The Impact of Outsourcing on the Operational Performance of Industrial Companies in Amman-Jordan: The Mediating Impact of Organizational Structure and Culture

أثر التزود الخارجي على الأداء التشغيلي في الشركات الصناعية في عمان - الأردن: الأثر الوسيط للهيكل التنظيمي والثقافة التنظيمية

Prepared by:
Lana Meziad Al-Junidi

Supervised by:
Dr. Mohammad AL Adaylah

Thesis Submitted in Partial Fulfillment of the Requirements for Degree of Master in management.

Business Administration
Business faculty
Middle East University
Jan. 2020
Authorization

I, Lana Meziad Al-Junidi, authorize Middle East University to provide libraries, organizations and individuals with copies of my thesis upon request.

Name: Lana Meziad Al-Junidi.

Date: 10/02/2020.

Signature: 

[Signature]
Discussion Committee Decision

This thesis was discussed on the title: **The Impact of Outsourcing on the Operational Performance of Industrial Companies in Amman- Jordan: The Mediating Impact of Organizational Structure and Culture.**

It was accepted on: 25 January 2020.

**Thesis Committee Decision Members:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Workplace</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Mohammed Al-Adaileh</td>
<td>Supervisor &amp; Internal Examiner</td>
<td>Middle East Uni.</td>
<td></td>
</tr>
<tr>
<td>Dr. Amjad Twuqat</td>
<td>Chairman &amp; Internal Examiner</td>
<td>Middle East Uni.</td>
<td></td>
</tr>
<tr>
<td>Dr. Abeer Al- Faouri</td>
<td>External Examiner</td>
<td>Al-Balqa Applied Uni.</td>
<td></td>
</tr>
</tbody>
</table>
Dedication

This work is devoted to my beloved parents, family and respected teachers.

Lana Meziad Al-Junidi
Acknowledgement

I thank God for the kind life, knowledge, advice and power given to me to write this thesis.

I would also like to thank my supervisor, who treated me very patiently during this work and encouraged me to write this research. I will always be grateful for your constructive criticism and encouragement.

I am also grateful to my parents and family for their love and moral support for bringing me here.

I would also like to thank my colleagues for their support.

And everyone who helped me in this way in many ways, God bless all of you.

Lana Meziad Al-Junidi
# Table of Contents

Title ......................................................................................................................... i  
Authorization .......................................................................................................... ii  
Discussion Committee Decision ........................................................................... iii  
Dedication ............................................................................................................... iv  
Acknowledgement ................................................................................................... v  
Table of Contents .................................................................................................... vi  
List of Tables ............................................................................................................ viii  
List of Figures ......................................................................................................... ix  
List of Appendices .................................................................................................. x  
Abstract in English ................................................................................................ xi  
Abstract in Arabic ................................................................................................... xii  

## CHAPTER ONE: Introduction ................................................................. 1
  1.1 General Overview ...................................................................................... 1  
  1.2 Problem statement .................................................................................... 3  
  1.3 Research Questions ................................................................................... 5  
  1.4 Research Hypotheses ............................................................................... 6  
  1.5 Study Aims and Objectives ...................................................................... 7  
  1.6 Scientific Significance ............................................................................. 8  
  1.7 Applied Significance .............................................................................. 9  
  1.8 Study Limitations .................................................................................... 9  
  1.9 Conceptual Framework .......................................................................... 9  
  1.10 Operational Definitions: ..................................................................... 10  

## CHAPTER TWO: Literature Review and Previous Studies ............... 13
  2.1 Literature Review ...................................................................................... 13  
  2.1.1 Outsourcing ......................................................................................... 13  
  2.1.2 Outsourcing and Operational Performance ....................................... 13  
  2.1.3 Outsourcing and Organizational Structure ........................................ 18  
  2.1.4 Outsourcing and Organizational Culture .......................................... 19  
  2.1.5 Performance aspects in the industrial companies in Jordan are affected by outsourcing ................................................................. 20  
  2.2 Previous Studies ..................................................................................... 24
CHAPTER THREE: Methods / Procedures ............................................. 40
  3.1 The Study Methodology .................................................................. 40
  3.2 Study Population and Sample ......................................................... 40
  3.3 Data Collection Tools ...................................................................... 42
  3.4 Validity and Reliability ..................................................................... 43
  3.5 Confirmatory Factor Analysis ............................................................ 45
  3.6 Measurement model Validity .............................................................. 50
  3.7 Measurement Model Reliability......................................................... 54
  3.8 Study variables ............................................................................... 55
  3.9 Hypotheses testing .......................................................................... 55

CHAPTER FOUR: Testing Results ......................................................... 56
  4.1 Hypotheses Testing .......................................................................... 56
  4.2 Testing the Direct Impact ................................................................... 59
  4.3 Testing the Indirect Impact ................................................................. 60

CHAPTER FIVE: Discussion and Recommendations ............................. 64
  5.1 Discussion of Findings ..................................................................... 64
  5.2 Confirmatory Factor Analysis ......................................................... 65
  5.3 Results of Hypotheses Testing .......................................................... 67
  5.4 Recommendations and suggestions for future research ................... 72

REFERENCES ......................................................................................... 75

APPENDICES ......................................................................................... 83
List of Tables

Table 3. 1: Demographic Distribution of the sample........................................ 41
Table 3. 2: Descriptive Statistics................................................................. 45
Table 3. 3: Measurement Model Fitness indices.......................................... 48
Table 3. 4: Factor Loading, Reliability (Alpha Cronbach), Composite Reliability, Average Variance Extracted ................................................................. 52
Table 3. 5: Discriminant Validity indicator (Square Root of AVE, Correlation Coefficients between Factors)................................................................. 53

Table 4. 1: Result of the structural model test ........................................... 58
Table 4. 2: Statistical significance test for indirect effect............................... 62
Table 4. 3: Statistical significance test for indirect effect............................... 62
Table 4. 4: Standardized Indirect Effects...................................................... 63
List of Figures

Figure 1. 1: Hypotheses Diagram.................................................................7
Figure 1. 2: Conceptual framework ............................................................ 9

Figure 3. 1: Measurement Model, Fitness Indices, Standardized Factor Loading
.................................................................................................................................. 50

Figure 4. 1: The Specified Structural Model using SEM.............................. 56
Figure 4. 2: Estimated Structural Model using SEM ....................................... 57
Figure 4. 3: Estimate of Indirect Impact (Outsourcing_through_OrgStructure) on
Operational Performance ......................................................................................... 62
Figure 4. 4: Estimate of Indirect Impact (Outsourcing_through_OrgCulture) on
Operational Performance ......................................................................................... 63
List of Appendices

Appendix 1: The Questionnaire ................................................................. 83
Appendix 2: Arbitrators List ................................................................. 87
The Impact of Outsourcing on the Operational Performance of Industrial Companies in Amman- Jordan: The Mediating Impact of Organizational Structure and Culture

Prepared by:
Lana Meziad Al-Junidi

Supervised by:
Dr. Mohammad AL Adaylah

Abstract

The study was designed to examine the impact of Outsourcing on the Operational Performance of Industrial Companies in Amman- Jordan: The Mediating Impact of Organizational Structure and Culture.

The study sample included all, owners, General Managers, HR managers, heads of the industrial companies in Amman- Jordan., whom were chosen with total of (400) individuals. A specifically designed questionnaire was used as a key tool for collecting information and (250) responses were received and tested.

The results of the hypotheses test using Structural Equation Modelling also showed that the model is fit to the environment of industrial companies in Jordan. Testing of Path Analysis shows that there is a direct significant impact of outsourcing on the operational performance in the industrial companies in Jordan. Also, there is a direct significant impact of outsourcing on the organizational structure. There is a direct significant impact of outsourcing on the organizational culture. There is a direct significant impact of organizational structure on the operational performance in the industrial companies in Jordan. There is a direct significant impact of organizational culture on the operational performance in the industrial companies in Jordan. The results of testing mediation indicated that organizational structure partially mediates the impact of outsourcing on operational performance. Additionally, organizational culture partially mediates the impact of outsourcing on operational performance. Eventually, the research recommends that if industrial companies want to take advantage of external outsourcing to raise levels of performance, they should include the external outsourcing in their organizational structure and culture.

Keywords: Outsourcing, Organizational Structure, Organizational Culture, Operational Performance.
أثر التزود الخارجي على الأداء التشغيلي في الشركات الصناعية في عمان - الأردن: الأثر الوسيط للهيكل التنظيمي والثقافة التنظيمية

إعداد
لانا مزيد الجندي

إشراف
الدكتور محمد العضايلة

الملخص

تم صممة هذه الدراسة لدراسة تأثير التزود بمصادر خارجية على الأداء التشغيلي للشركات الصناعية في عمان - الأردن: الأثر الوسيط للهيكل التنظيمي والثقافة التنظيمية.

شملت عينة الدراسة، المالكين، المدراء العامين، مدير الموارد البشرية، رؤساء الشركات الصناعية في عمان - الأردن، وتم اختيار ما مجموعه (400) فرد. حيث تم استخدام استبيان مصمم خصيصًا كأداة رئيسية لجمع المعلومات، وقد تم استلام (250) رداً واحداً.

وقد تم إخضاع العينة إلى التحليل الإحصائي باستخدام التحليل العاملي التوكيدي حيث أظهرت نتائج اختبار الفرضيات أن النموذج ملائم لبيئة الشركات الصناعية في الأردن. وقد أظهر اختبار تحليل المسار أن هناك تأثير مباشر للتزود الخارجي على الأداء التشغيلي في الشركات الصناعية في الأردن. كما أظهر تحليل المسار أن هناك تأثير كبير مباشر للتزود بمصادر خارجية على الهيكل التنظيمي. وأن هناك تأثير كبير مباشر للتزود بمصادر خارجية على الثقافة التنظيمية، وتأثير كبير مباشر للهيكل التنظيمي على الأداء التشغيلي في الشركات الصناعية في الأردن، وأن هناك تأثير كبير مباشر للثقافة التنظيمية على الأداء التشغيلي في الشركات الصناعية في الأردن.

توقفت نتائج الاختبار أن الهيكل التنظيمي يتوسط جزئياً في تأثير التزود بمصادر خارجية على الأداء التشغيلي، بالإضافة إلى ذلك، تتوسط الثقافة التنظيمية جزئياً تأثير التزود بمصادر خارجية على الأداء التشغيلي.

حيث أوصت الدراسة بأنه إذا رغبت الشركات الصناعية الاستفادة من التزود بمصادر خارجية لرفع مستويات الأداء، في ينبغي أن يشتمل التزود بمصادر خارجية في هيكلها التنظيمي وثقافتها.

الكلمات المفتاحية: التزود بمصادر خارجية، الهيكل التنظيمي، الثقافة التنظيمية، الأداء التشغيلي.
CHAPTER ONE

Introduction

1.1 General Overview

This research concentrates on measuring the impact of outsourcing with organizational culture and organizational structure as mediating variables, this research studied the impact of outsourcing on the operational performance and if the organizational culture and organizational structure can determine the identification of the outsourcing decisions.

