



**THE MODERATING ROLE OF TIME
MANAGEMENT IN THE EFFECT OF STRATEGIC
AGILITY ON RISK MANAGEMENT A SAMPLE
OF TOP MANAGEMENT IN SOME PRIVATE
UNIVERSITIES AND FACULTIES IN BAGHDAD-
IRAQ**

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PhD THESIS
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THESIS APPROVAL PAGE

I certify that in my opinion the thesis submitted by Reyam Ayad Al-DAFFAIE titled “THE MODERATING ROLE OF TIME MANAGEMENT IN THE EFFECT OF STRATEGIC AGILITY ON RISK MANAGEMENT” is fully adequate in scope and in quality as a thesis for the degree of PhD.

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This thesis is accepted by the examining committee with a unanimous vote in the Department of Business administration as a PhD thesis. June 20,2023

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The degree of PhD by the thesis submitted is approved by the Administrative Board of the Institute of Graduate Programs, Karabuk University.

Prof. Dr. Müslüm KUZU

.....

Director of the Institute of Graduate Programs

DECLARATION

Hereby declare that this thesis is the result of my own work and all information included has been obtained and expounded in accordance with the academic rules and ethical policy specified by the institute. Besides, I declare that all the statements, results, materials, not original to this thesis have been cited and referenced literally.

Without being bound by a particular time, I accept all moral and legal consequences of any detection contrary to the aforementioned statement.

Name Surname: Reyam Ayad AL-DAFFAIE

Signature:

FOREWORD

Firstly, I would like to express my sincere gratitude to my advisor Prof. Fatma Zahra Tan, who has provided unfailing help, patience, motivation, and immense knowledge, advice and guidance not only in this research but throughout the whole PhD program. I could not have imagined having a better advisor and mentor for my Ph.D. study. Thirdly, I would like to extend my thanks to Faculty members and administrative staff at Karabuk University for their continuous support me, as well as everyone who contributed to this research for their time and information.

Last but not the least, I would like to thank my family members and friends for their patience, emotional and spiritual support during this thesis and my life in general.

ABSTRACT

This study aimed at identify the moderating role of time management in the effect of strategic agility (as independent variable) on risk management (as dependent variable). For achieving the objectives of this study, two main hypotheses were adopted and derived from both a few sub-hypotheses. The methodology which has chosen in this study is the analytical quantitative method, to study the case of top management staff in some Iraqi private Universities and colleges as a population. The questionnaire has adopted to collect data. The statistical package for social Sciences (SPSS V20) program was applied to analyzing data. In addition to Amos program were used. The strategies of [Training Strategy, Organization Learning, development (organization, administrative and professional career development)] are important strategies for human resources development. There was a strong statistical significance between time management and strategic agility, and between strategic agility and risk management in the other hand.

Keywords : Time management; Risk management; Strategic agility

ÖZ

Bu çalışma, stratejik çevikliğin (bağımsız değişken olarak) risk yönetimi (bağımlı değişken olarak) üzerindeki etkisinde zaman yönetiminin ılımlı rolünü belirlemeyi amaçlamaktadır. Bu çalışmanın amaçlarına ulaşmak için iki ana hipotez benimsenmiş ve her iki alt hipotezden de türetilmiştir. Bu çalışmada seçilen metodoloji, bazı Irak özel üniversitelerinde ve kolejlerinde üst düzey yönetim personelinin nüfus olarak durumunu incelemek için analitik nicel yöntemdir. Anket veri toplamayı benimsemiştir. Verilerin analizinde Sosyal Bilimler için İstatistik Paketi (SPSS V20) programı uygulanmıştır. Ayrıca Amos programı kullanılmıştır. [Eğitim Stratejisi, Örgütsel Öğrenme, gelişim (organizasyon, idari ve mesleki kariyer gelişimi)] stratejileri insan kaynaklarının gelişimi için önemli stratejilerdir. Zaman yönetimi ile stratejik çeviklik arasında ve diğer yandan stratejik çeviklik ile risk yönetimi arasında güçlü bir istatistiksel anlamlılık vardı.

Anahtar Kelimeler : Zaman yönetimi; Risk yönetimi; Stratejik çeviklik

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ARŞİV KAYIT BİLGİLERİ

Tezin Adı	Stratejik Çevikliğin Risk Yönetimi Üzerindeki Etkisinde Zaman Yönetiminin İlimli Rolü
Tezin Yazarı	Reyam Ayad AL-DAFFAIE
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Anahtar Kelimeler	Zaman yönetimi; Risk yönetimi; Stratejik çeviklik

SUBJECT OF THE RESEARCH

The process of measuring the amount of uncertainty and identifying opportunities and threats faced by universities is the role of so-called risk management, as the latter contributes to enabling management to deal with the risks and difficulties that the institution may be exposed to in the future that may hinder its course. It also contributes to achieving the optimal balance between returns and associated risks and then the effective and efficient use of resources that contributes to achieving the objectives of the university. This led everyone to look for effective ways to manage it, and just as time is one of the resources available to individuals, it is also examined of the resources available to organizations, and since these organizations have specific goals that they seek to achieve by dedicating all the resources and capabilities available to it and their exploitation, including time, the working time of the organization is limited and precious that must be determined strictly and invested it. Hence the importance of finding ways and means to exploit this important resource by managing it to maximize its value And trying to reduce the waste of it because we accomplish with time, so time management is concerned with how to invest the available time in order to accomplish ,The objectives set in the shortest possible time and that they mean limiting, identifying, organizing and distributing time appropriately, and subjecting all of this to continuous follow-up and evaluation processes.

PURPOSE AND IMPORTANCE OF THE SUBJECT

The research aims to accomplish the following objectives:

- Conducting a survey of the top management of Iraqi private universities to determine the challenges they face in carrying out their scientific and educational duties.
- Providing a theoretical framework that illustrates the three dimensions of the research variables (time management, risk management, and strategic agility).especially till now there is no study collects the three study variables together.

- conducting a survey of the top management's perspectives in order to diagnose the practices of its employees in applying the three variables in their universities. Especially the top management must be an ideal to their employees to follow in their footsteps in the future.
- attempting to identify the strengths and weaknesses of private universities based on the responses to questionnaire questions from the research sample.

The importance of research:

- Due to globalization in the educational environment in particular and administrative in general, and also technology has become an integral part of the educational process and the dynamic environment that surrounds private universities, there is an urgent need for these universities to manage their risks by applying agile strategies in record time in order to be able to stand in the face of intense competition and occupy a large position in the business market.
- Focusing on an important aspect that links the variables Research because the work in universities is dominated by the scientific aspect.
- The research contributes to highlighting the awareness of top management to invest time in light of the risks faced by universities through the development of agile strategies that will lead to the development of the administrative work system.
- The importance of the research variables in private universities lies in the fact that the sample surveyed can apply the time variable and try to avoid the risks facing the scientific process to create a flexible strategy that has the duty to lead to finding a solution to the problem at the lowest costs and efforts, but it is unaware of the importance of these variables in depth and accuracy in applying them in traditional ways and a conforming with the usual routine.
- The reason also lies around the choice of private universities as a community for research as it is examined a scientific and increasingly important body after a large number of students went to it to start their scientific careers with different specializations and the fact that most of

these universities are young, so we hope that this scientific research will have a role in consolidating the importance of its variables for the benefit of the work of these universities.

METHOD OF THE RESEARCH

The questionnaire was adopted as a statistical method for collecting data and then tabulating and analyzing it based on several statistical analysis programs to quantitatively interpret the relation of search variables

THE HYPOTHESES OF THE RESEARCH / RESEARCH PROBLEM

Hypotheses of direct effect:

H1: There is a significant effect of strategic agility in risk management.

H1a: There is a significant effect of decision making agility in risk management

H1b: There is a significant effect of core capability in risk management.

H1c: There is a significant effect of sharing responsibility in risk management.

H1d: There is a significant effect of the selection of strategic targets in risk management.

H2: There is a significant effect of time management in risk management.

H2a: There is a significant effect of time planning in risk management.

H2b: There is a significant effect of time organizing in risk management.

H2c: There is a significant effect of time orientation in risk management.

H2d: There is a significant effect of time control in risk management.

Hypotheses of interaction between study's variables:

H1: Time management has a moderating role in the relation between decision making agility and risk management

H1a: Time management has a moderating role in the relation between decision making agility and identify risk

H1b: Time management has a moderating role in the relations between decision making agility and risk assessment

H1c: Time management has a moderating role in the relations between decision making agility and make decision of taking risk

H1d: Time management has a moderating role in the relations between decision making agility and risk control

H2: Time management has a moderating role in the relations between core capability and risk management

H2a: Time management has a moderating role in the relations between core capabilities and identify risk

H2b: Time management has a moderating role in the relations between core capability and risk assessment

H2c: Time management has a moderating role in the relations between core capability and make decision of taking risk

H2d: Time management has a moderating role in the relations between core capability and risk control

H3: Time management has a moderating role in the relations between sharing responsibility and risk management

H3a: Time management has a moderating role in the relations between sharing responsibility and identify risk

H3b: Time management has a moderating role in the relations between sharing responsibility and risk assessment

H3c: Time management has a moderating role in the relations between sharing responsibility and make decision of taking risk

H3d: Time management has a moderating role in the relations between sharing responsibility and risk control

H4: Time management has a moderating role in the relations between selection strategic targets and risk management

H4a: Time management has a moderating role in the relations between selection strategic targets and identify risk

H4b: Time management has a moderating role in the relations between selection strategic targets and risk assessment

H4c: Time management has a moderating role in the relations between selection strategic targets and make decision of taking risk

H4d: Time management has a moderating role in the relations between selection strategic targets and risk control

PROBLEM OF THE RESEARCH

Universities face multiple internal and external challenges. represented in, regulations and instructions, globalization and tremendous and accelerated technical development, transformation in learning and teaching policies, learning resources, student and community pressures, to compete in the areas of attracting research support, faculty members and distinguished students. The escalation of the cost of educational equipment for classrooms and laboratories, the high intensity of competition to reach advanced global centers and advanced classification among universities, continuous and renewable infrastructure projects, environmental challenges to maintain a natural environment and sustainable development, the increasing need for security and safety requirements.

A conforming with the mentioned hypotheses, several questions come to mind that can be asked along these lines:

- What is the nature of the consumption and exploitation of the time factor in Iraqi private universities?.
- How private universities confront the risks they face during the educational process.
- How agile are the ideas and strategies developed by universities in their plans and strategies that aim to implement and achieve them in the future?.

- Does time management have a moderating role for risk management practices and their impact on strategic agility?
- Does risk management in private universities suffer as a result of top management's agile strategies?

POPULATION AND SAMPLE OF THE RESEARCH

Sample of the Research represented by a sample of senior management consisting of (195) individuals

population Of the Research: Research population of the research were represented by a number of private universities in Baghdad . Which was represented along these lines

- Uruk University.
- Dijla University.
- Al-Farabi University.
- Al-Esraa University.
- Al-Hikma University.
- Al-Mansour University.
- Madina Al-Elm University.
- Al-Nusour University.
- Al-Farahidi University.

Study limitations: The survey data contained in the research was validated by the senior management of Iraqi private universities. This survey was conducted on the assumption that the data included in the research were perceived. The following should be examined a conforming with the results obtained, it has limitations along these lines:

- Quite a few members of the research sample did not agree to receive the questionnaire form.
- A deliberate delay by some and after a period of time they did not return the form under excuse that it was lost.

- Under excuse that they are top management, a number of the sample did not agree to meet the researcher.
- Many forms were received in a damaged shape where some of sample individuals were written and drawn on them.



1. INTRODUCTION

1.1. Introduction and Research's Problem

Universities face multiple internal and external challenges. represented in, regulations and instructions, globalization and tremendous and accelerated technical development, transformation in learning and teaching policies, learning resources, student and community pressures, to compete in the areas of attracting research support, faculty members and distinguished students. The escalation of the cost of educational equipment for classrooms and laboratories, the high intensity of competition to reach advanced global centers and advanced classification among universities, continuous and renewable infrastructure projects, environmental challenges to maintain a natural environment and sustainable development, the increasing need for security and safety requirements.

The process of measuring the amount of uncertainty and identifying opportunities and threats faced by universities is the role of so-called risk management, as the latter contributes to enabling management to deal with the risks and difficulties that the institution may be exposed to in the future that may hinder its course. It also contributes to achieving the optimal balance between returns and associated risks and then the effective and efficient use of resources that contributes to achieving the objectives of the university. This led everyone to look for effective ways to manage it, and just as time is one of the resources available to individuals, it is also examined of the resources available to organizations, and since these organizations have specific goals that they seek to achieve by dedicating all the resources and capabilities available to it and their exploitation, including time, the working time of the organization is limited and precious that must be determined strictly and invested it. Hence the importance of finding ways and means to exploit this important resource by managing it to maximize its value And trying to reduce the waste of it because we accomplish with time, so time management is concerned with how to invest the available time in order to accomplish, The objectives set in the shortest possible time and that they mean limiting, identifying, organizing and distributing time appropriately, and subjecting all of this to continuous follow-up and evaluation processes.

1.2. The hypotheses of research

1.2.1. Hypotheses of direct effect

H1: There is a significant effect of strategic agility in risk management.

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1.2.2. Hypotheses of interaction between study's variables

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H1c: Time management has a moderating role in the relations between decision making agility and make decision of taking risk

H1d: Time management has a moderating role in the relations between decision making agility and risk control

H2: Time management has a moderating role in the relations between core capability and risk management

H2a: Time management has a moderating role in the relations between core capabilities and identify risk

H2b: Time management has a moderating role in the relations between core capability and risk assessment

H2c: Time management has a moderating role in the relations between core capability and make decision of taking risk

H2d: Time management has a moderating role in the relations between core capability and risk control

H3: Time management has a moderating role in the relations between sharing responsibility and risk management

H3a: Time management has a moderating role in the relations between sharing responsibility and identify risk

H3b: Time management has a moderating role in the relations between sharing responsibility and risk assessment

H3c: Time management has a moderating role in the relations between sharing responsibility and make decision of taking risk

H3d: Time management has a moderating role in the relations between sharing responsibility and risk control

H4: Time management has a moderating role in the relations between selection strategic targets and risk management

H4a: Time management has a moderating role in the relations between selection strategic targets and identify risk

H4b: Time management has a moderating role in the relations between selection strategic targets and risk assessment

H4c: Time management has a moderating role in the relations between selection strategic targets and make decision of taking risk

H4d: Time management has a moderating role in the relations between selection strategic targets and risk control

A conforming with the mentioned hypotheses, several questions come to mind that can be asked along these lines:

- What is the nature of the consumption and exploitation of the time factor in Iraqi private universities?
- How private universities confront the risks they face during the educational process.
- How agile are the ideas and strategies developed by universities in their plans and strategies that aim to implement and achieve them in the future?
- Does time management have a moderating role for risk management practices and their impact on strategic agility?
- Does risk management in private universities suffer as a result of top management's agile strategies?

1.3. The research's objectives

The research aims to accomplish the following objectives:

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- Providing a theoretical framework that illustrates the three dimensions of the research variables (time management, risk management, and strategic agility). especially till now there is no study collects the three study variables together.
- conducting a survey of the top management's perspectives in order to diagnose the practices of its employees in applying the three variables in their universities. Especially the top management must be an ideal to their employees to follow in their footsteps in the future.
- attempting to identify the strengths and weaknesses of private universities based on the responses to questionnaire questions from the research sample.

1.4. The importance of research

- Due to globalization in the educational environment in particular and administrative in general, and also technology has become an integral part of the educational process and the dynamic environment that surrounds private universities, there is an urgent need for these universities to manage their risks by applying agile strategies in record time in order to be able to stand in the face of intense competition and occupy a large position in the business market.
- Focusing on an important aspect that links the variables Research because the work in universities is dominated by the scientific aspect.
- The research contributes to highlighting the awareness of top management to invest time in light of the risks faced by universities through the development of agile strategies that will lead to the development of the administrative work system.
- The importance of the research variables in private universities lies in the fact that the sample surveyed can apply the time variable and try to avoid the risks facing the scientific process to create a flexible strategy that has the duty to lead to finding a solution to the problem at the lowest costs and efforts, but it is unaware of the importance of these variables in depth and accuracy in applying them in traditional ways and a conforming with the usual routine.
- The reason also lies around the choice of private universities as a community for research as it is examined a scientific and increasingly important body after a large number of students went to it to start their scientific careers with different specializations and the fact that most of these universities are young, so we hope that this scientific research will have a role in consolidating the importance of its variables for the benefit of the work of these universities.

1.5. Search limits and time periods

1.5.1. Survey period

The survey period of the field side of the research extended from

(15 \ 05 \ 2022 to 20 \ 06 \ 2022)

Research sample : represented by a sample of senior management consisting of (195) individuals

Research population : Research population of the research were represented by a number of private universities in Baghdad . Which was represented along these lines

- Uruk University.
- Dijla University.
- Al-Farabi University.
- Al-Esraa University.
- Al-Hikma University.
- Al-Mansour University.
- Madina Al-Elm University.
- Al-Nusour University.
- Al-Farahidi University.

1.5.2. Study limitations

The survey data contained in the research was validated by the senior management of Iraqi private universities. This survey was conducted on the assumption that the data included in the research were perceived. The following should be examined a conforming with the results obtained, it has limitations along these lines:

- Quite a few members of the research sample did not agree to receive the questionnaire form.
- A deliberate delay by some and after a period of time they did not return the form under excuse that it was lost.

- Under excuse that they are top management, a number of the sample did not agree to meet the researcher.
- Many forms were received in a damaged shape where some of sample individuals were written and drawn on them.

1.6. Statistical Research Methods

The questionnaire was adopted as a statistical method for collecting data and then tabulating and analyzing it based on several statistical analysis programs to quantitatively interpret the relation of search variables



2. LITERATURE REVIEW

2.1. Time Management

2.1.1. Introduction

No matter how diverse the eras, levels of obsolescence, or reincarnation, we find that there are many wonderful things that remain constant throughout time. These things warrant examination because they are the universal principles from which nothing deviates, the laws of God, who had total control over all he created (Abozanat,2001,31). The aforementioned claim is that our current era is characterized by a variety of emergencies and emergent components that weren't present in previous periods. The modern era is marked by a variety of traits, such as technological development and tremendous growth in all fields, including the emergence of new sciences that did not previously exist, such as the sciences of technology, computer science, genetics, space science, programming, management, and all of its subfields (Aladil 2006).

In order to effectively manage our time, we must put an emphasis on achievement: doing and finishing the things that we need to do as well as the things we want to do. Time management is a results and goal driven. The caliber of our professional and personal life serves as an indicator of ability to manage our time effectively (Thomas, 2004, 4).

Since the time of Frederick Taylor, time management in organizations has almost become an obsession. Time can be understood in two ways: as an objective phenomenon that exists independently of human action, or as a subjective phenomenon that emerges socially from human action (Jabeer, 2019, 16).

The distinction between chronos and kairos, the chronos being "the chronological, serial time of succession, time measured by the chronometer not by purpose," and kairos being "the human and living tie of intentions and goals, the time not of measurement but of human activity and opportunity," also considers this objective / subjective dichotomy (Sainz et al., 2019, 3).

Why aren't all people is so useful time management experts if it makes such basic sense? .The unfortunate news is that it is because time management is challenging (but there is good news to come). The venerable novelist Chesterton G. K. once stated that Christianity's decline was due to its being "found difficult and thus not attempted," rather than because it had been tried and found wanting. The same is true of time management. The unfortunate news is that it is because time management is challenging (but there is good news to come). The venerable novelist Chesterton G. K. once stated that Christianity's decline was due to its being "found difficult and thus not attempted," rather than because it had been tried and found wanting, the same is true of time of management. There is no magic formula, and circumstances—as well as interruptions—often appear to work together to thwart the best of intentions. Some people quit in despair after possibly not getting what they want (Eid et al, 2015,82).

The tremendous significance of time and its management for any organization in the sphere of its work has been established by numerous recent scientific studies in the administrative sciences, and it was discovered that the management's effectiveness is what gives the organization its effectiveness. This calls for the accessibility of a specific set of professional competencies and performance needed for those in charge of them to improve their working environments and their services for individual clients. Since time is a valuable and non renewable resource, it is necessary to find effective ways to manage and utilize it as needed. Additionally, it is important to take the necessary steps to get rid of all the things that cause waste and divert an organization from its intended course. This is especially true because time is involved in all administrative operations, and its management prevents the management of all other work (Abdulbaki, 2017, 65).

Every organization, whether for business or nonprofit, has been set up with the intention of achieving a specific goal. In order to accomplish this goal, the organization must hire a group of people and the management team to handle the material and financial resources at their disposal within a predetermined time frame the management team to handle the material and financial resources at their disposal within a predetermined time frame. The management is required to provide a report on the level of achievement made during this specified period, which is often limited to 12 calendar months (Folasade, 2014, 7), a group of people and the management team handle the material and financial resources at their disposal within a predetermined

time frame. Money is not as vital as time management, time management and its importance are frequently neglected. Many senior members frequently undervalue the importance of time, any assistant registrar who is able to use the art of time management has a better chance of success in life nowadays due to the fierce competition on the job market (Kenneth, 2012)

2.1.2. The Concept of Time Management

Time is the most valuable resource because it is a mythical resource that cannot be recovered, saved, or transferred. Every human action requires the use of time, and the majority of them are time bound. Since most tasks must be completed within a set amount of time, for instance, the supply of time is perfectly inelastic. Time is a finite resource, so making the best use of it is essential. Planning and exercising deliberate control over the amount of time spent on particular activities, especially to promote effectiveness, efficiency, or productivity, is the act or practice of time management (Odumeru, 2013, 10). Defining time as "a crucial resource, the most priceless possession known, because it is a tool for every production and job, as well as the true capital of each unique man, since every person or productive activity is time bound and follows a plan approved by the individual or the organization's management, they are all interconnected, and no administrative or production process can be carried out without consideration of the time factor, as it is (the most precious resource we have). Additionally, it needs to be invested very carefully (Abdulbaki, 2017, 63). Time management is the process of planning, organizing, directing, and controlling time, it allows us to choose what needs to be done and complete a lot of work in a short amount of time (Makahle, 2012, 13). It can also be defined as identifying needs, setting goals to meet these needs, ordering the tasks required to complete a task conforming with priorities, and matching those tasks with the available time and resources. Various cultures have different ideas about what time is and how important it is, and different societies value time in different ways. Human behavior toward time is influenced by his surroundings and the values that have been instilled in him, relating to his worth and value in life.

There is evidence from archaeology that the time factor existed and was in effect. The remarkable accomplishments of the pharaohs, the Babylonians, and the

Assyrians do not support the idea that these civilizations were interested in time during the BC centuries. Instead, these civilizations believed that time should not be wasted and should not be exceeded (Alrahimi, 2014, 234). Everybody has the same amount of time, a conforming with John W. Lee and Robert Edcock enterprise requires time, the only way to fix it is to utilize the time we have more effectively. Managers and administrators should learn how to control how they use their time (Alhor, 2006, 17). Buthaina (2018, 23) argues that time management entails self-management, that a good manager considers the time before beginning any duties, and that time is one of the most valuable resources. If it is not, nothing else will be managed. A conforming with Asoyof (2014) time is the one thing that all people have in common, but they have different ideas about how to use it, which is caused by the differences in their cultures, occupations, and long-term objectives. Additionally, the practice of utilizing one's individual talents and free time is referred to as "time management." to accomplish the crucial objectives that we pursue in our lives with the province to strike a balance between the needs of one's body, soul, and mind and the demands of work and private life (Alghamdi, 2018, 13). Time is one of the resources that superiors and subordinates can use to achieve their goals. The effectiveness and knowledge of superiors in utilizing it to the fullest extent can be used to gauge organization and time efficiency. Compared to the cost provided by the company to gain this time in the form of salary, material and in-kind payments, and benefits will cost less to achieve these goals (Kareem,2016). A conforming with the aforementioned, time management is the best use of time and other resources available to accomplish the anticipated goals in the business within a set amount of time.

2.1.3. The importance of time management

The importance of time management is that some managers operate under the assumption that they don't have enough time to complete everything, and if they try to organize their hours of work more effectively, they turn to working more quickly. While this can be advantageous, especially for those who spend a lot of time carrying out their management affairs, in many cases, fast work generates problems, leading the manager to make mistakes because the time allotted to think and plan is reduced to a minimum (AlFakih, 2009,65).

Also (Masoudi, 2016, 5) ; (Buthaina, 2018, 42) and (Forsyth,2009, 32) make reference to the following points about the significance of time management:

- A good definition of skill is one that avoids disagreement, conflicts of competence, and intervention in the work of others. It also avoids blind unfairness in the distribution of duties among thousands of people and achieves justice in this distribution.
- Deepening conscious knowledge of a sense of good responsibility: This component deals with people's propensity to care about the project's overall success and its promotion.
- Utilization of early coordination: The process of previous and early coordination, techniques of participation and engagement, and human activation are used to highlight the significance of time management in this situation and heighten the sense that others are contributing to the project.
- The fulfillment of the worth and riches of time through the effective execution of the planning function by positioning long-term permanent general strategies based on the wise use of resources and capabilities in the context of a comprehensive future vision is referred to as planning integrity.
- The benefits of flexible organizations include their ability to accommodate individual differences, changes, and desires for career progress. This necessitates the use of cooperation, decentralization, and information flow systems in time management.

While (Adarbe, 2006, 11) identified individual differences within a culture, as well as individual differences between societies, as fundamental disparities in worldview. In modern civilizations, much consideration is given to the value and importance of time as well as how to allocate, utilize, and make the most of it in order to achieve broad objectives. The same is true for organizations and institutions that work to accomplish their goals by exploiting all the resources and areas at their disposal, including time. The time as a result, is the most wasted resource, and the few who were not exploited did not understand the cost of wasted time (Alghamidi, 2018). Time is significant because presidents use it as one of their most important resources. It is a resource that is equally valuable to the business as other resources like tools,

money, and human capital. Nothing within the organization will be efficiently managed and organized if it is not well managed. As time is significant, it is a finite resource with a fixed number of hours per year that cannot be increased or decreased (Kareem, 2016, 12).

2.1.4. Types of time

A conforming with the variety of the types of time, Alhor (2006); Alazimi (2007); Makahle (2012); Abdulbaki (2017); Habibo (2019) and others have all mentioned four main categories of time are along these lines:

2.1.4.1. Creative Time

It is concerned with thinking, analysis, future planning, work organization, and assessing the level of production processes. It is observed that many administrative tasks involve this kind of time, and problems of this kind are dealt with by administrative staff in a rational, scientific way to produce workable reasoning.

2.1.4.2. Preparation time

It comprises the time leading up to the task's commencement, as well as the gathering of data and information and the preparation of the tools and materials required to complete the work.

2.1.4.3. Production Timeframe

It considers the amount of time needed to carry out and finish the intended work. Prepare for it during your creative downtime.

2.1.4.4. Direct or indirect time

This time is typically devoted to general sub-activities that directly affect the organization's future and relations with others, such as the organization's social responsibility and the affiliations of its officials with organizations and numerous

associations and bodies in society, as well as administrative activities like attending seminars, accepting invitations, or opening specific institutions. The administrator must dedicate a lot of time to these many tasks; therefore, he must either specify how much time can be devoted to them or designate a certain person to perform them. In order to complete the work assigned to him and maintain strong relations and close cooperation with people overseas, it is important to maintain a balance between internal and external activities (Algarrai & Elsheikh, 2014, 38).

2.1.5. Types of time

Time is being lost because it is not being employed to accomplish useful goals, a tendency that is prevalent in emerging countries. Low productivity, with a high prevalence of poverty, ignorance, and frailty, makes up contemporary society. According to Asoyof (2014, 961); Abbas and Hasan (2010, 11); Alamami (2016, 25) and Alsnosi (2019, 8), there are other five different time types:

2.1.5.1. Wasted time

Except for the fact that there is time management in general, time is not being used effectively by students, organizations, and communities alike. This results in decreased productivity and performance, but students, organizations, and communities should soon pay attention to the value of time and try to reactivate production.

2.1.5.2. Planning time

Since there is a clear correlation between planning as a management ability and using time effectively, it is important that the leader, the company, and the community are all awake and aware of the situation.

2.1.5.3. Convenience time

This is the first chance to complete tasks. Additionally, the previously anticipated work is already in the execution stage. The real one exists, and there is nothing wrong

with devoting facilitative time to efficiently and effectively accomplish the goals desired by any task.

2.1.5.4. Actual completion time

Because of the limited time available to the executor and, if applicable, the audience, objectives must be drawn efficiently and effectively. What sets apart this pattern is that the time is seriously constrained and calculated by the hour, if not by minutes (as in a lecture on a specific topic, for example).

2.1.5.5. Follow-up time

It is also a critical time when performance is seriously evaluated and both a quantitative and qualitative evaluation is provided.

While, a conforming with Alhatib (2009, 10) ; Ibrahim, (2020, 158), the following two types of time (peak hours and idle hours) can be controlled:

- First: there are moments when we are totally alert and conscious (peak time).
- Second: a period of time during which we are least likely to reject morality and reason (the time of idleness).

If we want to manage our time, we must first identify the time that we can manage before learning the peak period of our activity (peak time) and using it for work, giving, and production for us, seriously.

2.1.6. Advantages of time management

There are numerous advantages to time management, some of which are direct and manifest themselves right away, while others take time to manifest. In the long run, you should avoid rushing the results of your time management, but it is possible. Makahle (2012, 20); Odumeru (2013, 11); Alsoyof (2014, 962) and Buthaina (2018,41) Specify the following as the only advantages to time management:

- Obtain better outcomes at work.
- Accelerate the completion of the work.

- Lessens the likelihood of errors being made.
- A rise in pay.
- General improvement in mood
- Spend more time relaxing or enjoying family time.
- Investing more time in personal growth
- Realize your individual objectives and aspirations.
- Alleviate strain from numerous life stresses and work-related stress.
- Enhancing the caliber of the work
- Boost the standard of leisure time.

2.1.7. Steps for effective time management

A conforming with Adarbe (2006), the following are the Center of Excellence's six steps for a fruitful time circuit process:

- Review the scorer .
- Maintain a schedule.
- Create a daily accomplishments list.
- Close time-out ports.
- Benefit from opportune moments.
- Refusing to cave in to pressure.

While describing the following time management steps:

2.1.7.1. Planning

This stage is regarded as one of the most crucial stages because it informs the other stages of time management and has an impact on the organization's direction and the accomplishment of its long-term objectives, especially if we realize that planning "links the components of the administrative process as well as those that are sequential and subsequent and contain the administrative activity" (Abdulbaki, 2017, 69).

2.1.7.2. Organizing

Time management and administrative organization are related in a number of ways, including the definition of tasks and terms of reference, the objective division of activities, and the updating and simplification of procedures. Work and procedures, as well as the trend toward delegation of authority, were developed to advance the concept of specialization and the division of labor, as well as to make it easier for each administrative level to carry out the responsibilities assigned to it (Alghafiri, 2011, 23).

2.1.7.3. Orientating

A set of instructions on how to complete this stage are provided to staff. These instructions may be verbal, written, etc., but they must be based on orientation: choosing the right time for it, understanding the psychological state of the workforce and the organizational environment, and being aware of management planning because orientation is a necessary component of planning and should not be disregarded necessary component of planning and should not be disregarded (Hamami, 2002, 34).

2.1.7.4. Making decisions

Any administrative function that involves making decisions is crucial, but notably In addition, modern management has prioritized using the scientific method when making decisions about due to the nature of the manager's difficulties and the conditions surrounding them, this process which entails diagnosing the issue and suggesting suitable solutions needs to be finished within a specific amount of time (Smythe and Robertson, 2004, 42).

2.1.7.5. Control

By tracing the progression of the administrative process over time and how it affects everyone, this procedure is demonstrated and helps identify errors or stop them from happening in a timely and thorough manner. Control time if its measures are strict and severe and are implemented through threat and menace. Shorten its time if it originates within the self and depends on trust, love, and a desire to accomplish the goals (Alshawi, 2003, 39).

2.1.8. Time wasters

Particularly in underdeveloped nations, many organizations and government agencies squander a lot of time, whether consciously or unconsciously. whether on purpose or as a result of the manager's inability to effectively manage time. This crucial resource and its effective use, or the impact of specific situations, elements, and occurrences Visits that are unexpected, such as those that disrupt administrative work on a level (Abdulbaki, 2017, 72). A conforming with Adarbe (2006); Alghamedi (2018); Kareem (2016) and Alazemi (2007), time wasters include the following:

2.1.8.1. Ineffective Planning

Failure to recognize the need for planning and impatience to get the result of anything done is poor planning. Lack of a strategy will likely result in cause a false start, resulting in the crucial path's use of ineffective time. undertaking the task In light of this, the managers may not have enough time for Finishing the mission.

2.1.8.2. Crisis Management

The majority of the time, inadequate crisis management results from task prioritizing. The inability to discriminate between the urgent, the important, and the unimportant chores are more likely to be completed before important ones, and vice versa. price of significant jobs. Therefore, it's unlikely that the managers will have enough time to begin with the crucial elements.

2.1.8.3. Procrastination

If a task is not required immediately, it is simple to put it off. The issue is that As duties accumulate, managers may eventually find themselves in a time crisis. Disorganization is typically brought on by perfectionism, the desire to do everything,

or fears of failure or success, wrong order of importance. To want to perform an excellent job is a virtue. But some individuals do so. They are so concerned with finishing a task properly that they never do. Managers ought to check to see if their efforts to complete the task flawlessly are actually making things better or obstructing their ability to complete the task.

2.1.8.4. Distractions

Distractions and interruptions occur as a result of inadequate planning, concentration and a lack of environmental control they are pointless robbers. The manager's time and can take many different forms, including walk-ins, calls, and emails. meetings without notice, ineffective communication, a muddled chain of command, etc. Managers who ought to be less inclined to instantly donate their time to others just because they ask for it. If they want to finish their work, they need to learn to put aside their distractions. They ought to do so in places where they won't be disturbed, letting people know when they're busy, unable to be disturbed.

2.1.8.5. Not Delegating

Wanting to handle everything is another thief that could managers compromised, they believe that others will never perform as well as they do. They worry that if someone else takes over a job, something will go wrong. They are mired in daily operations and have no time for long-term planning. Meetings that do not have a clear agenda and do not discuss anything are unnecessary, therefore the meeting was obviously unneeded. Clearly, such gatherings are thieves because there is a waste of time and no progress is made.

2.1.8.6. The "shuffling blues"

Because of their disorganization, managers sometimes squander a lot of time, minimizing clutter, keeping everything they need in a specific location, and ensuring that they have all the resources or knowledge they require before beginning the activity, and after A timetable or day planner will help prevent the "shuffling blues" in the office.

2.1.8.7. Poor Physical Setup

Lack of items that managers regularly need within wastage occurs when items are easily accessible and there are numerous items nearby that they rarely use, spending a lot of time getting what they usually require, wearing out the flooring. They frequently pull people aside as they pass others in order to steal some of their time.

2.1.8.8. Ineffective Networking

Good connections with coworkers and others can have a big impact. saving time by providing managers with a variety of opportunities. They will waste time developing what they might have if they don't first establish a solid network backbone.

2.1.8.9. Negative Attitude

Nothing ruins a day faster than a negative attitude. It makes it easy for managers to focus on issues rather than solutions and causes them to do so. When they impose their issues and concerns on others wasting their time, which is valuable.

2.1.9. Time management dimensions

2.1.9.1. Time planning

Planning is one of the most prominent administrative functions related to time in all its operations, and is determined for each stage of. (The stages of organization, guidance or control are time to begin and end) (Alraimi and Almardini, 2014, 237). The preparation of the administrative plan requires the planner to take into account the chronological sequence in the stages of this plan and to distribute the times to them in proportion to the specified stages, so that the total distributed times are equal to the total time, and to choose the appropriate time for each stage (Habibo,2019, 27). Hence, the starting point is determined in the application of time management effectively, by developing a plan with specific goals and deciding how to achieve this

goal within a specific period of time, and in order for planning to be effective, the goals should be specific, realistic within the limits of the possibilities and resources available and time is one of them, and measurable, and be written and linked to a timetable for the purpose of measuring the efficiency and effectiveness in achieving them during the specified period (Alagha, 2009, 423).

2.1.9.2. Time Organizing

If the task of planning is to set goals and prepare the necessary capabilities to achieve them, then organization represents the means through which these goals are achieved, organization is a necessity that must be to arrange and classify efforts in order to reach the goals (Alamami, 2016, 40). The organization is the link between the planning function and the implementation function, and accordingly, any defect in the organization function will result in waste, waste of time and delay in implementation, while good organization reduces the time required for production. Organizing time is one of the most important ingredients for success in managing it, as organizing it helps the individual to complete his work faster and with less effort (Alsnosi, 2019,19).

2.1.9.3. Time Orientation

The function of orientation occupies a special place as an element of the administrative process, as it concerns how the student can achieve his or her goals. The importance of time is shown in guidance during the stages of carrying out tasks To ensure that the goals are achieved as planned and in a timely manner, as the role of guidance goes beyond the scope of time use to the horizons of time investment activation, and this requires the identification of social and family obligations within the available time, which is an important resource to be taken into account, Time is often gone (Ibrahim, 2020, 159).

2.1.9.4. Time Control

It is the function that is concerned with controlling the efforts of the work a conforming with the plan set in order to reach the desired goals. Oversight is the process by which the activities of an organization are confirmed It goes as planned by

comparing actual performance with the parameters in the plan (Manad, 2017,11). Time control means the range of commitment to the plan that was developed before, as well as the range of commitment to the general principles of dealing with time, and also means continuous review, and the control process includes comparing the current behavior with the planned behavior, discovering the size of the deviation, and evaluating and taking the necessary correction actions (Buthaina, 2018,37). Whenever censorship is self-stemming and trust-based, the keenness to achieve the objectives led to the shortening of the control time, and led to the use of time and its investment in achieving the goals, and on the contrary, the more control is exercised after the occurrence of errors, the longer the time of control, and this led to delaying the completion of tasks and works (Alhor,2006,43).

