followed by Growth with 9.4%, followed by ROA 7.7%, followed by stakeholder's satisfaction with 5.1%, and so on. The higher focus from scholars was on the financial aspects of the performance dimensions. As for other dimensions such as organizational structure, planning, and adaptiveness; they were only used once.

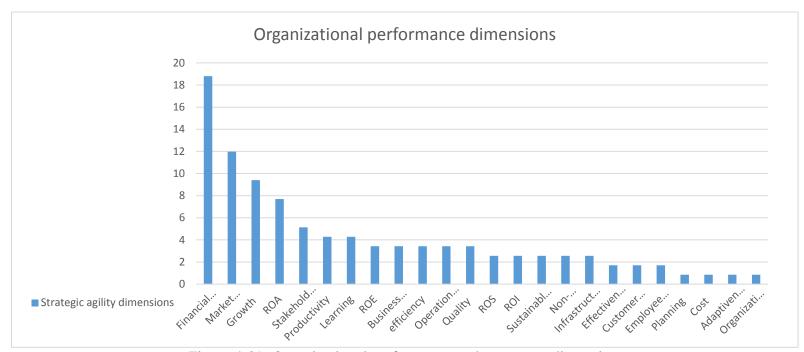


Figure 4-29: Organizational performance and synonyms dimensions



Figure 4-30: The most frequent studied dimensions of organizational performance Financial performance\*= financial percent + ROA percent

# 4-8 Final conceptual model

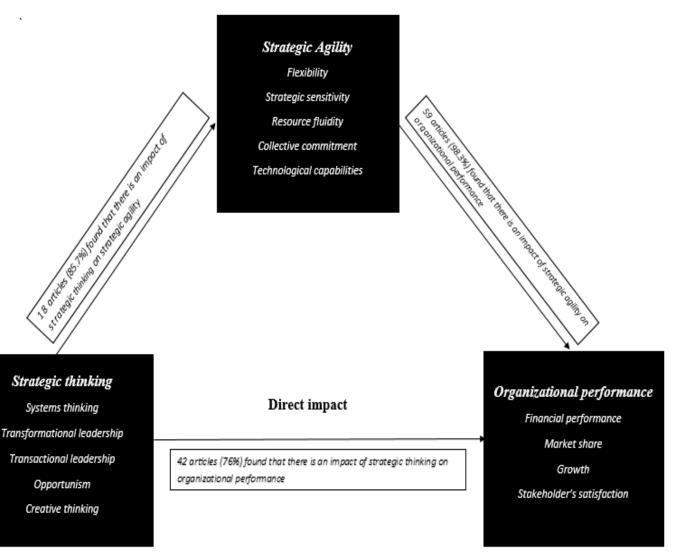
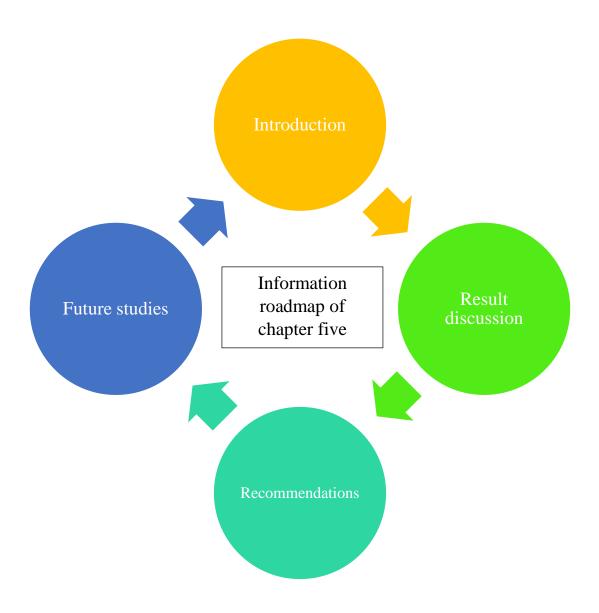


Figure 4-31: Final conceptual model

# **Chapter FIVE Findings discussion and recommendations**



# **5-1 Introduction**

In accordance with the study objectives, this chapter will start with the discussion of the result, followed by the presentation of conclusions, and ending with recommendations and proposals for future studies.