The research helped to ensure the model fit to the environment in the Jordanian industrial sector through an empirical study that focused on developing a model for measuring variables in the conceptual model and then testing hypotheses results and providing recommendations that are a standard for decision makers in Jordanian companies. These findings and recommendations help Jordanian companies to improve their production quality, reduce costs, improve performance, and increase profits. On the other hand, this research opens new perspectives on literature. Displaying the effects of outsourcing on the operational performance of the Jordanian industrial sector; this enables scientists and researchers to apply knowledge in the same field in various other environments.

Outsourcing has become a great business tool that can create a competitive advantage if products or services from external suppliers are manufactured more effectively and efficiently (McCarthy and Anagnostou, 2004; Leavy, 2004). In the 1980s and 1990s, many companies that dealt with corporate restructuring dissolved many companies in order to become more competitive (Bergh et al., 2008; Mpoyi, 2003). Although most outsourcing in the past was in manufacturing, it is now spreading rapidly
in the services sector, as it has become increasingly global and global (Barrar and Gervais, 2006).

The organizations administration has taken into consideration the important and strategic aspects of the activities that their organizations should continue to implement internally and the activities that should be outsourced. Although the strategic implications of outsourcing have been discussed for several years, outsourcing decisions are generally made on a cost basis (Yang et al., 2007; Momme and Hvolby, 2002; Canez et al., 2000; Probert, 2000). In addition, more focus has been placed on providing practical guidelines for outsourcing decisions taking into account other dimensions after the impact of outsourcing on the people and teams that intrigue each day; outsourcing can also affect the structure and culture of organizations (Yang et al., 2007; Espino-Rodriguez and Padron-Robaina, 2006; Coe, 2000; Canez et al., 2000).

In order for outsourcing to be effective, some knowledge and data must reflect the company's boundaries between the leading company and its suppliers. In the event of outsourcing simple terminal tasks, this information can be somewhat simple, confidential, and clear. However, if the core tasks that tend to be more sophisticated, less clear, and more important than peripheral tasks are outsourced, the transfer of required knowledge can be broad and systematic and includes implicit and explicit knowledge. So outsourcing decisions often require a specific review of organizational boundaries, and depending on the type of outsourcing, it is a new perception of more important organizational structures.

In addition, effective control of the organization is closely related to its organizational structure. If the company decides to outsource part of its tasks or operations, a new structure will be created. In addition, the control system must be
checked and adapted according to the new business model to ensure its effectiveness. Outsourcing companies generally use a functional organizational structure, which is the usual way to standardize business activities.

Because outsourcing can have many unknown and unpredictable consequences for the working group dynamics, outsourcing can also have unintended consequences for corporate culture. Organizational culture is defined as a set of expected standards, values, and behaviors that share most or all the organization's members (Trice and Beyer 1992). By looking at how outsourcing can change the way people interact time and time again with each other, the regularity of those interactions, and the problems they interact with, outsourcing can change the corporate culture dramatically.

This research extends to five chapters. For example, after the introductory chapter, which defines the problem, study objectives, study contribution, and study model, the study moved to the second chapter to discuss existing literature on the effects of outsourcing focused on organizational performance and previous relevant studies. However, in Chapter Three, research methods, sampling methods and statistical analysis tools created for empirical results are presented. In the fourth chapter, the study examines the results of statistical analysis. This chapter focuses on adapting the measurement model and structure and testing the proposed hypotheses, while Chapter five reflects a discussion of the results. This search, finally, discusses the recommendation and the conclusion of this study.

1.2 Problem statement

Transactions, communications and business between foreign and domestic companies have created a competitive environment within Jordanian industrial
companies. To combat this fierce competition, local companies have used outsourcing as one of the most effective strategies. In the existing globalized and competitive business environment, different companies tend to focus on core skills by outsourcing service providers to activities and tasks that are not part of their core business. Prahalad and Hamel (1990, p. 279) defined basic skills as "group learning in an organization, especially how different production skills can be coordinated and how multiple technology flows can be combined." The statement depended on visualizing the basic skills that create diversity and help companies discover a diversified market in this way and thus increase their market share (Prahalad and Hamel, 1990). When a company finally focuses on its core competencies, it develops its long-term competitive advantage over its competitors (Johnston and Clark, 2001). In addition, the outsourcing of non-core activities helps increase their profitability as quality of services improves (Kakabadse and Kakabadse, 2002; Lord et al., 2002; Cigolini, 2009; Cotts et al., 2010). Most companies see outsourcing as a very good way to purchase services (Cotts et al., 2010). The external workforce is more flexible and thus can easily adapt to fluctuations in the work environment (Cigolini, 2009). Barrett and Baldry (2003) consider cutting costs and focusing on core activities as the most visible driver in the literature for outsourcing. Outsourcing increases the value of the company's core activities (Atkin and Brooks, 2009) and helps companies achieve their long-term tasks, goals, and objectives. This study highlights the relationship between outsourcing and operational performance. Our analysis adds the idea that outsourcing affects culture and organizational structure, ultimately affecting multiple dimensions of performance.

Although outsourcing has been extensively studied in management literature, most studies on industry outsourcing have focused on major multinationals located abroad.
However, research on outsourcing management in Jordanian industrial companies remains scarce. Although there are many studies that have examined the effect of outsourcing on corporate performance, or even operational performance, few studies have examined the possibility of explanation of performance through the organizational structure and organizational culture. This study focuses on the inclusion of the organizational structure and organizational culture as mediator variables in the effect of outsourcing on operational performance in industrial companies in Jordan.

This study provides the first study / research on outsourcing activities for local industrial companies in Jordan. The result of this research is expected to contribute to the knowledge found in the industrial companies in Jordan as well as improve the practices of outsourcing local companies to improve their performance. This research will significantly help improve the competitiveness of industrial companies in Jordan by using the correct outsourcing strategies. The recommendations of this study will help local companies to improve their operating performance.

1.3 Research Questions

Based on the above introduction, the objective of this study was to seek answers for the following questions / this study sought to answer the questions below:

Main Question: What is the impact of outsourcing on the operational performance of the industrial companies in Amman- Jordan with the presence of mediator variables of organizational structure and culture?

The sub questions can be stated as follow:

1- What is the relationship between outsourcing and performance?

2- How does outsourcing affect the organizational structure?
3- How does outsourcing affect the organizational culture?

4- How does the organizational structure and culture mediate the relationship between outsourcing and performance?

5- What operational performance aspects in the industrial companies in Jordan are affected by outsourcing?

### 1.4 Research Hypotheses

In order to answer these questions and reach the aim and the objectives of the research; the researcher hypothesized the following hypotheses to enable the researcher to develop a specific direction as well as better understanding about the subject matter of the study. Its further assists in the careful and focused analysis of data collected.

**H 1:** There is a direct and significant impact of outsourcing on the operational performance of the industrial companies in Jordan at a significant level ($\alpha \leq 0.05$).

**H 2:** There is a direct and significant impact of outsourcing on the organizational structure of the industrial companies in Jordan at a significant level ($\alpha \leq 0.05$).

**H 3:** There is a direct and significant impact of outsourcing on the organizational culture of the industrial companies in Jordan at a significant level ($\alpha \leq 0.05$).

**H 4:** There is a direct and significant impact of organizational structure on the operational performance of the industrial companies in Jordan at a significant level ($\alpha \leq 0.05$).

**H 5:** There is a direct and significant impact of the organizational culture on the operational performance of the industrial companies in Jordan at a significant level ($\alpha \leq 0.05$).

**H 6:** The organizational structure mediates the impact of outsourcing on operational performance at a significant level ($\alpha \leq 0.05$).
H7: The organizational culture mediates the impact of outsourcing on operational performance at a significant level ($\alpha \leq 0.05$).

Figure 1. 1: Hypotheses Diagram

1.5 Study Aims and Objectives

1- To evaluate the impact of outsourcing on the operational performance.

2- To explore the impact of outsourcing on the organizational structure.

3- To explore the impact of outsourcing on the organizational culture.

4- To determine the role of organizational structure and culture in mediating the impact of outsourcing on performance.

5- Build/ Develop a measurement scale that fits the environment of industrial companies’ environment which include the study variables.
6- To identify the performance aspects in the industrial companies in Jordan that are affected by outsourcing.

7- To provide valuable recommendations for decision makers in the industrial companies in Amman- Jordan.

1.6 Scientific Significance

Current research is expected to contribute positively to the growth of literature on the effects of outsourcing on the organizational performance of Jordanian industrial companies. It will also contribute positively to the practical knowledge of Jordanian companies by highlighting the main factors in outsourcing that have a positive or negative impact on their performance. Organizations can understand outsourcing activities that can have a positive and negative impact on their performance so they can use other methods to improve their performance levels. Although outsourcing has been the subject of many studies in managerial literature, most studies on industry outsourcing have focused on large multinationals based abroad.

There is a lack of research on outsourcing management in industrial companies in Jordan.

This study provides the first study on the outsourcing activities of local industrial companies in Jordan.

The result of this research is expected to contribute to the current knowledge of industrial companies in Jordan. As well as improving the company's local outsourcing practices to improve performance. This study will significantly help improve the competitiveness of Jordanian industrial companies through appropriate outsourcing.
strategies. The recommendations of this study help local companies to improve their organizational performance.

1.7 Applied Significance

This study focused on developing a model for measuring the variables proposed in the conceptual model, and then fitting this model with the environment of the industrial sector in Jordan and testing the hypotheses using empirical tools.

1.8 Study Limitations

1. It is extremely difficult to tackle every research regarding outsourcing in general and mainly in Jordan.

2. This subject discussion is constrained due to availability of data and ability to share some confidential information by the industrial companies.

3. The awareness of such topic is limited or disregarded by some companies.

4. Time limitations.

1.9 Conceptual Framework

![Conceptual Framework](image)

*Figure 1.2: Conceptual framework*
1.10 Operational Definitions:

A. Outsourcing: is the business practice of hiring an outside party to perform services and create goods that usually were completed in-house by the company's employees.

B. Operational Performance: The achievement of a given task measured against pre-defined known standards of accuracy, completeness, cost, and speed. In a contract, performance is considered to be the completion of an obligation, in means that releases the performer from all responsibilities under the contract.

C. Organizational Structure: The organizational structure is a system used to define a hierarchy within an organization. It recognizes each job, its functions and reporting channel within the organization. This structure is developed to find how an organization functions and supports an organization in achieving its goals to allow for future growth. The structure is illustrated using an organizational chart.

D. Organizational Culture: The organizational culture includes an organization’s expectations, experiences, philosophy, attitude as well as the set of values that guide member behaviour and actions, and is expressed in member self-image, inner workings, interactions with the outside world, and future expectations. Culture is based on shared attitudes, beliefs, customs, and written and unwritten rules that have been developed over time and are considered valid.

Outsourcing has a direct impact on the organizational performance. Thus, according to this research, outsourcing is considered to be the independent variable, while the operational performance is deemed to be the dependent variable, whereas the organizational culture and structure are the mediating variables in this relationship.