2.1.10. Previous study

This chapter discusses studies that have been conducted in an Arabic setting. The current study's focus on time management and its related variables is to learn more about the topic in order to help the researcher further her research and learn about the most recent scientific developments in the area under consideration. Adarbe (2006), his study intends to quantify the amount of time that UNRWA school principals in the West Bank spend on duties and responsibilities connected to their jobs at each of the three levels of school administration, taking the gender variable into account. Additionally, the study aims to determine how well principals manage their time as well as the impact of independent variables connected to the principal, the school, and the educational district. Additionally, it aims to clarify the connection between the amount of time principals spend on their tasks and how they prioritize them.

A 70 school principals (both male and female) from the West Bank's UNRWA basic schools made up the study sample. This amount makes up 75% of the study's participants. The sample was randomly chosen. An instrument based on educational research as well as earlier surveys and studies has been employed to meet the study's objectives. Three different techniques have been utilized to evaluate the validity of this instrument. It was examined by an eight-person panel of educators. Testing for concurrent validity and factor analysis. There were three sections to the questionnaire. The first section was devoted to the amount of time that principals spend on their jobs.

Part three was devoted to task prioritization, while Part two dealt with time management difficulties. Using Cronbach's alpha, the instrument's dependability was evaluated. The reliability factor reached 87.4 in total. Although this is a high rate, it is appropriate for the study's goal. Results have been analyzed using the statistical software package SPSS. Three statistical techniques have been used to address the study's hypotheses. which are: one-way anova, t-test, and Spearman rank correlation: The research yielded the following conclusions:

In light of the sex variable, there are substantial statistical variations in the amount of time that school principals spend on administrative chores. These disparities are present at the alpha level (0,05). This outcome is in the principals' best interests. Furthermore, there were no discernible statistical differences between the amount of time they spent on social and technical tasks. When taking into account independent factors pertaining to the principal himself/herself, the school, and the educational district, there are no statistically significant variations between the means of time management used by male and female principals at the alpha level (0,05). The mean amount of time that principals spend on their responsibilities and how they prioritize those tasks have a positive link at the alpha level (0,01). Study of Alazimi (2007) were this study attempted to determine the degree of time management among department heads in the Ministry of Education in the State of Kuwait from the perspective of staff members:

- From the perspective of the staff, how well do the department heads manage their time at the Ministry of Education in the State of Kuwait?
- Are there statistically significant disparities in the Ministry's department heads' levels of time management?
- How do employees regard education in the State of Kuwait in relation to factors like gender, education, and experience?

The study sample included (195) male and female employees, divided into 49 and 156, who worked for the Ministry of Education in the State of Kuwait. The six governorates where the Kuwaiti Ministry of Education has directorates account for 14% . The sample for the entire study was chosen using a cluster-random approach. The study tool was created by the researcher to gauge the effectiveness of time management among department heads at the Ministry of Education of the State of

Kuwait. The study's findings revealed: The Ministry of Education in the State of Kuwait's heads of departments' arithmetic average time management skill. The level of management is indicated by the staff's achievement of 434 and a standard deviation of 338. From the perspective of the staff, the time spent by the department heads at the Ministry of Education in the State of Kuwait was average. At the significance level, there was no statistically significant difference. The arithmetic averages are 3205. Effective employee responses in Kuwait's Ministry of Education can be attributed to factors such as gender, educational background, and experience.

Alhatib, (2009) his study sought to shed light on the effect of time management on employees' level of performance in Jordanian cellular communication companies. To do this, the researcher conducted a field study on the three current cellular communications businesses operating in the Jordanian market. The study sample was made up of 100 employees from the three companies, who represented 10% of the study's total population of 1400 people. The information was gathered via a survey questionnaire that asked about five key factors that are important to time management. The researcher used the Kolmogorov-Smirnov test, arithmetic averages, and standard deviations. The study found that time management has an effect on how well employees perform. The findings also showed that one of the most crucial elements of effective time management is setting aside a particular amount of time for planning. The study's findings regarding employee performance levels revealed that effective time management has a direct impact on how well employees perform.

Hamdone, (2011), in this study, time management implementation challenges faced by administrators at Palestinian colleges in the Gaza governorates were examined. The study focuses on the following issues as the main barriers to time management implementation: time-consuming administrative tasks (planning, organizing, directing, regulating, communicating, and making decisions), a lack of technology use, and a lackluster internal work atmosphere at colleges. The research employed a descriptive and analytical approach. A questionnaire that the researcher created served as the primary study instrument. 300 university employees responded to this questionnaire. The study's conclusions can be summed up along these lines:

There were no time management issues with the administrative operations in general, but the results showed that there were some things that needed to be

strengthened, like avoiding doing many tasks at once. It was necessary to be clear about roles and authority, to give supervised workers the necessary instructions, tasks, and information, to divide the work among workers conforming with attitudes and majors, to address some workers' poor performance, to enlist the majority member's support at session meetings, and to avoid centralizing decision-making. On the other side, the study showed that technology was generally used well. However, several aspects in this respect needed to be strengthened, such as emphasizing staff technology training and only using the available technology for work-related tasks and not for leisure or personal use. Additionally, the internal working environment in Palestinian universities is weak, with ineffective material and moral reinforcement systems that lower motivation to work. The universities occasionally experience personal conflicts. The physical working environment is not as suitable as needed. The organizational structure does not adequately aid in the completion of the work. The applicable laws and regulations are not very flexible. The implementation of time management is not sufficiently supported by company culture.

By examining the effects of time management functions on the performance of the Jordanian Petroleum Refinery, the study (Almukahle, 2012) sought to understand the impact of time management on the performance of the Jordanian Petroleum Refinery company. The study's sample includes (116) employees from the Jordan Petroleum Refinery Company's senior managers, departmental managers, and heads of divisions. A descriptive methodology was utilized in the investigation. The researcher gave a variety of questions and presumptions with the intention of gathering and analyzing the data in order to fulfill the study's objectives. The results state that the statements that make up the study's "questionnaire" were given out to the sample population. The statistical software SPSS was used to gather and evaluate the data.

The following are the most significant findings reached by the researcher:

- The Jordanian Petroleum Refinery Company uses high-level time management.
- The performance of the Jordanian Petroleum Refinery Company is impacted by total time management (time planning, time organization, time direction, and total time control) with statistical significance.

- The variables (age, gender, number of years of experience, educational qualification, job position) have a statistically significant impact on how much time management is used at the Jordanian Petroleum Refinery Company.

A conforming with teachers, the goal of the study by Kareem (2016) was to gauge how effectively secondary school principals in Libya manage their time. It also discussed how principals of secondary schools are evaluated on their ability to manage their time effectively based on factors such as gender, educational background, and years of service. The descriptive analytic method was used by the researcher because it was suited for addressing the study's questions. A random sample of teachers, or 50% of the population, was chosen from among the 1325 instructors who made up the study's population. A questionnaire with 50 items and four dimensions has been created to gauge its effectiveness. The goals of validity and reliability were met. The study came to various conclusions through the responses of the study sample, the most significant of which are:

The public respondents' perceptions of secondary school principals in Libya's areas of effective time management from the viewpoint of the teachers were in the middle, with the field of "effective time management regarding principal self-affairs" coming in first, the field of "effective time management regarding teachers' affairs" coming in second, the field of "effective time management regarding administrative affairs" coming in third, and finally, the field of "effective time management regarding teachers' affairs" coming in fourth. The results also showed that the gender variable, academic degree, and practical experience did not result in any statistically significant differences in the secondary school principals' efficient time management in the city of Zliten, Libya.

AlAmami, (2016) reported that the issue with his study is the survey and the reality of the relation between time management and its major themes. Performance of a centrist hospital manager in hospitals in the city of Benghazi, both public and private. All department managers in upper and middle hospitals, both public and private, in the city of Benghazi made up the study population. Director samples were drawn at random from each department, with (145) serving as the director for each class, and after the distribution of the number (145), a valid statistical analysis was formed.

Computerized and program-based methods were used to analyze the data gathered from the same study and meet the study's objectives. The study group came to the following conclusion: the statistical social sciences (Spss), where he was required to use percentages, averages, and standard deviations, also used the correlation coefficient (Person) to measure the correlation between time management and the functionality of the managers under study.

The department heads of the higher and middle public and private hospitals in Benghazi are aware of the value of time management. The most significant factors influencing department managers in the upper and middle classes as well as hospitals in the city of Benghazi are the focus on attendance performance, cooperation in performance, and quality of performance. There is an association between effective time management and job performance. There is a strong link between the moral importance of time management and high-caliber performance.

- A favorable correlation between attendance performance and the moral importance of time management.
- A favorable correlation between time management's moral importance and performance metrics.
- A favorable correlation between cooperative skills and the moral importance of time management.

Buthaina, (2017) sought to determine the extent to which students practice time management and the way to do it is to pose a generic query:

- Do college students manage their time to a decent extent?
- Do university students employ the ability of time management to a reasonable extent?
- To what extent do college students use the ability to manage their time?
- How much do college students use their ability to deal with time wasters?
- The study employed a descriptive methodology and a questionnaire to collect data a sample of 80 Larbi Ben M'hidi University male and female students. The outcomes of the statistical analysis, which used the weighted mean and percentage weight, were along these lines: Students use time management (planning, organizing, dealing with time wasters) to a moderate extent.

Alsnosi, (2019) reported that time is currently the crucial component in standardizing production, profits, and compensation and is therefore crucial for the fulfillment of business, the activities associated with schemes, and the completion of the necessary duties. In order to encourage businesses working in the construction industry to achieve the highest levels of performance by measuring the impact of time factors (time planning, time organizing, time guidance, and time control), it is necessary to study the problem of performing the required tasks (achieving the desired performance level) in the planned time.

The study sought to clarify the impact of time on workers and whether project directorates are careful to emphasize the importance of time on the level of performance among workers. The study also sought to clarify the importance of time in the project and the fundamental variables in construction projects. To accomplish this, the researcher conducted a field study with contractor engineers interested in the construction industry, consultants, and project managers, among others. To this end, the researcher created a questionnaire with questions encompassing six basic pivots, each of which covers a time element in addition to time control and productivity. In order to ensure that the data were distributed naturally and had arithmetic averages, standard deviations, multi-sloping, and simple sloping, the researcher employed the Kolmogorov-Smirnov test. A conforming with the study's findings, timing factors have an exceptional impact on how well construction industry professionals perform. A conforming with the study, setting priorities is a crucial part of project time control. Regarding the level of worker performance, it was demonstrated that knowledge of the factors that contribute to worker performance decline in the construction industry can be used to treat project performance time schedule deviations in a way that will improve worker performance.

2.2. Risk management

2.2.1. Introduction

The managers are forced to take a risk because of the ambiguity of the internal and external environments, which could result in benefits as well as losses. Since the majority of top management decisions are made in the presence of risk, it is

challenging to foresee the management process due to a lack of complete knowledge, the existence of opposing trends, elements of chance, and other new economic conditions of management (Adwan,2019,28). When properly implemented, the phases of risk management would be an endlessly repeated process that would allow for continual decision-making and performance improvement (Enisa, 2006). Risk is approached holistically through risk management. To put it another way, risk is seen as a confluence of environmental, programmatic, and situational considerations. Risks are only seen as potential future occurrences (Bujerami,2011, 19). Events that will happen to an organization are examined risks; they are not instances of events that have already happened. It's critical to consider risk in this context since otherwise, every problematic situation or change in plans could be mistakenly classified as a risk event (Pritchard et al,2014). Risk management has recently risen to the top of the list in terms of talks, actions, and job training. This clearly demonstrates the value of risk management to modern businesses. Risk is typically defined as a scenario that an individual or business faces where there is a chance that it will be damaging. Through risk management, risks can also be minimized or even completely eliminated. Risk management is expected to play a role in anticipating the environment's rapid change, developing corporate governance, maximizing strategic management, securing the organization's resources and assets, and reducing reactive decision-making from top management (Meiryani, 2018). Effective risk management offers safety and helps prevent disasters. When risks are well managed, we are equipped to take chances that we might not otherwise be willing to take, risks that are ultimately essential to our success. For instance, during the early days of the internet, many of the organizations that seized the chances it presented and accepted the risks it entailed outperformed their more cautious competitors (Arakelyan,2014,124). Managing risks does not imply making the world risk-free. Most people are willing to incur a minimum amount of risk in order to either gain more if a risky event doesn't happen or to suffer losses if it does. The goal of risk management is to prevent needless, unforeseen, and avoidable losses (Roberts et al,2012, 20) . Numerous risk management measures are implemented voluntarily by people and organizations and frequently without their conscious knowledge. However, personal risk management is typically insufficient. Decision-making procedures must be more effective as dangers spread more quickly. This is frequently due to the fact that technical advancement and human growth, while

they do assist in protecting people from threats, also create new dangers (Lorenza and Nikonov, 2010).



2.2.2. The concept of Risks

The French word *risqué* is where the word "risk" in English first appeared, given that it just came into use in the English language in 1650 appeared. given that it just came into use in the English language in 1650. People who lived before these eras were undoubtedly just as familiar with the concepts of risk and reward as their ancestors. It was first used in a formal legal sense in insurance agreements that date to around 1730. The concept of risk is not a new category in administrative science, as (Kiseleva et al. 2018) demonstrate. Because natural production was the foundation of social development, it was prominent and well-known when the first civilizations of the Ancient East emerged, and it was mostly tied to erratic agricultural events. The main dangers that stood out during this historical period and could have affected the formation and growth of the administrative systems of the time were:

- Natural hazards, such as climate change and natural disasters.
- The dangers of installing and maintaining irrigation systems.

The risk can be described as the uncertainty that can be assessed when it is necessary, but not always when it is necessary. This can be done when the precise variables of the uncertainty are frequently influenced by moral issues based only on personal behavior. also If that doesn't preclude it from being converted into a quantifiable digital representation, it's difficult to quantify (Latifa, 2012). Talking about risks also means getting sidetracked by an expected value, because risks are defined as disturbances caused by the unpredictability of the future and unintentional derogation possibilities of intended aims (Muller et al., 2014, 11). Risk is a moving target. There is always a temptation to think of risk management as a static system, but in reality, it involves more than merely identifying probable adverse events and making reserves to protect against them. It involves taking a close look at the intricate business world, evaluating the various chances that arise, and then deciding which is the best one to accept (Hopkin, 2017, 43). The apparent risk universe is in fact dynamic at any given time, which complicates the formula. In reaction to environmental changes, an individual's or an organization's risk profile rapidly evolves. The impact and likelihood of impact of various risks can vary even within a single day (Roberts et al, 2012, 5). Additionally, risk is a measure of the exposure to which an organization may be subjected, a conforming with (Pillai, 2009) this is a mix

of the likelihood that a disturbance to business operations will occur and the loss that could potentially follow from such a disruption. Risk is also described as:

Uncertain future events may have an impact on the organization's ability to achieve its operational, strategic, and financial goals (Harvey 2008, 3). The risk might be described as the possibility of "missing a boat" or "sinking a boat." The first one deals with events that negatively affect a company's performance or constitute a failure, whereas the second one deals with failures of acts or circumstances that may have been successful (Hisrich and Ramadani, 2017).

2.2.3. Types of risks

The types of risks and methods of classifying them are defined differently by specialists, so the researcher strives to highlight the most notable and significant forms and classifications of hazards. According to (Bolos & Florina, 2010, 15) and (Kiseleva et al., 2018), there are two types of risks:

2.2.3.1. Organized risk

Its effects are broad and can affect any industry or firm, such as inflation, political stability, and economic threats. This form of risk can also be tied to social, political, and economic variables.

2.2.3.2. Non-organized risks

Are those that arise from circumstances specific to a firm or industry and are unrelated to those that have an impact on the organization's day-to-day operations (managerial mistakes, the existence of new competitors, or new marketing roles).

Additionally, (Borghesi and Gaudenzi, 2013, 8) have identified the following categories of risks:

- Risks are categorized according to the outcomes of the event.
- Risks are categorized according to the characteristics or point of origin of the possibly negative event.

Both static and moving threats. The former are connected to losses brought on by human error and losses brought on by inappropriate natural action. Based on the form or character of the economic effect ensuing from the incident, risks are categorized. The following is a breakdown of them: Property risks include those that pertain to the loss of or damage to the property, as well as the expenditures and income that might follow. Liability hazards are situations that place you in legal jeopardy. Personal hazards are dangers to people's physical safety. Risks arising only from speculation Property, liabilities, and personal hazards are all of the above-mentioned dangers. The majority of company actions involve speculative risks on a daily basis. For instance, expanding a manufacturing business may result in profits as well as losses (Latifa, 2012, 9). Also, a conforming with (Meiryani 2010, 104) risk has been categorized from a different point of view: Risks come in a variety of forms. It is practically impossible to categorize all of the potential sources and combinations of sources of risk. The origin of the danger and the type of effect are the main classification typologies. Strategic risk is related to corporate risk and has an impact on how a company develops and implements its strategy. Operational risk has to do with the manufacturing procedure. Program or project levels are where project risk operates. The levels of strategy, operations, and projects are all affected by change risk. Alterations elsewhere, either inside or outside the company, may impose changes, or the organization may design and engineer changes as a means of achieving goals. The kind of danger that cannot be adequately predicted before it occurs is known as an "unforeseeable risk." Usually, the system's flexibility and additional contingencies allow for it. External risks come from the environment, but internal hazards come from within the organization. Hazards with an uncertain outcome are referred to as "speculative risks." Risks with a fixed negative consequence are known as static risks.

While (Roberts et al., 2012, 33) mentioned that the Risks are interrelated across all levels and functions. It is hazardous to think about any one risk in isolation because risks are connected across all levels and functions. The terms risk of hazard and risk of danger refer to a variety of variables that can influence the outcomes of an event. Losses incurred by a business are an example of an irregularity that is undoubtedly not desired by all businesses. As for some of the elements that are alleged to be causes of losses suffered by a corporation, such as social, economic, and physical dangers, It is crucial for risk managers to recognize the existing sources of risk within a firm so that

they can act appropriately to address them right away. On another way Wideman, (1992) ; Fraser and Simkins, (2010) ; Hisrich and Ramadani, (2017) have also highlighted that there are different categories of hazards based on their economic impact:

- **Default Risks:** Customer credit risk is the possibility that a customer, whether due to financial hardship, dishonesty, or other issues, won't be able to or won't want to pay a debt or obligation.
- **Sovereign risk:** is the possibility that a sovereign, such as the government of a nation, would enact a policy, rule, or law that effectively delays the full payment of an obligation or causes it to be expropriated in some way. There is a danger that the company won't be able to secure enough capital on its own in a timely manner or for a fair price.
- **Currency risk:** is the chance that fluctuating exchange rates will have an effect on an entity's anticipated cash flows. Remember that the impact of currency risk can be either direct, as in the case of realized cash flows in the home currency that are different from expectations, or indirect, as in the case of expected sales being influenced by changes in competitive pricing caused by exchange rate fluctuations. The risk associated with interest rate changes having an effect on an entity's anticipated cash flows . The risk associated with fluctuations in commodity prices having an influence on an entity's anticipated cash flows. The risk associated with fluctuations in share prices having an effect on an entity's anticipated cash flows or operating strategy
- **Economic risk:** the possibility that shifting economic indicators, such as the GDP, housing starts, or consumer confidence, will have an influence on an entity's anticipated cash flows or operational plans.
- **Liquidity risk:** the chance that changes in market liquidity would materially affect an organization's capacity to execute transactions or trading strategies effectively and affordably as a result of changes in market trading activity.

2.2.4. Principles of Risk Management

There are many points of view of researchers in determining the basic principles of risk management, Meiryani (2018, 104) and Yang, (2022, 6118) categorized risk management along these lines:

2.2.4.1. Transparency

Because unseen hazards might be the main source of issues, all relevant risks in the activity must be made public. dependable measurement As a requirement for effective risk management, the investment must be ongoing and involve a variety of instruments and strategies. timely delivery of good information It is based on this notion that measurements are performed accurately and decisions are well made.

2.2.4.2. Diversification

A solid risk management system should include diversification, which requires regular and ongoing control.

2.2.4.3. Independence

Discuss the roles and duties of the risk management group in relation to other business units, the degree to which these groups interact with one another and with the company's vision, as well as with other groups and units that engage in transactions that include genuine risks.

2.2.4.4. Decisions made with discipline

The methodology for making decisions should be founded on management's efforts to identify the optimal way to utilize particular tools or techniques and comprehend the limitations of these tools or techniques.

2.2.4.5. Policy

The company's risk management objectives and tactics must be outlined in a clear policy and procedure. The main goal of the policy is to make the risk management process transparent for both internal and external parties.

2.2.5. Tools for Risk Management:

The creation and implementation of processes is a crucial component of the risk management function, a conforming with (Latifa, 2012, 35). Reduce the possibility of loss or the cost of incurred losses to the broad categories of risk management techniques can be divided into at least the following:

2.2.5.1. Risk management

Risk avoidance and various tactics to mitigate risk are examples of risk control techniques. Even with loss prevention, control, and preventative measures, risk still exists.

2.2.5.2. Risk financing

The main goal of risk financing is to make sure there are resources available to cover any losses that may occur. Risk retention or transfer (keeping some of the risk and transferring it) is the main method of risk financing. or convert another section), and when selecting the strategies to use to address a certain risk, you need to. The risk management manager should research the scope of potential losses, the likelihood of them happening, the resources available to cover the loss, whether they were predestined to happen, and the benefits and drawbacks of adopting this strategy before making a decision based on the best information available (Misra et al,2006,199).

2.2.6. Risks and Uncertainty: Their Relation

Like the relation between certainty and uncertainty, that between uncertainty and risk has undeniable theoretical significance but also significant practical

implications. The latter is especially important when making judgments because the processes and phenomena that affect a company's or a business setting may be in various uncertain or risky situations, which have varying effects on the system's operation's outcome. To further nuance the attitude toward them, it is vital to understand uncertainty and danger as well as the notes that set them apart (Toma et al., 2012, 977). The distinction between risk and uncertainty is not particularly significant; both include an element of ambiguity surrounding the outcome of future events, but risk differs from uncertainty in that future outcomes can be predicted theoretically or historically . While an instance of uncertainty is one where calculations cannot be made, In a nutshell, risk can be defined as an uncertain circumstance that can be predicted and the odds of its manifestation calculated (Bolos and Florina (2010). Additionally, it has been noted that there are important distinctions between risk and uncertainty (Borghesi and Gaudenzi, 2013) those are:

- The scenario of gaining or losing something valuable is known as the risk. When there is no knowledge of what will happen in the future, there is uncertainty.
- Using theoretical models, risk may be estimated and assessed. On the other hand, because future events are unexpected, it is impossible to quantify uncertainty.
- In contrast to uncertainty, where possible outcomes are unknown, risk is characterized by known potential outcomes.
- Risk can be managed if the right steps are taken to do so. The future is unknown; hence, uncertainty is something that neither a person nor an organization can control.
- Risk can be reduced by adopting the required safeguards. in contrast to uncertainty that cannot be reduced.
- Risk involves assigning probabilities to a collection of situations, which is impossible in the case of uncertainty.

2.2.7. Reasons of risk management is ineffective

There are a number of reasons why the risk management process may not always be as effective as it should be, including those listed in (Pritchard et al,2014, 18) and (Alothman,2017, 57–58:

- Making a mistake in determining the genuine source of risk.
- Poor evaluation and predictions due to inefficient methods
- Insufficient focus on work appraisal and risk assessment
- It is difficult to assess if the cost of mitigating this risk was worthwhile and effective without knowing the material losses brought on by the occurrence of the hazard.
- Failure to record all relevant information on risks, their management, and the causes of their failure makes it difficult to draw on prior experience in this area and makes it impossible to prevent future issues.
- Lack of an acceptable process for identifying effective risk response techniques, incorrect documentation of such techniques in a risk document, and a failure to link various risk types.
- Handling risks individually, each in accordance with the outcome, rather than grouping them originating from a particular scenario and handling them as a unit,
- paying insufficient attention to and neglecting the dangers and errors made by earlier works.
- Failure to properly and continually follow the process of adopting risk management, which results in the failure to implement strategies to respond to risks as intended.
- Failing to keep track of how hazards evolve throughout the course of a project.

2.2.8. Risk management Dimensions

2.2.8.1. Identify Risk

In order to manage risks, they must first be identified for each product or service provided by the organization. The risk identification process must be an

ongoing process and risks must be understood at the level of each management process that there must be a continuous, regular and complete risk identification process. Therefore, the audit must: Verify that the facility has certain processes in place to identify risks (Robertson et al, 2006,17). Verify that it makes sure that the risk management function is able to identify any weaknesses. Also note that this process is well documented. The risk identification function has implemented control procedures that reflect the objectives and organizational structure of the company (Hadad,2014,41).

2.2.8.2. Risk Assessment

After the risk is recognized, the risk analysis should be done through volume measurement. The potential loss and the probability of that loss then prioritize important and unimportant critical risks. After the completion of the risk analysis process, it is necessary to make a comparison between the risk assessment and the risk measures prepared by the organization. Includes related returns and costs, legal requirements, social, economic and environmental factors, and interests of stakeholders (Latifa,2012,37).

2.2.8.3. Make decision of taking risks

One of these decisions is made:

- Risk tolerance: It depends on the organization's endurance capabilities, some of which are helped by its capabilities and others that do not. The likelihood of this decision increases as the expected return increases (Abo Shabaan, 2016,50).
- Diversification - Risk diversification: Using different portfolios in investment, in products or geographically...
- Risk avoidance and impact mitigation: The activity that accompanies the risk is avoided or minimized.
 - Risk Transfer
 - insurance companies .. (Conversion has several forms to another institution).

- Futures. (Protective Trades).
- Mergers. (Commercial Participation) (Abo hajir, 2014,77).

2.2.8.4. Risk Control

Organizations should work to create an information system capable of identifying and measuring risks Accurately, at the same time and importantly to be able to monitor significant changes in its risk profile, as well as policies and procedures to manage it, and also check the existence of documents covering all Procedures. Taken to achieve the company's risk management objectives as well as accessibility Transparency in the data used (Alshalash, 2018,20).

2.2.9. Previous studies

This chapter discusses research conducted in the Arabic environment as well as research conducted by international researchers. The current study's focus is on risk management and the elements that affect it, in order to learn more about the topic and equip the researcher with the most recent scientific discoveries relevant to her area of study. The purpose of Alasadi 2011 study, "Credit Risk Management and its Impact on Preventing Organizational Collapse," was to examine how credit risk management affects preventing bank organizational collapse. a comparative exploratory analysis of a sample of public and private banks) the general condition of volatility in the environment, which made it difficult to predict the future and especially unstable in the financial sector in Iraq. These all pushed banks in order to protect themselves from a global collapse and the following outcomes, Neither government banks nor private banks use credit risk management Private banks adopt credit risk management differently than public ones. There is a statistically significant association between credit risk management and organizational failure in both public and private institutions. The management of credit risks and organizational collapse in both public and private banks have a statistically significant impact on one another. The research report by (Latifa,2012) titled "The Role and Status of Risk Management in the Economic Enterprise,"Case Study of Cement Production and its Derivatives SCIS) sought to determine the degree of the cement institution's interest in its work, it

attempted to identify the practical application of the various phases and steps of risk management within the institution, and describe the main dangers that the cement industry and its derivatives establishment confront, and these were its key findings. The majority of the company's employees lack a risk management philosophy, which is reflected in their poor performance regarding the risks facing their institution; the company lacks a special function or department whose primary function is to manage the risks that are faced by the company; the stages of risk management are not applied systematically and effectively in the company, which results in randomness in dealing with risks; and the communication between departments and functions is ineffective. Alothman, (2017) sought to clarify the effect of construction project risk management on the performance of these projects. "The Impact of Construction Projects Risk Management on Performance: A Field Study in the Secretariat of Awqaf, Ministry of Awqaf, Kuwait," it was titled. A proportional stratified random sample was used in the study, which was conducted by the General Secretariat of Endowments in the State of Kuwait. The study's main finding was that construction risk management is significant and has a direct impact on the timeliness, cost, and quality requirements of these projects. Risk control, the most crucial stage of the construction risk management process, also has the greatest impact on project outcomes. In order to improve the performance of building projects, the Secretariat of Awqaf in Kuwait was advised by the study to establish a risk management unit within the organization and employ scientific and rigorous risk management techniques.

Foreign Studies :The study of (Pillai, 2009) focused on the various risk management phases (detection, mitigation, resolution, and monitoring), which were also explored from a practical perspective. On the other hand, the implementation of web-based risk management solutions from a tracking and monitoring perspective in a dispersed context is examined with an emphasis on the achievable analytical process.

The other research project in this area (Stiller and Joehnk, 2014) sought to On the basis of theoretical understanding and earlier research and studies, theoretical models have been built for empirical research to address a particular subject. The models were used to create the hypotheses, which were then tested using quantitative and qualitative approaches and, if necessary, changed. This led to the conclusion that in the field of risk management, it is crucial to understand how businesses have modified their risk management procedures in response to earlier economic crises in

order to anticipate future crises earlier and ensure that a sound risk management strategy can help businesses survive during difficult economic times. Nair et al. (2014) concentrated on the Islamic banks in Qatar in 2014. With one of the fastest-rising GDPs in the world, Qatar is quite active in the banking industry.

Since a few years ago, Qatar has been developing a lot of ideas, methods, and technologies to help the banking industry expand. Realizing the steps taken by Islamic banks to improve their business performance, the issue of risk management was chosen as the study's main focus. As a consequence, the research has amply demonstrated the fact that risk management cannot be disregarded since it affects business performance and because Qatar is expanding globally in terms of its business. The conclusions of this research may be helpful to strategic managers. Examination of Kiseleva et al. (2018) this essay sought to present an effort to examine risk management's function from the perspective of an entrepreneur. The research's primary objective is to pinpoint the fundamental patterns that influence the particulars of risk assessment in business as the key factor in achieving the organization's financial security. A conforming with the research, diversification—the distribution of risks among many company participants—is the most effective strategy to lower risk in the context of Russia's political and economic volatility. The study (Meiryani, 2018) also defined risk management as a structured methodology for managing uncertainty related to threats; this includes a number of human activities such as developing strategies, risk assessment to manage it, and risk mitigation using resource empowerment management. Moving the risk to other parties, reducing the risk's negative impacts, avoiding the risk, and mitigating some or all of the risk's consequences are some strategies that can be used. Financial risk management, on the other hand, focuses on hazards that can be handled using financial techniques. Implementing risk management aims to reduce the many risks connected to the chosen field to a level that is acceptable to the community.

Threats posed by the environment, politics, organizations, people, and technology can take many different forms. All humanly possible means, particularly those used by risk management entities like staff and organizations, are used in its implementation. A conforming with a study by (URAL,2015), A number of significant international catastrophes caused the global tourism industry to incur some significant losses, and the insurance business in particular has turned the size of disaster risks into

a major discussion point for sustainable tourism. Most A number of risks (natural, technological, biological, and civil/political) might cause disasters and crises at any of the tourist locations. The design and execution of procedures intended to manage the negative effects of disasters on tourism are referred to as "risk management" for the sustainability of tourism. This essay's main goals are to examine disasters' essential components and how they affect tourist destinations while also providing background information on risk management techniques for environmentally friendly tourism.

2.3. Strategic Agility

2.3.1. Introduction

The majority of organizations nowadays must be able to adapt to environmental variables and how to face them by having an advantage in speed when making the necessary judgments because of the highly ambiguous environmental conditions that surround them. One of these strategies for sustaining and improving organizational performance through ongoing change management and adaptable handling is strategic agility. It is advisable to deal with new ways in order to tackle these challenges because traditional strategic management techniques no longer operate in this setting. Aldhabet, (2022,17) reported that organizations' capacity to accomplish their objectives has lessened in the current world, and they have adopted a different strategy by integrating strategic agility into their internal management procedures. By assisting the organization's capacity to improve its capabilities, skills, and knowledge in order to enhance its competence in creating strategies, it has also focused on boosting strategic agility (Al-henzab and Gauod, 2020, 260). The concept of agility was developed starting in 1991 through research done at the Institute (Iacocca) with support from the US government. The ability to alter the strategic perspective is viewed as being agile. New goods, services, business models and innovative ways to offer value to organizations must be created in order for the company to continue with its core operations, which are a result of strategic goals and changing conditions.

In this section, the researcher presents the concept of strategic agility as well as its description. Additionally, the importance of it for enterprises, as well as its relevance, aims, attributes, and components, There are difficulties with

organizationally applied agility. (Aljeyar, 2020,18). Businesses flourish when they can withstand change, adapt to it, and take quick action when necessary. Business organizations are looking for management strategies and philosophies other than the conventional ones to meet the challenges of a fast-paced work environment. Finding a sustainable advantage that enables an organization to outperform its competitors by satisfying customer needs and desires is what prompted this search. Strategic agility was one of these possibilities, which aided the organization's ability to survive and flourish (Amro, 2016, 2). Organizations with strategic agility have the ability to adapt, change with the times, respond quickly to changes, and take action to lower risk and market uncertainty (Alshlash, (2018). An organization that is strategically agile could swiftly learn about market developments, capitalize on them, and modify its culture to reflect those changes. Additionally, it might adjust the products and services it offers. Additionally, the firm could turn environmental changes into opportunities by changing its organizational structure and strategy in reaction to them (Ahammad et al., 2020,2).

A conforming with environmental sensitivity, strategic agility is the ability to continuously and appropriately alter and adapt the strategic direction of the core business in reaction to developing situations. This area includes the creation of new business ideas, creative methods for boosting a company's worth, and new goods and services. A conforming with (Ofoegbu and Akanbi, 2012,153), Strategic agility enables businesses to respond rapidly and adaptably to challenging, global, and dynamic environments. However, achieving strategic agility can be challenging, in part due to underlying conflicts. When building organizational renewal capacities, formal strategic planning is required to lay the foundation for a competitive advantage. Lewis et al. (2014, 60), A conforming with their studies, strategic agility is the company's backup plan for the future and one of the best indicators of gaining a superior competitive advantage and expanding market share. This is because obtaining a competitive advantage depends heavily and significantly on strategic agility. (Arokodare et al., 2020,98) the adaptability group Prior to multidimensional routines, resources, behaviors, abilities, and mental models, there was strategic agility. In a turbulent, abrupt, and ever-changing market environment, unstable settings lead to reoccurring problems (Arbussa et al,2017,283). Only active, well-groomed, flexible, and agile businesses will prosper, and these factors are regularly taken into

consideration. has a negative impact on businesses, yet resilient ones can continue making competitive adjustments in the face of The healing procedure after a severe tremor begins with the construction of horrific situations that can As a result of conquering a very difficult circumstance, a severe shake may offer the opportunity to bring about a constructive development. A conforming with McCann and colleagues, the capacity for adaptation includes both flexibility and agility (Damag, 2019, 342). A conforming with a thorough examination of the SA literature, an agile firm needs to be responsive, competent, adaptable, and quick in order to succeed in a competitive environment and obtain a competitive edge in the marketplace (Arokodare et al., 2020,10). The ability to utilize their current strengths while simultaneously pursuing new opportunities is another way that strategic agility aids businesses in becoming more multifold.

2.3.2. The concept of strategic agility

The American manufacturing tradition is where the idea of strategic agility first emerged. Professionals, academics, and researchers applied the concept of strategic agility in the early 1990s, when industrial organizations had to contend with dynamic market conditions in the United States (Sajuyigbe et al., 2021, 39). The practice of adjusting an organization's strategic direction in response to shifting environmental conditions with the goal of preserving competitiveness is referred to as "strategic agility" (Alajami, 2021, 24). Strategic speed is about being competitive by spotting and seizing opportunities. It is also described as an organization's capacity to observe changes in the business environment in which they operate. The development of strategic agility will give leaders the ability to recognize market changes that may be good or bad for the business and implement new ideas quickly or act on them, in addition to identifying potential threats and mitigating or preventing them from being realized in the first place (Aldhabet, 2022, 18). also means having the capacity to detect and respond to both internal and external change (Lungu, 2020, 103). Respond to abrupt changes by assessing the situation, making use of resources and opportunities, foreseeing the future, and acting in a timely and suitable manner to seize opportunities and meet the objectives of the company (Al-henzab and Gauod, 2020, 262). The concept of strategic agility offers businesses a pre-made prescription for

coping with the difficulties and uncertainty present in the corporate environment. The ability of an organization to remain adaptable in the face of new changes, continuously alter its strategic course, and create novel ways to shape itself is critical to its strategic agility.

Additional value (Almarri and Bashabsheh, 2020, 4), the idea of flexibility One of the contemporary ideas that significantly enhances the visibility of firms is strategy. As a factor influential in interpreting how organizations perform their business, quickly and accurately enabling them to outperform their competitors in their business environment, having a distinctive and contemporary outlook, knowing how to interpret its performance, and the speed and accuracy of its competitive superiority and strategic agility are the hallmarks of contemporary organizations (Aljeyar, 2020, 18). The definition of strategic agility is "the ability of an organization to deal with The concept of strategic agility within the framework of its importance arose for reasons related to the difficulty of making change processes using the conventional approach, as the occurrence of change and its management occur at the same time, and then change becomes a battle waged against existing processes, so agility appeared. "Strategy is a systematic orientation towards change when that change is occurring simultaneously with other factors that can affect the organization's operations." A business transformation's strategic agility often entails the introduction of new concepts regarding strategies, organizations, people, and technologies.

Furthermore, it can represent a paradigm shift in the sense that old concepts may need to be re-evaluated, modified, and, in some cases, abandoned in order to find new ways to generate value for stakeholders (Andersen, 2019,35). Strategic agility can advance the quality of an organization's competitive activity inventory and its appropriate responses to environmental fluctuations, which can improve performance. However, providing strategic agility necessitates continuously monitoring the internal and external environments, gathering and using information quickly, and responding to market changes quickly (Ahammad et al., 2020, 2). Organizations with strategic agility, however, are aware of environmental changes, are able to act quickly to address them, and ultimately control their own destiny. To keep their sustainable competitive advantage, businesses forecast the future and set aside large resources for future development. They perform roles that go beyond just survival; they are market leaders. These organizations, like their constituents, are always striving to improve

(Anggraini and Sudhartio, 2018, 3). Through benchmarking, sporadic improvements, or technology transfer, organizations can be able to momentarily become agile. However, the only way businesses can attain competitive advantages and market sustainability is by deeply and consistently integrating agility into their strategic core (Nejatian et al., 2019, 5).