# **5-2 Result discussion**

#### Strategic thinking and organizational performance

In the literature presented and analyzed, the researcher found that 42 articles (76%) confirmed that there is an impact of strategic thinking on organizational performance indicating that the relationship is supported; this explanation confirms that strategic thinking in all its relationships affects organizational performance.

Having a culture that promotes the dynamic, flexible, and adaptive strategic thinking route in making the organization's strategic plans, creative ways of thinking, problem-solving, and foresight in all possible scenarios in the decision-making process will contribute to achieving organizational goals, ensure sustainability, growth, and gain an advantage over competitors. As a result, this will impact both financial aspects of organizational performance as profitability and return on investment (ROA), and non-financial aspects of organizational performance as reputation and customer satisfaction.

In this regard, business organizations that invest in the relationship of strategic thinking on organizational performance or their dimensions will ensure effectiveness and improvements in their competitive performance.

# Strategic thinking and strategic agility

In the literature presented and analyzed, the researcher found that 18 articles (85.7%) confirmed that there is an impact of strategic thinking on strategic agility, indicating that the relationship is supported; this explanation confirms that strategic thinking in all its relationships affects strategic agility. Strategic thinking is more dynamic and flexible in nature, allowing organizations to analyze data, take decisions, and generate plans in accordance with the dynamic changeable environment in which organizations operate. Strategic thinking is a requirement for organizations to promote strategic agility through developing flexible strategic plans and taking advantage of opportunities allowing organizations to overcome uncertainty and complexity in the environment in which organizations operate.

In this regard, business organizations that invest in the relationship of strategic thinking on strategic agility or their dimensions will ensure sustainability and growth.

#### Strategic agility and organizational performance

In the literature presented and analyzed, the researcher found that 59 articles (98.3%) confirmed there is an impact of strategic agility on organizational performance, indicating that the relationship is supported; this explanation confirms that strategic agility in all its relationships affects organizational performance.

Change, complexity and uncertainty such as changing wants and needs of markets, the pandemic, and technological acceleration are causing the environment to evolve intensively. As a result, organizations need to be proactive rather than reactive to adapt and survive these challenges, employing strategic agility as a dynamic capability that provides organizations with flexibility,

responsiveness and the ability to sense opportunities and threats, ensuring continuous improvements, maintaining an advantage over competitors and high performance.

In this regards, organizations that endorses strategic agility will not be affected by uncertainties and change as those who don't, business organizations that invest in the relationship of strategic agility on organizational performance or their dimensions will ensure performance improvements and develop an advantage over competitors.

#### Strategic thinking and synonyms dimensions

As observed, there was a great contrast in the dimensions used within the articles that included strategic thinking (leadership, foresight, creative thinking, and systems thinking) as a variable 32 different dimensions were found; this disparity may be due to the differences of researchers' points of views and the diversity of industries examined in the articles.

The most frequently used dimensions of strategic thinking or its synonyms were systems thinking, transformational leadership, transactional leadership, opportunism, and creative thinking. Systems thinking supports managers to see organizations holistically rather than an isolated view by considering its interactions and interrelationship with the environment, as for transformational leadership it's a flexible, innovative, creative way of thinking that encourages employees to think and look beyond their self-interest toward the interest of the group or the organization. Regarding transactional leadership, it focuses on maximizing human and organizational capabilities to fulfill organizational goals through rewards, while opportunism focuses on managers embracing effective opportunities that frequently emerge due to the dynamism of the environment, and finally creative thinking focus on creating and discovering creative and innovative alternatives that allow the organization to differentiate.

## Strategic agility and synonyms dimensions

Strategic agility (strategic flexibility, flexibility) had 28 different dimensions this indicates a wide range of different opinions of researchers examining strategic agility or its synonyms in different industries and geographic areas.