This model was designed with reference to previous studies where Espino-Rodriguez and Padron-Robaina (2004) said that given its strategic and planned features,
outsourcing has an impact on the operational objectives and performance, other studies have observed the outcomes of outsourcing activities in regards to performance, where Lau and Hurley (1997) identified a substantial relationship between outsourcing and profitability margin where they found that Chrysler’s profit margin is four times as greater than of GM as a result of effective outsourcing through strategic partnerships.

Linking outsourcing to the organizational culture a comparative case study by George’s (2003) of three organizations found that having a part-time or contract co-workers reduced lead firm workers' sentimental commitment to their organization, lowered their trust in the organizations, and raised the perceptions of psychological contract violation. Chattopadhyay & George (2001) found that lead firm employees reported lower organization-based self-esteem, lower trust in and attraction toward colleagues, and more self-centeredness when working in outsourced or part-time dominated groups due to negative effects on their social identities.

The organizational structure works as a control mechanism by determining the behaviors anticipated from employees in the performance of their tasks, as well as by setting the authority and reporting relationship of the entire set of roles which comprise organizational structure.

The structure of any organization depends on its activities, that can be done internally, or by outsourcing. Companies apply functional organizational structure [Kroon 2004, p. 223] with managers located elsewhere or employees working abroad. There are many aspects related to control, first by the transformation of the organizational structure that should be taken into consideration in the decision-making processes.
The formation of a shared service center needs a change of the organizational structure as a new company’s unit is formed. Also, when outsourcing of activities to an external partner a new structure needs to be adopted.
CHAPTER TWO
Literature Review and Previous Studies

This section discusses the outsourcing definitions used in previous research. In addition, a definition of outsourcing is being developed based on a comprehensive review of the literature on outsourcing. Finally, the advantages and disadvantages of outsourcing that were identified in previous studies are examined.

2.1 Literature Review

2.1.1 Outsourcing

There appears to be some ambiguity in the administrative literature regarding the term "outsourcing". Human resources associated with all IT components of a user organization or some of its components (Kotabe, 1992: 9). On the other hand, outsourcing is described as "products provided to the multinational company by independent suppliers around the world "and “The scope of components and final products provided to the company by independent suppliers.” (Kotabe, 1992: 103). Other definitions of outsourcing included “reliance on external sources for component manufacture and other value-added activities” (Lei and Hitt, 1995: 836). In general, the importance of outsourcing a Research on this subject is very wide so that practically affects all goods or services that the organization purchased from foreign companies.

2.1.2 Outsourcing and Operational Performance

Little is known in the literature about the effects of outsourcing in industrial companies. In particular, the introduction of new data and empirical knowledge in the relationship between outsourcing and operational performance in industrial companies in Jordan. Polat Weilmaz (2009) empirically examined the effects of outsourcing and
examined the relationship between outsourcing activity and the operational performance of hotels. Study information was collected in 80 hotels in Antalya, Turkey using questionnaires. A two-sample test and correlation and regression analysis were used for data analysis. Analysis has shown that the effects of outsourcing on operational performance are strongly supported. Working with a supplier has resulted in a significant improvement in organizational productivity, efficiency, quality, continuous improvement, profitability, quality of work life, and social responsibility. Hotel managers are convinced that their operating performance has improved after outsourcing. On the other hand, the main limitation of this study is the impact of outsourcing on operational performance based on perceived results rather than direct measurements of measurable dimensions. In this case, it is recommended that financial measures be used in a prospective study in order to enable an objective assessment of the effects of hotel outsourcing on the profitability and productivity dimensions. In fact, the results have shown that outsourcing is extremely important for operational performance. In addition, the efficiency of the process of outsourcing has a major impact on operational performance if effective planning and implementation of the process is outsourced. The desired results can be achieved in terms of operational performance.

Yeboah (2013) examined the relationship between outsourcing and operational performance in the service sector. The study population consists of 50 companies operating in the banking and insurance sector in the Ghanaian economy. The study used a well-established sample to select the participants. Questionnaires were distributed to respondents for statistical analysis. The study analyzed the data collected with the SPSS package. The study produced a number of results, including the absence of a statistically significant relationship between outsourcing and organizational productivity, a
statistically significant relationship between outsourcing and quality, and a statistically significant relationship between outsourcing and quality. Competitive advantage. Based on the results, some recommendations were made, most notably: a thorough background check should be performed before outsourcing, and companies should have a backup system to prevent important data loss due to inefficiency of the external resource.

Mwichigi (2015) examined the relationship between outsourcing and operational performance of Kenya's energy sector, with special reference to Kenya Power. Specifically, the study aims to define the relationship between key outsourcing services, especially outsourcing for administrative support, financial outsourcing, resource outsourcing, technical outsourcing, and operational performance. Specifically, it should be examined whether the outsourcing of some functions individually and collectively affects the operational performance of the Kenyan energy sector. The study design used for the study was a descriptive case study design that used primary and secondary data. The primary data was collected using a structured questionnaire with questions based on a five-point Likert rating scale, and the secondary data was collected from the annual reports and published financial data. The data was mainly analyzed using descriptive and deductive statistics. Descriptive statistics included frequencies, line charts, and percentages. Correlation analysis was the main statistical inference method. The results showed that profitability has improved over the years, as the fiscal year between July 2008 and June 2009 saw the largest 75% increase in outsourcing earnings. New customers' connectivity to the national network grew steadily, with the strongest growth at 16% between July 2009 and June 2010. Study results show that Kenya Power's outsourcing services have reduced operating costs and increased operational efficiency.
The study concluded that there is a positive and important relationship between administrative and financial services, services related to outsourcing, technical and operational performance. This leads to efficient service delivery, enhances efficiency and efficient allocation of resources to meet customer requirements. The study recommends that management closely monitor the assets of subcontractor products to obtain a comprehensive picture of the service delivery process. This ensures that suppliers do not use poor materials or processing, which can lead to poor customer services and lead to losses.

Mitchell and James (2017) used three longitudinal case studies on outsourcing of public entertainment services to investigate how employees move from one organization to another using an analytical framework in three phases. The results confirm the idea that outsourcing can be a difficult transition that can lead to employment losses. However, it also clarifies how such changes can occur in addition to developing seemingly positive business relationships with the new employer, which questions the idea that outsourcing the public service has an impact on jobs. The study results show interest in examining work shifts associated with outsourcing in the longitudinal direction, taking into account the chosen analytical framework. It also appears to have an impact on the way these transfers are organized and managed, including an understanding of the nature of the business relationship and the role of the manager.

MacKerron et al. (2015) examining the merits of an effective performance management framework for outsourcing projects in a financial services organization in the UK and how this might contribute to the success of the agreement. Getting help from external sources. The analysis is based on the theory of outsourcing and performance management and uses primary and secondary data. The outsourcing project found
valuable information on setting goals, measuring performance, and improving performance. It is recommended that you use a modified version of the balanced scorecard called Logic Scorecard as a measurement tool. Service credit system and continuous improvement plan to improve supplier performance. The Performance Management Framework, which is one of the pillars of the SCOR (Supply Chain Operations Reference) model, has been developed and provides step-by-step advice for practitioners on how to implement performance management in outsourcing projects. This combines the two performance management suggestions before and after the outsourcing decision, and therefore takes into account the entire lifecycle of the outsourcing. The 10-step framework for outsourcing not only integrates strategic proposals, but also illustrates implementation at the operational level.

And pointing Wachira et al. (2016) examining the effects of outsourcing practices implemented by organizations in Nairobi. The questionnaires were distributed to the management of 85 non-profit organizations in Nairobi. The results indicate that, depending on the risks in the business environment, the company policy and the functions to be outsourced in terms of outsourcing, supplier efficiency and commitment, outsourcing can lead to positive and / or negative results. Getting help from external sources. The article highlights three improvements to improve the positive impact and value of outsourcing. This includes formulating uniform guidelines for outsourcing, regulating the prices of outsourcing, and the integration of outsourcing companies that meet contractual deadlines, and the article concludes that outsourcing opens markets to free trade and development.
2.1.3 Outsourcing and Organizational Structure

Over the past decade, outsourcing has proven to be an appropriate strategic choice for companies that limit their business to core competencies. Momme (2002) analyzed the process of outsourcing manufacturing to profitable and innovative suppliers to support in-house resources and skills. A scientific reference model based on manufacturing strategy has been proposed to facilitate the selection of the appropriate level of analysis and control in the research process. This was followed by the development of a system model to identify elements of the production system and internal support functions. Finally, a framework has been created that links the entire stages of the outsourcing process with strategic planning. The framework contained a logical sequence of main activities with integrated performance measurements and expected results for each stage. The research methodology combined theoretical study with case study and labour research in heavy industry in Aalborg. Thus, the research follows an academic and industrial application.

However, to date, relatively few studies on the IT outsourcing contract provider (IT) side have been based on experimental quantitative studies. Past research (Yang et al., 2007; Momme and Hvolby, 2002; Canez et al., 2000; Probert, 1997; McIvor et al., 1997; Ford et al., 1993) has identified a problem with frequent service providers that are poorly sustainable for IT performance. The literature has shown that supplier skills and organizational structure affect supplier performance. In this context, the study assumed that an adjustment between the necessary delivery capabilities and the organizational structure on the IT vendor side will lead to sustainable delivery performance. The researcher interviewed employees who participated in the outsourcing activities of three external IT service providers (N = 135). The results of our analysis showed that these
concepts can be used to analyze the differences between the three types of service providers. The results showed that suppliers focused on determining fit are more willing or able to monitor if they are performing sustainable performance.

2.1.4 Outsourcing and Organizational Culture

It is well known that corporate culture plays an important role when it comes to influencing both project behaviour and decisions that can vary consciously or unconsciously and depending on specific company attitudes. Popoli (2017) studied the effects of organizational culture on outsourcing decisions and provided a conceptual model of how this condition occurs. Through a critical analysis of the relevant literature on organizational culture on the one hand and outsourcing on the other hand, his article aims to identify the most important cultural factors that define outsourcing decisions and provide suggestions as a way to visualize this link. His research results have shown that, with regard to logical factors that play a role in the selection of outsourcing, some cultural factors have a significant impact on attitudes toward outsourcing, particularly i) design, selection, and (2) implementation. Subsequent implementation, especially with regard to the structure of relationships between outsourcing and organizational culture. The specific cultural factors are: degree of dependence on the path, avoiding uncertainty and confidence. This was standardized in the concept of "relationship culture."

The trend of outsourcing is one of the strongest and most sustainable trends in companies in the past ten years. Companies have been eager to cut costs through outsourcing services and traditional internally executed activities. The reason for this step is simple and convincing when outsourcing is a little cheaper than outsourcing. This way, you not only get more efficient, but also more efficient by focusing more clearly on the things you can do better internally. Clear advantages. In this article, John Hendry (1995)
argues that, with support from political ideology, leadership style, and short-term responses to recession pressure, the benefits of outsourcing have been demonstrated to the extent that it has been proven to be hiding the true associated costs. First, economic logic and competitive considerations to support outsourcing are examined and show how they have been strengthened through political ideology and managerial style. Using a media organizational model, he then examines what is lost when outsourcing the activity and how this loss can affect the organization's capabilities. In conclusion, he argues that each step towards outsourcing should be evaluated according to its impact on a number of organizational characteristics and on the dynamic balance between them.