Organizations have the advantage of being able to respond and alter their strategies and procedures as rapidly as possible to ensure adaptability to changing conditions and reap the benefits of them while maintaining the organization's survival and strategic success (Esber, 2020, 407). Studies have argued that strategic agility is the firm's future preparedness and one of the most powerful predictors for becoming an outperformer in the industry, attaining a superior competitive advantage, and growing market share (Arokodare et al., 2020, 98). This is because of the significant and important contributions that strategic agility makes to achieving competitive advantage.

2.3.3. Strategic agility's benefits

One of the key characteristics of colleges in the modern period is change. It is challenging to be able to There are numerous reasons for calling for the adoption of the concept of strategic agility in universities, and since the existence of an advanced university is not limited to making changes to its administrative and educational methods every three or six months at most, there is no other option for universities but to make some changes to their vision and mission (Ahmed, 2019). A conforming with (Weber and Tarba, 2014); (Aghina et al., 2015) the following areas urge for the adoption of strategic agility in various universities:

- The rise and expansion of small industries and the diversity of their products have led to global instability. shorter and new product life cycles
- The market expansion that has occurred quickly, the high cost, and the heightened competition
- Customers' genuine wants are numerous and diverse.
- Rapid technological advancements and the appearance of new, complex software

- Modifications to social elements, such as:
 - a- Expand technology access.
 - b- A fierce race to develop new technology.
 - c- Market globalization and trade competition.

Therefore, it can be said that technological, social, and economic factors, as well as the global changes happening in many spheres of life, which cause global instability and the emergence and growth of small industries, as well as the intense competition caused by the rapid growth of markets, high cost, and increased competitiveness, are a strong justification for the development of strategic agility in universities (Junni et al., 2015, 603).

2.3.4. Strategic agility's capabilities

A conforming with Kettunen (2011), organizations need three types of strategic agility. The following are examples of growth and excellence:

2.3.4.1. Strategic Awareness

The ability of an organization to recognize variables and comprehend them in its working environment—that is, to create a future vision—is referred to as "strategic sensitivity." This is because we can use them to further the organization's goals and set ourselves apart from the competition. Complex tactical planning is absolutely necessary for strategic sensitivity (Rushdi, 2016, 32).

2.3.4.2. Collective Commitment

It comprises making decisions in collaboration with the entire management staff and focusing on the success of the team as a whole rather than increasing individual performance. Quick decisions are necessary for strategic agility, so it finds Executive managers find it challenging to make decisions because they lack the time to investigate options; therefore, all administrative levels must quickly analyze the

situation and participate in decision-making in order for the organization (Alsanice, 2013, 21).

2.3.4.3. Resources' liquidity

Without the liquidity of resources, which means that organizations are able to move their resources flexibly from one area to another as needed, strategic sensitivity and collective commitment remain pointless. To accomplish this, it is necessary to have a diverse portfolio of independent units as well as a staff of general managers who can be transferred to monitor and supervise the workflow. This will allow for permanent and ongoing supervision of the work as well as the provision of a clear understanding of the potential for individual professional development in the workplace (Attafar et al., 2012, 143).

2.3.5. The components of strategic agility

The strategic agility has numerous critical components the researcher (Aljeyar, 2020, 29) summarizes them into :

- The organization's ability to respond quickly to change
- Create high-quality goods.
- Integration within the organization's workforce
- The capacity to effectively utilize technical skills
- The capacity to manage uncertainties in the external working environment
- The ability to capitalize on available opportunities
- The organization's ability to conduct business quickly and adaptably

Additionally, Sabel and Forthcoming (2012) note that an agile company must be able to adjust all aspects of the organization, including goals, technology, organization, and people, to unanticipated changes. (Amro, 2016, 22) affirms the existing literature in a particular way and asserts that agility cannot be attained without an agile workforce. Individuals can increase their desire to work by improving their skills through training, providing a financially and psychologically suitable working environment, increasing their sense of belonging by establishing a fair wage and salary

structure, and implementing policies. It is important to establish a system to monitor and evaluate employee performance such that it involves offering everyone their rights, whether in promotions, bonuses, or both, in addition to paying attention to human relations and trying to strengthen them occasionally (Atieno and Senaji, 2017,74).

A conforming with the researcher, these components are necessary for any organization or business to be agile, and they work best together because an organization's ability to adapt quickly to change, leverage new technologies, and integrate its internal institutional structures is what enables it to produce goods with a high level of capacity Which equips them with the agility and adaptability necessary to respond to changes in the external working environment.

2.3.6. The importance of strategic agility

Strategic agility equips the company with knowledge, adaptability, and openness to new situations, which improves its capacity to reassess earlier decisions and move them toward emerging trends, as strategic agility rises, so do the firm's prospects for innovation (Aldhabet, 2022, 19). A conforming with (Aljeyar, 2020, 22), strategic agility symbolizes an organization's capacity to manage ongoing change or is related to the rising frequency of environmental changes. It gets the organization ready to accept change by developing alternatives to existing options and mobilizing resources. Develop the abilities and take action to get through any resistance to change. Amro, (2016, 21) mentioned that Strategic agility is necessary for organizations, and the growing administrative and organizational issues within organizations are driving change. Increasing the intensity of competition enforced the need for strategic agility to strengthen the competitiveness of the organization, which shows that the reasons for the need for organizations are due to development, which in turn requires agility in its events. Because firms must be strategic now that competitive advantage exists, As most business organizations end up doing, they extract available chances and take advantage of the best ones. Its work is not flawed because of its errors but rather because it keeps up with its routine activities, which are improper. Strategic agility has become essential for firms in the face of growing issues, a conforming with (Doz, and Kosonen 2008,).

Administrative and organizational structures within institutions, as well as the environment's accelerating changes. Additionally, strategic agility endows the company with the qualities of acumen, adaptability, and openness to new occurrences, enabling them to constantly be prepared for the purpose of reevaluating past decisions and guiding them toward new developments. The development of this skill today becomes a crucial prerequisite for competition, as strategic agility is required in two aspects: the first is research within universities to understand the basic competencies, and the second is knowledge of the environment outside universities. Strategic agility also enables universities to react quickly and effectively to changes in the environment, allowing them to establish a superior competitive position (Ahmed, 2019, 21). A conforming with (Al-Taha 2021, 79), strategic agility is essential since the rules guiding corporate behavior have changed and become incompatible, making the capacity to recognize and adapt to changes essential to an organization's success. Strategic agility provides the organization with a flexible framework that allows it to succeed and excel through the enjoyment of work teams with broad authority and decision-making processes with a high degree of independence (Muthuveloo & Teoh, 2020, 159). Strategic agility also embodies the organization's ability to manage and control continuous change as it positions the organization to accept change by generating a variety of alternatives, developing skills, remobilizing, organizing, and removing obstacles to change (Aldhmoor, 2017, 14). Also Strategic agility, which does not imply a lack of strategy but rather an alternative to strategic planning that emphasizes thinking, is the key to success in a dynamic and rapidly changing business environment because it has the capacity to support driving sudden changes in addition to taking advantage of opportunities in a turbulent market. In other words, a common notion between strategizing and its implementation is a strategic and unambiguous vision (Alsaniee, 2013, 16).

Additionally, strategic agility enables firms to adapt swiftly to complex, global, and dynamic settings. On the one hand, formal strategic planning is necessary for organizational renewal in order to lay the groundwork for competitive advantage. Strategic commitments allot funds to develop fundamental capabilities and give organizations a foundation from which to grow and change. On the other hand, agility calls for quick reactions to a changing competitive environment as well as strategic flexibility (Alyasiry et al., 2020, 11). Leaner organizations are more competitive and

lucrative, even with higher levels of disruption; they enable the business to introduce adaptable competitive practices. Strategic agility improves organizational performance by enabling the management of environmental disruptions. effective and dynamic, able to react favorably to unexpected events, and able to establish a new market reality (Al Damag, 2019, 349).

2.3.7. Strategic agility's objectives

A conforming with the vieriety of strategic agility the mentioned researchers as Al-Lamsi, (2021, 327); AL-Ajami, (2021, 26) ; Amro, (2016) ; Al-Fakeeh, (2018) ; (Barahma et al,2019, 618) stated that some of the university's strategic agility goals include the following:

1. promoting institutional excellence, maintaining their existence and sustainability, and gaining a sustainable advantage. Support the ability to mobilize and distribute resources with the greatest amount of liquidity toward new strategic prospects, achieving the highest level of excellence. The university's mission and vision are defined, strategic goals are set, the foundations and standards for measuring results are established, and strategic plans are created in light of the objectives in order to invest in opportunities, avoid threats, create follow-up mechanisms, and identify environmental variables and their potential effects on the university.

2. Make it possible for the university to complete a number of particular tasks effectively in an open system that alerts to and controls the opportunities and hazards inherent in processes leading to new breakthroughs. Based on the foregoing, it can be concluded that utilizing strategic agility accomplishes a variety of objectives, and universities can invest in improving their performance and developing their capabilities by incorporating these objectives into their university goals, the most crucial of which are: a rapid response to change and the ability to adapt to it, as well as taking quick, decisive, and effective measures to anticipate it. obtaining understanding of the anticipated changes in the labor market, striving to apply knowledge to produce competitive advantages, and coming up with creative solutions that aid the institution in surviving, continuing, and competing with other universities.

2.3.8. Dimensions of strategic agility: Classifies along these lines

2.3.8.1. Decisions making agility

It is the capacity to gather, organize, and assess data, as well as spot external opportunities and risks to the company and comprehend their implications. The decision-making process is dependent on the management team's dedication to making decisions and deciding on the best alternative as soon as possible. Being thoughtful and proactive when dealing with emergencies, even welcoming them (Esber, 2020, 408), in order to evaluate the level of strategic agility practiced by a company, raise risk management effectiveness, and greatly lessen the impact of threats, among other things. Decision-making agility is primarily influenced by the organizational structure of the organization (Rushdi, 2016:49).

2.3.8.2. Core Capabilities

It is intended to be used as necessary tools in enhancing institutions' and bodies' capacity and strengthening their strategic agility skills by improving their ability to utilize human and technological potential in the face of various changes and function with flexibility and high efficiency in unstable and unstable environments (Aldhmar, 2017, 16).

2.3.8.3. Sharing responsibilities

Teamwork, participation in business and activities, interdependence, leadership style, organizational capability, and the organization's ability to act when opportunities present themselves are how partnership in responsibility is demonstrated. In another way, this dimension considers the organization's speed of response to opportunities (Alagami, 2021, 25). Assist a company in modifying, improving, or developing its capabilities to meet current and potential future prospects. The fact that a company gains value through cultivating relations with its value chain partners is another crucial feature of strategic agility (Abu-Radi, 2013; 21).

2.3.8.4. The selection of strategic targets

assist a company in modifying, improving, or developing its capabilities to meet current and potential future prospects. The fact that a company gains value through cultivating relationships with its value chain partners is another crucial feature of strategic agility (Abu-Radi, 2013; 21).

2.3.9. Reasons for the need for strategic agility

Many business organizations fail and fade away not because they commit errors, but because they carry on doing the same things correctly for a very long time. As a result, executives are left with insufficient time to manage their organizations because their service life is shorter than that which is necessary to achieve higher performance in light of the environment's rapid change and technological advancement. Strategic agility is essential in today's world to resist the assault on businesses and their management teams (Soltaninezhad et al, 2021, 184). A conforming with (Al-Maadidi, 2011) firms have been obliged to use strategic agility as an alternate strategy to deal with quick changes due to the difficulty of implementing change processes using the traditional approach. Aljeyar (2020, 30) also noted that some businesses exhibit great efficiency at specific points in their life cycles, and that in order to retain this excellence, these firms should use strategic agility as a powerful tool.

2.3.10. Historical evolution of strategic agility

The rate of environmental change is far faster than organizations can adjust to it, a conforming with a number of economists in the 1990s of the previous century. When these institutions have not been able to take advantage of opportunities as effectively as they could have not been able to adjust to changing environmental conditions, this could result in their failure and bankruptcy. (On a long-term basis) Younis, (2018, 3) talk about the Department of Defense of the American government to gather a group of management experts at a Pennsylvania university to the most suitable solutions to this situation. The output of this group's efforts was a two-volume report titled "Productive Business Strategy in the Twenty-first Century," which was

first presented at The Hague University and first published in the fall of 1990 by the Lacocca Demonstrator. The notion of agility was originally known by the word, and ever since then, it has grown to be one of the most prevalent administrative concepts, serving as the basis for numerous studies (Seyadi and Elali, 2021, 39). As a result of the quick and unforeseen changes in their environment, universities nowadays deal with a variety of problems (Nejatian et al., 2019; 542). As a result, the various institutions adopt the most effective and appropriate measures to address these changes. The most recent of these measures is strategic agility, which is one of the strategies that goes beyond adjusting to changes and their adaptation to the harmonization of institutional practices with cutting-edge technology (AlShanti & AlShareef, 2019: 21). As a result, customers receive high-quality products in the shortest amount of time possible. From everything stated above, it is obvious that carelessness led to the conception of strategic agility. Universities are aware of how the environment is evolving because strategic agility has been taken into consideration. University success in adapting to changes and even extending them to harmonization with advanced modern technology has been found to be largely dependent on strategic agility (Ahmed, 2019, 18).

2.3.11. Previous Research

Reed, (2017) looked at the strategic agility of SMEs and how it relates to business age, size, and performance. 30 businesses from various industries located along Florida's Space Coast have operationalized and tested the (Doz and Kosonen 2008). three-factor model of strategic agility. Strategic agility is seen to decline with company age but not with company size. Additionally, it is discovered that environmental turbulence moderates the relation between strategic agility and firm performance. To be more precise, performance improves with strategic agility in high turbulence but suffers in low turbulence. This result supports the idea that in stable situations, dynamic capabilities like strategic agility may not be necessary due to their cost. The study's overall conclusion is that SMEs may gain from strategic agility if it is implemented while it is still possible or while they are still young.

Akhigbe and Onuoha, (2019) examined the relation between organizational resilience and strategic agility in the food and beverage industry in Rivers State,

Nigeria. Because the factors were outside the researcher's control, a cross-sectional survey, a subset of a quasi-experimental design, was utilized in this investigation. This study comprised a total of 95 managerial workers from the 15 registered food and beverage businesses. Data was gathered via a questionnaire, and the Pearson Product Moment Correlation statistical technique was used to examine the data. 85% of the questionnaires distributed, or 81 in total, were successfully retrieved and used for the study. Thus, the results showed a notable connection between the organizational resilience metrics and the strategic agility aspects (flexibility, accessibility, adaptability, and robustness). Thus, it was determined that, due to their linear relation, when an organization's strategic agility grows, so does the firm's resilience. One of the recommendations made by the study was for the management of food and beverage companies to create agile strategies that will help the organizations weather tumultuous times and so increase their resilience.

Widjajani and Nurjaman, (2020) reported that small and medium-sized enterprises play a significant role in local economies, so it is crucial to pursue them in order to thrive and expand sustainably. The business environment, which is defined by dynamic and unpredictable situations, is impacted by the rapid development of information technology and the era of the fourth industrial revolution. Small and medium-sized firms must therefore be agile in order to flourish in such hostile environments. In small and medium firms, the owner-manager is crucial to the outcome of the enterprise. As a result, the owner-unique manager's qualities are the primary determinants of the business plan and the actual method of putting the strategy into effect when running the organization. In an effort to boost corporate performance, this paper offers a framework for the interaction between entrepreneurial skills that owner-managers must possess through strategic agility.

Clauss et al., (2019) researched on the organizational causes of business model innovations (BMIs) is still in its infancy, despite the extensive literature on the nature of business models and their consequences for firm performance. In this study, we empirically investigate how well three different types of BMIs (value creation, value capture, and value proposition) are adopted in firms based on their strategic agility. In addition, we suggest that the degree of environmental turbulence influences the link between firm-level strategic agility and BMI adoption. Finally, we investigate how BMI mediates the link between organizational strategic agility and firm performance.

Our examination of data from 432 German electronics companies shows a positive association between strategic agility and BMI, and that this relation is in fact bolstered by the level of environmental turbulence. Furthermore, contrary to what we predicted, our results demonstrate that value capture innovation is adversely connected to company success, while value proposition and value creation BMIs have favorable correlations with firm performance. Finally, the outcomes of our mediation experiments show that BMI plays a significant intermediary role in the relation between the strategic agility of enterprises and improved company performance. Arokodare et al., (2019) matched organizational culture with strategies and overall company performance is difficult for businesses everywhere. Due to poor strategic responses to uncertain and unexpected changes in the business environment and a mismatch between organizational culture and trends in globalization in the twenty-first century, managers of the majority of business organizations find it challenging to consistently achieve targeted performance in today's competitive environment. The majority of businesses, particularly those in developing nations, have experienced inconsistent performance as a result of their incapacity to comprehend strategic agility initiatives and establish organizational cultures that can respond to the demands of the current global business trend. The study was theoretically designed to examine the relation between organizational culture and company performance in relation to strategic agility. The study's guiding theory was the dynamic capability hypothesis. In order to illustrate the relation between strategic agility and firm performance using organizational culture as the moderator, a conceptual model was created. The majority of previous work demonstrated that organizational culture and strategic agility improved company performance. In order to attain overall performance, this article proposes that organizational managers use conceptual strategic agility metrics together with organizational culture in their business thinking, activities, processes, and direction.

Examination of Glesne and Pedersen (2020) about how can established organizations adjust and renew their strategic orientation through agile modes of working? is the topic of this study. It was decided to perform an exploratory case study of an it consulting firm. A (11) informants from the case company who represented consultants with various responsibilities and backgrounds were interviewed. The outcomes of this study have been evaluated and discussed using the body of current

literature on organizational agility. In today's dynamic environment, strategic agility, the greatest level of organizational agility, has become a topic of increasing attention and relevance. Established businesses must quickly adjust to rapidly changing business demands. Working in uncertain environments has led to the rise of agile working methods. The study's conclusions show that adopting agile working practices including organizational structures of independent, cross-functional teams and the application of agile methodologies—is the key first step toward strategic agility. The study finds that a learning culture and agile management are essential components for enabling strategic agility. The absence of the enablers makes it difficult to implement an agile transformation because management and culture are crucial for teams to perform at their best. The research goes on to show that established businesses can accomplish outcomes like flexibility, speed, customer orientation, and engagement by putting in place enablers that support agile ways of working. Companies are then more able to modify and reassess their strategic orientation. This study also reveals that incremental innovations are the only ones occurring in established organizations. Since strategic agility entails adaptation and renewal of strategic direction when new opportunities within current and new business models occur, it is necessary to have additional mechanisms in place in addition to agile ways of working if radical breakthroughs are to be identified.

Oyedijo, (2012) Utilizing information obtained by nine (9) companies in Nigeria's telecommunications market, this study examines the connection between strategic agility and competitive performance. The location of the sampled telecommunication was measured and evaluated using a five-point Like type scale based on 21 factors drawn from current literature. businesses on many strategic agility dimensions. A strategic agility index was created for each participating organization using the respondents' ratings on all the strategic agility items from a multiple-informant survey. The questionnaire that each company's top management team (TMT) completed was used to create data on strategic agility. From the companies' records, information was gathered on profit growth, sales revenue, financial stability, operational effectiveness, and performance stability. The analysis's findings revealed a strong link between strategic adaptability and competitive performance. It was discovered that strategic agility affects how well Nigerian telecommunications companies compete (with a coefficient of 3.419). Additionally, it was discovered that

strategic agility significantly affects and accurately predicts competitive performance ($R^2 = 0.610$) (Flaih and Chalab, 2022).

The purpose of this study is to determine the influence of strategic foresight through its dimensions (environmental scanning capabilities, strategic selection capabilities, and integration capabilities) on strategic agility and its dimensions (strategic sensitivity, strategic response, and strategic learning), as the research problem posed a number of questions with the intent of identifying the intellectual frameworks of its variables and then assessing the level of interest in them in the literature. The adoption of the questionnaire as the primary instrument for data collection pertaining to the field component of the study and the sample size of (149) Several statistical methods, including standard deviations, arithmetic averages, and structural equation modeling with the assistance of statistical programs (SPSS.var.27, AMOS.var.26), were utilized in the research. A number of conclusions were reached, the most important of which was that strategic foresight has a correlation with and a significant effect on strategic agility. Finally, a number of recommendations and suggestions were made to conclude the study.

2.4. The relationship between time management, strategic agility and risk management

Today's fast-paced and dynamic world requires people and organizations to excel in time management, strategic agility, and risk management. (Reed, 2021). As it enables the effective and efficient allocation of resources, including time, time management is essential for both individuals and organizations. It is especially crucial in academic settings where they must juggle multiple responsibilities and deadlines while maintaining a passing grade point average. they may prioritize work, establish objectives, and set aside adequate time for working, attending courses, engaging in extracurricular activities, and managing personal responsibilities through time management. (Regueiro et al., 2020). In order to adapt and react to changing situations successfully, people and organizations need to acquire another crucial talent called strategic agility. Organizations need to be flexible in order to take advantage of opportunities and overcome obstacles in the dynamic and unpredictably changing business environment of today. Strategic agility is the capacity to swiftly and nimbly

modify plans, strategies, and actions in response to changing consumer needs, market dynamics, and new trends. (Ogunleye et al., 2021). while adhering to the organization's fundamental objectives and mission. Contrarily, risk management is a proactive strategy for identifying, evaluating, and mitigating any risks that may develop in a variety of areas of a business, including operations, finance, reputation, and compliance. (Noor et al., 2013). Organizations may limit possible negative effects and increase the possibility of attaining desired goals and objectives by putting effective risk management measures into place. Risk management and strategic agility go hand in hand. Risk management improves an organization's capacity to be agile by identifying and removing possible obstacles to strategic agility, whereas strategic agility enables firms to anticipate and respond to prospective risks. (Khalid et al., 2016). Developing a culture of foresight, inventiveness, and communication is one way that risk management and strategic agility are related. Employees are encouraged by this culture to be proactive in recognizing and mitigating possible risks as well as nimble in modifying tactics and plans to do so. Additionally, thorough knowledge of the external environment and market dynamics is necessary for both strategic agility and risk management. Organizations are better equipped to foresee future dangers and opportunities and make timely choices with this insight. (Palanisamy et al., 2022). Furthermore, firms need to have efficient communication channels and procedures in place in order to practice strategic agility and risk management. Sharing risk information, viable tactics, and modifications to plans is made possible through effective communication, which speeds up decision-making and execution. Maintaining competitiveness and attaining organizational excellence are additional shared objectives of strategic agility and risk management (Nurcholis, 2019). Organizations may remain ahead of rivals by adapting to shifting market conditions and client needs by being nimble and flexible in their strategy. Organizations may keep their competitive edge by responding rapidly to market risks and opportunities through strategic agility. (Khraim, 2022). On the other side, risk management reduces possible negative effects and assists companies in avoiding costly errors or failures. Organizations may safeguard their reputation and financial stability via good risk management, ensuring they can compete in the long run. (Ključnikov et al., 2017).

3. METHODOLOGY

3.1. Structural tests for the development of the measuring tools

3.1.1. Introduction

This chapter includes a set of structural tests that are a preparatory step to achieve reassurance of the reliability of the results of the scale and ensure the reliability of the result of the answers of the sample. Thus this chapter aims to present a set of tests of reliability and stability necessary such as the test of the reliability of reviewers (virtual reliability and reliability of content) and the test of natural distribution, and the test of structural reliability affirmative, in addition to determining the stability of the measures and the internal consistency between their paragraphs, along these lines:

3.1.2. Coding and characterizing the study measurements

3.1.2.1. The study includes three main variables

- The first variable: The independent variable is strategic agility measured as a scale that includes four sub dimensions (agility of decision-making, core capabilities, sharing responsibility, and selection of strategic targets).
- The second variable: The modifying variable is the management of time as a scale that includes four sub dimensions (time planning, time organizing, time direction, and time control).
- Third Variable: The subordinate variable of risk management measured as a scale that includes four sub dimensions (definition of risk, risk assessment, Make Decision of taking risks, and control of risks).

First: the researcher tended to encode the measures (variables, sub dimensions and steps of their measurement) to facilitate the task of dealing with them by using methods of statistical analysis, as the table (1) shows, which includes the variables of the main study, its sub dimensions, symbols and the number of paragraphs in each dimension.

Table 1: Coding and Characterization of Study Measures

No	Main variables	Sub dimensions variables	Statistical indicator	Number of scale paragraphs
1	Strategic agility	Decisions making's agility	DMA	5
	Str Agi	core capabilities	CC	5
		Sharing responsibility	SR	5
		selection of strategic targets	SST	5
	Time management	Time planning	TP	5
	Tim Man	Time organizing	TOG	5
		Time orientation	TOI	5
2		Time control	TC	5
	Risk management	Identify risks	IR	5
	Ris Man	Risks assessment	RA	5
		Make Decision of taking risks	MDTR	5
3		Risks control	RC	5

Second: Testing the apparent reliability and the reliability of the content (the reliability of the reviewers)

Virtual reliability is achieved through three basic stages: literature review, exploring expert opinions to develop the paragraphs that will be included in the scale, and evaluating the content of the scale paragraphs and their consistency with the application environment (Soundy et al., 2016: 78) Either the content reliability means that the scale has a high consistency in its structural structure, and this is achieved when its dimensions and paragraphs are linked within Harmonious theoretical structures integrated in content in the sense that paragraphs are representative of all the meanings contained in the dimension to which they belong (Csikszentmihalyi & Larson, 2014: 46). Thus, the questionnaire form was presented to a number of reviewers with experience and competence in the field of business administration, whose their names and addresses are shown in the appendix in order to take advantage from their experience to ensure the validity of the paragraphs of the questionnaire and their suitability for the objectives of the study and their ability to measure their variables and to ensure the clarity of their paragraphs, comprehensiveness and accuracy in terms of the field, and in this context the reviewers made many useful observations on the formulations of the measurement paragraphs and their compatibility with the reality of field application at the level of universities and private colleges. Study sample. The researcher has adopted the conduct of observations and the implementation of proposals that gained the agreement of most of the opinions of

the reviewers and that shows the possession of the scale on a high level of apparent honesty and sincerity of content. The table (2) shows the percentages that determine the agreement of the reviewers on the paragraphs of the questionnaire, in addition to there are some paragraphs that did not obtain full agreement were reformulated a conforming with the observations confirmed by the reviewers.

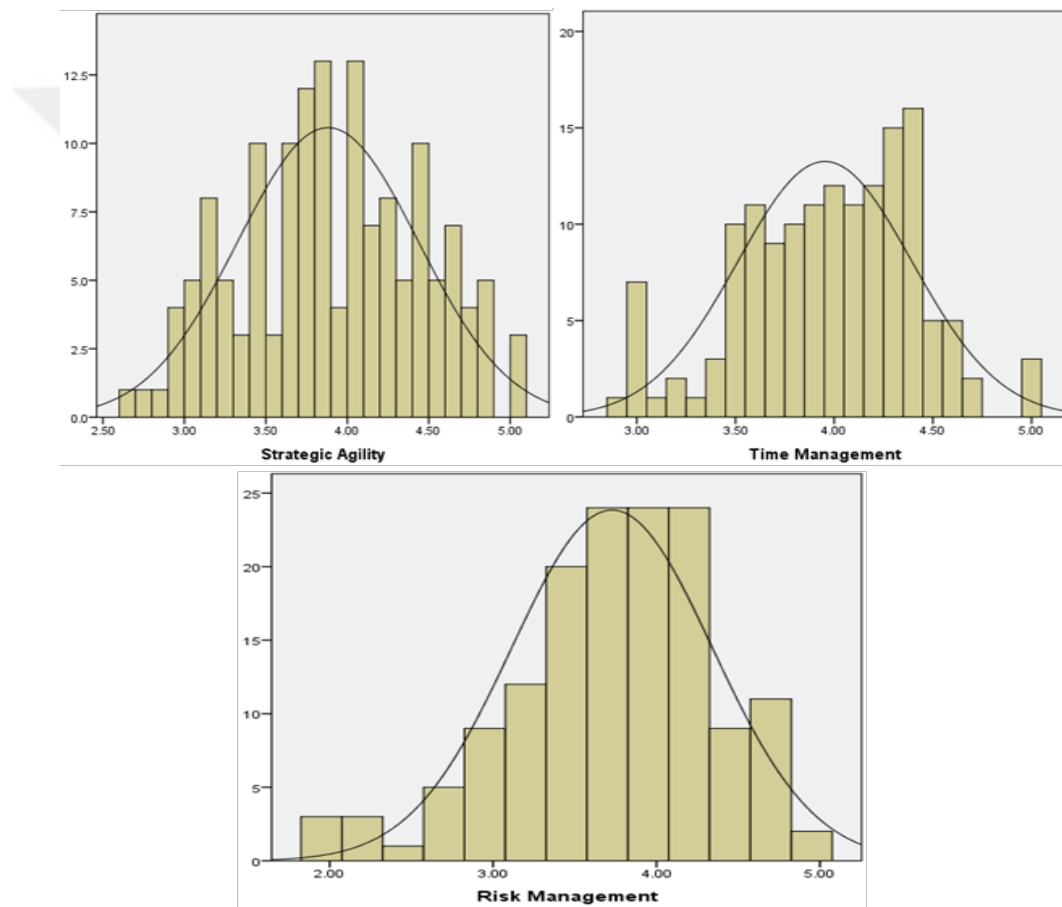
Table 2: Percentages of agreement of the arbitrators on the paragraphs of the questionnaire

No	variables	Total number of paragraph	Number of agreed paragraphs	The percentage of agreement	Modification type
1	Strategic agility	20	18	90	Reformulate
2	Time management	20	16	80	
3	Risk management	20	15	75	
Total		60	49	82	

Third: Natural distribution is the continuous distribution shared among statistics and is very important because it provides the basis for statistical reasoning, and it is also used to approximate different potential distributions, since the teacher tests accompanied by certain statistical indicators require several conditions to be used (Agresti et al., 2013 : 278,) To determine the level of distribution of current data and the extent to which they are subject to normal distribution, a test will be adopted(Kolmogorov-Smirnov test), As the test results in table (3) show that the test statistic value was 0.068, 0.070, 0.066, respectively, for the study variables (strategic agility, time management and risk management) while probable morale of the test statistic (0.097, 0.084, 0.200), respectively, is more than the standard's level of 0.05 and as a consequence not morally D, meaning that all three variables' of the study data are dependent to normal distribution and as a consequence can be used in testing and analysis. Figure (1) shows the natural distribution curves at the level of the three variables.

Table 3: Test (Kolmogorov – test of Smirnov) for the three variables of the study

One-Sample Kolmogorov-Smirnov Test				
		Strategic Agility	Time Management	Risk Management
N		147	147	147
Normal Parameters ^{a,b}	Mean	3.8020	3.9531	3.7279
	Std. Deviation	.62307	.44237	.61472
Most Extreme Differences	Absolute	.068	.070	.066
	Positive	.055	.056	.034
	Negative	-.068-	-.070-	-.066-
Test Statistic		.068	.070	.066
Asymp. Sig. (2-tailed)		.097 ^c	.084 ^c	.200 ^{c,d}

**Figure 1:** Normal distribution of the study's three metrics IV: Exploratory Working Analysis Test (EFA)

The exploratory working analysis is a statistical method aimed at reducing the number of constituent dimensions of the main variable in question or interest, called factors. It is used as a strategy to reduce the number of indicators used to collect data in the questionnaire. In order to ascertain exploratory factual honesty, it is necessary to ascertain several fundamental criteria to achieve this: (Field, 2009: 644-647)

- Verification of the adequacy of field sample size through the (Kaiser Meyer-Olkin) Measure and the range of (Interrelated) correlations between variables through (Bartlett's test) and determination of test morale by relying on the morale of (Chi-Square) value.
- The cumulative percentage of the interpreted variation should give significant when equal to or greater than (60%).
- The value of the underlying roots (Eigenvalue) for the number of dimensions to measure each variable is not less than one.
- Factors Loading should exceed (30%) to be significant and approved within behavioral and social studies.

As part of the current study, this approach will be based on the level of the three variables, so that the researcher adopts the development of metrics construction at the measurement paragraphs of each dimension a conforming with reviewers observations to supporting the development of the metrics, along these lines table (4:

Table 4: statistical value (KMO), and Test (Bartlett's) of strategic agility scale

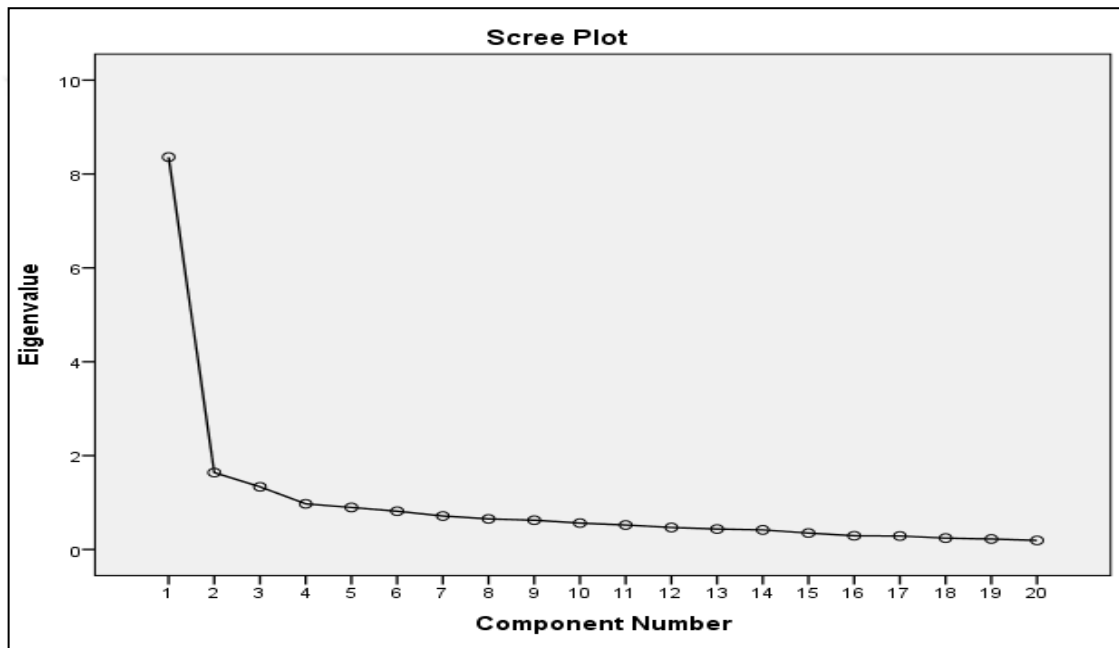
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.904
Bartlett's Test of	Approx. Chi-	1447.872
Sphericity	df	190
	Sig.	.000

As for the analysis of the basic components, it helps in determining the number of basic factors (components) on which the paragraphs of the scale are divided, and the distinctive underlying roots (Eigen value), which were determined in the analysis by more than one, and the percentage of variance and the cumulative percentage of the interpreted variance, which must exceed (60%) for the main variable, i.e. for the factors combined. Therefore, it is clear from table (5) that the analysis of the basic components has elected four main factors representing the basic components of strategic agility under which the paragraphs of the scale are organized and their underlying roots were more than one, and the cumulative percentage of explanatory variance of the four factors reached (61.833), which is higher than the specified percentage of (0.60), which indicates the accessibility of statistical significance for the scale.

Table 5: The total explained variance of strategic agility scale

Component	Initial Eigen values			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.361	41.803	41.803	8.361	41.803	41.803
2	1.639	8.193	49.996	1.639	8.193	49.996
3	1.336	6.678	56.675	1.336	6.678	56.675
4	1.072	5.158	61.833	1.072	5.158	61.833

Table 6. Figure 2. shows the cumulus map of the underlying roots, which represents the chart in which the value of the latent roots of the paragraphs of the scale (vertical axis) and the number of paragraphs (horizontal axis) are shown.

**Figure 2:** Cumulus map of the underlying roots**Table 6:** Saturation ratios for strategic agility scale paragraphs

	Component			
	1	2	3	4
DMA1	.782			
DMA2	.771			
DMA3	.690			
DMA4	.669			
DMA5	.612			
CC1		.869		
CC2		.834		
CC3		.783		
CC4		.641		
CC5		.582		
SR1			.755	
SR2			.653	
SR3			.650	

SR4	.644	
SR5	.507	
SST1		.779
SST2		.692
SST3		.588
SST4		.496
SST5		.411

3.1.3. Exploratory factor analysis of the time management variable

This scale includes (20) paragraphs divided into four main dimensions, the range of its validity in measuring the time management variable is being tested. as it is clear from the table (7) that the adequacy of the number of members of the sample has reached (0.780), which is a statistical value (KMO), which is greater than (0.50), it is an acceptable value, which indicates that the sample is suitable for conducting the factor analysis. As for the extent to which there are correlations between the paragraphs of the scale, this can be verified through (Bartlett's test) scale, as it becomes clear that the level of significance for the value of (Chi-Square) has reached (0.000), which is less than (0.05), which indicates that the correlation matrix is not a unity matrix, which makes the relations between the paragraphs of the scale significant.

Table 7: Statistical value (KMO) and (Bartlett's) test for the time management scale

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.780
Bartlett's Test of	Approx. Chi-	977.007
Sphericity	df	190
Sig.		.000

As for basic Component Analysis, it helps determine the number of basic factors (components) on which the items of the scale are divided, the distinctive latent roots (Eigenvalue) that were specified in the analysis by more than one, the percentage of variance and the cumulative percentage of the explained variance, which must be greater than (60%) for the main variable, i.e. for the combined factors. Therefore, it is clear from the table (8) that the analysis of the basic components has chosen four main factors that represent the basic components of time management, under which the paragraphs of the scale are organized, and their latent roots were more than the one, and the cumulative percentage of the variance explained by the four factors reached

(61.806), which is higher than the specified percentage of (0.60), which indicates the statistical accessibility of the scale is significant .