Flexibility, strategic sensitivity, resource fluidity, collective commitment, and technological capabilities were the most frequently used dimensions of strategic agility. Flexibility is a dynamic ability to detect changes in the environment and create strategic alternatives to respond to those uncertainties through modifying process, strategies and resources. As for strategic sensitivity it's being prepared for any possible change and taking advantage of opportunities quicker than your competitors, as for resource fluidity it's having flexibility in redeploying and distributing key resources to achieve goals in different business units. Regarding collective commitment; it's the continuous collaboration and communication throughout the organization allowing an overall understanding of the needs to improve overall performance, and finally technological capabilities it's the capability to utilize technological knowledge to learn, adjust, and adapt outdated technology rapidly to the changing environment.

### Organizational performance and synonyms dimensions

Dimensions used in articles containing organizational performance (performance) as a variable, employed 24 different financial and non-financial performance dimension in their measurement.

The most commonly utilized dimensions of organizational performance or its synonyms were financial performance, market share, growth, and stakeholder's satisfaction. Financial performance; this dimension was measured by researchers using different indicators as sales revenue, profitability, and return on investment (ROA). As for market share it is a non-financial measure that allows organizations to see where they stand in accordance with their competitors. Regarding growth; it can be used as a measure of size or continuous development to support organizational change and competitive performance, and finally stakeholder satisfaction can be customer satisfaction through quality, retention rate, added value, and so on, or employee satisfaction through low turnover rates, and so on, or shareholders satisfaction.

After what was represented the researcher confirms that strategic agility plays a mediating role in the impact of strategic thinking on organizational performance and that the use of different dimensions is a healthy state as a result of the wide range of industries and geographic areas used within this study.

## **5-3 Recommendations**

After presenting the data analysis and discussion of the results and the most important explorations, the study provides the following recommendations:

- All business organizations should invest in the relationship of strategic thinking on organizational performance, especially the industrial sector, healthcare sector, and food & beverage sector through:
  - a) Switching from self-centered point of view to a holistic point of view by mangers to ensure overall effectiveness.
  - b) Attracting strategic thinkers in the selection and recruiting process.
  - c) Creating an environment that empowers and motivates employees to take decisions using strategic thinking.
  - d) Stimulating the use of strategic thinking all over the organization through training programs using real cases.

- All business organizations should invest in the relationship of strategic thinking on strategic agility, especially small medium enterprises (SME), technological sector, and food & beverage sector through:
  - a) Optimizing the use of scenario planning to develop new approaches and strategic options in order to adapt to the changing environment.
  - b) Having a managerial style that is collaborative, promotes learning, and develops the ability to use strategic thinking all over the organization to guarantee flexibility against change.
  - c) Utilizing interdisciplinary training.
  - d) Continuous environmental scanning and information gathering improves the quality of strategic options.
- All business organizations should invest in the relationship of strategic agility on organizational performance, especially the public sector, agricultural sector, and food & beverage sector through:
  - a) Continuous assessment of the environment and considering the effect of change and uncertainties on all aspect of performance both financial and non- financial.
  - b) Creating a positive attitude toward change to achieve continuous improvements and optimization of performance.
  - c) Sustaining their competitive advantage organizations should maintain a short product life cycle because the focus is shifted toward rapidly changing markets.
  - d) Promoting strategic agility all over organizations will enhance its respond to unexpected challenges, improving its competitive performance.

# **5-4 Future studies**

This study explored the mediating role of strategic agility (strategic flexibility and flexibility) on the impact of strategic thinking (strategic leadership, foresight, creative thinking, and system thinking) on organizational performance (performance) using the systematic literature review method, to ensure sustainable and purposeful scientific research process the following is suggested for future studies:

- To empirically examine the mediating role of strategic agility on the impact of strategic thinking on organizational performance.
- 2. Future studies need to focus on the relationship between strategic thinking and strategic agility as the researcher noticed a shortage when collecting articles.
- 3. Future research can use meta-analysis methodology which allows to statistically analyze the results of this study.
- 4. Expanding research by using less frequent used dimension of strategic thinking, strategic agility, and organizational performance.
- Conducting studies that deals with balanced scored as it focuses on financial and nonfinancial aspects of performance.
- 6. Future studies especially in the Arab world are recommended to use the systematic literature review method in different research topics.

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