2.1.5 Performance aspects in the industrial companies in Jordan are affected by outsourcing

Several potential benefits of outsourcing have been identified in the administrative literature, such as: Financial and non-financial implications. Besanco et al. (2003) suggested that it is widely accepted that outsourcing organizations can perform most activities more efficiently than highly integrated activities, and there are three main reasons for this reasoning. The first is that suppliers may have private information or patents that allow them to perform certain activities at a lower cost. Second, suppliers may be able to summarize the requirements of many organizations and thus achieve economies of scale. The third reason is that by using their production experience, many companies can save money on learning. Quelin and Dhammel (2003) suggested that management could use outsourcing to better distribute risk and avoid large and often irreversible investments. Gabriel (2005) stated that a survey of participants in the 2004 World Summit on Outsourcing concluded that cost reduction is the main benefit of outsourcing, followed by a better focus. Variable cost structure, access to qualifications, sales growth, quality improvement, capital conservation or innovation. As a result,
organizations seek a more strategic perspective as well as lower costs in order to obtain and maintain a competitive advantage (Espino-Rodriguez and Padron-Robaina, 2005). The following subsections describe the main benefits that can be achieved through outsourcing.

2.1.5.1 Quality Improvement

Barrar and Gervais (2006) suggested that improving quality is one of the main reasons for outsourcing. It is not always possible to simulate an organization's skills, experience, or core competencies. Because of this special ability, it may be impossible for one organization to acquire another. Therefore, the organization can acquire the skills of other organizations through outsourcing (Barrar and Gervais, 2006; Hill, 2000; Quinn and Hilmer, 1994; Venkatesan, 1992). Companies can outsource their activities to suppliers whose services or products are among the best in the market (Geely and Rashid, 2000), which will ultimately improve the quality of the company's outsourcing activities (Burt et al., 2003), however Jennings (2002), argued that quality may sometimes be compromised without fully monitoring service levels.

2.1.5.2 Cost Reduction

Apt et al. (1997), based on their study on information technology outsourcing (information systems) in three different countries - the United States, Japan, and Finland - suggested that cost reduction was the most important benefit noted by managers from the three countries. Hill (2000) suggested reducing operating costs by outsourcing by reducing demands on process technology and support costs and managing and controlling operations. Outsourcing enables companies to take advantage of new technologies without making any significant capital investment (Gilley and Rasheed, 2000; Quinn and Hilmer, 1994). Additionally, Barrar and Gervais (2006) indicate that economies of scale
cannot be achieved in all activities of a particular institution. As a result, contractors can see the benefits of scale effectiveness by performing repeat functions for multiple organizations at the same time. Part of the cost reduction achieved by contract organization can be transferred to an outsourcing organization (Ghobrial, 2005).

Lonsdale and Cox (1998) found that work is one of the major sources of outsourcing savings because outsourcing mainly affects employment patterns. Cost savings can be achieved by hiring or hiring some workers from an external part-time provider rather than hiring them for permanent jobs, and other additional costs such as pensions and health insurance (Barrar and Gervais, 2006). Another aspect of cost reduction is the conversion of some large capital costs into variable costs (Quelin and Duhamel, 2003; Lonsdale and Cox, 1998). In light of this, it should be noted that Jennings (2002) indicated that although cost reduction was the main reason for outsourcing, failure to achieve projected cost improvements is a common feature of outsourcing. Lam and Hahn (2005) concludes that many studies have shown that outsourcing increases costs in some cases. Vining and Globerman (1999) mentioned that three types of costs are taken into account when choosing to outsource: production costs, negotiation costs, and opportunism. According to the authors, strategic managers should try to reduce the sum of these costs, as the costs of opportunistic outsourcing and outsourcing should often be higher.

2.1.5.3 Flexibility

Flexibility indicates an organization's ability to effectively respond to changes in the environment (Phillips and Tuladhar, 2000). Flexibility in appropriately responding to changes in the competitive environment is essential to the organization's success in this increasingly globalized market (D'Souza and Williams, 2000). The authors suggest that manufacturing flexibility has four main dimensions: size flexibility, degree flexibility,
process flexibility, and material processing flexibility. Additionally, Carlson (1989) said that the organization is operationally flexible if it has built-in procedures that allow for a high degree of sequencing and programming variation. On the other hand, an inelastic company is an organization that does not allow it to deviate from a particular schedule or modify the sequence. According to Coe (2000), a weak or irregular request can make starting a service impractical or ineffective. Additionally, Harrigan (1985) suggested that vertical integration could increase organizational participation for a specific type of technology and reduce flexibility. However, outsourcing was identified as a tool to increase the organization's flexibility to respond to rapidly changing market conditions (Burt et al., 2003; Gilley and Rasheed, 2000; Dess et al., 1995). As new and/or more profitable technologies become available, outsourcing organizations can change service providers (Geely and Rashid, 2000). Market time can also be shortened by outsourcing (Quinn and Hilmer, 2004). Jennings (2002, p. 27) found that "outsourcing provides companies with the opportunity to avoid constraints / challenges to their production capacity in order to counter volume changes. In a situation where the model has seasonal or cyclical characteristics, defects of untapped internal capabilities can be avoided."

2.1.5.4 Delivering products on time

Focusing on the organization's main activity is another major advantage of outsourcing (Dess et al., 1995). By outsourcing unnecessary activities, companies increase resource and time allocation to management, as well as pay attention to key activities that are carried out internally (Burt et al., 2003; Gilley and Rasheed, 2000; Rothery and Robertson, 1995: Quinn and Helmer, 1994). Several studies indicate that outsourcing gives companies the ability to devote themselves to activities that serve the consumer, and thus have sufficient time to focus on delivering products or services to
clients quickly. There is also the possibility for companies to use other companies to perform this function, as these companies are more effective in delivering services to clients. (Geely & Rashid, 2000).

2.2 Previous Studies

K. Matthew Gilleya,1, Charles R. Greerb, *, Abdul A. Rasheedc,2


Human resource outsourcing and operational performance in manufacturing firms

In this study, the relationship between the activities of outsourcing staff (employee training and accounting) and corporate performance was analysed by studying the outsourcing practices in the field of human resources and their impact on financial measures. Innovation and stakeholder performance based on a sample of manufacturing companies. The attempt consisted of a pilot test of the relationship between outsourcing and the operating performance of the company.

Studies such as those by Frain and Minder (2000) and Harrill and Zafarer (1999) have shown that a coaching job can have a positive impact on a company's performance.

With outsourcing, small businesses can get the jobs they need from suppliers. Certain types of training require a high level of experience, management and financial resources that small businesses lack. In fact, the reason behind the outsourcing training discussed by Barry and Reading (1976) is the acquisition of experience and special skills that the company does not possess, Lepak and Snell (1998). Note that extensive internal training programs can generate a workforce.
The study hypothesized the following:

**Hypothesis 1**: Outsourcing of training activities is positively related to firm performance.

**Hypothesis 2**: Outsourcing of payroll activities is positively related to firm performance.

**Hypothesis 3**: The effects of outsourced training on firm performance are moderated by firm size such that the benefits of outsourced training are greater for smaller firms.

**Hypothesis 4**: The effects of payroll outsourcing on firm performance are moderated by firm size such that the benefits of payroll outsourcing are greater for smaller firms.

To test the above hypotheses, surveys were mailed to the CEOs of 558 firms that were listed in a directory of manufacturers from a single southwestern state.

The results of the study showed that HR outsourcing practices have a strong impact on performance.

The study found that outsourcing of human resources has a significant positive impact on the operating performance of the company and that training on outsourcing has a positive impact on innovation and performance, in addition, the study found that external payroll has a positive impact on innovation and reliability.

**Paolo Popoli**


**Organizational culture as a driver of outsourcing choices: A conceptual model**

This study used a systematic review of the literature and qualitative meta-synthesis to enable a detailed study of outsourcing decisions, especially regarding the factors on which decisions are based.
The study found that organizational culture is unique to each institution because it includes traditions, values, shared beliefs, and shared expectations of organizational life and the relationship with the present and future. She also emphasized that organizational culture is the result of a long-term process of disseminating and unifying values, principles, procedures, attitudes and methods of work, and that these elements are partly informal and partly informal.

The proposed conceptual model for deciding whether to use outsourcing or not can be improved and expanded thanks to conceptual and empirical research in the future. Future research can conceptually define other dimensions of organizational culture that may influence the choice of outsourcing, improving the content of the relationship culture beyond the three specific elements, and analyzing more details of a particular type of outsourcing by searching for specific goals.

In practical terms, it may be useful to conduct an interview with decision makers to measure the impact of the specific cultural factors on outsourcing decisions and how they interact with logical factors.

**Ivan Mitchell, Phil James**


**Outsourcing transitions and the employment relationship implications**

This study emphasized the need to pay more attention to outsourcing external civil servants and realizing changes in employment as borders of their organization. I became increasingly blurry and turned, 85 employees and managers of three small and medium-sized entertainment organizations were interviewed to see if outsourcing inevitably
aroused research interest in their impact on the employment conditions of the relocated staff.

The results of the study showed an interest in examining work shifts related to outsourcing along roads and through a lens a custom version of the three-stage transition model in Isabella. They also stress the importance of researchers in human resources and practitioners in shaping industrial relations through the processes of self and material change that external employees are witnessing, while emphasizing the need for the latter to realize that they are advanced in the transitional phase. Transportation is managed and can be greatly affected.

The study recommended that future research could advance these issues by examining whether and how the results can be transferred to other areas of the public service.

**Joseph Nyameboame and Abubaker Haddud**


**Exploring the impact of outsourcing on operational performance**

The objective of this study is to identify the main activities that have been outsourced and to study their impact on the operational performance of oil and gas companies in Ghana. The study also examined the main benefits and challenges associated with implementing outsourcing strategies. Design / Methodology - Initial data were collected from a survey of 80 participants who worked for different oil and gas companies in Ghana.
The results showed that the external activities mainly included transportation and information technology (IT) services, business consulting, delivery and management of system infrastructure and logistics services.

The study found that the decision to outsource was based on attempts to reduce operating costs, avoid significant investment in technology, and ensure consistent and improved service delivery, access to current technology and expertise, as well as greater strength that focus on core business activities could have a negative impact on the use of Outsourcing, including conflict with the corporate culture of external suppliers, ineffective management and loss of innovation.

**Dr. Wanjugu Wachira & Dr. Michael Brookes & Prof. Richard Haines**


**Viewing the impact of resourcing from a Kenyan perspective**

This article examines the implications of the outsourcing practices of organizations in Nairobi. The questionnaires were distributed to the management of 85 non-profit organizations and companies in Nairobi.