Table 8: the total variance explained by the time management scale.

Component	Initial Eigenvalues		Extraction Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.876	39.379	39.379	5.876	39.379	39.379
2	1.701	8.505	47.883	1.701	8.505	47.883
3	1.464	7.322	55.205	1.464	7.322	55.205
4	1.320	6.601	61.806	1.320	6.601	61.806

Figure (3) shows the cumulative map of the underlying roots, which represents the chart in which the value of the latent roots of the scale paragraphs (vertical axis) and the number of paragraphs (horizontal axis) becomes clear.

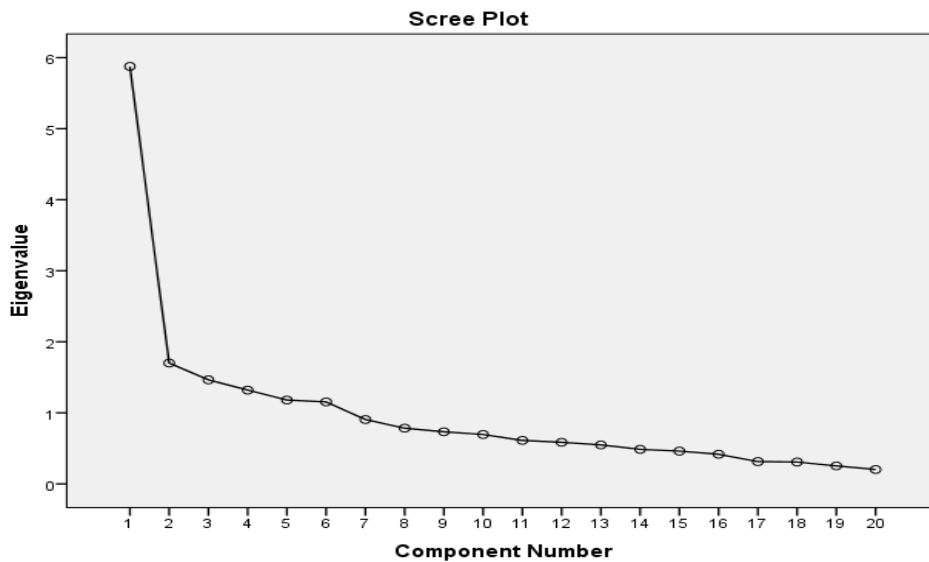


Figure 3: (roots of the time management scale)

As for the percentages of saturation for the paragraphs of the time management scale, which express the square of the simple correlation coefficient between each paragraph with the four factors extracted a conforming with the results of the factor analysis, it recorded high percentages that exceeded the percentage specified for the significant of (0.30), which is shown in the table (9) and a conforming with the factors the four produced by exploratory factor analysis.

Table 9: Saturation ratios for time management scale paragraphs

	Component			
	1	2	3	4
TP1	.778			
TP2	.613			
TP3	.610			
TP4	.498			
TP5	.440			
TOG1		.792		
TOG2		.653		
TOG3		.627		
TOG4		.510		
TOG5		.475		
TOI1			.786	
TOI2			.704	
TOI3			.673	
TOI4			.640	
TOI5			.424	
TC1				.851
TC2				.812
TC3				.677
TC4				.543
TC5				.432

3.1.4. Exploratory factor analysis of the risk management variable

This scale includes (20) paragraphs divided into four main dimensions, the range of its validity in measuring the risk management variable is being tested. It is clear from the table (10) that the adequacy of the number of sample members has reached (0.900), it's a statistical value (KMO), which is greater than (0.50), it is an acceptable value, which indicates that the sample is suitable for conducting the factor analysis. As for the extent to which there are correlations between the items of the scale, this can be verified through the (Bartlett's test) scale., which indicates that the correlation matrix is not a unity matrix, and makes the relation s between the paragraphs of the scale significant.

Table 10: KMO and Bartlett's Risk Management Scale

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.900
Bartlett's Test of Sphericity	Approx. Chi- df
	1624.518
	190
	Sig.
	.000

As for basic Component Analysis, it helps determine the number of principal factors (components) on which the items of the scale are divided, the distinctive latent

roots (Eigenvalue) that were specified in the analysis by more than one, the percentage of variance and the cumulative percentage of the explained variance, which must be greater than (60%) for the main variable, i.e. for the combined factors. Therefore, it is clear from the table (11) that the analysis of the main components has chosen four main factors that represent the basic components of risk management, under which the paragraphs of the scale are organized, and their latent roots were more than one, and the cumulative percentage of the variance explained by the four factors reached (64.228), which is higher than the specified percentage of (0.60), which indicates the statistical accessibility of the scale is significant.

Table 11: The total explained variance of risk management scale

Component	Initial Eigenvalues		Extraction Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.665	43.324	43.324	8.665	43.324	43.324
2	1.668	8.338	51.662	1.668	8.338	51.662
3	1.388	6.940	58.602	1.388	6.940	58.602
4	1.125	5.626	64.228	1.125	5.626	64.228

Figure (4) shows the cumulative map of the underlying roots, which represents the graph in which the value of the latent roots of the scale vertebrae (vertical axis) and the number of vertebrae (horizontal axis) becomes clear

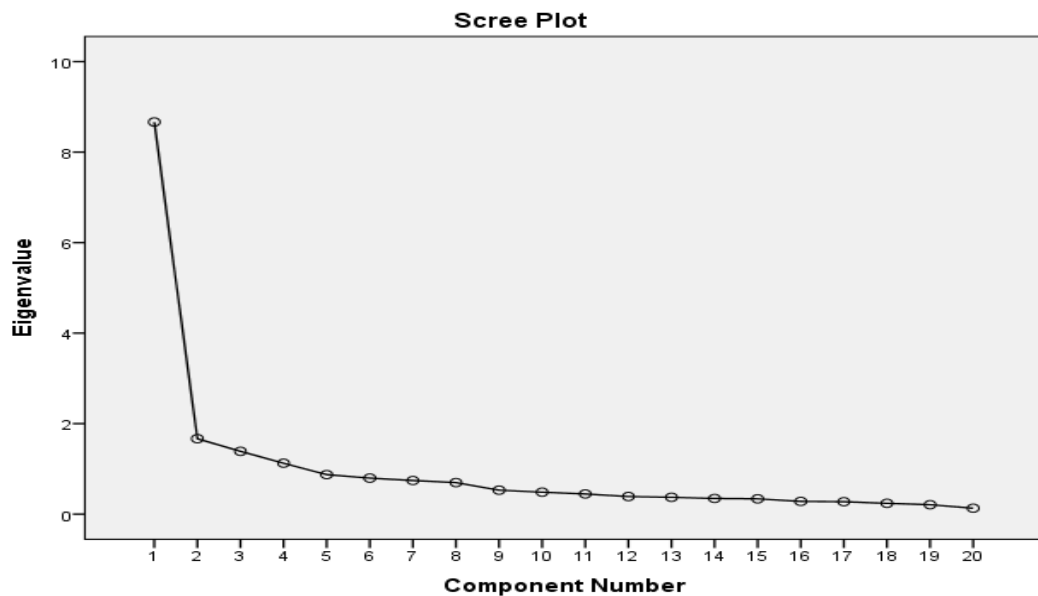


Figure 4: Cumulus map of the underlying roots of the risk management scale)

As for the percentages of saturation for the paragraphs of the risk management scale that express the square of the simple correlation coefficient between each paragraph with the four factors extracted a conforming with the results of the factor analysis, they recorded high percentages that exceeded the percentage specified for the significant of (0.30), which is shown in the table (12) and a conforming with the four factors produced by exploratory factor analysis.

Table 12: Saturation of the risk management scale paragraphs

	Component			
	1	2	3	4
IR1	.851			
IR2	.743			
IR3	.662			
IR4	.604			
IR5	.590			
RA1		.812		
RA2		.785		
RA3		.750		
RA4		.473		
RA5		.438		
MDTR1			.965	
MDTR2			.781	
MDTR3			.657	
MDTR4			.552	
MDTR5			.484	
RC1				.791
RC2				.786
RC3				.604
RC4				.563
RC5				.421

3.1.5. Confirmatory factor analysis (CFA) test

This paragraph aimed to ascertain the confirmatory structural validity of the measures based on the confirmatory factor analysis test, which is one of the applications of Structural Equation Modeling. The purpose of this test is to know that the data obtained from the result of the answers fit the structural model of the measurement or not. This test also has a key role in verifying the validity of the measurement model and studying the reliability of theoretical models that may explain the interrelations between a set of variables (Mair, 2018: 39), In order to test the confirmatory factor analysis for the three study variables, two basic criteria will be confirmed: (Prudon, 2015:4)

3.1.5.1. The values of the parameter's standard estimates

which are examined acceptable if their values exceed (0.40) and the opposite will be removed from the analysis. It will also depend on the critical ratio's value as a tool for accepting the significance of the standard estimates, as it is acceptable whenever (C.R) is significant.

3.1.5.2. Accordance with indicators

Accordance with indicators determine how well the scale fits, and these indicators have an acceptable extent. If they are relevant, they are accepted. On the contrary, the structural model is submit to the modification indicators suggested by the program.

Here, it will depend on some indicators of accordance with, for which the range of acceptance can be determined through the table (13).

Table 13: Structural model matching indicators

No	Indicators	Accordance with Quality Rule
1	Ratio between χ^2 values and degrees of freedom (df)	CMIN/DF < 5
2	Comparative Fit Index (CFI)	CFI > 0.90
3	The Incremental Fit Index (IFI)	IFI > 0.90
4	The Tucker-Lewis Index (TLI)	TLI > 0.90
5	Root Mean Square Error of Approximation (RMSEA)	RMSEA < 0.08

Source: Singh,V. (2016) " Perceptions of emission reduction potential in air transport : a structural equation modeling approach ", Environ Syst Decis 36, P. 388.

3.1.6. Confirmatory factor analysis of the strategic agility variable

Figure (5) shows that the scale adopted to measure the strategic agility variable consists of (20) items distributed over four sub-dimensions, consisting of (5) items for decision-making agility, (5) items for core competencies, (5) items for sharing responsibility, and (5) items for selection strategic targets. It is clear that all standard parameters estimation have reached to the acceptable (percentage %) specified for them, which is (0.40), which is an significant, due to all values of (C.R) critical ratio, appearing in the table number (14) are significant values, and this refer to the accuracy and viability of those parameters. As the signs of model conformability, and post

making five adjustment indicators, they all matched the accurate rule specified for them, and because of that, the model's structure has obtained a top level of conformability to the result of the answers of the sample members.

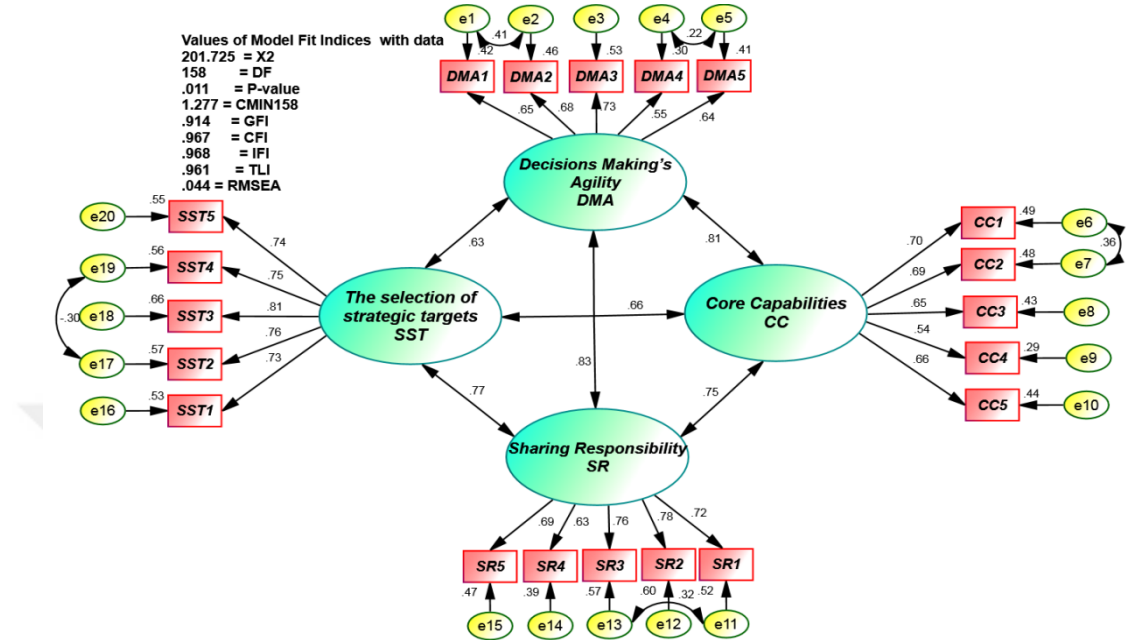


Figure 5: Confirmatory factor analysis of the strategic agility variable .

Table 14: Parameters of the confirmatory factor analysis of the strategic agility variable scale

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
DMA1	<--- Decisions Making's Agility	.647	1.000			
DMA2	<--- Decisions Making's Agility	.679	1.050	.119	8.799	***
DMA3	<--- Decisions Making's Agility	.731	1.303	.186	7.026	***
DMA4	<--- Decisions Making's Agility	.549	.751	.135	5.569	***
DMA5	<--- Decisions Making's Agility	.641	1.003	.158	6.350	***
CC1	<--- Core Capabilities	.700	1.110	.162	6.861	***
CC2	<--- Core Capabilities	.694	1.148	.169	6.809	***
CC3	<--- Core Capabilities	.654	1.070	.163	6.577	***
CC4	<--- Core Capabilities	.540	.710	.127	5.594	***
CC5	<--- Core Capabilities	.664	1.000			
SST5	<--- Sharing Responsibility	.740	.876	.102	8.591	***
SST4	<--- Sharing Responsibility	.746	.968	.114	8.483	***
SST3	<--- Sharing Responsibility	.814	.951	.101	9.448	***
SST2	<--- Sharing Responsibility	.757	.980	.114	8.608	***
SST1	<--- Sharing Responsibility	.726	1.000			
SR5	<--- The selection of strategic targets	.686	1.000			
SR4	<--- The selection of strategic targets	.627	.799	.117	6.833	***
SR3	<--- The selection of strategic targets	.756	1.057	.131	8.042	***
SR2	<--- The selection of strategic targets	.777	1.091	.132	8.268	***
SR1	<--- The selection of strategic targets	.718	.904	.118	7.670	***

3.1.7. Confirmatory factor analysis of the time management variable

Figure (6) shows that the scale adopted for measuring the time management variable consists of (20) items distributed over four sub-dimensions, consisting of (5) items for planning time, (5) items for organizing time, (5) items for time orientation, and (5) items for time control. It is clear that all the estimations of the standard parameters have surpassed the acceptable percentage (%) specified for them, was (0.40), which represent significant, due to all values of (C.R) critical ratio appear in the table (15) are significant values, and this shows the viability and accuracy of these variables. As for the measures of accordance with's model, and then making seven adjustment indicators, all of them matched the rule of the acceptance specified for them, so the structure of the model has obtained a high level of acceptance to the result of the answers of the sample members.

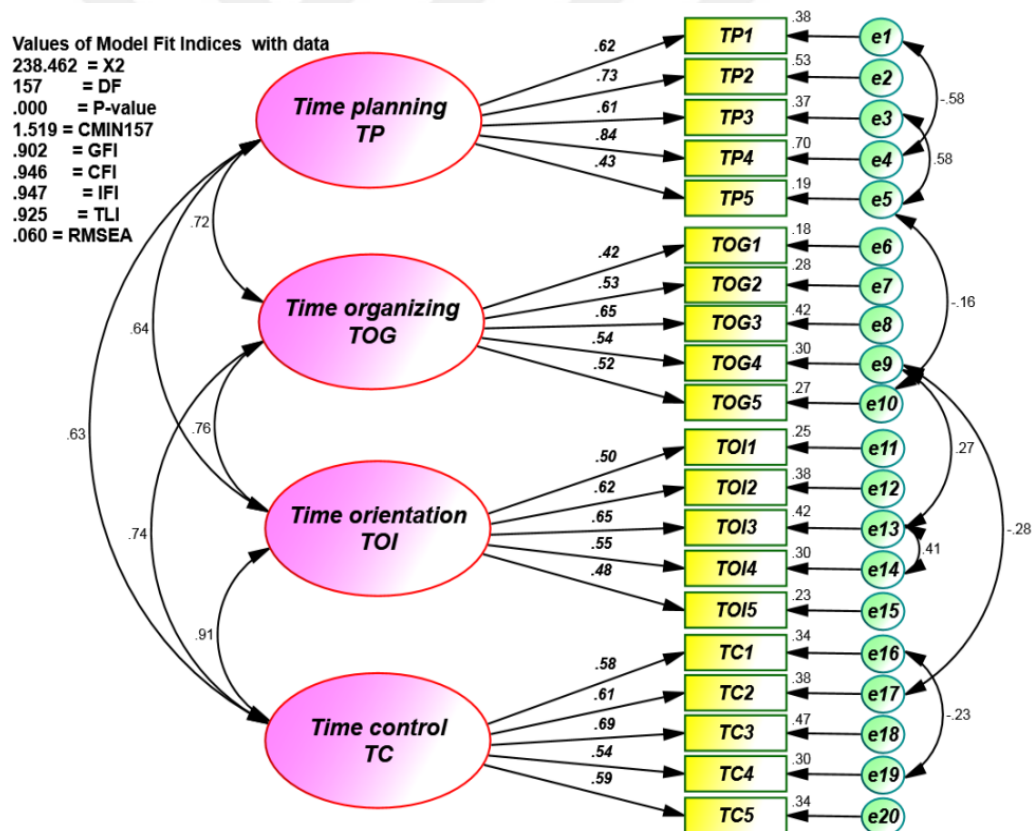


Figure 6: Confirmatory factor analysis of the time management variable)

Table 15: Parameters of the confirmatory factor analysis for the scale of time management variable

	Pathways		Std. Regression Weights	Estimate	S.E.	C.R.	P
TP5	<---	Time Planning	.433	1.000			
TP4	<---	Time Planning	.837	1.585	.317	5.005	***
TP3	<---	Time Planning	.607	1.441	.212	6.788	***
TP2	<---	Time Planning	.730	1.460	.292	5.004	***
TP1	<---	Time Planning	.616	1.254	.284	4.408	***
TOG5	<---	Time organizing	.523	1.000			
TOG4	<---	Time organizing	.544	1.069	.228	4.681	***
TOG3	<---	Time organizing	.649	1.479	.286	5.165	***
TOG2	<---	Time organizing	.532	.863	.188	4.601	***
TOG1	<---	Time organizing	.421	.754	.193	3.909	***
TOI5	<---	Time orientation	.478	1.069	.239	4.477	***
TOI4	<---	Time orientation	.548	1.000			
TOI3	<---	Time orientation	.647	1.323	.184	7.189	***
TOI2	<---	Time orientation	.617	1.225	.230	5.319	***
TOI1	<---	Time orientation	.500	.909	.196	4.627	***
TC5	<---	Time control	.586	1.078	.208	5.183	***
TC4	<---	Time control	.545	1.000			
TC3	<---	Time control	.686	1.397	.246	5.683	***
TC2	<---	Time control	.613	1.358	.255	5.335	***
TC1	<---	Time control	.582	1.146	.244	4.689	***

3.1.8. Confirmatory factor analysis of the Risk management variable

Figure (7) shows that the scale adopted for measuring the risk management variable consists of (20) items distributed over four sub-dimensions, consisting of (5) items to identify risks, (5) items to risk assessment, (5) items to M\make Decision of taking risks, and (5) items to risk control. It is clear that all the estimations of the standard parameters have surpassed the acceptable percentage (%) specified for them, which is (0.40), which represent significant, due to all the values of the (C.R) critical ratio appear in the table (16) are significant values, and this shows the viability and accuracy of these variables. As for the measures of model's accordance with and after making nine modification indicators, all of them met the acceptance rule specified for them, so the structure of the model has obtained a high level of accordance with the result of the answers of the sample members.

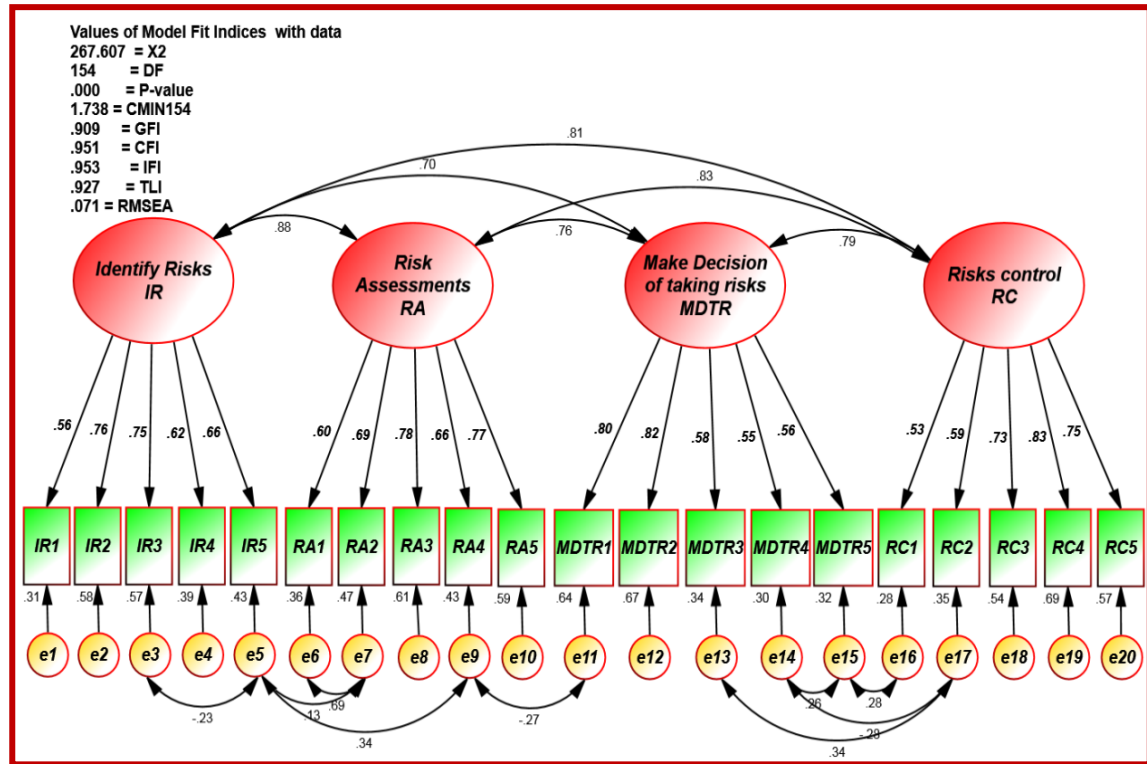


Figure 7: Confirmatory factor analysis of the Risk management variable

Table 16: Parameters of the confirmatory factor analysis for the risk management variable scale

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
IR5	<---	Identify Risks	.659	.816	.117	6.989	***
IR4	<---	Identify Risks	.622	.810	.112	7.202	***
IR3	<---	Identify Risks	.752	1.000			
IR2	<---	Identify Risks	.759	1.051	.119	8.824	***
IR1	<---	Identify Risks	.556	.738	.115	6.415	***
RA1	<---	Risk Assessments	.596	1.000			
RA2	<---	Risk Assessments	.686	1.129	.098	11.527	***
RA3	<---	Risk Assessments	.778	1.386	.195	7.103	***
RA4	<---	Risk Assessments	.656	1.087	.171	6.348	***
RA5	<---	Risk Assessments	.767	1.236	.176	7.041	***
MDTR5	<---	Make Decision of taking risks	.562	1.000			
MDTR4	<---	Make Decision of taking risks	.547	1.229	.196	6.258	***
MDTR3	<---	Make Decision of taking risks	.583	1.247	.223	5.594	***
MDTR2	<---	Make Decision of taking risks	.821	1.756	.257	6.840	***
MDTR1	<---	Make Decision of taking risks	.798	1.596	.237	6.732	***
RC5	<---	Risks control	.752	1.000			
RC4	<---	Risks control	.828	1.014	.102	9.934	***
RC3	<---	Risks control	.734	.796	.091	8.745	***
RC2	<---	Risks control	.593	.755	.107	7.081	***
RC1	<---	Risks control	.527	.571	.092	6.195	***

3.1.9. Structural stability and structural validity of the measuring instrument

Stability testing is one of the most important pillars on which measurement tools are based so that the results of the research come to a high level of confidence. Stability is defined as the extent to which the content of the measure is internally consistent (measurement paragraphs) in terms of maintaining a high degree of accuracy of measuring the characteristic or phenomenon in question (Korkmaz, 2020: 115). The Cronbach Alpha scale is one of the most important measures used to measure the stability of the questionnaire and the most famous and common to researchers in various fields of scientific research, which is its value approved and reliable whenever it exceeds the rate of (0.70) at the level of research and behavioral and social phenomena, while if the percentage is less than that is an indicator of the weakness of the stability of the measures at the level of the environment (Sample society) (Tavakol & Dennick, 2011 : 54) . The structural honesty coefficient was also adopted to determine the percentage of the validity of the measurement tool for the variables and sub-dimensions depending on the responses of the sample members. As shown in table (17).

It is clear that the values of the Cronbach alpha coefficient for the main variables of the study and their sub-dimensions have ranged between (0.892 - 0.727) and those values are allowable and good in behavioral studies and a conforming with the standard Cronbach alpha value above, and the values of the structural honesty coefficient are all high ratios as they follow in the calculation the extracted stability coefficients have ranged between (0.853 - 0.944). So, the tool of the study became suitable for the final application as it is identified by high stability and accuracy.

Table 17: Structural stability and validity coefficients at the main variables and their sub-dimensions'

No	The main variables and their sub dimensions	Cronbach alpha value	the structural honesty coefficient
1	Decision making agility	0.727	0.853
2	Core capability	0.764	0.874
3	Sharing responsibility	0.755	0.869
4	Selection strategic targets	0.802	0.896
6	Time planning	0.817	0.904
7	Time organizing	0.805	0.897
8	Time orientation	0.845	0.919
9	Time control	0.838	0.915
11	Identify Risks	0.797	0.893
12	Risks assessment	0.826	0.909
13	Make Decision of taking risks	0.799	0.894
14	Risks control	0.815	0.903

3.1.9. The internal consistency test

The researcher relied on using the (Pearson) correlation coefficient to find out the significant correlations between the variables and dimensions and their paragraphs, as the significant correlations refer to the strength of the adopted scale, and the table (3.18) shows the values of the correlation coefficients between all the items, dimensions and variables of the current study, as the values of the test results shown in the table (18) indicated that there are significant correlations between all dimensions and their items, they ranged between (0.626** - 0.846**) at the level of significance (0.01), while the correlation coefficients between the standard variables and items ranged between (0.737 - 0.478) at the level of significance (0.01). That shows a high internal consistency between all dimensions and their paragraphs.

Table 18: the internal consistency between the paragraphs of the scale, its variables, and its dimensions

Main variables	Sub dimensions	paragraphes	Paragraph consistency with dimension	Paragraph consistency with variable	the level of significance
Strategic agility	Decision making agility	TP1	.718**	.655**	0.01
		TP2	.742**	.666**	0.01
		TP3	.755**	.620**	0.01
		TP4	.643**	.478**	0.01
		TP5	.626**	.576**	0.01
	Core capability	TOG1	.666**	.590**	0.01
		TOG2	.719**	.628**	0.01
		TOG3	.744**	.652**	0.01
		TOG4	.765**	.657**	0.01

Time management	Sharing responsibility	TOG5	.700**	.596**	0.01
		TOI1	.636**	.578**	0.01
		TOI2	.733**	.665**	0.01
		TOI3	.770**	.720**	0.01
		TOI4	.749**	.646**	
		TOI5	.711**	.572**	0.01
	Selection strategic targets	TC1	.717**	.648**	0.01
		TC2	.741**	.657**	0.01
		TC3	.821**	.696**	
		TC4	.690**	.628**	0.01
		TC5	.764**	.709**	0.01
	Time planning	DMA1	.774**	.642**	0.01
		DMA2	.790**	.651**	0.01
		DMA3	.795**	.670**	0.01
		DMA4	.703**	.588**	
		DMA5	.736**	.666**	0.01
	Time organizing	CC1	.816**	.678**	0.01
		CC2	.814**	.672**	0.01
		CC3	.742**	.611**	0.01
		CC4	.650**	.557**	
		CC5	.717**	.643**	0.01
	Time orientation	SR1	.811**	.678**	0.01
		SR2	.785**	.727**	0.01
		SR3	.846**	.683**	0.01
		SR4	.727**	.663**	0.01
		SR5	.764**	.660**	0.01
Risk management	Time control	SST1	.790**	.598**	0.01
		SST2	.749**	.659**	0.01
		SST3	.822**	.659**	0.01
		SST4	.785**	.617**	0.01
		SST5	.762**	.661**	0.01
	Identify Risks	IR1	.706**	.524**	0.01
		IR2	.811**	.707**	0.01
		IR3	.741**	.713**	0.01
		IR4	.733**	.623**	0.01
		IR5	.722**	.671**	0.01
	Risks assessment	RA1	.771**	.645**	0.01
		RA2	.835**	.704**	0.01
		RA3	.809**	.733**	0.01
		RA4	.715**	.632**	0.01
		RA5	.764**	.737**	0.01
	Decision making of taking Risks	MDTR1	.822**	.661**	0.01
		MDTR2	.812**	.707**	0.01
		MDTR3	.702**	.494**	0.01
		MDTR4	.710**	.608**	0.01
		MDTR5	.684**	.629**	0.01
	Risks control	RC1	.675**	.565**	0.01
		RC2	.712**	.550**	0.01
		RC3	.763**	.690**	0.01
		RC4	.841**	.762**	0.01
		RC5	.800**	.719**	0.01

3.2. Description and statistical analysis of the study's variables

3.2.1. Introduction

This Chapter includes the presentation, analysis, and interpretation of the results of the description and statistical analysis of the study variables, based on a set of appropriate statistical analysis methods that were represented by the balanced arithmetic mean, standard deviation, coefficient of difference, and relative importance to determine the level of study variables and their accessibility based on the result of the answers of the sample members in universities and private colleges of the study sample, along these lines:

3.2.2. Description and diagnosis of the time management variable: This variable consists of four sub-dimensions, along these lines

3.2.2.1. The dimension of Description and diagnosis time planning

Table (19) shows the results of the descriptive statistics of the time planning dimension, which is represented by five field indicators (TP1 – TP5), where the total arithmetic mean of this dimension (3.942), the standard deviation (0.502), the coefficient of relative difference (12.741) and the relative importance (78.830%), that shows that the agreement of the sample members on this dimension was high. . The second paragraph which content (I plan the work that I want to implement before starting it) obtained the highest weighted arithmetic average (4.061) with a standard deviation of (0.714) and a coefficient of the relative difference of (17.583%) and relative importance of (81.224%) and that shows that the level of answers was high on this paragraph. While the third paragraph, which content is (I write down my daily and weekly schedule for following up on the work done), obtained the lowest weighted arithmetic average (3.803), with a standard deviation of (0.948), a coefficient of the relative difference of (24.936%) and relative importance of (76.054%), Although this paragraph has obtained the lowest arithmetic mean, it still has a high level of answers a conforming with the responses of the sample members.

Table 19: Descriptive statistics for time planning dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
I set my goals in proportion to the time available to me to achieve them.	4.007	0.726	18.124	80.136	2
I plan the work that I want to implement before starting it.	4.061	0.714	17.583	81.224	1
Time planning contributes to the accurate implementation of the required work and clearly .	3.952	0.847	21.422	79.048	3
I write down my daily and weekly schedule for following up the work done .	3.803	0.948	24.936	76.054	5
Time planning must be flexible and appropriate to the capabilities of all employees to ensure that tasks are completed in their planned time.	3.884	0.781	20.104	77.688	4
Overall average for time planning	3.942	0.502	12.741	78.830	-

3.2.2.2. The dimension of organizing time

Table (20) shows the results of the descriptive statistics of the time organizing's dimension, which is represented by five field indicators (TOG1 – TOG5), where the total arithmetic mean of this dimension (3.947), the standard deviation (0.538), the coefficient of relative difference (13.619%) and the relative importance (78.938%), that shows that the agreement of the sample members on this dimension was high. The second paragraph containing "I can focus time and effort when doing business" obtained the highest weighted arithmetic average (4.095), with a standard deviation of (0.686), with a coefficient of the relative difference of (16.746%) and relative importance of (81.904%), that shows that the level of answers was high on this paragraph. While the third paragraph which content (Time organizing contributes to dividing assigned tasks precisely) obtained the lowest arithmetic average of (3.755) with a standard deviation of (0.962) and a coefficient of the relative difference of (25.625%) and relative importance of (75.102%), although this paragraph has obtained the lowest arithmetic mean, it still has a high level of answers a conforming with the responses of the sample members.

Table 20: Descriptive statistics for time organizing dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
I carry out my activities in the university a conforming with their importance.	4.068	0.833	20.478	81.360	2
I have the ability to focus time and effort when doing business.	4.095	0.686	16.746	81.904	1
Time organizing contributes to dividing assigned tasks precisely.	3.755	0.962	25.625	75.102	5
I divide the time between main tasks and secondary activities.	3.898	0.825	21.175	77.960	4
Time organizing contributes to facing challenges that hinder workflow.	3.918	0.807	20.589	78.368	3
Overall average for time organizing	3.947	0.538	13.619	78.938	-

3.2.2.3. The dimension of time orientation

Table (21) shows the results of the descriptive statistics of the time orientation dimension, which is represented by five field indicators (TOI1 – TOI5), where the total arithmetic mean of this dimension (3.942), the standard deviation (0.558), the coefficient of relative difference (14.157%) and the relative importance (78.830%), that shows that the agreement of the sample members on this dimension was high. Also, the first paragraph, which contains (I use modern technological means to obtain information in the shortest time), obtained the highest arithmetic mean of (4.054) with a standard deviation of (1.039), a relative coefficient of difference of (25.623%) and a relative importance of (81.088%), which indicates that the level of answers was high on this paragraph. While the third paragraph which content (Time orientation helps to assume responsibilities and tasks) obtained the lowest arithmetic mean of (3.864) with a standard deviation of (0.816) and a coefficient of the relative difference of (21.126) and relative importance of (77.278%), and although this paragraph has obtained the lowest arithmetic mean, it still has a high amount of answers based on the result answers of the sample's members.

Table 21: Descriptive statistics for time orientation dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
I use modern technological means to obtain information in the shortest time.	4.054	1.039	25.623	81.088	1
Time orientation provides the ability to distinguish between postponable and non-postponable activities.	3.925	0.786	20.022	78.504	4
Time orientation helps to assume responsibilities and tasks.	3.864	0.816	21.126	77.278	5
Time orientation contributes to balancing the activities to be performed with the time required to implement them .	3.925	0.722	18.402	78.504	3
Reducing paperwork contributes to orientating time towards the right goals better.	3.939	0.885	22.478	78.776	2
Overall average for time orientation	3.942	0.558	14.157	78.830	-

3.2.2.4. The dimension of Description and diagnosis of time control

Table (22) shows the results of the descriptive statistics of the time control dimension, which is represented by five field indicators (TC1 – TC5), where the total weighted mean of this dimension (3.982), the standard deviation (0.570), the coefficient of relative difference (14.301) and the relative importance (79.646%), that shows that the agreement of the sample members on this dimension was high. The fifth paragraph, which contains (The presence of an incentive system in time control increases the employee's effectiveness in implementing the time management stages in the better way) obtained the highest arithmetic mean (4.061) with a standard deviation of (0.769), a relative coefficient of difference of (18.947%) and a relative importance of (81.224%), which indicates that the level of answers was high on this paragraph. While the first paragraph which content (I set a specific time to monitor the work of the employees to ensure discipline in the workflow and not waste time) obtained the lowest arithmetic average (3.918) with a standard deviation of (0.824) and a coefficient of the relative difference of (21.017%) and relative importance of (78.368%), and although this paragraph has obtained the lowest arithmetic mean, it still has a high level of answers based on the result answers of the sample members.

Table 22: Descriptive statistics for time control dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
I set a specific time to monitor the work of the employees to ensure discipline in the workflow and not waste time.	3.918	0.824	21.017	78.368	5
I self-assess what goals i have been achieved in a time .	3.932	0.919	23.374	78.640	4
Time control aims to correct the deviation in the schedule and not to impose punishment in case of delay.	4.000	0.852	21.302	80.000	3
Time control provides the opportunity to compare the current performance with the planned performance.	4.000	0.767	19.187	80.000	2
The presence of an incentive system in time control increases the employee's effectiveness in implementing the time management stages in the better way.	4.061	0.769	18.947	81.224	1
Overall average for time control	3.982	0.570	14.301	79.646	-

Table (23) shows the descriptive statistics of the main time management variable as it achieved an arithmetic mean of (3.953), the value of its standard deviation (0.442), and a coefficient of difference of (14.301%) and the relative importance achieved was (79.062%) also that shows which this variable has obtained a high level of importance a conforming with the responses of the sample and these results show a high level of acceptance among the sample members extended to the existence of paragraphs of time management variable in the field. That shows that the universities and private colleges of the study sample are well interested in the measurements of time management in terms of investing time allocated to the management of educational programs and following up the progress of the educational curricula and managing the time of scientific and research programs within the framework of developing updated plans to achieve these plans and implement them in the light of the available resources and organize them and direct the teaching staff to adhere to them and seek to control and control them in the best possible way.

As for the common ranging of the measurements of the variable of time management in the field, which considers the range of the concern of universities and private colleges of the sample of the study in these measurements, it's order was along these lines (time control, time organizing, time planning, and time orientation) respectively.