The study discussed some of the competitive advantages that outsourcing can provide to corporate clients who use the strategy early in front of other companies because a patent cannot be obtained by pushing outsourcing to the extreme. This can lead to negative outsourcing. has an effect. If client companies outsource only unnecessary jobs, outsourcing can make it easier to cut costs and improve quality. However, this can enhance the capabilities of the organization. As a result, the impact of outsourcing can be
complicated to define, but increased reliance on professionals in various fields has become a problem. This reflects the difficult choices that managers have to make in the face of limited resources and the growing consumer demand for quality services.

The results indicate that, depending on the risks in the business environment, the company policy and the functions to be outsourced in terms of outsourcing, supplier efficiency and commitment, outsourcing can lead to positive and / or negative results.

Getting help from external sources. The article proposes three improvements to enhance the positive effects of outsourcing: drafting of standard outsourcing guidelines, regulation of outsourcing rates and commitment of outsourcing companies to meeting contractual deadlines. He concluded that outsourcing opens markets for free trade and development.

Albert Plugge* and Harry Bouwman


**Fit between sourcing capabilities and organizational structure on IT outsourcing performance**

This study assumed that a modification between the required delivery capabilities and the organizational structure on the part of IT vendors would lead to sustainable delivery performance. The aim of this study was to develop an adaptation model that describes the relationship between delivery capabilities and organizational structure as well as their effects on supplier performance.

A survey of 135 employees involved in the outsourcing activities of three different external IT service providers found that management level professionals should enhance
their capabilities and review their organizational structure to reduce uncertainties / ambiguities. The process of outsourcing to suppliers should develop processes for making a change between delivery capacity and organizational structure. The survey also found that suppliers focused on customization are more willing or able to do so to monitor if they perform sustainable performance, but a more in-depth survey of respondents helps us to develop our results generalization paradigm.

Nick Ismail


Out of the ordinary outsourcing

The importance of company culture Company culture in outsourcing can affect the culture of a recruitment company. There are three ways in which an external corporate culture can affect another company:

Inspiring creativity

Outsourcing can foster creativity. If the same processes and products have been used in your company for a long time, new information may be needed to introduce flexibility and originality. The success of companies whose business culture is based on innovation is very clear. The PwC study found that the most innovative companies grew by 38% between 2010 and 2013, compared to only 10% for companies with limited creativity. Outsourcing with a company, if you think differently, not only stimulates a leadership approach to product development, but also provides new ways of working and creative ideas that nurture your company's culture.
Moving away from a traditional culture

Although the changes may be terrifying, the introduction of new technologies to improve the corporate culture can have a major impact on employee participation and satisfaction.

However, the concept of introducing new technologies to improve corporate culture should not be terrifying. If the company has standards such as International Organization for Standardization (ISO), you can be sure that it is a well-established and reputable company and that its creativity does not violate the innovative approach to systems in the workplace.

Questioning the norm:

A good outsourcing company will have a strong culture to ask how it works. It will constantly look for ways to improve operations or make them more efficient. Instead of just delivering a product and asking to improve on certain characteristics, an outsourcing company should work with the organization to review current operations and agree on the best project stages. The process of outsourcing allows companies to rethink their ambitions and direction. It can bring new creativity to the company's operations as well as new technologies that initiate this culture and respond to employee needs. Perhaps the most important thing is the culture of questioning the reason behind the direction of the product. New insights enable companies to understand why they need to improve their products in this way, leading to more effective and efficient long-term decisions.

Outsourcing growth has led to outsourcing strategies becoming an increasingly important part of business success (Gottfredson et al., 2005). Although the intended goal of outsourcing the supply chain is to gain a competitive advantage, it is not clear whether corporate outsourcing decisions always align with its overall competitive strategy. Kroes
and Ghosh (2010) assessed the degree of correspondence (modification or alignment) between the company's outsourcing factors and its competitive priorities and assessed the impact of the correspondence on supply chain performance and commercial performance using empirical data from commercial production units raised in the United States. They found that outsourcing the alignment between the five competitive priorities was largely positive and linked to supply chain performance. They found that the level of supply chain performance in the company is positively and significantly related to the performance of the company's business.

Researchers generally see outsourcing abroad to reduce manufacturing costs for large companies. However, outsourcing abroad may include services and administrative and technical activities that have been outsourced by small and medium-sized companies (SMEs). Based on research on international entrepreneurship and services, we assume and find evidence that outsourcing of technical and external services by SMEs is more related to the scope and scope of internationalization. Outsourcing abroad improves international competitiveness by enabling SMEs to reduce costs, develop relationships and customer service more efficiently, free up scarce resources and use the skills of foreign partners (Di Gregorio et al. 0.2009).

Bertrand (2011) studied the impact of outsourcing abroad on the performance of export companies. Based on international trade theories, resource-based insight, and transaction cost economics, the study argued that outsourcing abroad helps companies export directly or indirectly. This can reduce production costs and improve its flexibility. You can also provide them with new knowledge and resources on the market. However, the impact of outsourcing abroad depends on the resources and capabilities of companies to manage a network of foreign suppliers and absorb foreign knowledge. The study, which
used a database of about 2000 multinationals in France in 1999, found that outsourcing abroad increases export performance, with stronger impacts on the export markets that companies import. In addition, the study showed that company size, internal import regulation, and export experience mitigate the effects of outsourcing abroad. These results have an impact on companies and policy makers.

GÃ¨org and Hanley (2005) studied the effects of international outsourcing inputs on plant-level productivity, focusing on the electronics industry in the Republic of Ireland. The impact of international outsourcing on productivity at the plant level mainly depends on the type of intermediate goods that are outsourced (services or material goods) and the plant's export intensity. Subcontracting materials allow for a significant increase in productivity, but this effect only affects factories with low export density.

Thwin et al. (2009) Analyse the effect of the level of IT outsourcing with reduced asset privacy on the company's financial performance. The study relied on Transaction Cost Economy (TCE) as a theoretical basis for explaining the impact of the level of network outsourcing and telecommunications services on financial performance. An analysis of 1,444 integrated health care systems showed that a higher level of telecommunications and network services outsourcing is associated with higher financial performance. Each additional external communications network and each external communication service saved an average of $3,120,000, representing a 25% increase in profits. In addition, the increase in IT budget spending was linked to an increase in financial performance. The study provided primary support for using asset privacy as a guide to outsourcing decisions. IT activities that have become raw materials ("low privacy") should be outsourced to improve the company's financial performance.
For most companies, competitiveness and efficiency development is crucial. The literature indicates that market orientation and outsourcing are two sources of capacity building in the market. However, the relative contribution of market orientation and outsourcing to the ability and superior performance of businesses is unclear. For clarity, two methods are proposed to direct the market and outsource capacity building and improve business performance. Based on data from foreign and Indian companies, the results show that the market trend and outsourcing contribute to capacity building and that outsourcing is contributing more to business performance. In addition, it was found that offshore market-oriented outsourcing companies with low and high-risk had a positive impact on business development. The result of these findings for managers is that market-oriented and outsourcing can be complementary tools for building capacity, improving business performance and managing hazardous environmental conditions (Singh 2009).

Arvanitis and Loukis (2012), research (1) Factors that Determine Companies' Tendency to Outsource in Various Processes (Intermediate Product Production, Final Product Production, Research and Development Activities, and Information and Communication Technology Activities) and (2) Effects of Outsourcing Business Performance In terms of innovation as well as work productivity. The comprehensive study of the determining factors as well as the effects of outsourcing on innovation and productivity based on the same data in a comparative framework (Switzerland versus Greece) are important new elements and contributions of this study to the current empirical literature. It was concluded that innovative companies (R&D) in both countries are more likely to outsource jobs compared to less innovative companies, on the contrary, the level of employee education and labour costs. It has had no effect on outsourcing in
either country. In addition, the intensity of the use of information and communications technology and organizational aspects, especially those related to the formal structure of workplace organization, was appropriate for Swiss companies, but not for Greek companies. Regarding the impact of outsourcing on performance, it was found that innovation, especially process innovation, tends to promote, but productivity is poor (at least directly).

Information technology (IT) outsourcing has become an effective strategy for increasing efficiency and improving competitiveness. Agrawal and Haleem (2013) used audited financial statements compiled from financial statements and capital markets to examine the performance and value of 90 ads from external sources from 79 listed companies that outsourced IT operations between 1986 and 2009 over a time period of four quarters after advertisements. Her studies cover several disciplines in Business: Accounting, Business, Finance, Information Technology, Strategy, and Supply Chain. They assessed profitability, productivity, growth, cash management, market relationship and market value. Regarding the previous performance of the event, the performance of outsourcing companies and outsourcing companies was almost the same in the previous four quarters of companies contracting with external companies in IT activities. In post-show performance during the four-month period after companies issued IT outsourcing ads, companies improved their performance on nearly all standards.

Han and Methas (2013) examined whether IT outsourcing reduce non-IT operating costs. He asked whether internal IT investment reduces the relationship between IT outsourcing costs and other operating costs. Using a data set of about 300 US companies from 1999 to 2003, they found that IT outsourcing had a significant negative correlation
with non-IT operating costs for companies. However, this statement does not mean that companies must fully outsource their IT. Their findings suggest that companies may benefit more in terms of lowering operating costs, which cannot be attributed to IT, if they are also investing more in internal IT, especially in the IT workforce. Investing in internal IT systems can make business processes more sensitive to outsourcing, and additional investments in internal IT staff can facilitate monitoring supplier performance and alignment with suppliers. They discussed the effects of these findings on new research and practice.

Novak and Stern (2008) studied the effects of vertical integration on performance dynamics throughout the life of a car product development. They based on modern business in the areas of business and organizational strategy and assessed the relationship between vertical integration and various performance domains. Outsourcing facilitates access to advanced technologies and the use of high-performance contracts. The vertical integration allows companies to adapt to unexpected events and customer comments, provide more balanced incentives throughout the life cycle, and develop company-specific jobs over time. Together, these effects highlight a critical compromise: while outsourcing is associated with high initial performance, vertical integration will be linked to performance improvement throughout the product life cycle. They tested these ideas based on detailed data from the luxury car segment and identified three important results. First, the performance of the initial vertical integration decreases. Second, the level of performance improvement in vertical integration increases significantly. Finally, the impact of vertical integration on alternative service domains is determined by current capabilities and the importance of reaching outside technology leaders and learning opportunities throughout the course. The life of the product. Collectively, the results
highlight a strategic compromise between governance between short-term performance and the development of business skills.

Outbound transmission of information services has become an increasingly important phenomenon for companies, but many of its impacts have yet to be studied. Nieto and Rodríguez (2011) analysed whether research and development outsourcing contributed to the innovation of companies. Their study distinguished between two models of external governance - outsourcing abroad and outsourcing abroad - and two types of innovation outcomes - product and process innovations. They suggested that research and development in the field of outsourcing has different implications depending on the results of innovation and governance models considered. The study empirically tests these relationships using the Spanish Technology Innovation Board. This survey contains information on a large sample of companies from various industries for the period 2004-2007. Experimental results enable us to confirm our hypotheses and to emphasize the strategic importance of R&D outsourcing. Empirical knowledge shows a positive relationship between outbound performance and innovation performance, which has a greater influence on the product than process innovations. The results of various governance models show that outsourcing operations abroad have a greater impact on innovation outcomes than outsourcing abroad. These results indicate that companies traveling abroad can take advantage of site-specific features and disciplines to improve innovation performance.