Table 23: Descriptive statistics for time management Variable

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
Time planning	3.942	0.502	12.741	78.830	3
Time organizing	3.947	0.538	13.619	78.938	2
Time orientation	3.942	0.558	14.157	78.830	4
Time control	3.982	0.570	14.301	79.646	1
Overall average for Time Management	3.953	0.442	11.190	79.062	-

To represent the level of importance of the dimensions of the time management variable graphically at the level of universities and private colleges of the study sample, the graphical columns were selected to achieve this purpose, and a conforming with the values of the arithmetic mean, the figure (8) shows this:

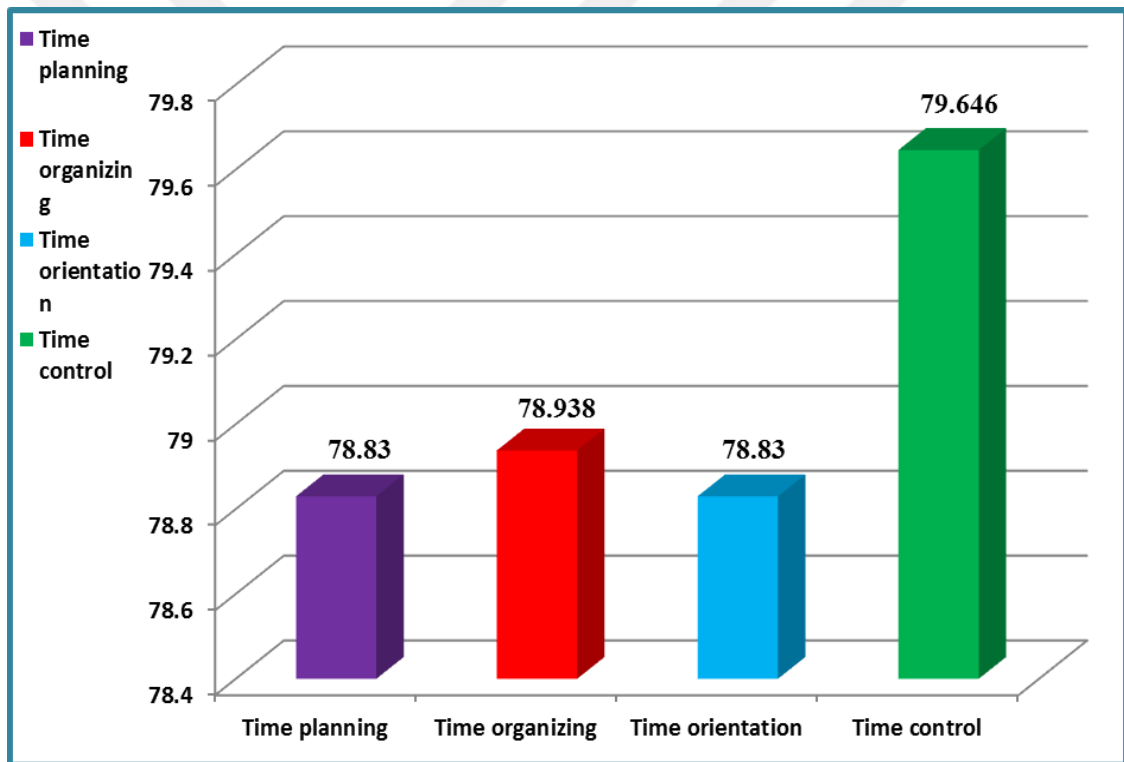


Figure 8: Graphical representation of time management dimensions

3.3. Description and diagnosis of strategic agility

This variable consists of four sub-dimensions, along these lines:

3.3.1. Description and diagnosis of the dimension of Decisions making's agility

Table (24) shows the results of descriptive statistics for the dimension of Decisions making's agility, which is represented by five field indicators (DMA1 - DMA5), where the total arithmetic mean for this dimension (3.820), standard deviation (0.701), relative variation coefficient (18.338) and relative importance (76.408%), and that shows that the agreement of the sample members on this dimension was high.

The fourth paragraph, which contains (We take advantage of some of the decisions that succeeded in the past to formulate decisions related to the future) got the highest weighted arithmetic mean, as it reached (3.993) with a standard deviation of (0.815) and a relative difference coefficient of (20.411%) and a relative importance of (79.864%) and that shows that the level of answers was high on this paragraph. While the first paragraph, which content (The university has multiple scenarios suitable for any emergency) got the lowest arithmetic average, which amounted to (3.687) and a standard deviation of (0.920) with a relative difference coefficient of (24.955%) and a relative importance of (73.742%), and although this paragraph has obtained the least arithmetic mean, it still has a high level of answers a a conforming with the result of the result of the answers of the sample members.

Table 24: Descriptive statistics for Decisions making's agility dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
The university has multiple scenarios suitable for any emergency situation.	3.687	0.920	24.955	73.742	5
Decisions are made a conforming with the contingency theory to deal with merging situations and circumstances.	3.816	0.922	24.152	76.326	3
Top management supports lecentralized decision-making to solve urgent problems.	3.701	1.063	28.712	74.014	4
We take advantage of some of the decisions that succeeded in the past to formulate decisions related to the future.	3.993	0.815	20.411	79.864	1
The decisions of the top management at the university are distinguished by their keeping pace with the development taking place in the external environment.	3.905	0.931	23.854	78.096	2
Overall average for Decisions making's agility	3.820	0.701	18.338	76.408	-

3.3.2. Core capabilities dimension

Table (25) shows the results of descriptive statistics for the dimension of core capabilities, which is represented by five field indicators (CC1 - CC5), where the total arithmetic mean of this dimension was (3.763), standard deviation (0.758), coefficient of relative variation (20.146%) and relative importance (75.266%), and that shows that the agreement of the sample members on this dimension was high. The fourth paragraph, which content (We can describe the skills and knowledge we have, which are our greatest strengths that we adopt to achieve our competitive advantage with the rest of the universities) got the highest arithmetic mean as it reached (3.844) and a standard deviation of (0.866) and a relative difference coefficient of (22.522%) and a relative importance of (76.870%), and that shows that the level of answers was high on this paragraph. While the fifth paragraph, which content (The university has advanced technology to implement its internal operations) got the lowest arithmetic mean, which amounted to (3.714) and a standard deviation of (0.993) and a relative difference coefficient of (26.738%) and a relative importance of (74.286%) and although this paragraph has obtained the least arithmetic mean, it still has a high level of answers a conforming with the result of the result of the answers of the sample members.

Table 25: Descriptive statistics for core capabilities dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
The university employs it's strengths in a way which achieve it's special abilities .	3.782	1.044	27.594	75.646	2
The university allocates the resources which it needs to improve all it's operations .	3.755	1.089	29.004	75.102	3
The university has a good understanding of the skills and knowledge it has because it is examined the most important to achieve the best results .	3.721	1.078	28.961	74.422	4
We can describe the skills and knowledge we have, which are our greatest strengths that we adopt to achieve our competitive advantage with the rest of the universities.	3.844	0.866	22.522	76.870	1
The university has advanced technology to implement its internal operations.	3.714	0.993	26.738	74.286	5
Overall average for core capabilities	3.763	0.758	20.146	75.266	-

3.3.3. Sharing responsibility dimension

Table (26) shows the results of descriptive statistics for the responsibility sharing dimension, which is represented by five field indicators (SR1 – SR5), where the total \arithmetic mean for this dimension was (3.762), standard deviation (0.798), relative variation coefficient (21.205%) and relative importance (75.238%), and that shows that the agreement of the sample members on this dimension was high. The fourth paragraph, which content is (The university provides all facilities to access information of interest to our students and to all the people we work with) obtained the highest weighted arithmetic mean of (3.816) with a standard deviation of (0.951) and a relative difference coefficient of (24.919%) and a relative importance of (76.326%), That shows that the level of responses to this paragraph was high. While the fifth paragraph, which contains (Open discussion with all concerned individuals to implement the best strategies) got the lowest arithmetic mean, which reached (3.701) with a standard deviation of (1.088) and a relative difference coefficient of (29.400%) and a relative importance of (74.014%), and although this paragraph has obtained the least arithmetic mean, it still has a high level of answers a conforming with the result of the result of the answers of the sample members

Table 26: Descriptive statistics for Sharing responsibility dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
Top management engages relevant employees in both planning and implementation process to enhance their role in contributing to reach the best result .	3.762	0.939	24.954	75.238	3
Top management encourages employees to deal with any mistakes that may occur and consider them as learning opportunities.	3.769	1.047	27.789	75.374	2
Top management deals with concerned individuals as partners in the responsibility to achieve the final results.	3.762	1.042	27.712	75.238	4
The university provides all facilities to access information of interest to our students and to all the people we work with .	3.816	0.951	24.919	76.326	1
Open discussion with all concerned individuals to implement the best strategies .	3.701	1.088	29.400	74.014	5
Overall average for Sharing responsibility	3.762	0.798	21.205	75.238	-

3.3.4. Description and diagnosis of the selection of strategic targets dimension

Table (27) shows the results of descriptive statistics for the dimension of the selection of strategic targets, which is represented by five field indicators (SST1 - SST5), where the total arithmetic mean of this dimension was (3.863), standard deviation (0.722), relative difference coefficient (18.696) and relative importance (77.252%), and that shows that the agreement of the sample members on this dimension was high. The fifth paragraph, which contains (The university sets strategic goals a conforming with its vision and mission) got the highest arithmetic mean, as it reached (3.946) with a standard deviation of (0.842) and a relative difference coefficient of (21.346%) and a relative importance of (78.912%) and that shows that the level of answers was high on this paragraph. While the second paragraph, which content (The university is taking notice to put all its goals and operations to be implemented in the right place that achieves the best results) got the lowest arithmetic mean, which amounted to (3.776) and a standard deviation of (0.920) and a relative difference coefficient of (24.369%) and relative importance of (75.510%), and although this paragraph has obtained the least arithmetic media, it still has a high level of answers that shows the result of the answers of individuals Sample.

Table 27: Descriptive statistics for selection of strategic targets dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
The university's top management realizes which competencies and processes it needs to enhance its strategic goals that achieve the best service for our students .	3.816	0.979	25.663	76.326	4
The university is take notice to put all its goals and operations to be implemented in the right place that achieves the best results.	3.776	0.920	24.369	75.510	5
The university develops specific interim goals linked to the strategic goals.	3.850	0.831	21.571	77.006	3
Top management is taking notice to match the strategic objectives with the opportunities available to it.	3.925	0.922	23.495	78.504	2
The university sets strategic goals according of its vision and mission.	3.946	0.842	21.346	78.912	1
Overall average for The selection of strategic targets	3.863	0.722	18.696	77.252	-

Table (28) shows the descriptive statistics of the main strategic agility variable has achieved arithmetic mean of (3.802) and the value of its standard deviation (0.623) and a coefficient of variation of (16.388%) and the relative importance achieved has reached (76.040%) and that shows that this variable has a high level of importance a conforming with the result of the answers of the sample members and these results indicate the accessibility of a high level of a accordance to the members of the sample surveyed for the existence of paragraphs of the strategic agility variable in the field. That shows that the private universities and colleges of the sample of the study seek well to attending to their strategic agility and this is achieved through attention to decision-making steps and how to determine strategic goals and the expansion of education plans and planning to enter the global rankings by investing the various core capabilities that they possess in addition to seeking attention to public issues and activities that positively affect the maximization of their responsibility in community service. As for the general ranging of the dimensions of the strategic agility variable in the field, which considers the range of the interest of universities and private colleges in the study sample in these dimensions, their order was along these lines (selection of strategic targets, decision-making's agility, core capabilities, and sharing of responsibility) Sequentially.

Table 28: Descriptive statistics for Strategic Agility Variable

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
Decisions making's agility	3.820	0.701	18.338	76.408	2
core capabilities	3.763	0.758	20.146	75.266	3
Sharing responsibility	3.762	0.798	21.205	75.238	4
The selection of strategic targets	3.863	0.722	18.696	77.252	1
Overall average for Strategic Agility	3.802	0.623	16.388	76.040	-

To represent the level of importance of the dimensions of the strategic agility variable graphically of universities and private colleges of the study sample, the graphical columns were selected to achieve this purpose and a conforming with the values of the arithmetic means and the figure (9) shows that:

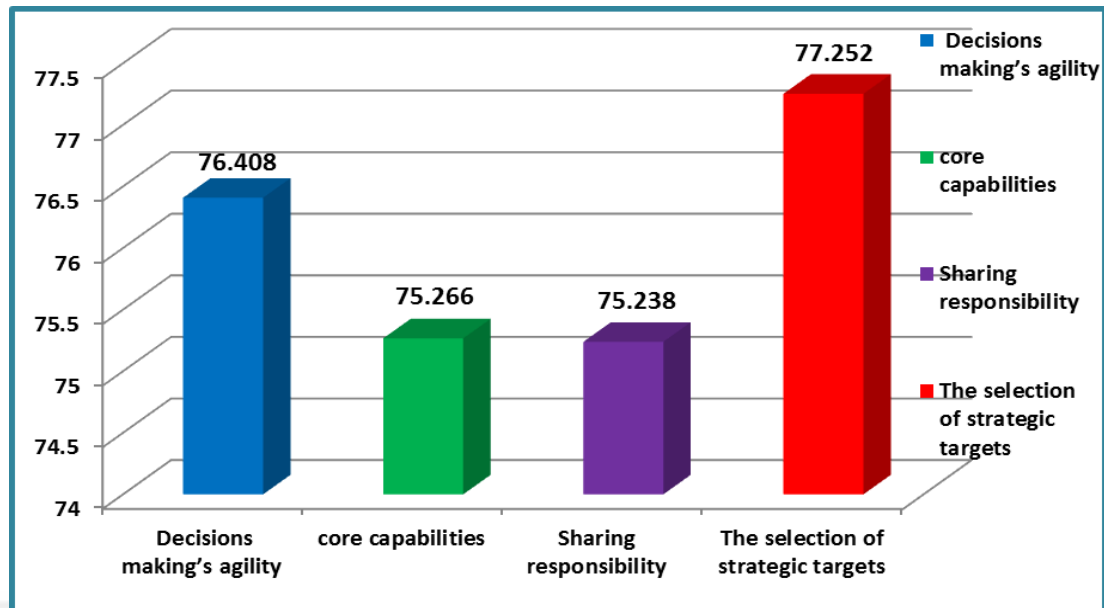


Figure 9: Graph of strategic agility dimensions.

3.4. Description and diagnosis of risk management

This variable consists of four sub-dimensions, along these lines:

3.4.1. Description and diagnosis of the definition of risks dimension

Table (29) shows the results of descriptive statistics for the risk definition dimension, which is represented by five field indicators (IR1 - IR5), where the total arithmetic mean of this dimension was (3.659), standard deviation (0.725), relative variation coefficient (19.827) and relative importance (73.170%), and that shows that the agreement of the sample members on this dimension was high. The fourth paragraph, which content (The work team participates with the top management and the competent authorities in identifying risks), got the highest arithmetic mean, as it reached (3.721) with a standard deviation of (0.964) and a relative difference coefficient of (25.896%) and a relative importance of (74.422%) and that shows that the level of answers was high on this paragraph. While the second paragraph, which contains (There are studies and procedures at the university that enable us to diagnose potential risks) got the lowest arithmetic mean, which amounted to (3.599) a standard deviation of (1.025) and a relative difference coefficient of (28.477%) and relative importance of (71.972%) and although this paragraph has obtained the least arithmetic

mean, it still enjoys a high level of answers a conforming with the result of the answers of the sample members.

Table 29: Descriptive statistics for Identify risks dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
Risk diagnosis committees cooperate with top management to identify risks related to natural disasters, crises and potential emergency events and setting the necessary controls to reduce them .	3.660	0.983	26.850	73.198	3
There are studies and procedures at the university that enable us to diagnose potential risks.	3.599	1.025	28.477	71.972	5
Experts are used to identify the expected risks.	3.599	0.984	27.340	71.972	4
The work team participates with the top management and the competent authorities in identifying risks .	3.721	0.964	25.896	74.422	1
The university undertakes a comprehensive systematic determination of the risks related to its activities.	3.714	0.922	24.812	74.286	2
Overall average for Identify risks	3.659	0.725	19.827	73.170	-

3.4.2. Risk assessment dimension

Table (30) shows the results of descriptive statistics for the risk assessment dimension, which is represented by five field indicators (RA1 - RA5), where the total arithmetic mean for this dimension was (3.684), standard deviation (0.762), relative variation coefficient (20.674%) and relative importance (73.688%), and that shows that the agreement of the sample members on this dimension was high. The second paragraph, which contains (We carry out an assessment and review process for risk management steps) got the highest arithmetic mean, as it reached (3.748) with a standard deviation of (0.964) and a relative difference coefficient of (25.719%) and a relative importance of (74.966%), and that shows that the level of answers was high on this paragraph. While the third paragraph, which content (The university has a clear and effective risk management plan) got the lowest arithmetic mean, which amounted to (3.592) and a standard deviation of (1.039) and a relative difference coefficient of (28.918%) and a relative importance of (71.836%) and although this paragraph has obtained the least arithmetic mean, it still has a high level of answers a conforming with the result of the answers of the sample members.

Table 30: Descriptive statistics for risk assessments dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
The risk assessment committees submit reports on the results of the risk assessment and evaluate the efficiency and effectiveness of the controls established to face risks.	3.748	0.978	26.096	74.966	2
We carry out an assessment and review process for risk management steps.	3.748	0.964	25.719	74.966	1
The university has a clear and effective risk management plan.	3.592	1.039	28.918	71.836	5
The university uses experts to take advantage of their opinions helping in making decisions about risk management .	3.674	0.966	26.305	73.470	3
Risks are divided into different levels and degrees in terms of probability of occurrence and expected impact.	3.660	0.940	25.682	73.198	4
Overall average for Risk assessments	3.684	0.762	20.674	73.688	-

3.4.3. Make the Decision of taking risks dimension

Table (31) shows the results of descriptive statistics for the dimension of Make decision of taking risks, which is represented by five field indicators (MDTR1 – MDTR5), where the total arithmetic mean for this dimension was (3.712), standard deviation (0.720), relative variation coefficient (19.399%) and relative importance (74.232%), and that shows that the agreement of the sample members on this dimension was high. The first paragraph, which content (Cooperation occurs between all levels of the university to face the risk of risks), got the highest arithmetic mean, as it reached (3.796) with a standard deviation of (0.943) and a relative difference coefficient of (24.847%) and a relative importance of (75.918%), and that shows that the level of answers was high on this paragraph. While the third paragraph, which content (Top management differentiates between decision making based on the least cost) got the lowest arithmetic mean, which reached (3.578) with a standard deviation of (0.999) and a relative difference coefficient of (27.933%) and a relative importance of (71.564%) and although this paragraph has obtained the least arithmetic mean, it still has a high level of answers a conforming with the responses of the sample.

Table 31: Descriptive statistics for Make Decision of taking risks dimension

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
Cooperation occurs between all levels of the university to facing the risk of risks	3.796	0.943	24.847	75.918	1
A specialized team is created to deal with the crisis with the determination of the expert members.	3.789	0.995	26.252	75.782	2
Top management differentiates between decision making on the basis of least cost .	3.578	0.999	27.933	71.564	5
Work is being done on the cognitive development of university employees in order to help in making better decisions to facing risk .	3.714	1.040	28.007	74.286	3
Strategies are prepared to facing the risks.	3.680	0.844	22.930	73.606	4
Overall average Make Decision of taking risks	3.712	0.720	19.399	74.232	-

3.4.4. Description and diagnosis of the risk control dimension

Table (32) shows the results of descriptive statistics for the risk control dimension, which is represented by five field indicators (RC1 - RC5), where the total arithmetic mean for this dimension was (3.857), standard deviation (0.641), relative variation coefficient (16.631) and relative importance (77.142%), and that shows that the agreement of the sample members on this dimension was high. The fourth paragraph, which content (have given the planned results) obtained the highest arithmetic mean, as it reached (3.925), with a standard deviation of (0.861), with a relative difference coefficient of (21.930%) and a relative importance of (78.504%), and that shows that the level of answers was high on this paragraph. While the fifth paragraph, which content (The learned lessons of risk management would be identified in the future, through documentation of previous risks) got the lowest arithmetic average, which amounted to (3.796) and a standard deviation of (0.936) and a relative difference coefficient of (24.655%) and relative importance of (75.918%), and although this paragraph has obtained the least arithmetic mean, it still has a high level of answers a conforming with the result of the answers of the sample members.

Table 32: Descriptive statistics for Risks control dimension

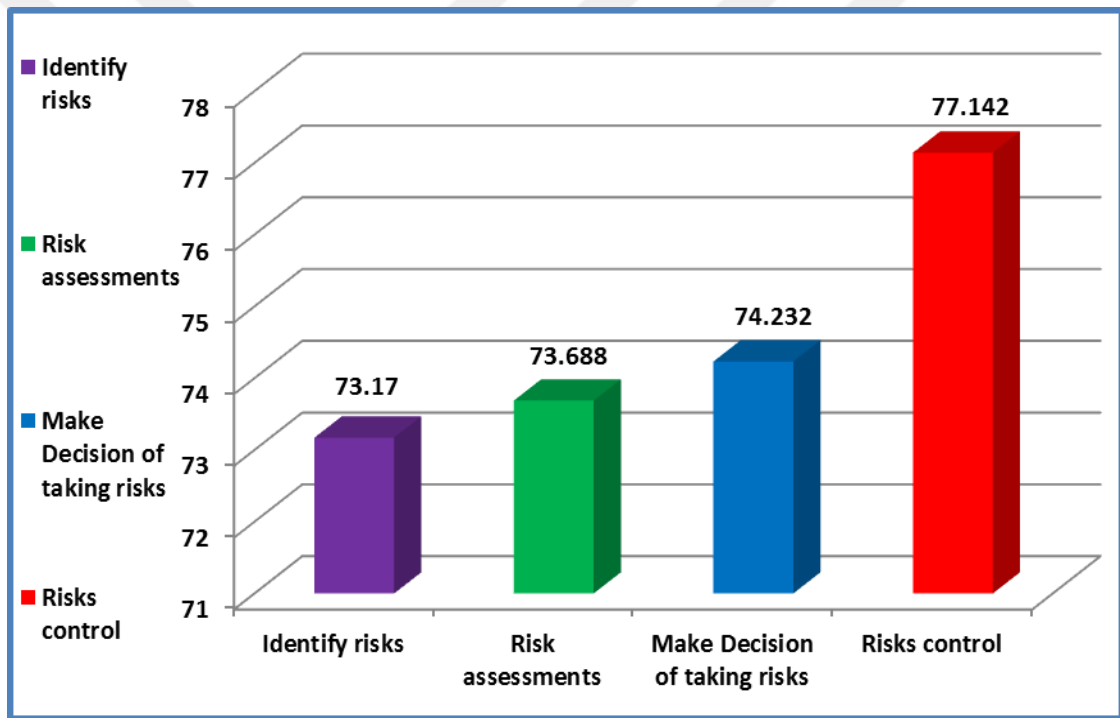
Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
Top management is following up to make sure that the goals have achieved to facing the risks .	3.844	0.774	20.131	76.870	3
Top management considers dealing with the riskous risks for the university, the least risk .	3.837	0.884	23.040	76.734	4
It is ensured that the following procedures	3.884	0.763	19.647	77.688	2
have given the planned results .	3.925	0.861	21.930	78.504	1
The learned lessons of the risk management would be identified in the future, through documentation of previous risks .	3.796	0.936	24.655	75.918	5
Overall average for Risks control	3.857	0.641	16.631	77.142	-

Table (33) shows the descriptive statistics of the main risk management variable has achieved arithmetic mean of (3.728) and the value of its standard deviation (0.615) and a coefficient of variation of (16.490%) and the relative importance achieved has reached (74.558%) and that shows that this variable has a high level of importance a conforming with the result of the answers of the sample members and these results indicate the accessibility of a high level of agreement among the members of the sample surveyed about the existence of paragraphs of the risk management variable in the field. That shows that the private universities and colleges of the study sample are interested in the methods of managing the risks they face, and this is enough to prepare well for the threats expected to be faced in the environment by introducing the risks they face and determining the methods of evaluating them continuously and growing and taking the necessary decisions to face the risks by directing the overall capabilities and available resources, following them up and controlling their events and causes to prevent their negative impact on their future. As for the general ranging of the dimensions of the risk management variable in the field, which considers the range of the interest of private universities and colleges in the study sample in these dimensions, their order was along these lines sequentially.

Table 33: Descriptive statistics for Risk Management Variable

Items	Mean	Std. Deviation	Variation Coeff.%	Relative importance%	Items arrange
Identify risks	3.659	0.725	19.827	73.170	4
Risk assessments	3.684	0.762	20.674	73.688	3
Make Decision of taking risks	3.712	0.720	19.399	74.232	2
Risks control	3.857	0.641	16.631	77.142	1
Overall average for Risk Management	3.728	0.615	16.490	74.558	-

To represent the level of importance of the dimensions of the risk management variable graphically at the level of universities and private colleges of the study sample, the graphical columns were selected to achieve this purpose and a conforming with the values of the arithmetic mean, and figure (10) shows that:

**Figure 10:** Graphical representation of risk management dimensions.

3.5. Study hypotheses test

3.5.1. Introduction

This chapter includes testing the hypotheses of the study, analyzing and interpreting its results by testing the nature and level of direct influence relations between the variables and testing the modifying role in light of the hypotheses

stipulated previously. Depending on the research structure (figure 3.11) and research hypotheses :

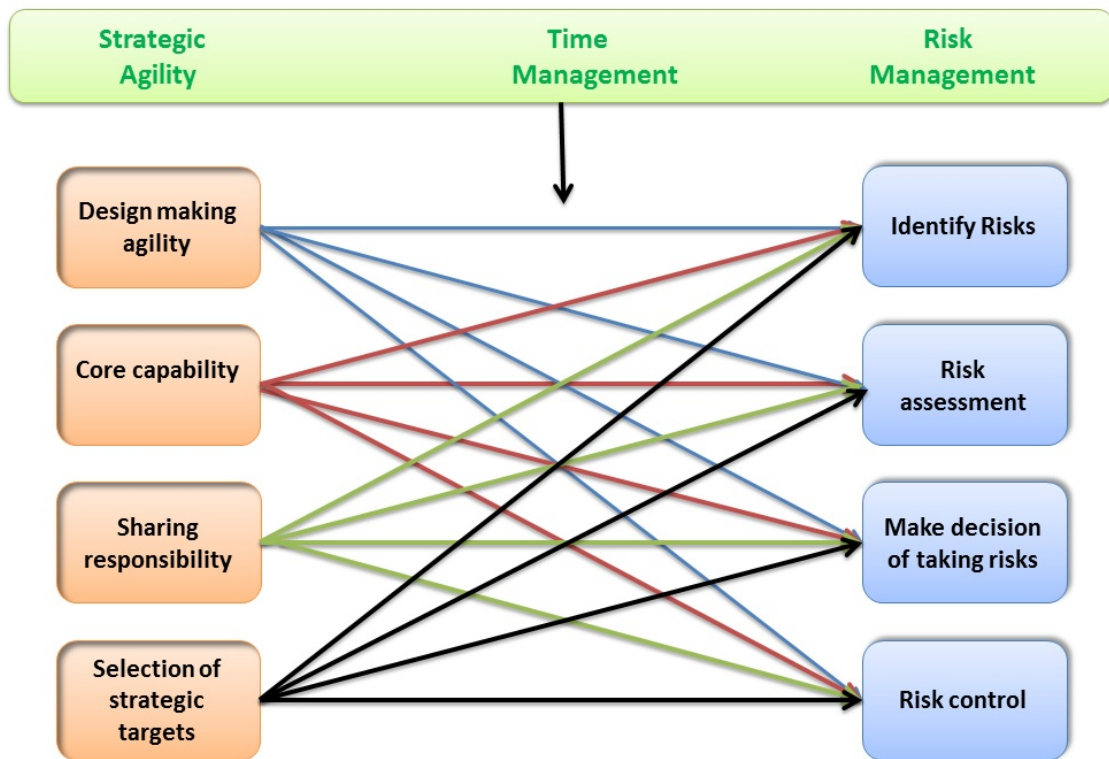


Figure 11: structure of study

- The blue lines in the structure above refer to (H1, H1a, H1b, H1c, and H1d) hypotheses.
- The red lines in the structure above refer to (H2, H2a, H2b, H2c, and H2d) hypotheses.
- The green lines in the structure above refer to (H3, H3a, H3b, H3c, and H3d) hypotheses.
- The black lines in the structure above refers to (H4, H4a, H4b, H4c, and H4d) hypotheses.

The hypotheses of the study are :

H1: Strategic agility has a direct effect on risk management.

H1a: Decision making agility has a direct effect on risk management.

H1b: Core capability has a direct effect on risk management.

H1c: Sharing responsibility has a direct effect on risk management.

H1d: Selection of strategic targets has a direct effect on risk management.

H2: Time management has a direct effect on risk management.

H2a: Time planning has a direct effect on risk management.

H2b: Time organizing has a direct effect on risk management.

H2c: Time orientation has a direct effect on risk management.

H2d: Time control has a direct effect on risk management.

H3: Time management has a moderating role in the relation between decision making agility and risk management

H3a: Time management has a moderating role in the relation between decision making agility and identify risk

H3b: Time management has a moderating role in the relations between decision making agility and risk assessment

H3c: Time management has a moderating role in the relations between decision making agility and make decision of taking risk

H3d: Time management has a moderating role in the relations between decision making agility and risk control

H4: Time management has a moderating role in the relations between core capability and risk management

H4a: Time management has a moderating role in the relations between core capabilities and identify risk

H4b: Time management has a moderating role in the relations between core capability and risk assessment

H4c: Time management has a moderating role in the relations between core capability and make decision of taking risk

H4d: Time management has a moderating role in the relations between core capability and risk control

H5: Time management has a moderating role in the relations between sharing responsibility and risk management

H5a: Time management has a moderating role in the relations between sharing responsibility and identify risk

H5b: Time management has a moderating role in the relations between sharing responsibility and risk assessment

H5c: Time management has a moderating role in the relations between sharing responsibility and make decision of taking risk

H5d: Time management has a moderating role in the relations between sharing responsibility and risk control

H6: Time management has a moderating role in the relations between selection strategic targets and risk management

H6a: Time management has a moderating role in the relations between selection strategic targets and identify risk

H6b: Time management has a moderating role in the relations between selection strategic targets and risk assessment

H6c: Time management has a moderating role in the relations between selection strategic targets and make decision of taking risk

H6d: Time management has a moderating role in the relations between selection strategic targets and risk control

A conforming with the mentioned hypotheses, several questions come to mind that can be asked along these lines:

1-What is the nature of the consumption and exploitation of the time factor in Iraqi private universities?

2-How private universities confront the risks they face during the educational process.

3-How agile are the ideas and strategies developed by universities in their plans and strategies that aim to implement and achieve them in the future?.

4-Does time management have a moderating role for risk management practices and their impact on strategic agility?.

5-Does risk management in private universities suffer as a result of top management's agile strategies?.

In light of the result of the answers of the sample members and at the level of universities and private colleges the sample of the study the analysis seems along these lines:

3.5.2. The direct effect hypothesis is tested

The structural equation modeling technique (SEM) is a very effective method in terms of representing the direct effects of the direct variables on the factors measured in the hypothetical model, and thus this technique is characterized as the opposite of regression analysis, as it allows the inclusion of measurement errors in the analyzes because ignoring measurement errors can lead to biased parameter estimates between the two variables, which exacerbates the problem without solving it (Sardeshmukh & Vandenberg, 2017:1-3) Thus, the level of direct influence between variables can be determined by them, along these lines:

3.5.2.1. The first main hypothesis

(There is a significant effect of strategic agility in risk management) By observing the figure (11), it is clear that there is a positive and significant effect of the strategic agility variable in risk management, as we note that the value of the standard impact factor has reached (0.73), and this means that the strategic agility variable affects the risk management variable by (73%) a conforming with Universities and private colleges study sample. This means that changing one deviation unit from the strategic agility in the sample of the study will lead to a positive change in risk management by (73%). This value is examined significant, because the critical ratio's value (C.R) shown in the table (34) amounting to (12.779) is a significant value at the level of significance (P-Value) shown in the same table. It is also clear from figure (3.12) that the value of the interpretation coefficient (r^2) has reached (.530), which means that the strategic agility variable is able to explain (53%) of the changes that

occur in risk management in universities and colleges in the study sample, while the remaining percentage is (47%) is due to other variables not included in the study mode.

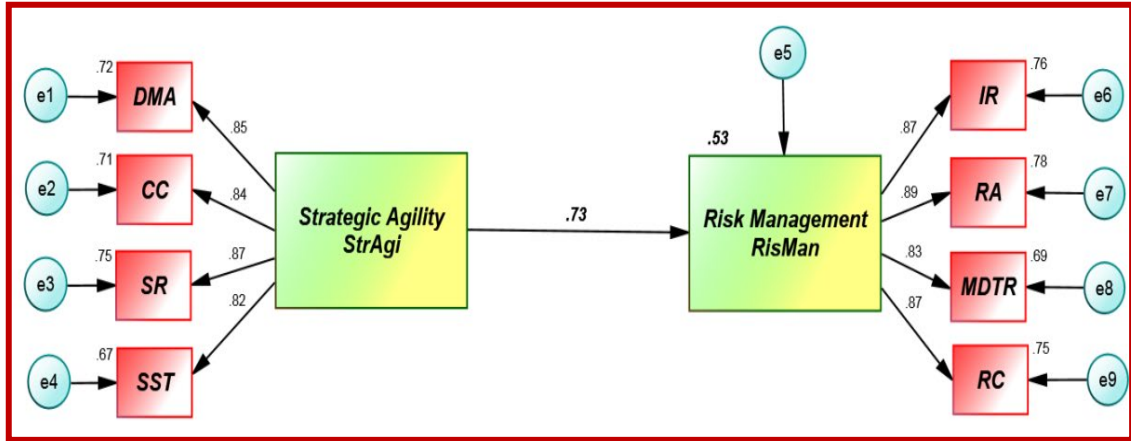


Figure 12: The impact of strategic agility on risk management

Table 34: Parameters and Pathways of the impact of strategic agility testing in risk management.

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
RisMan	<--- StrAgi		.727	.728	.057	12.779	***
CC	<--- StrAgi		.845	1.043	.055	19.069	***
DMA	<--- StrAgi		.847	.979	.051	19.262	***
SR	<--- StrAgi		.868	1.097	.052	21.079	***
SST	<--- StrAgi		.815	.881	.052	17.026	***
IR	<--- RisMan		.871	1.028	.048	21.419	***
RA	<--- RisMan		.886	1.098	.048	23.076	***
RC	<--- RisMan		.866	.904	.043	20.955	***
MDTR	<--- RisMan		.829	.970	.054	17.881	***

From the first main impact hypothesis, four sub-hypothesis stem from the following:

The first sub-hypothesis test: (there is a significant effect of the decision-making agility dimension in risk management:

Figure (13) shows the presence of a positive and significant effect of the dimension of decision-making agility in risk management at the level of private universities and colleges in the study sample. (27%) at the level of universities and colleges, the sample of the study. This means that changing one deviation unit from the decision-making agility dimension in the sample of the study will lead to a change in

risk management by (27%). This value is examined significant because the critical ratio (C.R) shown in the table () amounting to (3.223) is a significant value at a significant level (0.001).

Second sub-hypothesis test: (there is a significant effect of the dimension of core capabilities in risk management)

Figure (3.13) shows the presence of a positive and significant effect of the dimension of core capabilities in risk management at the level of private universities and colleges in the study sample, as we note that the value of the standard impact factor has reached (0.20), which means that the dimension of core capabilities affects the risk management variable by (20) % at the level of universities and colleges, the sample of the study. This means that changing one deviation unit from the dimension of the core capabilities in the sample of the study will lead to a change in risk management by (20%). This value is examined significant because the critical ratio (C.R) shown in the table (34) amounting to (2.474) is a significant value at a significant level (0.013).

The third sub-hypothesis test: (there is a significant effect of the dimension of sharing responsibility in risk management: Figure (13) shows the presence of a positive and significant effect of the dimension of sharing responsibility in risk management at the level of universities and private colleges in the study sample, as we note that the value of the standard impact factor has reached (0.22) and this means that after sharing responsibility affects the risk management variable by (22 %) at the level of universities and colleges, the sample of the study. This means that changing one deviation unit after sharing responsibility in the sample of the study will lead to a change in risk management by (22%). This value is examined significant because the critical ratio (C.R) shown in the table (35) amounting to (2.643) is a significant value at a significant level (0.008).

d. Fourth sub-hypothesis test: (there is a significant effect of the dimension of selection of strategic targets risk management:

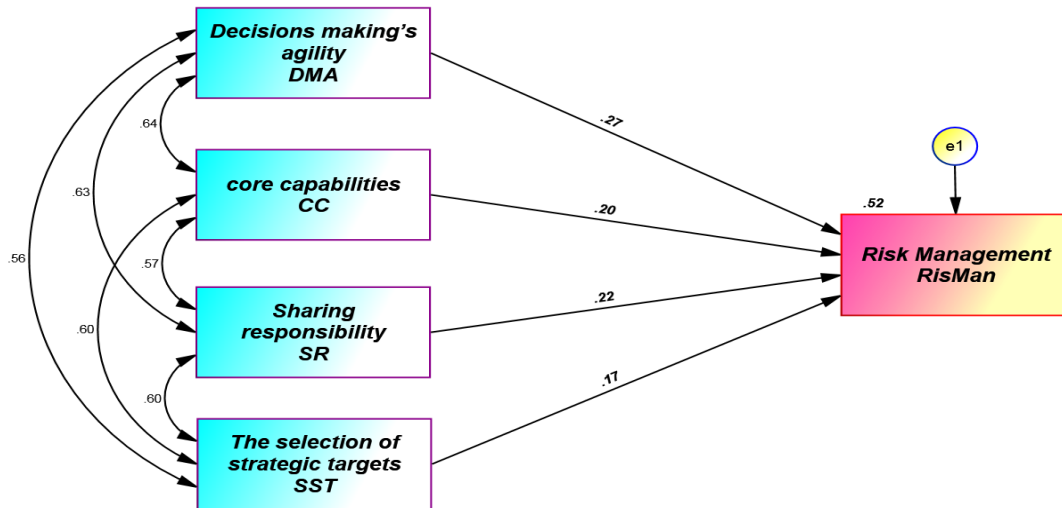


Figure 13: The impact of strategic agility dimensions in risk management

Table 35: Parameters and Pathways of the Impact of Strategic Agility test of Dimensions in Risk Management

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
RisMan	<--- DMA		.268	.232	.072	3.223	.001
RisMan	<--- CC		.201	.163	.066	2.474	.013
RisMan	<--- SR		.216	.158	.060	2.643	.008
RisMan	<--- SST		.174	.161	.073	2.202	.028

3.5.2.2. The second main hypothesis

(There is a significant effect of time management in risk management: By focusing the figure (14), it is clear that there is a positive and significant effect of the time management variable in risk management, as we note that the value of the standard impact factor has reached (0.61), and this means that the time management variable affects the risk management variable by (61%) at the level of universities and private colleges study sample. This means that changing one deviation unit from time management in the sample of the study will lead to a positive change in risk management by (61%). This value is examined significant because the critical ratio (C.R) shown in the table (36) of (9.417) is a significant value at the level of significance (P-Value) shown in the same table.

It is also evident from figure (14.) that the value of the interpretation coefficient (R^2) has reached (.380), and this means that the time management variable is able to explain (38%) of the changes that occur in risk management in universities

and colleges, the study sample. As for the remaining percentage, which is (62%) and it goes back to other variables that are not included in the study model.

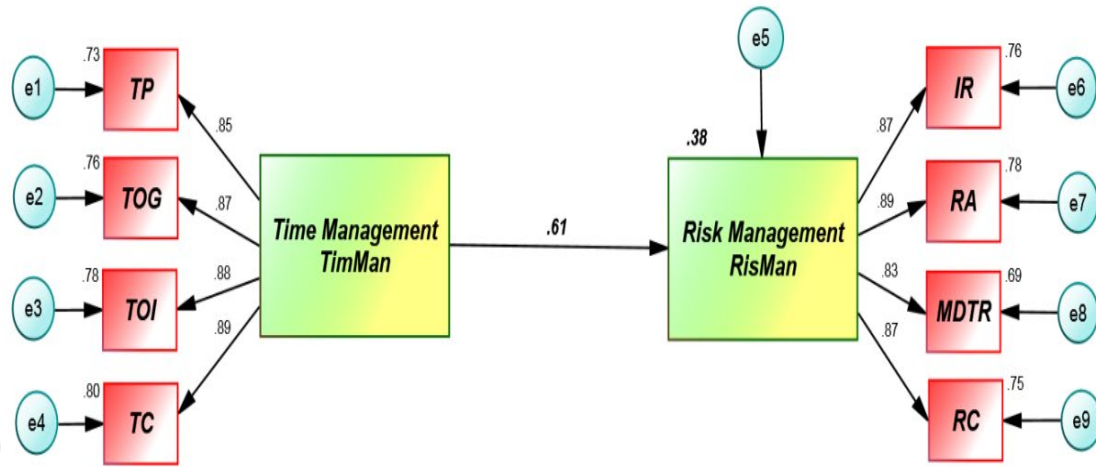


Figure 14: The impact of time management on risk management.

Table 36: Paths and parameters of testing the impact of time management in risk management

		Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
Risk Management	<---	Time Management	.615	.697	.074	9.417	***
TOG	<---	Time Management	.869	.995	.047	21.233	***
TP	<---	Time Management	.855	.904	.045	19.908	***
TOI	<---	Time Management	.884	1.049	.046	22.851	***
TC	<---	Time Management	.894	1.053	.044	24.057	***
IR	<---	Risk Management	.871	1.028	.048	21.419	***
RA	<---	Risk Management	.886	1.098	.048	23.076	***
RC	<---	Risk Management	.866	.904	.043	20.955	***
MDTR	<---	Risk Management	.829	.970	.054	17.881	***

From the second main impact hypothesis, four sub-hypotheses emerge along these lines:

a. The first sub-hypothesis test: (there is a significant effect of the time planning dimension in risk management: figure (15) shows that there is a positive and significant effect of the time planning dimension in risk management at the level of private universities and colleges in the study sample, as we note that the value of the standard impact factor has reached (0.19), which means that the time planning dimension affects the risk management variable by (19). %) according of universities

and colleges the sample of the study. This means that changing one deviation unit of planning time dimension in the study sample will lead to a change in risk management by (19%). This value is examined significant because the critical ratio (C.R) shown in the table (37) of (2.134) has significant of value at a significance level (0.033).

B. Second sub-hypothesis test: (there is a significant effect of the time organizing dimension in risk management: figure (15) shows that the of a significant positive effect of the time organizing dimension in risk management a conforming with universities and private colleges of the study sample, as we note that the value of the standard impact factor has reached (0.23) and this means that the time organizing dimension affects the risk management variable by (23%) a conforming with private universities and colleges of the study sample. This means that changing one deviation unit after time organizing in the sample of the study will lead to a change in risk management by (23%). This value is significant because the critical ratio value (C.R) shown in table (37) of (2.540) is significant at a significant level (0.011).

C-The third sub-hypothesis test: (there is a significant effect of the time orientation dimension in risk management) : Figure (15) shows that the positive effect of significant time orientation in risk management a conforming with universities and private colleges of the study sample, as we note that the value of the standard impact coefficient has reached (0.20) and this means that the dimension of time orientation affects the risk management variable by (20%) a conforming with universities and colleges of the study sample. This means that changing one deviation unit after time orientation in the sample company will lead to a change in risk management by (20%). This value is significant because the critical ratio value (C.R) shown in table (37) of (2.464) is significant at a significant level (0.014).

D. Testing the fourth sub-hypothesis: (There is a significant effect of the time control dimension in risk management) : Figure (15) shows that the significant positive effect of the time control dimension in risk management a conforming with universities and private colleges of the study sample, as we note that the value of the standard impact factor has reached (0.23) and this means that the time control dimension affects the risk management variable by (23%) a conforming with universities and colleges of the study sample. This means that changing one deviation unit from the time control dimension in the sample company will lead to a change in

risk management by (23%). This value is examined significant because the critical ratio value (C.R) shown in table (37) of (2.406) is significant at a significant level (0.016).

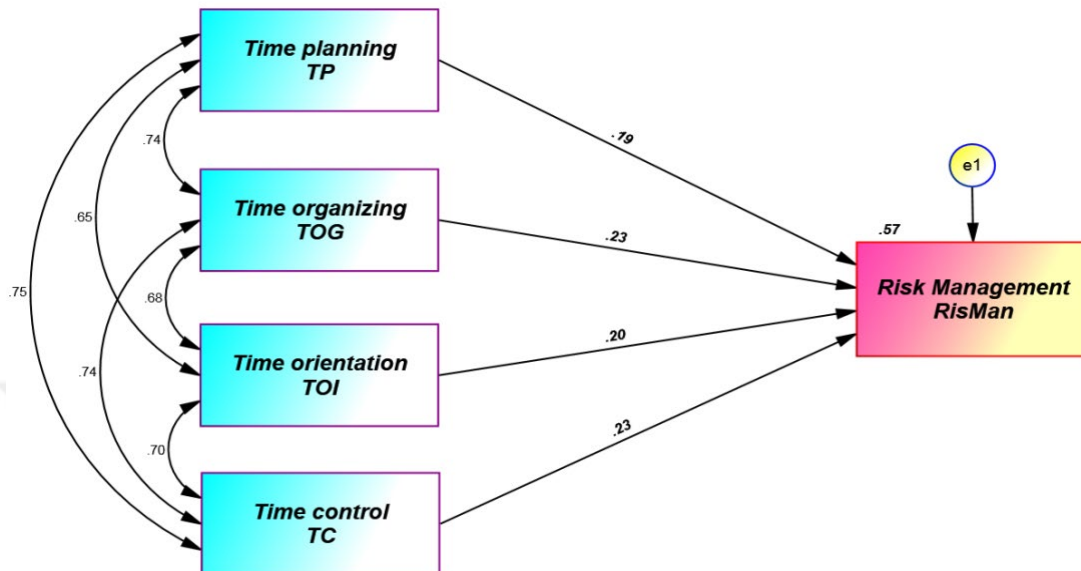


Figure 15: Impact of Time Management Dimensions on Risk Management

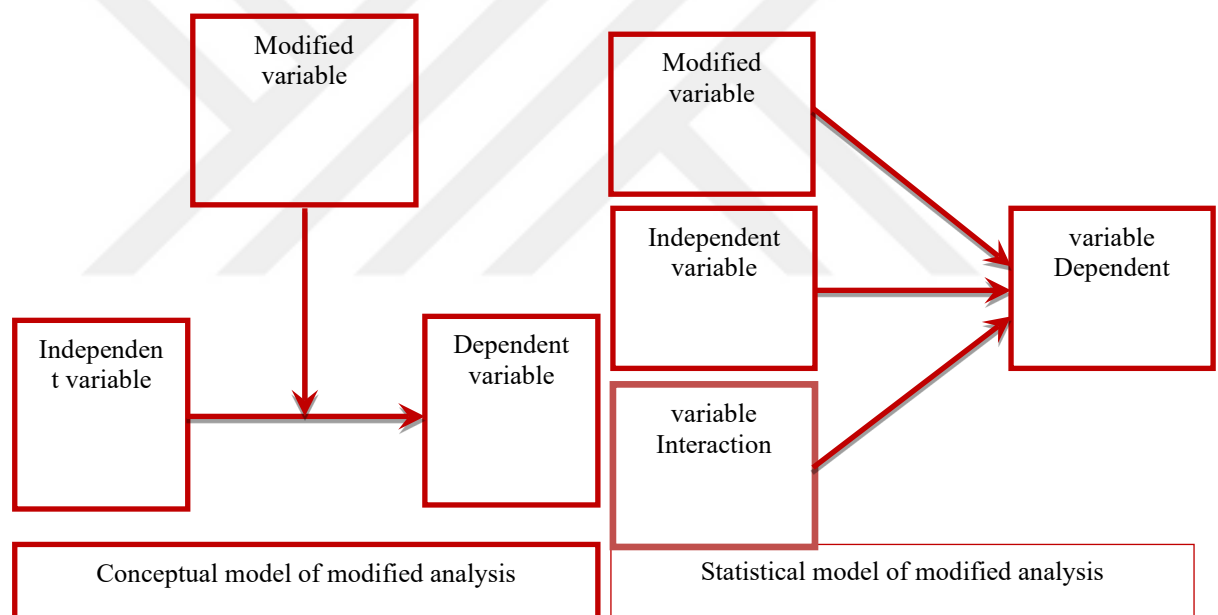
Table 37: Paths and Parameters of Testing the Effect of Time Management Dimensions in Risk Management

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
RisMan	<---	TP	.195	.167	.078	2.134	.033
RisMan	<---	TOG	.233	.194	.077	2.540	.011
RisMan	<---	TOI	.200	.157	.064	2.464	.014
RisMan	<---	TC	.226	.196	.082	2.406	.016

3.5.2.3. Testing the hypotheses of the interaction between the study variables

In general, it says that interaction occurs when the effect of the independent variable on the dependent variable varies across certain levels of the modifying variable (Moderation Variable), and this confirms that the effects of interaction, whether positive or negative, are very important for the relations between independent and dependent variables when inverting the theory in the social sciences (Alvaro et al., 2014 : 1064). Thus, interaction happens when the impact of the (IV independent variable) on a (DV dependent variable) varies a conforming with the level of a third variable called (MV) a modifying variable that associates with the independent

variable, which includes research into individual differences or situational conditions that affect the strength of the relation between the dependent variable and the independent values, and thus the variable modified increases, decreases, or alters the effect of the independent variable. (Fairchild & MacKinnon, 2009 : 90), Thus, the effect of the modifying variable in the test model is a modifying effect and is sort of convincing as well as flexible and relative in nature, however, there is no need to confuse the importance and roles of the variables, and the conditions for assuming them because they will not correspond in many cases with the conceptual framework formulated for the study (which must take into account in its details the function of each variable) that has been conducted and can be achieved a conforming with the samples studied (Pokhariyal, 2019 : 2) figure(16) refer to the concept model, the statistical analysis of analysis and the characterization of the reaction hypothesis test



(Source: Memon, M. A., Cheah, J. H., Ramayah, T., Ting, H., Chuah, F., & Cham, T. H. (2019). " Moderation analysis: issues and guidelines." *Journal of Applied Structural Equation Modeling*, 3(1), P:11.

Figure 16: Conceptual and statistical model of modified analysis

In order to test the hypothesis interaction, an advanced technical statistic known as analysis of moderation which be utilized. Analysis of Moderation points to control the level of interactivity between the independent and modified variables by constructing the interaction of variable and executing some sequent steps. These steps include the implementation of the mechanism of analysis, in terms of converting the

data of the variables to the standard (Z Scoring) measurement formula, through independent variables interaction with modified variable. Also the viability of moderating role conclude by a extent of moral significance of variable's interaction. A conforming with above as for purposes of testing reaction hypotheses, the technique of (modified analysis) will be utilized in accordance with the path of modeling a structural equation, along these lines:

3. The test of the third main hypothesis: There is a significant modifying role for the time management variable in the relation between decision-making agility and risk management: Figure (17) shows the hypothesis interaction test, which determining the amount of the modifying role for time management in the relation to agility and risk management. From model of structural we know that the value of standard regression coefficient for the interaction variable (resulting by the interaction of decision-making agility with time management) of(0.17) is significant by inferring the critical ratio value (C.R) shown in table(38) for (2.391) is a value of significant at significance level (p_value) of (0.017). Thus, this result proves the role that modified of time management changed in the relation with decision-making agility and risk management, which means that the level of positive relation between decision-making agility and risk management will increase with the changing in the level of time management by (one) unit.

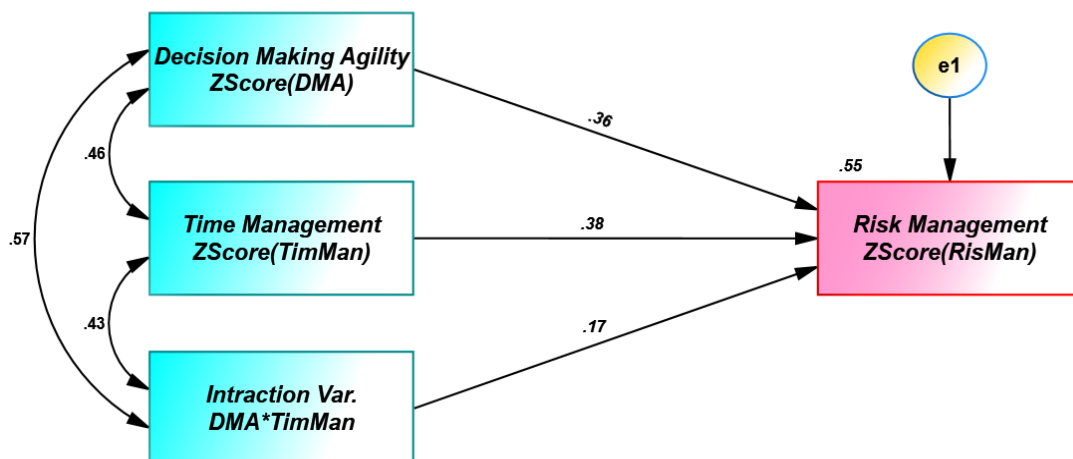


Figure 17: the test of the modifying role of time management in the relation between decision making agility and risk management

Table 38: Parameters of the modifying role of time management in the relation between agility of decision-making and risk management

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRisMan	<---	ZDMA	.359	.312	.062	5.066	***
ZRisMan	<---	ZTimMan	.378	.429	.073	5.884	***
ZRisMan	<---	Interaction Var.	.167	.018	.008	2.391	.017

Figure (18) shows the graphic chart of the relation of interaction between the study excises, which shows two levels of the variable modifying time management (high and low) ; how the relation modifies (increases thier positivity) in decision-making agility & risk management based on the program (ModGrap).

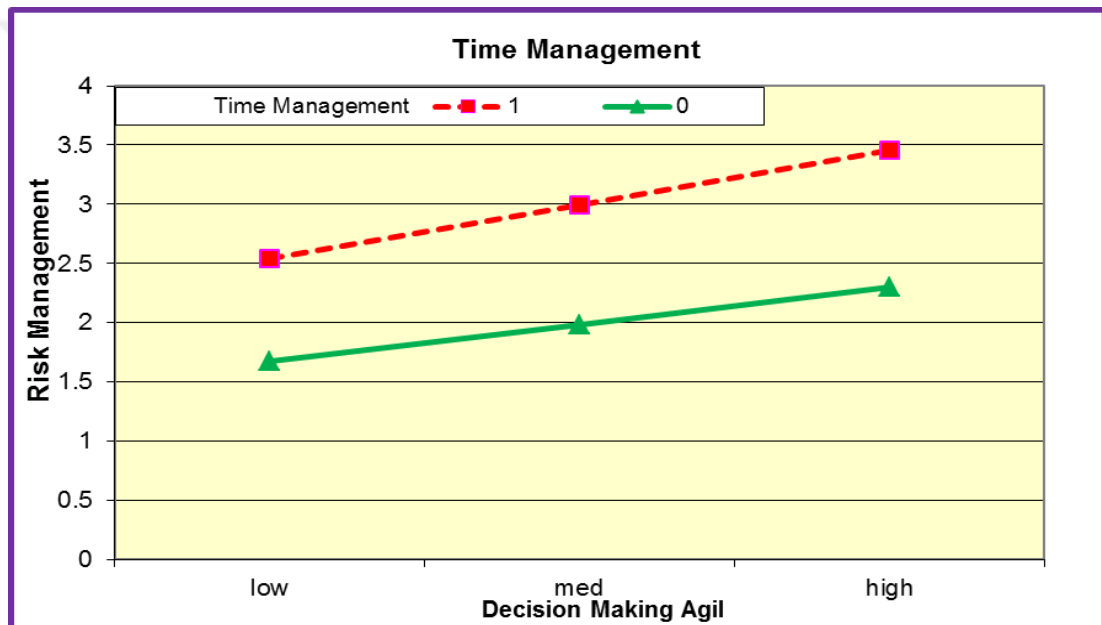


Figure 18: Graphical representation of time management levels as a modifying variable of the relation between decision agility and risk management.

The third main hypothesis has four sub-hypotheses:

- The first sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between decision-making agility and identify risk: Figure (19) shows the hypothesis interaction test, which refer to determining level of the role that modified in time management with relation to agility of decision-making and the definition of risk. From the model of structural we know that; the value of standard regression coefficient of the variable interaction (accrued from interaction of

decision-making agility with time management) which about (0.15) has significant by inferring the value of the (C.R)critical ratio shown in table(39) of (2.137) which refer to the value which significant at the level of (P-Value)significance of(0.033). There for it concluded that the role that modified for time management variable in relation to decision-making agility and the identify risk, the level of positive relation between agility of decision-making and identify risk will increase by altering the level of time management in (one)unit .

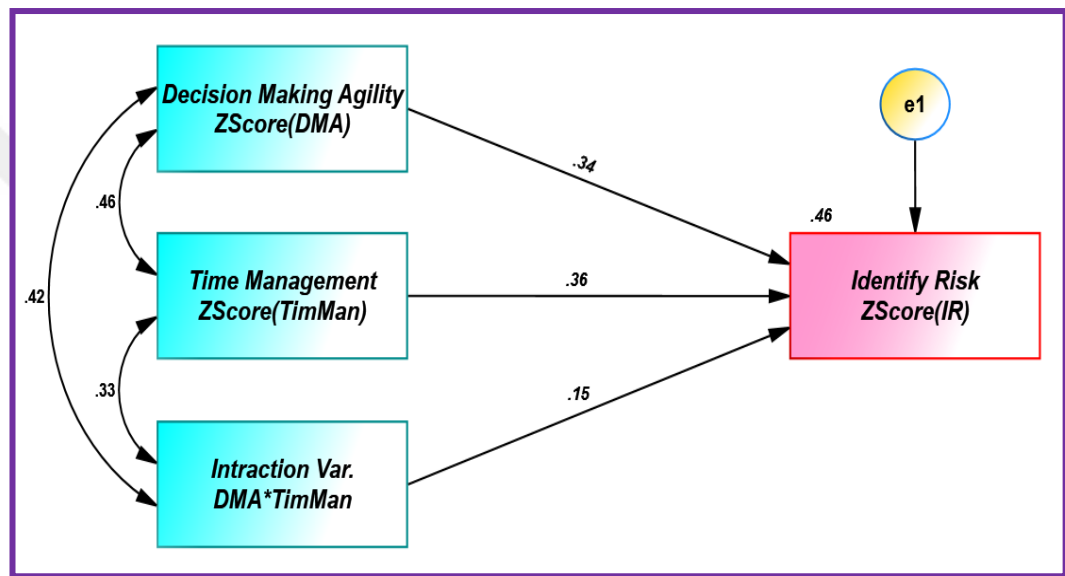


Figure 19: the test of modifying role of time management in relation with decision-making agility & the identify risk .

Table 39: Parameters of the modifying role of time management in the relation between agility of decision making and definition of risk

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
ZIR	<--- ZDMA	.343	.351	.074	4.718	***
ZIR	<--- ZTimMan	.357	.478	.093	5.129	***
ZIR	<--- Interaction Var.	.146	.017	.008	2.137	.033

Figure (20) shows the graphic chart of relation of the study variables, which present two levels of time management modifying variable (increase, decrease) and how can we modifying these relation (increases its positivity) between decision-making agility and the identify risk based on the program (ModGraph).

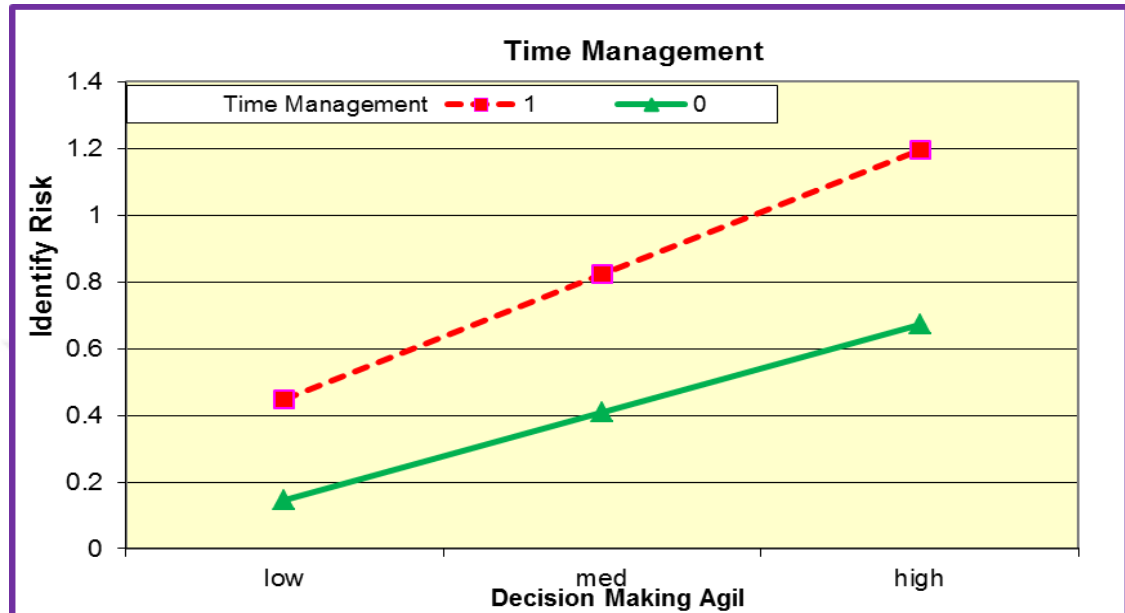


Figure 20: Graphical representation of time management levels as a modifying variable of the relation between decision-making agility and identify risk .

B. The second sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between decision-making agility and risk assessment: Figure (21) shows the interaction hypothesis test, which representing in detection of modifying role level of time management in relation of decision-making agility with risk assessment. It noted that the model's structural of standard regression coefficient value of the variable interaction (as a result of interaction of decision-making agility with time management) of (0.14) is significant by inferring from (C.R) critical ratio value that shown in table(40) of (2.021) is a significance value at level of (P-Value) significance of (0.043). Therefore, it is concluded that the role that modified of the variable (time management) in the relations of decision-making agility with risk assessment, that means, the level of positive relation of decision-making agility with risk assessment cause increase by altering the level of time management by (one unit).

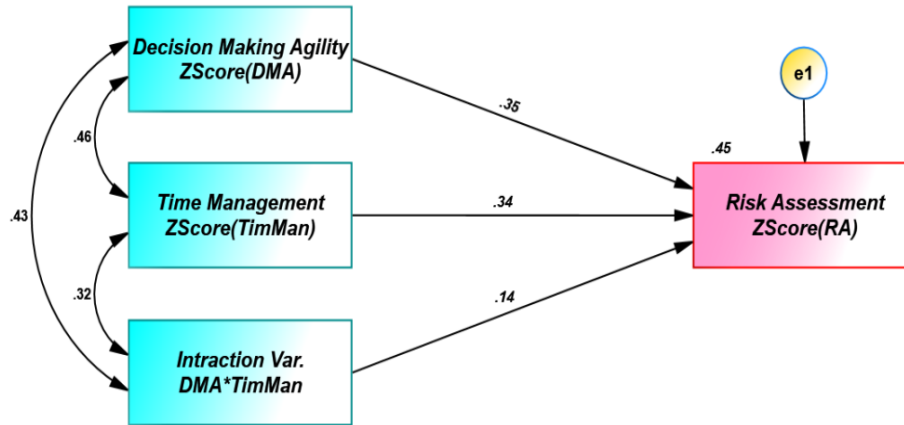


Figure 21: Testing the modifying role of time management in the relation of agility with risk assessment.

Table 40: Parameters of the modifying role of time management in the relation of decision-making agility with risk assessment

Paths			Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRA	<---	ZDMA	.354	.381	.079	4.824	***
ZRA	<---	ZTimMan	.343	.482	.099	4.889	***
ZRA	<---	Interaction Var.	.139	.017	.008	2.021	.043

Figure (22) shows the graphical chart of interaction of relation of the variables of study that shows two levels of the modifying variable time management (high or low) and how the relation modifies (increases it's positivity) in decision-making agility & risk assessment based on the (ModGraph) program.

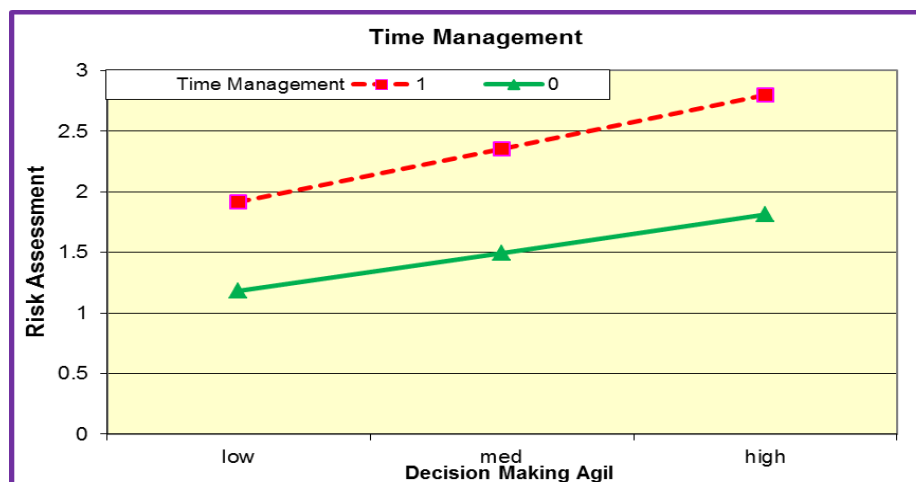


Figure 22: Graphical representation of time management levels as a modifying variable for the relation between decision making agility and risk assessment.

- The third sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between decision-making agility and decision making of taking risks: Figure (23) shows the interaction hypothesis test, which representing in estimation the modifying role level of time management in relation of decision-making agility with decision-making of taking risk. It is note that ; the model's structural of the value of standard regression coefficient) of the variable's interaction (as a result of the interaction of decision-making agility with time management) of (0.12) does not have significant by inferring the value of the (C.R) critical ratio that shown in table(41) of(1.692), which is a non-significantly value at the (P-Value) level of (0.091) being greater than the standard level of (0.05). Thus, this does not prove the modifying role of the time management variable in the relation between decision-making agility and decision-making of taking risks, that means, the level of positive relation between decision-making agility and decision-making of taking risks is not submit to the change in the level of time management by (one) unit.

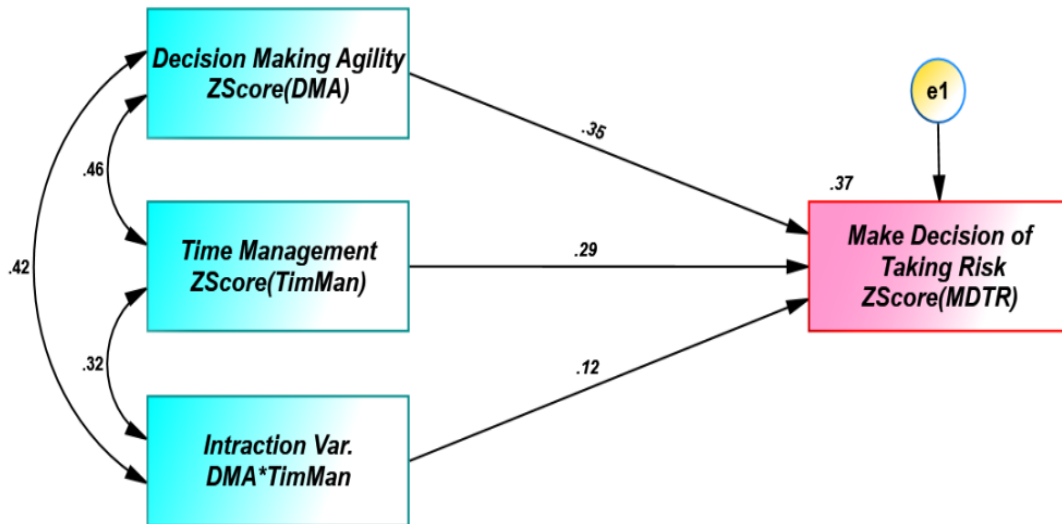


Figure 23: Testing the modifying role of time management in the relation between agility of decision making and risk decision making).

Table 41: Parameters of the modifying role of time management in the relation between decision-making agility and decision-making of taking risks

Paths			Std. Regression Weights	Estimate	S.E.	C.R.	P
ZMDTR	<---	ZDMA	.346	.351	.079	4.420	***
ZMDTR	<---	ZTimMan	.291	.386	.099	3.890	***
ZMDTR	<---	Interaction Var.	.124	.014	.008	1.692	.091

- D. The fourth sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between decision-making agility and risk control: Figure (24) shows the interaction hypothesis test, which representing in estimation the level of the modifying role of time management in the relation of decision-making agility with risk control. As for as from the model's structural that the standard regression coefficient value of the variable's interaction (as a result of interaction of agility decision-making with time management) of (0.20) has significant by inferring the value of the (C.R) critical ratio that shown in table:(42) of (2.790) which is a significance value at the significance level of (P-Value) of (0.005). Therefore this concluded the modifying role of time management variable in the relation of decision-making agility with risk control, this mean that, the positive relation of decision-making agility with risk control can be increase by alteration of the level of time management.

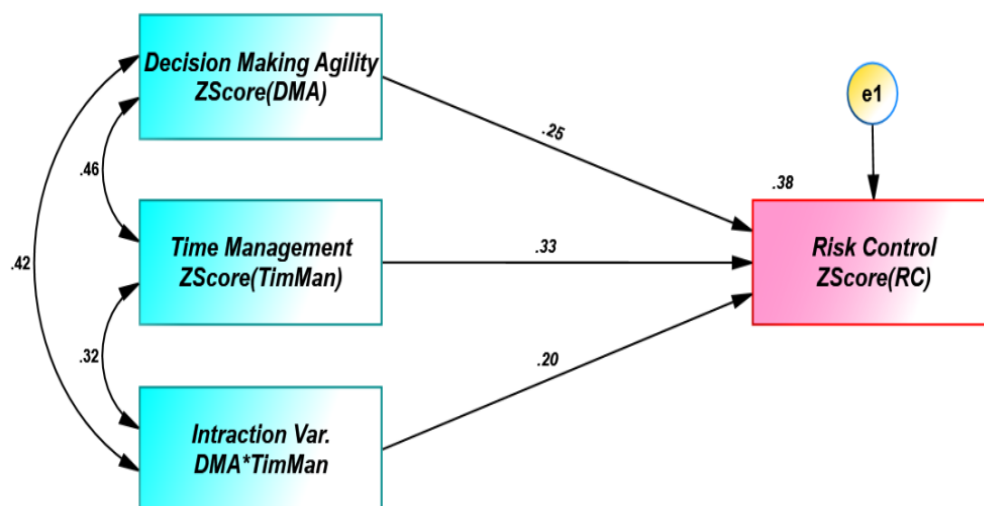


Figure 24: the test of the modifying role of time management in the relation between decision-making agility and risk control.

Table 42: Parameters of the modifying role of time management in the relation between decision-making agility and risk control

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRC	<---	ZDMA	.250	.227	.070	3.225	.001
ZRC	<---	ZTimMan	.335	.396	.088	4.507	***
ZRC	<---	Interaction Var.	.203	.020	.007	2.790	.005

Figure (26) shows the graphical chart of the relation of interaction between the variables of study, that shows two levels of the modifying variable time management (high or low) and how it modifies the relation (increases its positivity) of decision-making agility with risk control based on the program (ModGraph).

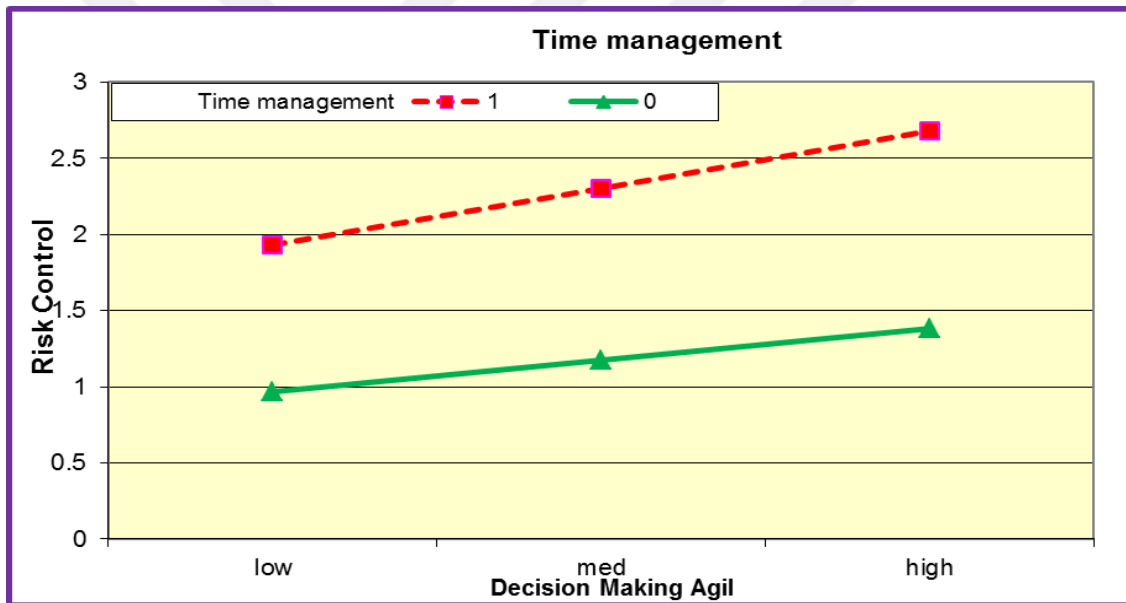


Figure 26: Graphical representation of time management levels as a modifying variable of the relation between decision-making agility and risk control.

3.5.2.4. Fourth main hypothesis

There was a significance modifying role of the time management variable in the relation between core capabilities and risk management:

Figure (27) shows the interaction hypothesis test, which representing in detection the level of the modifying role for time management in the relation of core capabilities with risk management. As noted from the structural model that the value of

standard regression coefficient of the interaction variable (as a result of the interaction of core capabilities with time management) of (0.18) has significant by inferring the value of the (C.R) critical ratio shown in table:(43) of (2.921) is a significance value at the significance of (P-Value) level of (0.003). as well as this concluded that the modifying role of the variable of time management in the relation of core capabilities with risk management, that means the level of positive relation of core capabilities with risk management may be increase with the change in the level of time management by one unit.



Figure 27: the test of the modifying role of time management in the relation between core capabilities and risk management .

Table 43: Parameters of the modifying role of time management in the relation between core capabilities and risk management

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRisMan	<--- ZCC	.358	.290	.054	5.415	***
ZRisMan	<--- ZTimMan	.396	.449	.074	6.025	***
ZRisMan	<--- Interaction Var.	.176	.018	.006	2.921	.003

Figure (28) shows the graphical chart of the interaction relation of the study variables, that shows two levels of modifying variable of time management (low or high) with how it modifies the relation (increases it's positivity) of core capabilities with risk management based on the ModGraph program.