Bardhan et al. (2006) answered the following questions: "What role does information technology play in outsourcing production processes to manufacturing companies?" Do factory strategies affect production outsourcing? Does outsourcing production processes affect factory performance?" Investigate the role of information
technology and factory strategies as a history of outsourcing production and evaluate the effects of outsourcing production and information technology investments on the costs and cost of plant quality. They have developed a theoretical framework for track record and results from factory-level outsourcing production. They validated this theoretical framework using cross-sectional data from US production sites. Their analysis indicates that factories with higher IT investments are more likely to outsource production operations, and that IT spending and outsourcing are associated with lower factory costs for goods sold and sold. Her research provided an integrated model for studying the impact of IT and production outsourcing on plant performance.

Kamabi and Davy (2011) studied the factors that influence the outsourcing of accounting functions and the impact of outsourcing on business development in Iranian small and medium-sized companies (SMEs). The results of a survey conducted on 658 SMEs show that outsourcing is positively linked to owner / manager knowledge and technical competence, but it has not found a positive relationship between outsourcing and company size. It was found that outsourcing has a positive impact on the performance of SMEs. Moreover, our analysis showed that outsourcing does not affect the impact of the size of the company on the performance of SMEs, but the effect of owner / manager knowledge partly on the performance of the company and the company affects the professional competence of the auditor in relation to the performance of SMEs.

Polat Wilmaz (2009) empirically studied the effects of outsourcing and examined the relationship between the process of outsourcing and organizational performance in hotels. Data from their studies were obtained from 80 hotels in the Turkish city of Antalya through questionnaires. Two sample t-test and correlation and regression analysis were used for data analysis. However, the analyses confirmed the impact of outsourcing on
corporate performance. Working with a supplier has resulted in a significant improvement in organizational efficiency, productivity, profitability, quality, continuous improvement, quality of life at work, and social responsibility. Hotel managers believe that organizational performance has increased after outsourcing. The results show that outsourcing is very important for organizational performance. In addition, the efficiency of the process of outsourcing has a major impact on organizational performance. If the outsourcing process is effectively planned and implemented, the desired results can be achieved in terms of organizational performance.

Outsourcing is of importance in the hotel sector. Espino-Rodríguez and Padrón-Robaina (2005) have studied the characteristics that hotels should be outsourced to from a strategic perspective, where the impact of outsourcing on organizational performance must be analyzed in terms of the strategic value of the activities. The results indicate that there are other factors besides the traditional ones, such as: Activity performance, substitution and susceptibility, which can determine the decision to outsource. Her study showed that outsourcing has a positive impact on corporate performance. Her study ends with implications for hoteliers, and at the same time it contributes to scientific literature.
CHAPTER THREE
Methods / Procedures

This chapter describes the methodology, which is used in this study by providing the population and sample, the data collection tools, reliability and validity procedures, and explains the study variables and statistical tools used to analyzing the data.

3.1 The Study Methodology

This study used descriptive approach to describe the study sample and variables. The study also used the analytical approach in order to identify the underlying dimensions of the measurement model through confirmatory factor analysis, in addition to measuring the mediated role of the organizational structure and culture between outsourcing and performance using structural equations modelling. Because of the nature study, it follows an analytical and descriptive approach adopted in the study of the impact and examination of relationships and mediating role between variables.

3.2 Study Population and Sample

The study Population includes the managers industrial companies in Amman City which are around 1200 company, a purposive sampling technique was adopted, that targeted the managers in these companies who were requested to answer the questionnaire paragraphs.

As mentioned before that the population of the study were managers in Industrial companies in Jordan, sample was selected from different levels of all mangers in Industrial companies to meet the study objectives and measurement.
The purposive sampling method was used, where managers in companies were targeted, their contact information was obtained through corporate databases, the questionnaire was uploaded online, and the questionnaire link was sent through email, WhatsApp messages. The sampling process was conducted for confirming the specified measurement scale using Confirmatory Factor Analysis. The data were used to validate the measurement scale. The researcher was keen to reach more than 150 respondents in order to assure the theoretical foundation of the conceptual model and serve the empirical results as the population is not defined clearly as stated by Hair et al, (2010). The selected companies were defined depending on the records of chamber of industry in Amman city. The researcher obtained a total of 250 responses, which are distributed as follows in the Table (1) which shows the demographic characteristics of the study sample.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>250</td>
</tr>
<tr>
<td>Male</td>
<td>168</td>
</tr>
<tr>
<td>Female</td>
<td>82</td>
</tr>
<tr>
<td>Age of the Company</td>
<td>250</td>
</tr>
<tr>
<td>1-5 Years</td>
<td>62</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>63</td>
</tr>
<tr>
<td>11-15 Years</td>
<td>77</td>
</tr>
<tr>
<td>More than 15 Years</td>
<td>48</td>
</tr>
<tr>
<td>Academic Degree of Respondent</td>
<td>250</td>
</tr>
<tr>
<td>Bachelor</td>
<td>180</td>
</tr>
<tr>
<td>Master</td>
<td>54</td>
</tr>
<tr>
<td>PhD</td>
<td>16</td>
</tr>
<tr>
<td>Company Size</td>
<td>250</td>
</tr>
<tr>
<td>1-20 Employees</td>
<td>27</td>
</tr>
<tr>
<td>21-50 Employees</td>
<td>11</td>
</tr>
<tr>
<td>51-100 Employees</td>
<td>89</td>
</tr>
<tr>
<td>More than 100 Employees</td>
<td>123</td>
</tr>
</tbody>
</table>

Table 3. 1: Demographic Distribution of the sample
Reading the previous results of the demographic characteristics, indicates that most of the respondents were male, with a ratio of 67%, and a female percentage of 33%, as usually the industrial sector in Jordan is male dominant. The largest proportion of the companies (75%) that were surveyed were those who were over 6 years old, while up to 25% of companies were less than 5 years old. Most of the managers who gave answers could have a bachelor’s degree or higher (bachelor’s degree 72%, master’s degrees, 22%, PhD, 6%) and this means, that the managers in these companies are chosen well educated, and this gives more insight and reveres more accurate results for this study. Finally, with regard to the size of the company, the companies whose number of employees exceed 100 employees were the highest percentage of the sample size (49%) due to the fact that the researcher has focused and targeted those companies because external outsourcing is more mature, and that these companies include more complex organizational structures than small or micro companies.

3.3 Data Collection Tools

This study depended on two sources to collect data:

**Primary Source:** The researcher will a data instrument that is a questionnaire for collecting data based on previous studied to measure the study variables (Outsourcing, Operational Performance, Organizational Structure, Organization Culture) and answering the questions and hypotheses of the study.

**Secondary Source:** The secondary sources were based on Books, Journals, Theses, Articles, and Worldwide Web to write theoretical framework of this study.

As a quantitative research method, this research is based on a quantitative approach by distributing a developed questionnaire. While this questionnaire was examined by academic professors and doctors and depending on a pilot questionnaire. Furthermore,
the questionnaire of this research was distributed among industrial companies in Amman – Jordan, by using an online survey software. In fact, this approach was adopted through reviewing the previous studies such as Yeboah (2013), Mwichigi (2015), Mitchell and James (2017), Wachira et al., (2016), etc…. (See the questionnaire appendix.)

The questionnaire was developed based on several previous studies that measured the same variables, such as Bolat, T. and Yilmaz, O. (2009), Bardhan, I., Whitaker, J. and Mithas, S. (2006), and Espino-Rodriguez, T.F. and Padrón-Robaina (2005), who studied the effect of outsourcing on operational performance, and Popoli, P.(2017), Fornell, C., and Larcker, D. F. (1981) who studied the effect of outsourcing on organizational culture, Harrigan, K.R. (1985), Rumelt, R (1974), who studied the effect of outsourcing on organizational structure.

On the other hand, the questionnaire was distributed among 400 managers and/or owners in industrial companies while the respondents were from 250 companies which indicates more than 50% of respondents rate.

3.4 Validity and Reliability

The study approach is based on developing and verifying the validity and reliability of the study instrument. Therefore, the researcher used the measurement tool which consisted of 4 factors and 26 items to measure these factors in order to conduct a comprehensive study and collect data from industrial companies in Jordan.

The researcher selected a purposive sample from the industrial companies in Amman, as most industrial companies are located in Amman and the surrounding areas. The researcher was keen to increase the number of responses to more than 150 responses in order to achieve the purposes of the empirical study. Note that Hair et al. (2010)
indicated that when there are 5 - 7 latent variables, and each latent variable includes 3 or more items to measure it, 150 responses are sufficient for the purpose of carrying out the confirmatory study and using the method of structural equations.

Data screening was conducted, as the questionnaires containing Missing Values exceeded 20% of the answers were excluded according to Allison, (2000), and the Multiple Imputation For Missing Data method was applied to questionnaires with missing values less than 20 %. A total of 23 responses were excluded. Also, the Outliers values in cases was determined using Observations farthest from the centroid (Mahalanobis distance) and subjected for cancelation to ensure normality. A number of 28 outlier values have been deleted. Finally, the number of valid questionnaires for statistical analysis settled at 199 responses.

For the purposes of moving to confirmatory factor analysis, arithmetic averages and standard deviations were extracted to determine the relative importance of the study variables and their paragraphs. Additionally, before starting with the confirmatory factor analysis, it was necessary to ensure that the data follow the normal distribution as one of the assumptions on multivariate analysis is that the data set should follow the normal distribution (Multi- Variate Normality) as indicated by Hair et al, (2010). According to Mardia, (1995) and Kline, (2011), The multivariate analysis (confirmatory factor analysis and structural equations) is sensitive to the skewness values of more than 1.00 and the values of Kurtosis more than 3.00 in each variable, and this effect increases in the case of large samples. The results are shown in Table (2), the results of the normal distribution test (skewness and kurtosis values) as the skewness values did not exceed 1.00 and the kurtosis values did not exceed 3.00, which indicates that the data follow the normal distribution, and can move to confirmatory factor analysis.
Table 3.2: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>3.18</td>
<td>1.14</td>
<td>-1.155</td>
<td>-0.590</td>
</tr>
<tr>
<td>Q2</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>3.64</td>
<td>1.43</td>
<td>-0.574</td>
<td>-1.028</td>
</tr>
<tr>
<td>Q3</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>2.76</td>
<td>1.51</td>
<td>0.055</td>
<td>-1.560</td>
</tr>
<tr>
<td>Q4</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>3.44</td>
<td>1.44</td>
<td>-0.257</td>
<td>-1.381</td>
</tr>
<tr>
<td>Q5</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>2.01</td>
<td>1.33</td>
<td>-0.603</td>
<td>-0.237</td>
</tr>
<tr>
<td>Q6</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>4.11</td>
<td>1.13</td>
<td>0.640</td>
<td>0.113</td>
</tr>
<tr>
<td>Q7</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>3.23</td>
<td>1.17</td>
<td>-0.193</td>
<td>-0.423</td>
</tr>
<tr>
<td>Q8</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>1.92</td>
<td>1.27</td>
<td>0.970</td>
<td>-1.143</td>
</tr>
<tr>
<td>Q9</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>2.72</td>
<td>1.35</td>
<td>0.174</td>
<td>-1.163</td>
</tr>
<tr>
<td>Q10</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>2.67</td>
<td>1.31</td>
<td>0.106</td>
<td>-1.245</td>
</tr>
<tr>
<td>Q11</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>2.35</td>
<td>1.52</td>
<td>0.750</td>
<td>-0.973</td>
</tr>
<tr>
<td>Q12</td>
<td>199</td>
<td>3.00</td>
<td>5.00</td>
<td>4.63</td>
<td>0.58</td>
<td>-0.301</td>
<td>0.706</td>
</tr>
<tr>
<td>Q13</td>
<td>199</td>
<td>2.00</td>
<td>5.00</td>
<td>4.52</td>
<td>0.71</td>
<td>-0.324</td>
<td>0.931</td>
</tr>
<tr>
<td>Q14</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>4.23</td>
<td>0.90</td>
<td>0.973</td>
<td>0.479</td>
</tr>
<tr>
<td>Q15</td>
<td>199</td>
<td>3.00</td>
<td>5.00</td>
<td>4.61</td>
<td>0.57</td>
<td>0.182</td>
<td>0.420</td>
</tr>
<tr>
<td>Q16</td>
<td>199</td>
<td>2.00</td>
<td>5.00</td>
<td>3.83</td>
<td>0.67</td>
<td>-0.378</td>
<td>0.378</td>
</tr>
<tr>
<td>Q17</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>3.54</td>
<td>1.21</td>
<td>-0.574</td>
<td>0.493</td>
</tr>
<tr>
<td>Q18</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>4.22</td>
<td>1.01</td>
<td>-0.301</td>
<td>0.170</td>
</tr>
<tr>
<td>Q19</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>3.59</td>
<td>1.10</td>
<td>-0.157</td>
<td>0.783</td>
</tr>
<tr>
<td>Q20</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>4.08</td>
<td>1.16</td>
<td>-0.601</td>
<td>0.130</td>
</tr>
<tr>
<td>Q21</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>4.03</td>
<td>1.13</td>
<td>-0.672</td>
<td>0.890</td>
</tr>
<tr>
<td>Q22</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>4.42</td>
<td>0.94</td>
<td>-0.529</td>
<td>1.642</td>
</tr>
<tr>
<td>Q23</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>4.22</td>
<td>1.03</td>
<td>-0.872</td>
<td>0.803</td>
</tr>
<tr>
<td>Q24</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>3.67</td>
<td>1.07</td>
<td>-0.171</td>
<td>0.936</td>
</tr>
<tr>
<td>Q25</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>3.60</td>
<td>1.15</td>
<td>-0.467</td>
<td>0.720</td>
</tr>
<tr>
<td>Q26</td>
<td>199</td>
<td>1.00</td>
<td>5.00</td>
<td>3.86</td>
<td>1.03</td>
<td>-0.738</td>
<td>0.123</td>
</tr>
</tbody>
</table>

Valid N (listwise) 199

As the researcher has conducted CFA, the relation importance for each paragraph was not reported because the item factor loading can be considered as an indication about the importance of this paragraph to measure this factor.

### 3.5 Confirmatory Factor Analysis

To ensure the validity and reliability of the measurement scale, confirmatory factor Analysis was used for the purpose of determining the validity of the construct, which consists of convergent and discriminatory validity. Several measures were used to verify
the validity and reliability such as the factor loading, Average Variance Extracted (AVE), and the Composite Reliability in each Construct construction.

For the purposes of hypothesis testing, the methodology of the study was based on the development of a scale characterized by appropriate validity and reliability indications. The researcher used a questionnaire whose face content validity was verified based on the opinions of a group of academics from inside and outside the Middle East University. The questionnaire included four factors (dimensions) and 26 items to measure these dimensions, which were used for the purpose of collecting data from Jordanian industrial companies. The sample size is considered appropriate for the purposes of conducting the confirmatory study and verifying the validity of the measurement model as mentioned earlier, and as confirmed by both (Anderson & Gerbing, 1988; Bentler, 1983), who indicated that the sample that exceeds 150, considered appropriate size to facilitate estimation of the parameters about the population.

Hair et al (2010) focused on the Unidimensional measures, as the paragraphs / items can be explained by factors. In the measurement model that was built from previous studies, the 26 paragraphs can be explained in 4 factors, and the researcher specified the measurement model in order to develop a comprehensive measurement model using a Unidimensional scale and the specification focuses on how the paragraphs converge with their factors, so that the load coefficient of the paragraph must has a value, and has zero value on other factors. This is also an indication of discriminant validity. It is also assumed that there are correlations between the factors forming the measurement model.

Confirmatory analysis was conducted to ensure construct validity, which includes convergent, discriminant. According to (Sureshchander et al., 2002), it is necessary to explain the correlation and inter- correlation between factors and verify items that
represent valid and reliable indicators of the factor, this means that the factors provide an explanation of the paragraphs/items.

The researcher excluded the weak loaded items/paragraphs as well as multiple loading (cross-Loaded items) according to Anderson and Gerbing (1988) approach. In order to improve the validity of the measurement model, weak loading coefficients of less than 0.60 should be eliminated, according to Hair et al (2010). Depending on that, confirmatory analysis was carried out, as the paragraphs that had loading factor less than 0.60 were deleted in order to achieve Unidimensional measure and obtain positive loading factors to achieve fitness of the measurement model with the industrial environment in Jordan. Every time deletion of items with weak load, fitness indicators are checked, noting that model fitness indicators improve after eliminating weak load factors, and this increases the validity of the constructs of the measurement model as indicated by both Holmes-Smith (2006) and Hair et al., (2010).

The researcher used several fitness indices to indicate the fitness of the measurement model to the population from which the sample was selected. There are several researchers who suggested the use of three classifications. Fitness indices fall into three classifications (Absolute, Incremental and Parsimonious fits). Each index can have an acceptance criterion, many researchers have indicated that one indicator for each classification is sufficient to judge fitness of the measurement model. One index was approved for each classification, for example, the GFI index (Goodness of Fit Indices, which belongs to Absolute fit, and (CFI Comparative Fit Indices) which belongs to Incremental fit, and Chisq/df were selected to the Parsimonious fit, which indicates a value Chi-Square divided by degrees of freedom, Note that Chisq/df has a different level of acceptance, and many researchers recommend using low percentages (from 2-5)
as a maximum to indicate the existence of a reasonable fit for the measurement model. This indicator is used when the researcher needs to test between the specified model and the model that was estimated, some researchers indicate that the value of Chisq / df should not exceed 3.00 in the case of small-sized samples, there are studies that suggest that If the sample is large, Chisq / df value less than 5.00 may be accepted (Marsh & Hocevar, 1985).

In case of poor theoretical basis, or a weakness in the specification of the model, the value of Chisq / df less than 3.00 must be selected, the lower it is, the better to judge the fitness of the model. If the sample size increases, the root mean square error of approximation (RMSEA) indicator can be used to indicate Absolute fit and overcome the sensitivity of the Chisq / df value for the large sample size. According to Hair et al, (2010) its value should not be greater than 0.08.

The Goodness of Fit GFI index can be used to assess observed differences and assess variance and covariance, as well as a comparative index (CFI) to assess the relative lack of fitness of the model versus the baseline model or specified model. Finally, the values of GFI and CFI should be close to 1.00 to indicate fitness. From Table No. (3) it appears that at least one indicator was selected from each classification, and these indicators came within the accepted criteria to fitness of the model.

<table>
<thead>
<tr>
<th>Fitness Indexes</th>
<th>Index</th>
<th>Value of index</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute fit</td>
<td>RMSEA</td>
<td>0.074</td>
<td>Accepted</td>
</tr>
<tr>
<td>Incremental fit</td>
<td>GFI</td>
<td>0.818</td>
<td>Accepted</td>
</tr>
<tr>
<td>Parsimonious fit</td>
<td>CFI</td>
<td>0.914</td>
<td>Accepted</td>
</tr>
<tr>
<td></td>
<td>Chisq/df</td>
<td>245 / 472,885</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

P.Value= 0.000
The results in Table 3 indicate that the specified model closely fits the sample (managers in industrial companies in Jordan). Figure (2) shows the factor loading values for the paragraphs used to measure the factors, and the figure shows the paragraphs that were retained after the deletion process for weak loading as it reached 24 paragraphs loaded with the same number of factors which are 4. The deletion of factors (2 items were deleted) was not sufficient to improve the fitness indices and obtain Validity and reliability that appropriate to the measurement model. In spite of the deletion of the paragraphs with low factor loading, the fitness indices were below the acceptable levels, therefore it was necessary to check the modification indices of the model (MI) to get rid of unnecessary overlap or redundancy between the paragraphs. Meaning that there are paragraphs that overlap with other paragraphs and can be interpreted as single paragraphs. This procedure is usually used to avoid deleting paragraphs with a strong load (greater than 0.60) which are important for the theoretical basis. And when appropriate fitness indices are not obtained in spite of the deletion of weak factor loading, it is possible to resort to modification indices, choose the items that makes a high error and make a pairing between them to reduce the error in variance, ie, make Covariance between them, this process is called Free Parameter estimates, so that it is Adjusting the error and there can be no overlap of the paragraphs with other paragraphs. Free parameters estimate have been made to the errors, and the process of controlling the error was performed by choosing the Error Covariance to remove the redundancy. This procedure was applied to set the following variance errors in (e25-e26) which belong to paragraphs (Q25, Q26) as shown in Figure 2, This resulted in an improvement in the fitness indices, as shown in Table 3 and Figure 2. The value of (chi-square / df) was 1.93, GFI = 0.818, CFI = 0.914 and RMSEA = 0.074.
The measurement model settled on 24 items loaded with 4 factors, and the desired fitness has been achieved with the study sample, where high loading coefficients (greater than 0.60) indicate the convergence of the paragraphs with their factors, and this is an indication of the correlation between the paragraph and its factor.

Figure 3.1: Measurement Model, Fitness Indices, Standardized Factor Loading

3.6 Measurement model Validity

Hair et al (2010) suggests that when the items are able to measure the latent dimensions in the instrument, this is considered validity and it is a required property for the measurement model. Construct validity is the most important type of Validity, and it
is an indication that the paragraphs have the ability to measure the underlying dimensions. Fitness indices that are within the required criteria are indication of construct validity, therefore the specified measurement model has achieved the requirements of construct validity according to the results in Table No. 3.