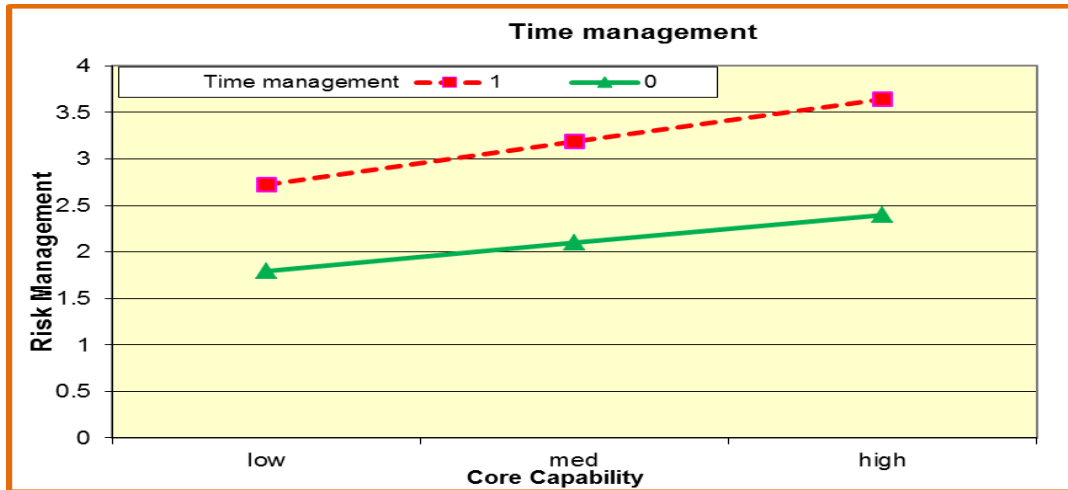


Figure 28: Graphical representation of time management levels as a modifying variable of the relation between core capabilities and risk management.

The fourth main hypothesis has four sub-hypotheses from:

- The first sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between core capabilities and the identify of risk: Figure (29) shows the interaction hypothesis test, which representing in estimation the level of the modifying role for time management in the relation of core capabilities with the identify risk. As we can see from the model's structural that the standard regression coefficient value of the variable's interaction (as a result from the core capabilities interaction with time management) of (0.14) has significant by inferring from the value of (C.R) critical ratio shown in table number (44) of(2.011) has a significance value at the level of (P-Value) significance of (0.044). Therefore this result proves that the modifying role of the variable of time management in the relation of core capabilities with the identify risk, which means, the level of relation positively of core capabilities with the identify risk maybe cause increase by changing the level of time management by (only one unit).

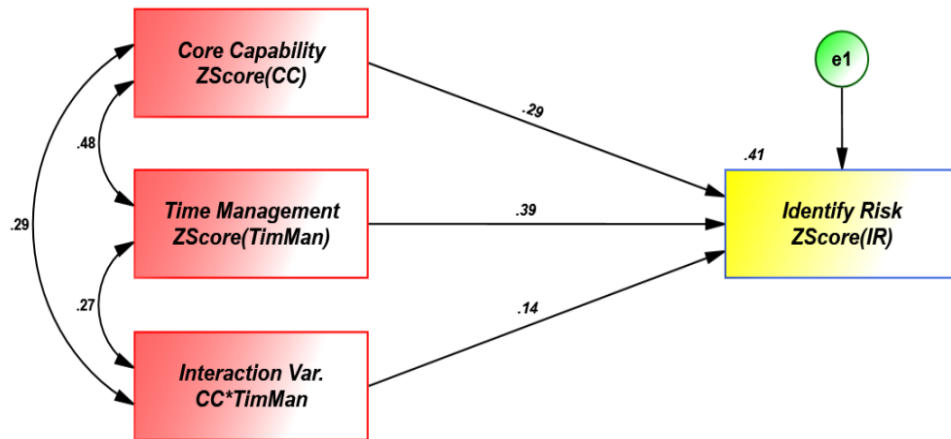


Figure 29: the test of the modifying role of time management in the relation of core capabilities with identify risk.

Table 44: Parameters of the modifying role of time management in the relation between core capabilities and identify risk

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
ZIR	<--- ZCC	.289	.277	.071	3.930	***
ZIR	<--- ZTimMan	.388	.518	.098	5.292	***
ZIR	<--- Interaction Var.	.135	.017	.008	2.011	.044

Figure (30) shows the graphical chart of the interactive relation of variables of the study, that shows two levels of the modifying variable time management (low or high) as well as how it modifying the relation (increases it's positivity) of the core capabilities with identify risk based on the ModGraph program.

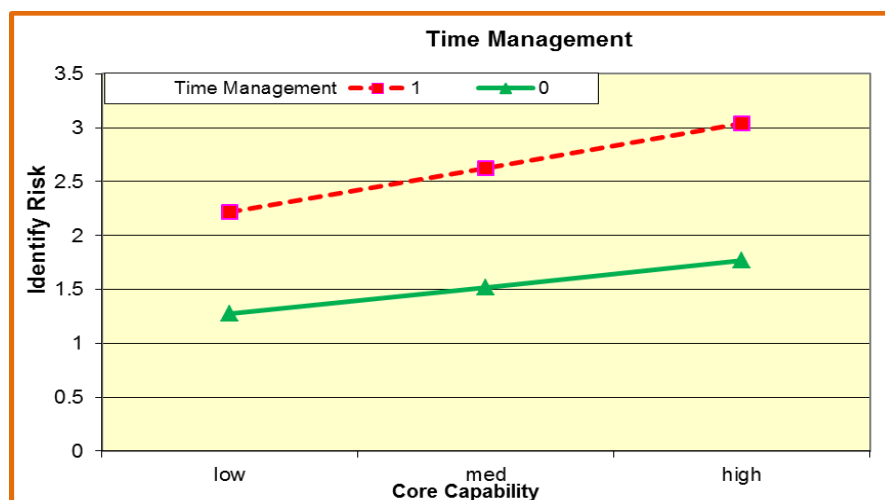


Figure 30: Graph of time management levels as a modifying variable of the relation between core capabilities and identify risk.

- B. The second sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between core capabilities and risk assessment: Figure (31) shows the interaction hypothesis test, which representing in detection level of the modifying role for time management in the relation between core capabilities and risk assessment. As recently noted from the model's structural that the standard regression coefficient value of the interaction variable (as a result from the interaction of capabilities of core with time management) of (0.15) has significant by inferring from the (C.R) value (critical ratio) shown in table number (45) in (2.255) is a significance value at the level of (P-Value) significant of(0.024). This result concluded that the modifying role of the time management variable in relation of core capabilities with risk assessment, which means, the level of positive relation of core capabilities with risk assessment will increase with the change in the level of time management by (one) unit.

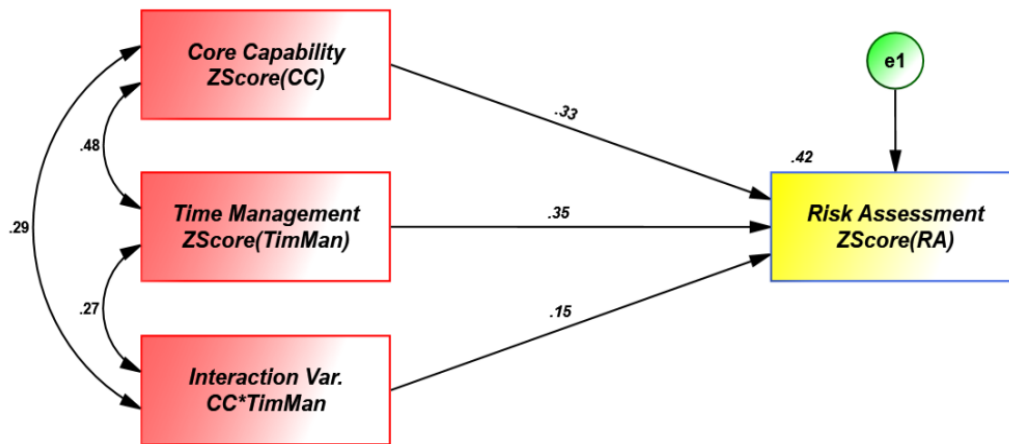


Figure 31: the test of modifying role of time management in the relation of intrinsic capabilities with risk assessment.

Table 45: Parameters of modifying role for time management in the relation of core capabilities with risk assessment

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRA	<--- ZCC	.325	.327	.073	4.456	***
ZRA	<--- ZTimMan	.355	.498	.102	4.894	***
ZRA	<--- Interaction Var.	.150	.019	.009	2.255	.024

Figure (32) shows the graphical chart of the interaction relation of all variables of the study, which refer to two levels of the modifying variable time management (low or high) and how could it modifying the relation (increases it's positivity) of the core capabilities with the risk assessment based on the ModGraph program.

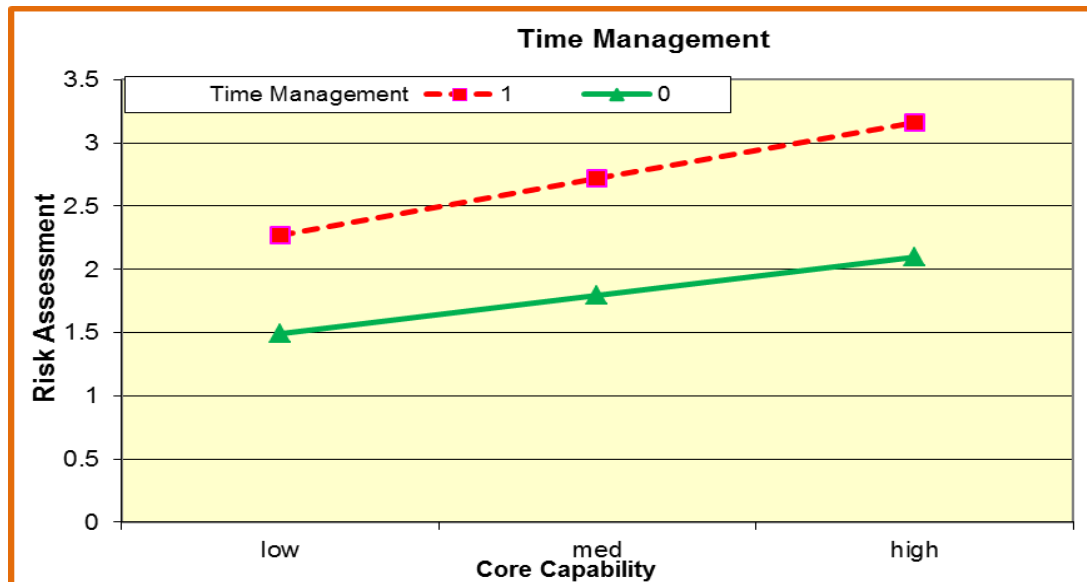


Figure 32: Graph of time management levels as a modifying variable of the relation between core capabilities and risk assessment.

- C. The third sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between core capabilities and decision-making of taking risk: Figure (33) shows the interaction hypothesis test, which representing in estimation the level of the modifying role for time management in the relation of core capabilities with decision-making of taking risk. As what note from the model's structural that: the value of standard regression coefficient of the variable interaction (as a result of the interaction of core capabilities with time management) of (0.11) does not have significant significance by inference from the (C.R) (critical ratio) value as what appear in table:(46) of (1.624), that is a non-significance value at the level of (P-Value) significance of (0.104), being greater than the standard significance level of (0.005). Thus, this does not prove the modifying role of the time management variable in the relation between core capabilities and decision-making of taking risk, that means, the level of positive relation between core capabilities and decision making

of taking risk is not subject to change in the level of time management by (one) unit.

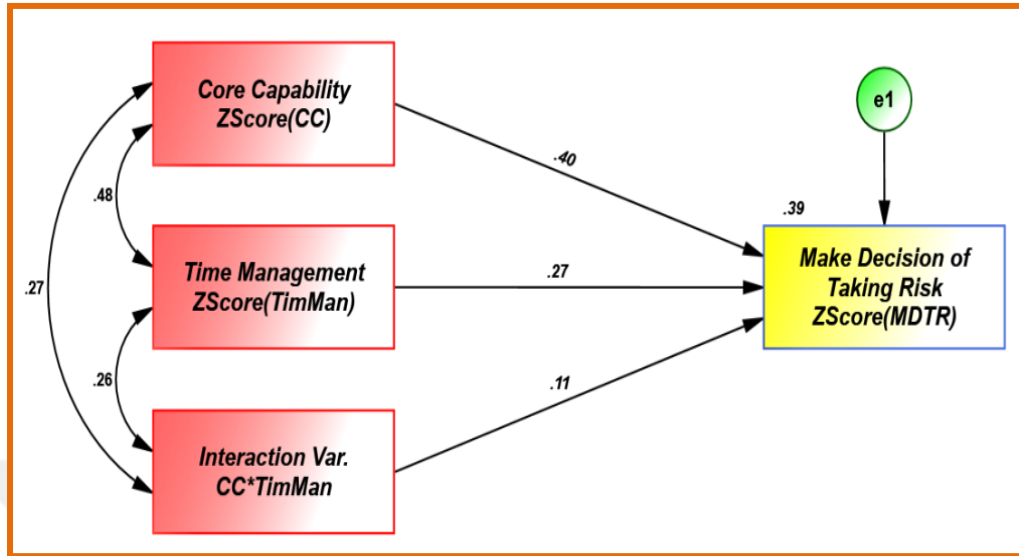


Figure 33: the test the modifying role of time management in the relation of core capabilities with decision making of taking risk.

Table 46: Parameters of the modifying role of time management in the relation of core capabilities with decision making of taking risk

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
ZMDTR	<---	ZSR	.350	.350	.070	5	***
ZMDTR	<---	ZTimMan	.304	.304	.103	2.951	***
ZMDTR	<---	Interaction Var.	.081	.081	.067	1.209	.227

- D. The fourth sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between core capabilities and risk control: Figure (34) shows the interaction hypothesis test, which representing in estimation the level of the modifying role of time management in the relation of core capabilities with risk control. We note from the model's structural of value of standard regression coefficient of the variables interaction (as a result of the interaction of core capabilities with time management) of (0.21) has significance by inferring the (C.R) (critical ratio) value which shown in table (4.7) of (3.049), this is a significance value at the level of (P-Value) significant of (0.002). This can be concluded the modifying role of the time management variable in the relation of core capabilities and risk control, means that the level of

positive relation of incoretrinsic capabilities with risk control may be increase with the change in the level of time management.

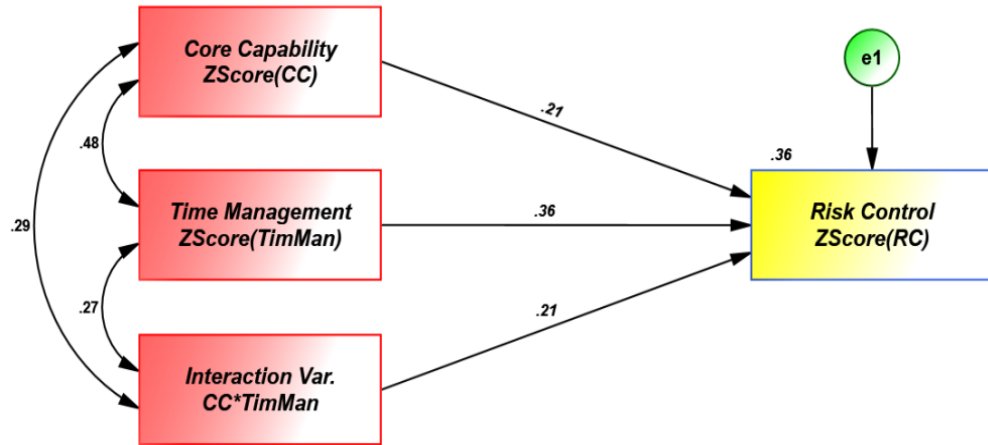


Figure 34: the test of the modifying role of time management in the relation of intrinsic capabilities with risk control.

Table 47: Parameters of the modifying role of time management in the relation of core capabilities with risk control

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRC	<---	ZCC	.208	.176	.065	2.699	.007
ZRC	<---	ZTimMan	.359	.424	.091	4.685	***
ZRC	<---	Interaction Var.	.214	.023	.008	3.049	.002

Figure (35) shows the graphical chart of the relation of interaction between all study variables, which refer to two levels of the modifying variable time management (low or high) and how it modifies the relation (increases it's positivity) of core capabilities with risk control based on the ModGraph program.

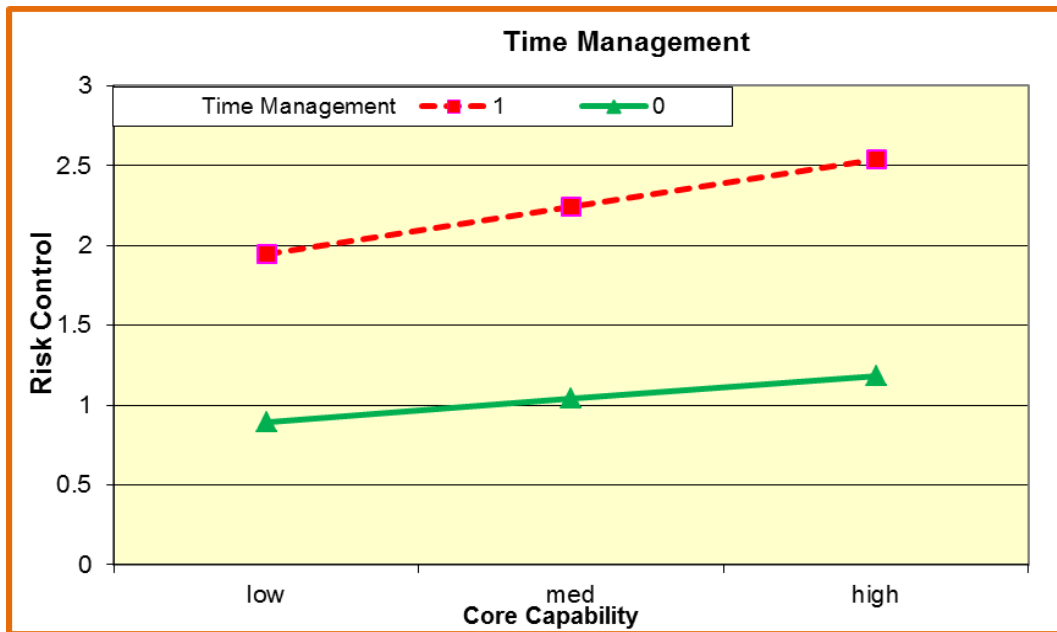


Figure 35: Graphical representation of time management levels as a modifying variable for the relation between intrinsic capabilities and risk control .

3.5.2.5. The fifth main hypothesis

There is a significant modifying role for the time management variable in the relation between sharing responsibility and risk management: Figure (36) shows the interaction hypothesis test, which representing in estimation the level of the modifying role for time management in the relation of sharing responsibility with risk management. As what is note from the model's structural that the value of standard regression coefficient of the variable interaction (as result from the interaction of responsibility sharing with time management) of (0.16) has significant by inferring the (C.R) (critical ratio) value which is shown in table number (48) of (2.842) is a significance value at the level of (P-Value) significant in (0.004). This concluded that the modifying role of the time management variable in the relation of sharing responsibility with risk management, that means, the level of positive relation of sharing responsibility with risk management may be cause increase with the change in the level of time management.

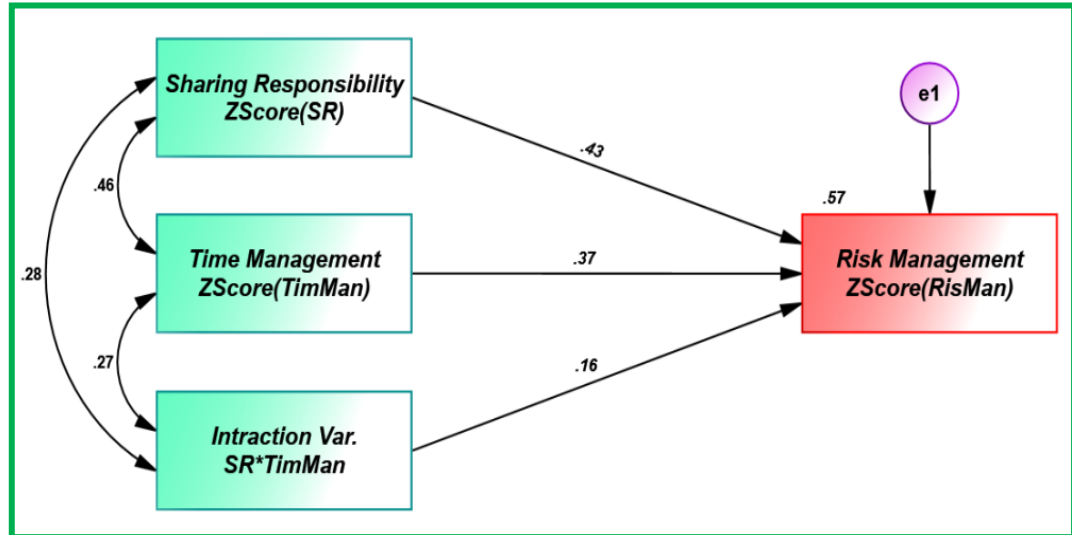


Figure (36: the test of the modifying role of time management in the relation between sharing responsibility and risk management.

Table 48: Parameters of the modifying role of time management in the relation between sharing responsibility and risk management

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRisMan	<---	ZSR	.434	.344	.049	6.995	***
ZRisMan	<---	ZTimMan	.369	.418	.070	5.954	***
ZRisMan	<---	Interaction Var.	.162	.017	.006	2.842	.004

Figure (37) shows the graphical chart of the interactive relation between all study's variables, that shows two levels of the modifying variable time management (low or high) and how can we modifies the relation (increases it's positivity) of sharing responsibility with risk management based on the ModGraph program.

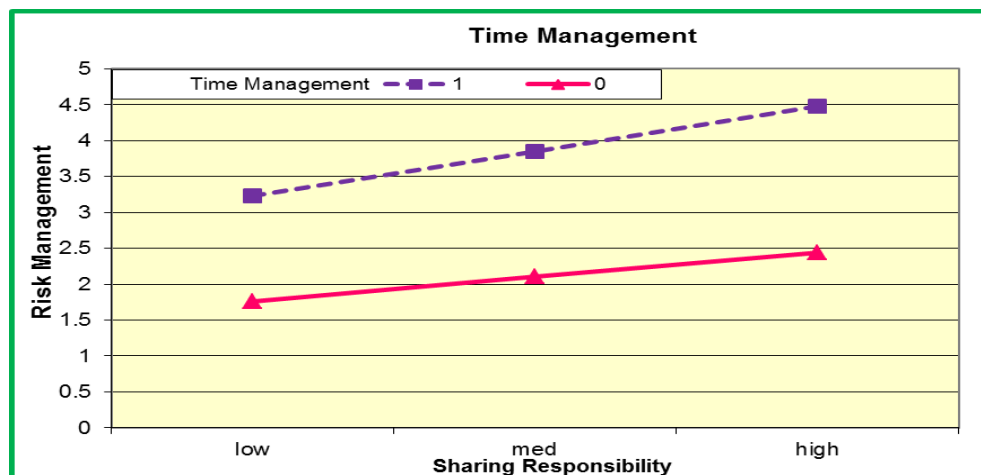


Figure 37: Graphical representation of time management levels as a modifying variable of the relation between sharing responsibility and risk management

The fifth main hypothesis has four sub-hypotheses from:

- A. The first sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between responsibility sharing and risk definition: Figure (38) shows the interaction hypothesis test, which representing estimating the level of the modifying role for time management in the relation of sharing responsibility with the identify risk. As we can see from the model's structural that the value of standard regression coefficient of the interaction variable (resulting from the interaction of sharing responsibility with time management of (0.17) has significance by inferring the value of the (C.R) (critical ratio) shown in table number (49) of (2.755) there is a significance value at the level of (P-Value) significant of (0.006). This concluded that the modifying role of the time management variable in the relation of sharing responsibility with identify risk, means that: the level of positive relation of sharing responsibility with identify risk can be increase with the change in the level of time management by (one) unit.

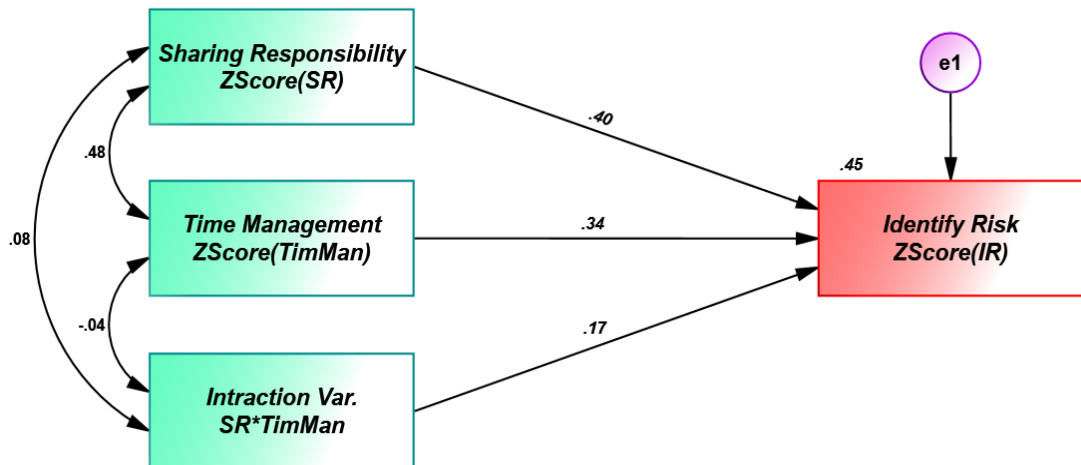


Figure 38: the test of the modifying role of time management in the relation of responsibility sharing with risk definition.

Table 49: Parameters of the modifying role of time management in the relation of sharing responsibility with the identify risk.

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
ZIR	<--- ZSR	.399	.346	.061	5.639	***
ZIR	<--- ZTimMan	.343	.441	.091	4.857	***
ZIR	<--- Interaction Var.	.171	.038	.014	2.755	.006

Figure (39) shows the graphical chart of the interaction relation between all variables of the study, that shows two levels of the modifying variable time management (low or high) and how could it modifying the relation (increases it's positivity) of sharing responsibility with identify risk based on the ModGraph program.

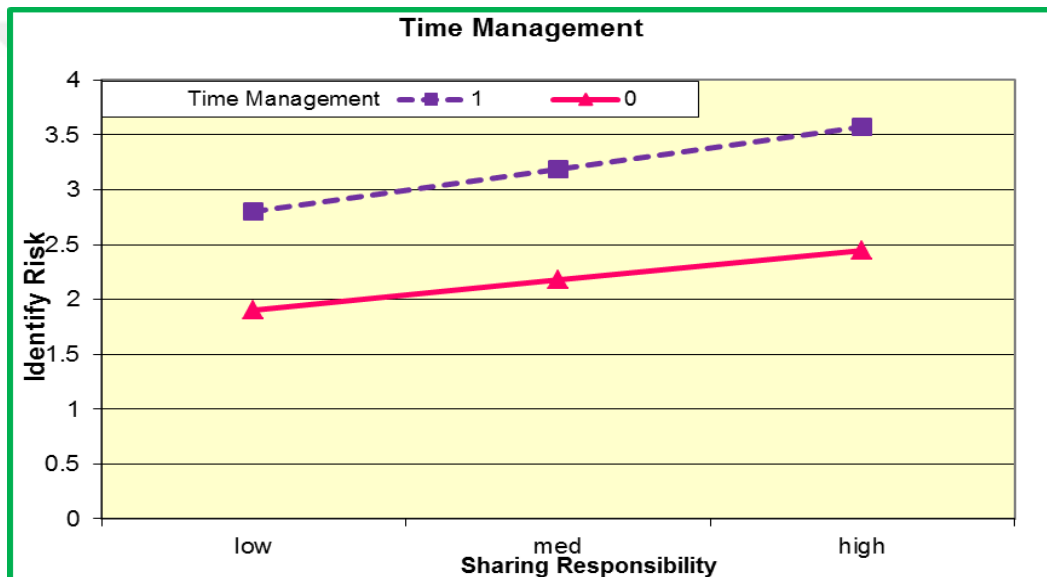


Figure 40: Graphical representation of time management levels as a modifying variable of the relation between responsibility sharing and risk definition.

- B. The second sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between responsibility sharing and risk assessment) : Figure (41) shows the interaction hypothesis test, which representing in estimating the level of the modifying role for time management in the relation of sharing responsibility with risk assessment. As what note from the model's structural that the value of estimating the standard parameter (standard regression coefficient) of the interactive variable (as a result from the interaction of sharing responsibility with time management) of (0.06) does not have significant,

based on the value of the (C.R) (critical ratio) as what appear in table (50) of (0.909), which represent a non-significant value at the level of (P-Value) significance of (0.363) being greater than the standard level of (0.05). This does not confirmed the modifying role of the time management variable in the relation of sharing responsibility with risk assessment, i.e. the level of positive relation between sharing responsibility and risk assessment is not subject to the change in the level of time management by (one) unit.

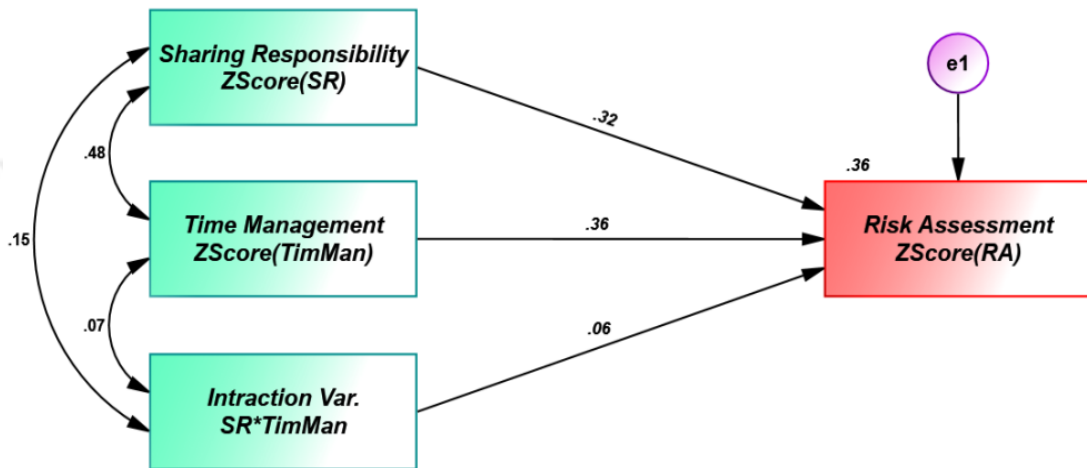


Figure 41: the test of the modifying role of time management in the relation of responsibility sharing with risk assessment.

Table 50: Parameters of the modifying role of time management in the relation of sharing responsibility with risk assessment.

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRA	<--- ZSR	.322	.293	.070	4.214	***
ZRA	<--- ZTimMan	.360	.486	.102	4.756	***
ZRA	<--- Interaction Var.	.061	.011	.012	.909	.363

- C. The third sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between sharing responsibility and decision making of taking risk: Figure (42) shows the interaction hypothesis test, which representing in estimating the level of the modifying role of time management in the relation of sharing responsibility with decision-making of taking risk. As what note from the model's structural that the value of standard regression coefficient of the variable interaction (as a result from the interaction of sharing responsibility with time

management) of (0.08) does not have significant, based on the value of the (C.R) (critical ratio) which shown in table:(51) for (1.209), which refer to a non-significance value at the level of (P-Value) significant for (0.227) being greater than the standard level of (0.05). This does not confirmed the modifying role of the time management variable in the relation of sharing responsibility with decision-making of taking risk, i.e. the level of positive relation of sharing responsibility with decision making of taking risk is not subject to the change in the level of time management by (one unit).

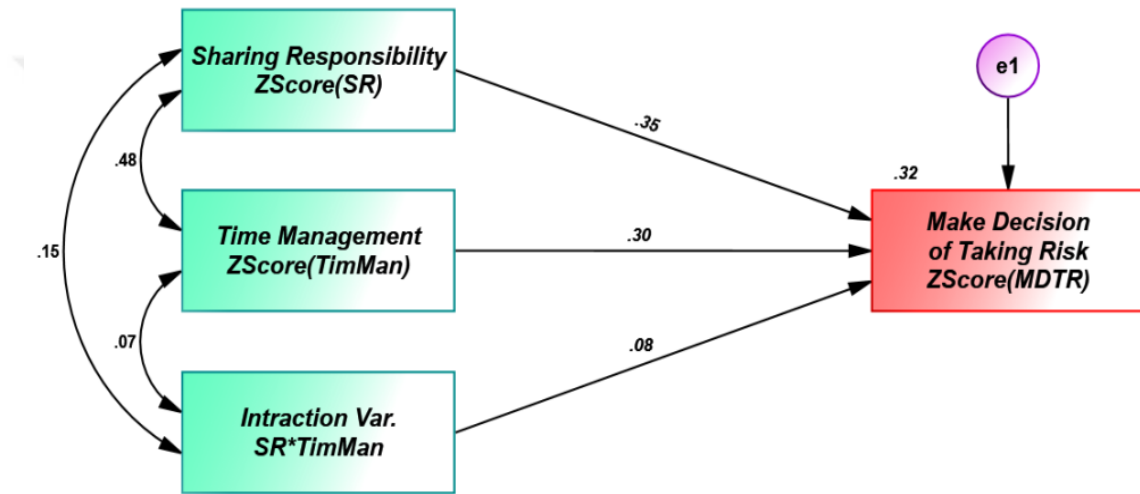


Figure 42: The test of the modifying role of time management in the relation of responsibility sharing with risk decision making .

Table 51: parameters of the modifying role of time management in the relation of sharing responsibility with decision making of taking risk

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
ZMDTR	<--- ZSR	.350	.350	.070	5	***
ZMDTR	<--- ZTimMan	.304	.304	.103	2.951	***
ZMDTR	<--- Interaction Var.	.081	.081	.067	1.209	.227

- D. Fourth sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between sharing responsibility and risk control: Figure (43) shows the interaction hypothesis test, which representing in estimating the level of the modifying role of time management in the relation of sharing responsibility with risk control. As that note from the model's structural that the value of standard regression

coefficient of the variable interaction (as a result from the interaction of sharing responsibility with time management) of (0.14) has significant by inferring the critical ratio's value (C.R) shown in table (52) of (2.082) is a significance value at the level of (P-Value) significant of (0.037). This proves the modifying role of the time management variable in the relation of sharing responsibility with risk control, that means, the level of positive relation of sharing responsibility and risk control could be increase with the change in the level of time management by (one unit).

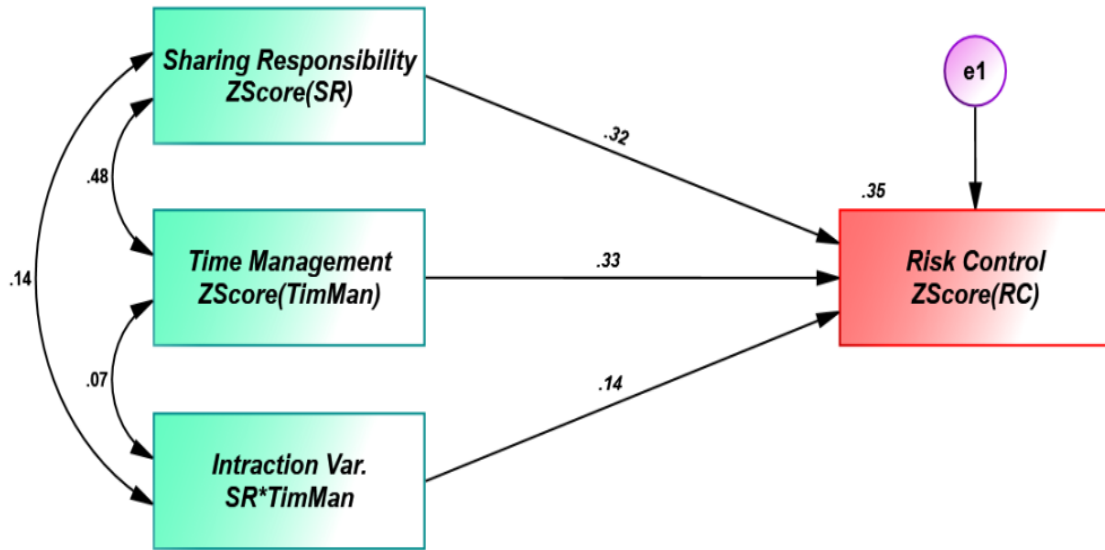


Figure 43: the test of the modifying role of time management in the relation of sharing responsibility with risk control (Source: Amos V.25 outputs).

Table 52: Parameters of the modifying role of time management in the relation of sharing responsibility with risk control.

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRC	<--- ZSR	.317	.243	.059	4.115	***
ZRC	<--- ZTimMan	.328	.372	.087	4.289	***
ZRC	<--- Interaction Var.	.141	.021	.010	2.082	.037

Figure (44) shows the graphical chart of the interaction relation of all the study variables, had been show two levels of the modifying variable time management (low, high) and how it modifies the relation (increases it's positivity) between sharing responsibility and risk control based on the ModGraph program.

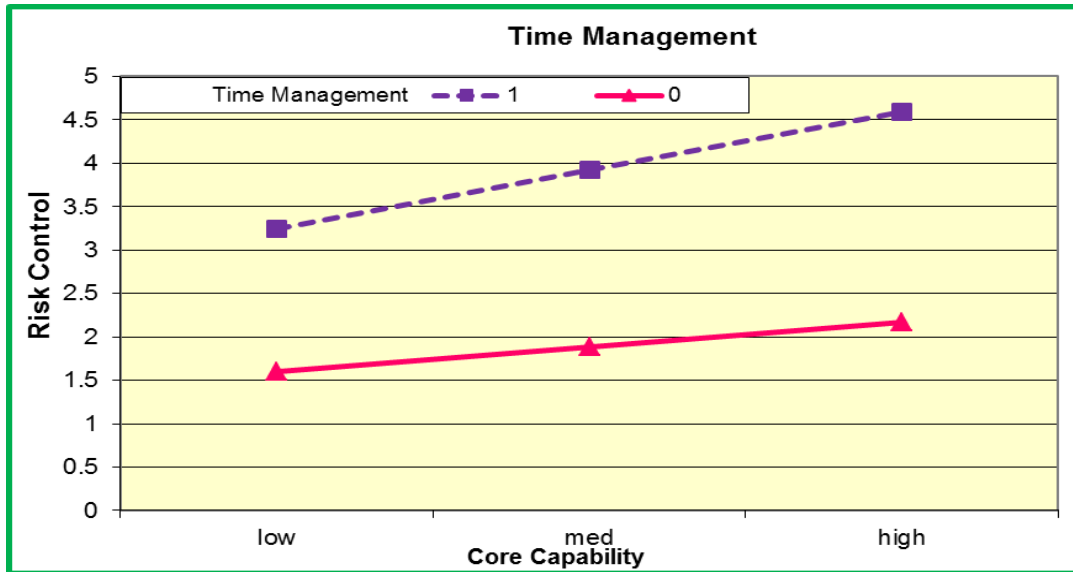


Figure 44: Graphical representation of time management levels as a modifying variable of the relation between responsibility sharing and risk control.

3.5.2.6. The sixth main hypothesis

here is a significant modifying role for the time management variable in the relation between the selection of strategic targets and risk management: Figure (45) shows the interaction hypothesis test, which representing in controlling the level of the modifying role of time management in the relation between the selection of strategic targets and risk management. As we can see through the model's structure such standard regression coefficient value of the interaction's variable (arising from the interactivity of choosing strategic goals with time management) of (0.27) has moral significance by inferring the critical ratio's value (C.R) shown in the table (53) of (4.652) is a moral significance value at the significant level of (P-Value) of (0.000). so, that shows the modifying role of the variable of time management in the relation linking the selection of strategic targets and risk management, that means, the level of positive relation between the selection of strategic targets and risk management will increase with the change in the level of time management by (one) unit.

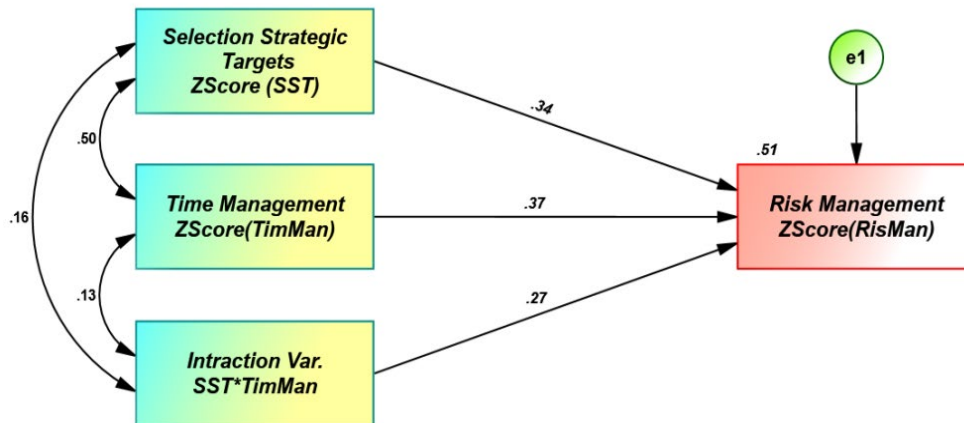


Figure 45: the test of the modifying role of time management in the relation between strategic goal selection and risk management.

Table 53: Parameters of the modifying role of time management in the relation between the selection of strategic targets and risk management

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRisMan	<--- ZSST	.342	.318	.062	5.096	***
ZRisMan	<--- ZTimMan	.373	.406	.073	5.578	***
ZRisMan	<--- Interaction Var.	.272	.099	.021	4.652	***

Figure (46) shows the graphical chart of the connected relationship joining the variables of the study, which is show(two levels of the modifying variable time management low, high) and how it's modify the relation (increases it's positivity) linking the selection of strategic targets and risk management based on the (ModGraph) program.

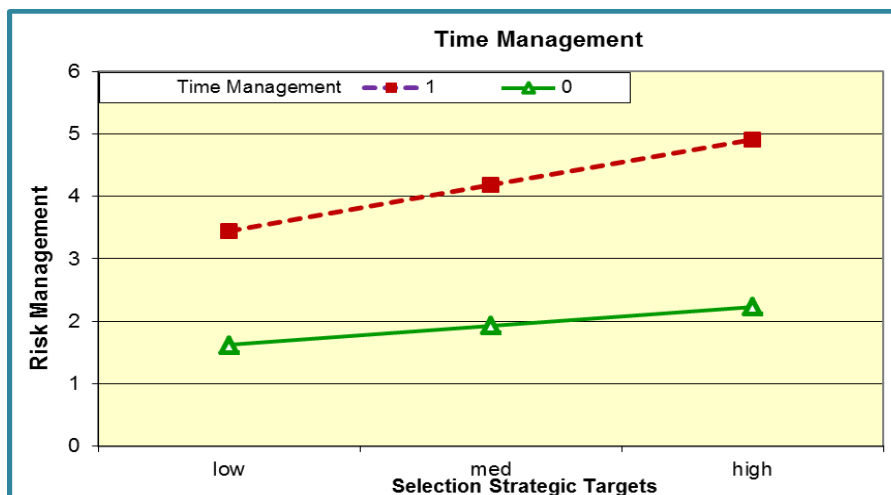


Figure 46: Graphical representation of time management levels as a modifying variable of the relation between the selection of strategic targets and risk management.

The sixth main hypothesis has Four sub-hypotheses :

- A. The first sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between the selection of strategic targets and the identify risks: Figure (46) shows the interaction hypothesis test, which representing in showing the modifying role of time management's level in the relationbetween the selection of strategic targets and the identify risk. As we can see from the model of the structure which the standard regression coefficient value of the variable of the interaction (as a result of the interaction between the selection of strategic targets and time management) of (0.21) has a significant by inferring from the critical ratio's value (C.R) shown in the table (54) of (3.194) is a moral significance value at a significant level of (P-Value) of (0.021). so, that shows the modifying role of the variable of time management in the relationship between the selection of strategic targets and the identify risks, that means, the level of positive relation between the selection of strategic targets and the identify risk will increase with the change in the level of time management by (one) unit.

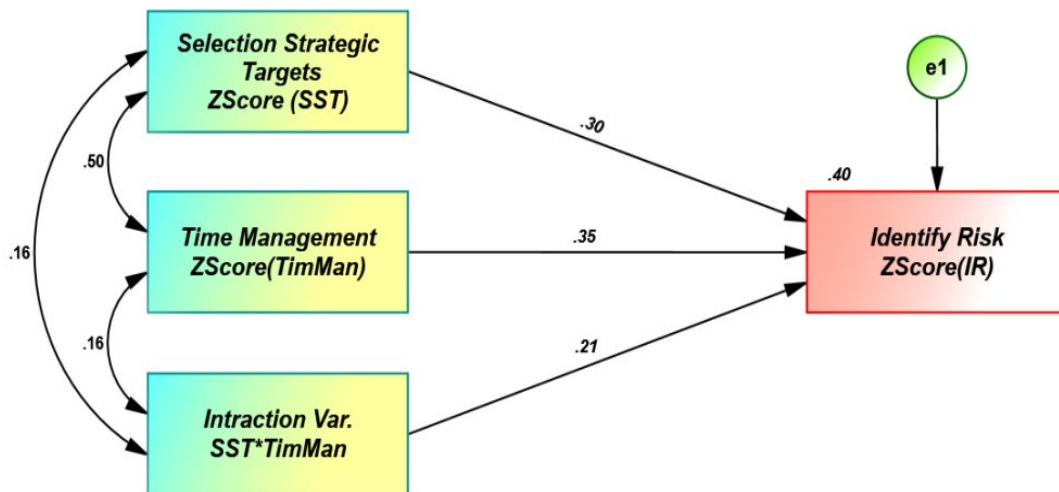


Figure 47: Testing the modifying role of time management in the relation between strategic goal selection and risk definition.

Table 54: Parameters of the modifying role of time management in the relation between the selection of strategic targets and the identify risk

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
ZIR	<---	ZSST	.297	.326	.082	3.990	***
ZIR	<---	ZTimMan	.347	.446	.096	4.650	***
ZIR	<---	Interaction Var.	.209	.085	.027	3.194	.001

Figure (48) shows the graphical charts of the interaction of the relation between the variables of the study, that determines two steps of the modifying variable time management (high, low), and how it's modify the relation (increases it's positivity) between the selection of strategic targets and the identify of risks based on the ModGraph program.

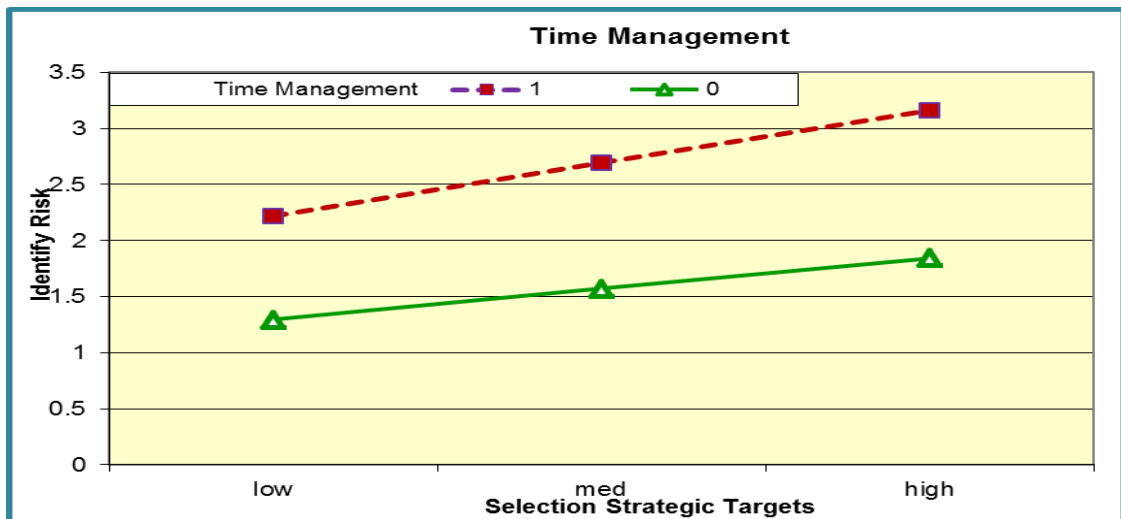


Figure 48: Graphical representation of time management levels as a modifying variable of the relation between the selection of strategic targets and the identify risk.

- B. The second sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between the selection of strategic targets and risk assessment: Figure (49) shows the interaction hypothesis test, which representing in showing the modifying role of time management's level in the relation linking the selection of strategic targets and risk assessment. As we can see from the structure of the model is the standard regression coefficient's value of the interactivity variable (as a result from the interactivity of the selection of strategic targets with time management) of (0.23) has significant by inferring the critical ratio's value (C.R) shown in table (55) of (3.605) is a moral significance value at the

level of significant (P-Value) of (0.000). so, that shows the modifying role of the time management variable in the relation between the selection of strategic targets and risk assessment, that means, the level of positive relation between the selection of strategic targets and risk assessment will increase with the change in the level of time management by (one) unit.

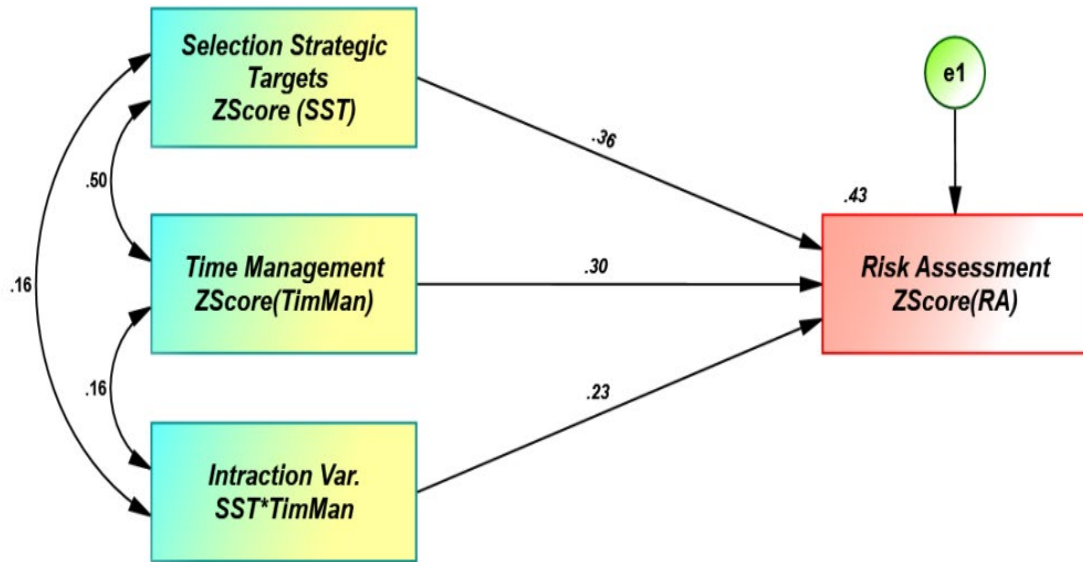


Figure 48: the test of the modifying role of time management in the relation between the selection of strategic targets and risk assessment.

Table 55: Parameters of the modified role of time management in the relationship between the selection of strategic targets and risk assessment

	Paths	Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRA	<--- ZSST	.361	.416	.083	4.985	***
ZRA	<--- ZTimMan	.302	.407	.098	4.161	***
ZRA	<--- Interaction Var.	.229	.098	.027	3.605	***

Figure (48) shows the graphical chart of the interaction of the relation between the variables of the study, which is determine into two levels of the modifying variable time management (high, low), and how its modify the relation (increases it's positivity) between the selection of strategic targets and risk assessment based on the ModGraph program.

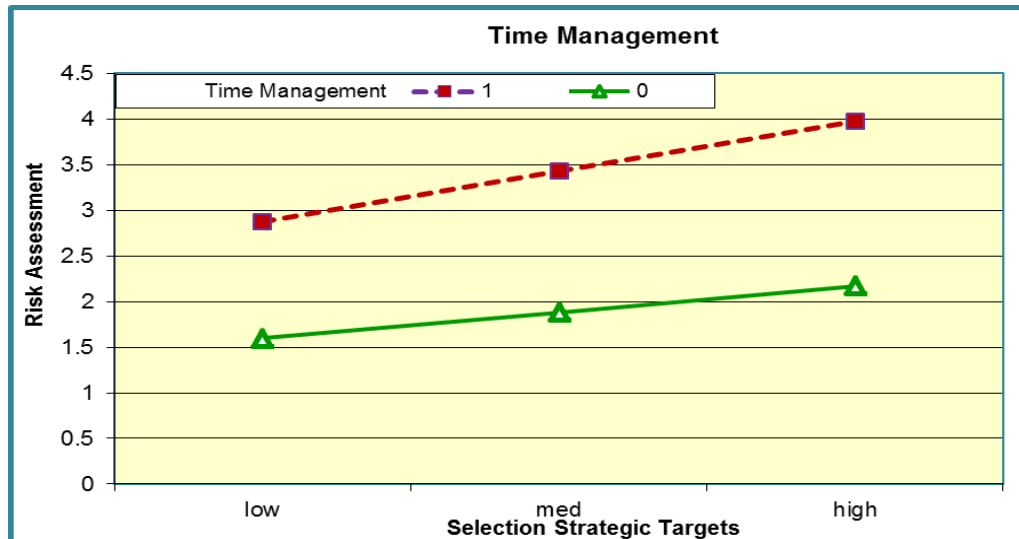


Figure 49: Graphical representation of time management levels as a modifying variable of the relation between the selection of strategic targets and risk assessment.

- C. The third sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between the selection of strategic targets and the decision making of taking risks). Figure (50) shows the interaction hypothesis test, which representing in showing the level of the modifying role of time management in the relation between the selection of strategic targets and the decision making of taking risks. As we can see from the structure of the model that is standard regression coefficient's value of the interactivity variable (as a result of the interactivity of the selection strategic targets with time management) of (0.16) has significant significance by inferring the critical ratio's value (C.R) shown in the table (54) of (2.225) is a moral significance value at the level of significant value (P-Value) of (0.026). so, that is prove the modifying role of the time management variable in the relation between the selection of strategic targets and the decision making of taking risks, that means, the level of positive relation between the selection of strategic targets and the decision making of taking risks will increase with the change in the level of time management by (one) unit.

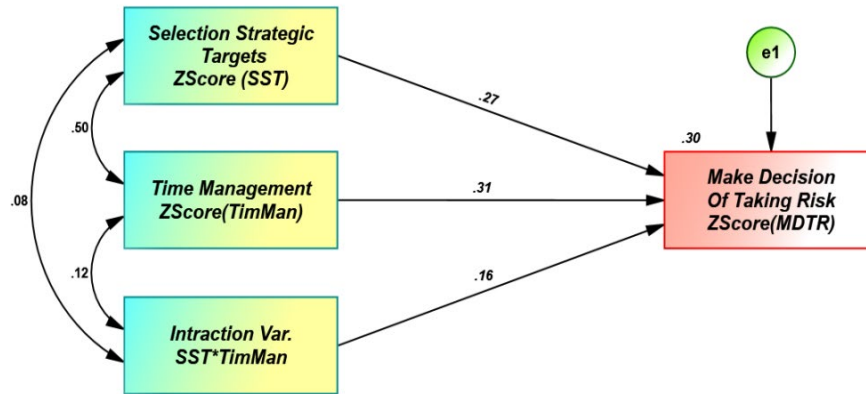


Figure 50: the test of the modifying role of time management in the relation between the selection of strategic targets and decision making of taking risk.

Table 56: parameters of the modifying role of time management between the selection of strategic targets and the decision making of taking risks

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
ZMDTR	<---	ZSST	.273	.310	.091	3.404	***
ZMDTR	<---	ZTimMan	.313	.417	.107	3.890	***
ZMDTR	<---	Intraction Var.	.155	.066	.029	2.225	.026

Figure (51) shows the graphical chart of the interaction relationship between the variables of the study, that determines into two steps of the modifying variable time management (high or low) and how it is modifying the relation (increases it's positivity) between the selection of strategic targets and the decision making of taking risks based on the program (ModGraph).

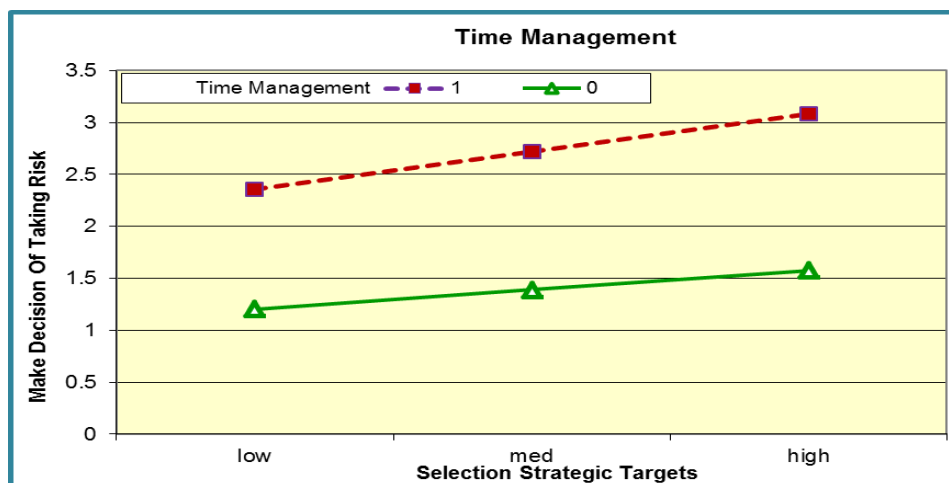


Figure 51: Graphical representation of time management levels as a modifying variable of the relation between the selection of strategic targets and the decision making of taking risks.

- D. The fourth sub-hypothesis: (There is a significant modifying role for the time management variable in the relation between the selection of strategic targets and risk control: Figure (52) shows the interaction hypothesis test, which representing in estimation the level of the modifying role for time management in the relation of the selection of strategic targets with risk control. As what note from the model's structural that the value of standard regression coefficient of the variable interaction (as a result from the interaction of the selection of strategic targets with time management) of (0.10) does not have significant by inferring from the value of the (C.R) (critical ratio) appear in table (57) for (1.434), which has a non-significant value at the steps of (P-Value) of (0.152) being greater than the standard level of (0.05). This does not concluded the modifying role of the time management variable in the relation of the selection of strategic targets with risk control, that means, the level of positive relation of the selection of strategic targets with risk control is not subject to the change in the level of time management by (one unit).

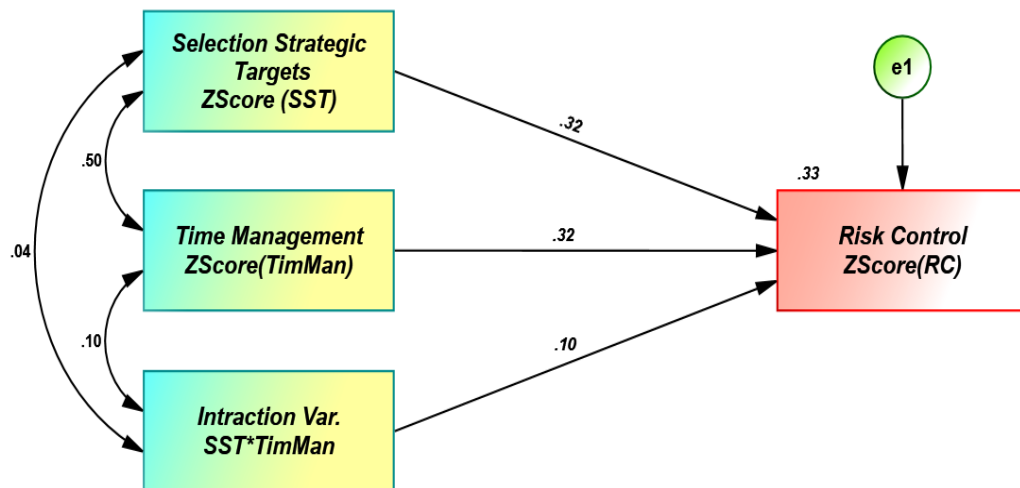


Figure 52: the test of the modifying role of time management in the relation between the selection of strategic targets and risk control.

Table 57: Parameters of the modifying role of time management in the relation between the selection of strategic targets and risk control

	Paths		Std. Regression Weights	Estimate	S.E.	C.R.	P
ZRC	<---	ZSST	.319	.309	.076	4.056	***
ZRC	<---	ZTimMan	.321	.365	.090	4.065	***
ZRC	<---	Intraction Var.	.098	.033	.023	1.434	.152

Figure (53) refers to the graph of the interaction relation of all study variables, which represent two steps of the modifying variable time management (low or high) and how it modifying the relation (increases it's positivity) in the selection of strategic targets and risk control based on the ModGraph program. A conforming with the above, the appropriate decision can be determined on the extent to which the main and sub-hypotheses are supported or rejected and a conforming with the results achieved from their testing, as shown in table (58).

Table 58: Decision to support and reject the main and sub-hypotheses

	Hypothesis	Decision	Std. Regression Weights	P-Value
H1.	strategic agility has a direct effect on risk management.	Supported	.73	***
H1a.	decision making agility has a direct effect on risk management.	Supported	.27	.001
H1b.	core capability has a direct effect on risk management.	Supported	.20	.013
H1c.	sharing responsibility has a direct effect on risk management.	Supported	.22	.008
H1d.	Selection of strategic targets has a direct effect on risk management.	Supported	.17	.028
H2.	Time management has a direct effect on risk management.	Supported	.61	***
H2a.	Time planning has a direct effect on risk management.	Supported	.19	.033
H2b.	Time organizing has a direct effect on risk management.	Supported	.23	.011
H2c.	Time orientation has a direct effect on risk management.	Supported	.20	.014
H2d.	Time control has a direct effect on risk management.	Supported	.23	.016
H3	Time management has a moderating role in the relation between decision making agility and risk management	Supported	.17	.017
H3a.	Time management has a moderating role in the relation between decision making agility and identify risk	Supported	.15	.033
H3b.	Time management has a moderating role in the relations between decision making agility and risk assessment	Supported	.14	.043
H3c.	Time management has a moderating role in the relations between decision making agility and make decision of taking risk	Rejected	.12	.091
H3d.	Time management has a moderating role in the relations	Supported	.20	.005

	between decision making agility and risk control			
H4	Time management has a moderating role in the relations between core capability and risk management	Supported	.18	.003
H4a.	Time management has a moderating role in the relations between core capabilities and identify risk	Supported	.14	.044
H4b.	Time management has a moderating role in the relations between core capability and risk assessment	Supported	.15	.024
H4c.	Time management has a moderating role in the relations between core capability and make decision of taking risk	Rejected	.11	.104
H4d.	Time management has a moderating role in the relations between core capability and risk control	Supported	.21	.002
H5	Time management has a moderating role in the relations between sharing responsibility and risk management	Supported	.16	.004
H5a.	Time management has a moderating role in the relations between sharing responsibility and identify risk	Supported	.17	.006
H5b.	Time management has a moderating role in the relations between sharing responsibility and risk assessment	Rejected	.06	.363
H5c.	Time management has a moderating role in the relations between sharing responsibility and make decision of taking risk	Rejected	.08	.227
H5d.	Time management has a moderating role in the relations between sharing responsibility and risk control	Supported	.14	.037
H6	Time management has a moderating role in the relations between selection strategic targets and risk management	Supported	.27	***
H6a.	Time management has a moderating role in the relations between selection strategic targets and identify risk	Supported	.21	.001
H6b.	Time management has a moderating role in the relations between selection strategic targets and risk assessment	Supported	.23	***
H6c.	Time management has a moderating role in the relations between selection strategic targets and make decision of taking risk	Supported	.16	.026
H6d.	Time management has a moderating role in the relations between selection strategic targets and risk control	Rejected	.10	.152

4. RESULTS

There is a significant effect of strategic agility in risk management, it became clear through the positive effect relation between the dependent variable and independent that there is harmony between the variables, which considers positively on the general result of the research. There is a significant effect of the dimension of decision-making agility in risk management, the existence of a positive relation between the two variables shows that top management has high flexibility in decision-making even in the presence of tension and danger in the atmosphere of the work environment. There is a significant effect of the dimension of the core capabilities in risk management, as a result of the positive effect is an indication of the success of the top management staff to choose highly qualified people to develop solutions in line with the university's work plans to face any type of risk. There is a significant effect of the dimension of sharing responsibility in risk management, the existence of a positive effective relation between variables demonstrates the high sense of responsibility among the top management staff in universities and their actual awareness of the necessity of collective participation in solving any problem or risk threaten the work's environment at the university. There is a significant effect of choosing strategic targets in risk management, the positive relation between the two variables indicates that top management is characterized by high efficiency because despite of the difficulty of choosing the optimal alternative among several alternatives to favor the best strategic goal to face the risk, but the top management has been able to choose the best solutions and eliminate the threatened risks. There is a significant effect of time management in risk management, it was clear that there is a positive impact relation between the modifying variable and the independent variable and this is an indication of the strength of the correlation of the study variables. There is a significant effect of time planning in risk management, the positive impact relation is an indication that enables top management to develop a successful mechanism through which they can invest time in the required manner to face risks. There is a significant effect of the dimension of time management in risk management, it turned out that the positive relation of the impact between the two variables indicates that the top management has succeeded in facing the risks in a timely manner a conforming with a well-studied mechanism and plans. There is a significant effect of the dimension of time orientation in risk management, that investing time in the right way and avoiding its loss in solving

problems and the danger to which the work environment is exposed is only an emphasis on the role of effective management and appreciation of the effort it provides to avoid any losses that universities may be exposed to. There is a significant effect of the dimension of time control in risk management, the interest of top management in time and their caring of not to waste it and seek to benefit from it in the conduct of work in a positive manner is an indication of the success of top management in managing work affairs with high efficiency. There is a significant modifying role for the time management variable in the relation between decision-making agility and risk management, It was discovered that top management in private universities' interest in measures to improve time management in terms of investing time in providing scientific services, shortening educational sessions, and following up on work completion timelines in accordance with their completion schedules would increase the impact of the various decision-making agility in managing the risks to which it is periodically exposed. Given the positive relation between decision-making agility and the ability to identify risks, it is clear that top management in private universities is well-versed in identifying threats in a timely manner and continuing to address them by implementing immediate and adaptable solutions. Top management has a high potential for developing high standards for risk assessment and analysis in a short period of time, as well as a number of flexible risk management strategies. It appears that time management does not improve the relation between decision-making agility and risk-taking. This may be caused by the difficulty of predicting the risks achieved and the lack of clarity in top management's vision regarding the preparation of strategies required facing risks because of the large number of variables that affect the environment of uncertainty that surrounds the colleges in the study sample. In order to develop and strengthen its information systems for monitoring and controlling risks by adopting the most flexible and useful solutions, the top management must possess a strong ability to recruit methods of time management. When the environment was unstable and prone to sudden risks, the top management of private universities was able to invest their core capabilities of human and material resources and use them appropriately. The possibility exists for top management to reconcile the investment in time management with the capabilities inherent in the rapid detection of internal and external threats surrounding universities and the research community. It has seemed that time management strengthened the relation between core capabilities and risk

assessment, and that shows the ability of top management to value its occupancy time plans in proportion to its core capabilities when testing the magnitude of the risks posed by the uncertain environment surrounding universities in the research society. It appeared that time does not play a role in strengthening the relation between core capabilities and risk-taking decisions. This is due to the top management's fear of facing the unknown and wasting its material and human resources due to its inability to develop urgent strategies in a turbulent environment. The efficiency of top management was indicated by its ability to control the time factor in a manner that enables it to utilize its capabilities to control any threat to universities and the research society. Effective time management by top management in private universities has improved the sharing of responsibilities and staff participation in addressing any threat to the scientific process in these universities. The highest level of management was acutely aware of the possibility of delegating tasks and responsibilities to subordinates and utilizing time management to expand the circle of identification of multiple risks. It was discovered that time management does not improve the relation between sharing of responsibility and risk assessment, and the reason for this is top management's fear of delegating risk assessment tasks and limiting this task to it, which resulted in significant time consumption and delay in assessing the size of the risk and attempting to absorb it, which negatively impacted top management's decisions. There is a modifying role with significant of the variable of time management in the relation between the sharing of responsibility and the decision to face risks, shows that time management does not enhance the relation between the participation of responsibility and decision-making to face risks and reinforces the reason for this negative relation that the senior management has a fear of involving the rest of its members to take such a fateful decision that can expose the university to losses and major problems. Time management has strengthened the relation between responsibility sharing and risk management, and this is due to the high sense of responsibility possessed by all members of top management, who each assumed responsibility for controlling and monitoring risks to prevent harm to all. The increased awareness among the top management of the significance of the time factor and the increase in the level of its investment will support the development and improvement of their capabilities by adopting successful strategies that will find quick and effective solutions to any risk faced by these universities. It was discovered that time management strengthened the

relation between the selection of strategic objectives and the identification of risks, owing to its high awareness of the need to harmonize between the method of setting the strategic objective and the aspects of identifying the form and size of risks in order to develop strategies whose mission is to combat the threat to the university environment and ensure that it does not reoccur. The role of time management has emerged through the strengthening of the relation between the selection of strategic objectives and risk assessment as a result of the ability of top management to formulate strategies that assess the level of risk that threatens the university environment. It appeared that time management has strengthened the relation between strategic objective selection and risk-taking decision-making as a result of top management's high awareness and confidence in its ability to develop strategies that can withstand turbulent environmental threats and changes. It was discovered that time management does not enhance the relation between the selection of strategic goals and risk control, due to the inability of management to predict the post-risk phase and control it with long-term strategies, as well as the limitation of strategies to solve the existing problem without consideration of the possibility of recurrence.

5. RECOMMENDATIONS

Recommendations for implementation:

- Increasing interest in the current research variables by top managers as well as the rest of the employees in private universities by increasing their awareness to face risks and use time for the benefit of work environment.
- Increasing the level of concentration of top management in universities in all administrative and scientific fields in a way that organizes their work and enables them to innovative strategies in facing risks continuously.
- Forming specialized committees to develop educational plans and programs for all employees in universities to increase their awareness of investing time properly and to find intuitive solutions to face any problems or risks that threaten the work environment.
- When the university faces any danger and to form successful strategies and solutions, the top management must conduct a referendum and allow all staff at the university to participate with valuable ideas that reflect the experiences and experiences of each person.

Recommendations for future studies:

- We propose to expand the research sample by testing a larger number of universities through the research of other universities in more Iraqi provinces other than Baghdad.
- We propose to include public universities in the research plan in order to make the most of their expertise and support private universities with ideas with positive results.
- Testing research variables in communities and ministries other than education.
- The questions of the questionnaire paragraphs should be general to obtain more credible and realistic answers.

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APPENDIX

Preparing the questionnaire of PhD thesis

The moderating role of time management in the effect of strategic agility on risk management

A sample of the Top management in some of private universities and collages of Bagdad / Iraq

Questionnaire

Section one: Demographic Profile

Institute name:

University

Faculty/ College

Gender:

☐

Female

☐

Age: (years)

☐

(30 or less)

☐

(31 – 40)

(41 – 50)

☐

(51 or more)

☐

Job Title :

☐

Faculty member

☐

Assistant faculty member

administration

☐

Educational Qualification:

☐

Diploma

☐

Bachelor

☐

Master

Doctorate

☐

Other

☐

Experience: (years)

☐

(10 or less)

☐

(11 – 20)

(21 – 30)

☐

(31 – Over)

☐

First Axis : Time management.

no	Statements	Disagree	Strongly disagree	Neutral	Agree	Strongly Agree
Time planning						
1	I set my goals in proportion to the time available to me to achieve them.					
2	I plan the work that I want to implement before starting it.					
3	Time planning contributes to the accurate implementation of the required work and clearly .					
4	I write down my daily and weekly schedule for following up the work done .					
5	Time planning must be flexible and appropriate to the capabilities of all employees to ensure that tasks are completed in their planned time.					
Time organizing						
6	I carry out my activities in the university according to their importance.					
7	I have the ability to focus time and effort when doing business.					
8	Time organizing contributes to dividing assigned tasks precisely.					
9	I divide the time between main tasks and secondary activities.					
10	Time organizing contributes to facing challenges that hinder workflow.					
Time orientation						
11	I use modern technological means to obtain information in the shortest time.					
12	Time orientation provides the ability to distinguish between postponable and non-postponable activities.					
13	Time orientation helps to assume responsibilities and tasks.					
14	Time orientation contributes to balancing the activities to be performed with the time required to implement them .					
15	Reducing paperwork contributes to orientating time towards the right goals better.					
Time control						
16	I set a specific time to monitor the work of the employees to ensure discipline in the workflow and not waste time.					
17	I self-assess what goals i have been achieved in a time .					
18	Time control aims to correct the deviation in the schedule and not to impose punishment in case of delay.					
19	Time control provides the opportunity to compare the current performance with the planned performance.					
20	The presence of an incentive system in time control increases the employee's effectiveness in implementing the time management stages in the better way.					

Second axis: Strategic agility

Decisions making's agility						
21	The university has multiple scenarios suitable for any emergency situation.					
22	Decisions are made according to the contingency theory to deal with emerging situations and circumstances.					
23	Top management supports decentralized decision-making to solve urgent problems.					
24	We take advantage of some of the decisions that succeeded in the past to formulate decisions related to the future.					
25	The decisions of the top management at the university are distinguished by their keeping pace with the development taking place in the external environment.					
core capabilities						
26	The university employs it's strengths in a way which achieve it's special abilities .					
27	The university allocates the resources which it needs to improve all it's operations .					
28	The university has a good understanding of the skills and knowledge it has because it is considered the most important to achieve the best results .					
29	We can describe the skills and knowledge we have, which are our greatest strengths that we adopt to achieve our competitive advantage with the rest of the universities.					
30	The university has advanced technology to implement its internal operations.					
Sharing responsibility						
31	Top management engages relevant employees in both planning and implementation process to enhance their role in contributing to reach the best result .					
32	Top management encourages employees to deal with any mistakes that may occur and consider them as learning opportunities.					
33	Top management deals with concerned individuals as partners in the responsibility to achieve the final results.					
34	The university provides all facilities to access information of interest to our students and to all the people we work with .					
35	Open discussion with all concerned individuals to implement the best strategies .					
The selection of strategic targets						
36	The university's top management realizes which competencies and processes it needs to enhance its strategic goals that achieve the best service for our students .					
37	The university is take notice to put all its goals and operations to be implemented in the right place that achieves the best results.					
38	The university develops specific interim goals linked to the strategic goals.					
39	Top management is taking notice to match the strategic objectives with the opportunities available to it.					
40	The university sets strategic goals according of its vision and mission.					

Third axis : Risk management

Identify risks						
41	Risk diagnosis committees cooperate with top management to identify risks related to natural disasters, crises and potential emergency events and setting the necessary controls to reduce them .					
42	There are studies and procedures at the university that enable us to diagnose potential risks.					
43	Experts are used to identify the expected risks.					
44	The work team participates with the top management and the competent authorities in identifying risks .					
45	The university undertakes a comprehensive systematic determination of the risks related to its activities.					
Risk assessments						
46	The risk assessment committees submit reports on the results of the risk assessment and evaluate the efficiency and effectiveness of the controls established to face risks.					
47	We carry out an assessment and review process for risk management steps.					
48	The university has a clear and effective risk management plan.					
49	The university uses experts to take advantage of their opinions helping in making decisions about risk management .					
50	Risks are divided into different levels and degrees in terms of probability of occurrence and expected impact.					
Make Decision of taking risks						
51	Cooperation occurs between all levels of the university to facing the risk of risks					
52	A specialized team is created to deal with the crisis with the determination of the expert members.					
53	Top management differentiates between decision making on the basis of least cost .					
54	Work is being done on the cognitive development of university employees in order to help in making better decisions to facing risk .					
55	Strategies are prepared to facing the risks.					
Risks control						
56	Top management is following up to make sure that the goals have achieved to facing the risks .					
57	Top management considers dealing with the riskous risks for the university, the least risk .					
58	It is ensured that the following procedures have given the planned results .					
59	The learned lessons of the risk management would be identified in the future, through documentation of previous risks .					
60	The university has indicators that are used periodically to check the level of risk or treat it					

CURRICULUM VITAE

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