There are two types of construct validity, which are convergent and discriminant validity. The high-factor loading and statistically significant coefficients of factor loading are an indication of convergent validity. For the purposes of confirming the convergent validity, the Average Variance Extracted (AVE) was calculated according to the following formula:

\[ \text{AVE} = \frac{\sum K^2}{n} \]

According to Hair et al (2010), the value of AVE should be no less than 0.50. The value of \( K^2 \) indicates the square of the coefficient of loading, which is the amount of the variance of the paragraph that may be correlated to the other paragraphs. It can be concluded that items with low factor loading will influence the results of convergent validity. Referring to Table No. (4), all AVE have exceeded 0.50, with the exception of organizational culture, it has reached 0.486 and is close to the required value, this dimension is not excluded because the factors loading for it are high, while the rest of the dimensions have exceeded the value AVE of 0.50, which indicates that the paragraphs converged on its factors, thus the convergent validity of the measurement model was achieved.

The table also displays the standardized and non-standardized regression weights of the paragraphs. The standard regression weights are the same as the factor loading, in non-standard weights neither the standard error value SE nor the critical CR value or the t value for first paragraph of each factor was possible to calculate due to the inability to estimate the regression weight and the variance of the latent dimension. Because of the
lack of information on the latent dimension, the regression weight of that paragraph was
fixed at 1.00 for each factor. Consequently, the researcher resorted to solving this problem
by specifying either the weight of the regression on the error in predicting the latent
dimension, or by error variance of the same paragraph by setting a correct and nonzero
value as indicated by many researchers (Hair et al, 2010). Finally, the t-Value can be
extracted by dividing the value factor loading by the SE error. Table (4) shows Factor
Loading, Reliability (Alpha Cronbach), Composite Reliability, Average Variance
Extracted.

Table 3.4: Factor Loading, Reliability (Alpha Cronbach), Composite Reliability,
Average Variance Extracted

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimate</th>
<th>S. Estimate</th>
<th>S.E.</th>
<th>C.R (t value)</th>
<th>P</th>
<th>AVE</th>
<th>Composite Rel.</th>
<th>SQRT (AVE)</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q9</td>
<td>OutSource</td>
<td>1</td>
<td>0.705</td>
<td></td>
<td></td>
<td>0.509</td>
<td>0.902</td>
<td>0.713</td>
<td>0.901</td>
</tr>
<tr>
<td>Q8</td>
<td>OutSource</td>
<td>0.989</td>
<td>0.744</td>
<td>0.106</td>
<td>9.316</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q7</td>
<td>OutSource</td>
<td>1.192</td>
<td>0.842</td>
<td>0.113</td>
<td>10.518</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q6</td>
<td>OutSource</td>
<td>1.119</td>
<td>0.808</td>
<td>0.111</td>
<td>10.111</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q5</td>
<td>OutSource</td>
<td>0.972</td>
<td>0.767</td>
<td>0.101</td>
<td>9.605</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q4</td>
<td>OutSource</td>
<td>0.833</td>
<td>0.662</td>
<td>0.1</td>
<td>8.309</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q3</td>
<td>OutSource</td>
<td>0.756</td>
<td>0.591</td>
<td>0.102</td>
<td>7.422</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td>OutSource</td>
<td>0.826</td>
<td>0.654</td>
<td>0.101</td>
<td>8.211</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q1</td>
<td>OutSource</td>
<td>0.865</td>
<td>0.601</td>
<td>0.115</td>
<td>7.551</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q11</td>
<td>OperPerf</td>
<td>1</td>
<td>0.762</td>
<td></td>
<td></td>
<td>0.634</td>
<td>0.874</td>
<td>0.796</td>
<td>0.896</td>
</tr>
<tr>
<td>Q13</td>
<td>OperPerf</td>
<td>1.053</td>
<td>0.833</td>
<td>0.092</td>
<td>11.473</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q14</td>
<td>OperPerf</td>
<td>1.16</td>
<td>0.838</td>
<td>0.1</td>
<td>11.548</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q15</td>
<td>OperPerf</td>
<td>1.061</td>
<td>0.748</td>
<td>0.105</td>
<td>10.107</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q16</td>
<td>OrgStruc</td>
<td>1</td>
<td>0.748</td>
<td></td>
<td></td>
<td>0.616</td>
<td>0.888</td>
<td>0.785</td>
<td>0.88</td>
</tr>
<tr>
<td>Q17</td>
<td>OrgStruc</td>
<td>0.934</td>
<td>0.859</td>
<td>0.081</td>
<td>11.577</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q18</td>
<td>OrgStruc</td>
<td>0.866</td>
<td>0.82</td>
<td>0.079</td>
<td>10.978</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q19</td>
<td>OrgStruc</td>
<td>0.909</td>
<td>0.844</td>
<td>0.08</td>
<td>11.341</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q20</td>
<td>OrgStruc</td>
<td>0.653</td>
<td>0.629</td>
<td>0.08</td>
<td>8.202</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q21</td>
<td>OrgCult</td>
<td>1</td>
<td>0.662</td>
<td></td>
<td></td>
<td>0.486</td>
<td>0.848</td>
<td>0.697</td>
<td>0.848</td>
</tr>
<tr>
<td>Q22</td>
<td>OrgCult</td>
<td>1.184</td>
<td>0.754</td>
<td>0.14</td>
<td>8.431</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q23</td>
<td>OrgCult</td>
<td>1.075</td>
<td>0.788</td>
<td>0.123</td>
<td>8.733</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q24</td>
<td>OrgCult</td>
<td>1.098</td>
<td>0.778</td>
<td>0.127</td>
<td>8.652</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q25</td>
<td>OrgCult</td>
<td>0.648</td>
<td>0.553</td>
<td>0.101</td>
<td>6.432</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q26</td>
<td>OrgCult</td>
<td>0.843</td>
<td>0.612</td>
<td>0.12</td>
<td>7.053</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SE = Standard error, CR = Critical Ratio (t-Value), AVE = Average Variance Extracted, SQRT (AVE) = Square Root of AVE
Another type of validity is discriminant, Zikmund (2003) points out that if the correlation coefficients between independent factors of less than 0.85, this is an indication that the dimension is not redundant, but if the correlation exceeds 0.85, this is an indication of the presence of Multicollinearity among the factors. Discriminant validity refers to the uniqueness of paragraphs from one another. That is, the paragraph should converge with its own factor (high correlation) and diverge from other factors in the measurement model (little or low correlation), if this is achieved, the paragraphs differ from each other and measure one dimension and do not measure others, just as the paragraph is not repeated in another factor or several factors.

According to Holmes-Smith (2006) and Hair et al., (2010), the square root of the Average Variance Extracted AVE can be compared to the correlation matrix of all factors in the measurement model. If the square root value of AVE exceeds the values of all correlations between the factors in the correlation matrix, then it can be judged on the Discriminant validity of the measurement model that it has been achieved. In Table 5, the square root value of the average variance extracted for each factor was higher than the correlation values for the factors, indicating the criteria for Discriminant validity in the measurement model were met.

<table>
<thead>
<tr>
<th>Factor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outsourcing</td>
<td>0.713</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance</td>
<td>0.276</td>
<td>0.796</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Structure</td>
<td>0.324</td>
<td>0.158</td>
<td>0.785</td>
<td></td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>.276</td>
<td>.284</td>
<td>.166</td>
<td>0.697</td>
</tr>
</tbody>
</table>
3.7 Measurement Model Reliability

The Composite Reliability values as well as the AVE are indicators of the reliability of the measurement scale. The Cronbach alpha coefficient also measures the degree of consistency between the paragraphs in the measurement model. Composite Reliability also indicates the internal consistency of the scale, and by dividing the sum of the variance and the covariance in the underlying dimension by the sum of the variance, the Composite Reliability can be extracted, according to the following formula:

$$CR = \frac{(\Sigma \kappa)^2}{[(\Sigma \kappa)^2 + (\Sigma 1 - \kappa 2)]}$$

When the Composite Reliability value is greater than 0.70 and the Average Variance Extracted is greater than 0.50 per factor, it can be judged that the measurement model is consistent and has internal consistency of all of its paragraphs. The higher the value of the AVE, the higher the percentage of variance explained by each paragraph. Referring to Table 4, it appears that the Composite Reliability values have exceeded the required values in each factor, in addition to the values of the Alpha Cronbach coefficient have exceeded 70% according to Nunally, (2012), which means that the paragraphs and factors in the measurement model give consistent, reliable results and without Errors. It can be judged that the measurement model has fulfilled the required psychometric properties which are validity and consistency, and it is possible to move to hypothesis testing using structural equations to emphasize the theoretical foundations of the study model.
3.8 Study variables

Independent variables: Outsourcing.

Dependent variable: Operational Performance.

The mediator variables: organizational Structure, Organizational Culture.

3.9 Hypotheses testing

Structural Equation Modelling (SEM): SEM will be adopted in order to estimate the direct and indirect impact of the structural model using AMOS.21 software and to estimate the structural relationships between the dimensions of the study, and check the fitness between the proposed model and the estimated model, and a number of indicators will be used to ensure that the structural model is fit such as GFI index for variable assessment, CFI index, and RMR and other relevant and necessary indicators mentioned in many previous studies.
CHAPTER FOUR
Testing Results

4. 1 Hypotheses Testing

After verifying the validity and reliability indications of the measurement model and ensuring that the model fits the sample selected from the study population based on the fitness indices, it has become easy to test the conceptual model which includes the concepts that were included in the study. In the first analysis phase, the Measurement Model was confirmed, and in this chapter the Structural Model, which includes the structural relationships of the study dimensions will be tested. The researcher has used the Structural Equation Modeling method using AMOS.22 statistical analysis program with the Maximum Likelihood Estimation method (MLE) to estimate structural model and testing the hypotheses. The level of statistical significance (P≤0.05) was used.

The model assumes that Organizational Structure, Organizational Culture mediate the impact of Outsourcing on Operational Performance. Accordingly, a structural model has been specified to measure those relationships in a simultaneous manner (See figure 3).

Figure 4. 1: The Specified Structural Model using SEM
In the model specification stage, the independent variables were considered as Exogenous and the dependent were considered Endogenous variables. The mediator variables are dependent on relationships, and independent of their relationship with the dependent variables. After specification, the analysis was performed to produce Standardized / Unstandardized Regression Weights, and the Probability Values for each relationship were used to judge the statistical significance of that relationship. According to Hair et al, (2010), SEM is a powerful statistical method for regression analysis when there are several independent and dependent variables, relationships can be tested in a simultaneous manner. The results of the structural model test and hypothesis testing are shown in Figure No. 4. Figure 4 shows the structural model and the test results for the hypotheses in Table No. 6

**Figure 4.2: Estimated Structural Model using SEM**

Table No. (6) shows the analysis of the model, regression values, critical ratios (t-Value) and the statistical significance of each relationship in the model. Note that the fitness indices for this model were found to be ( GFI=0.913, CFI=0.938, RMR=0.028),
the CMIN/DF fitness indices was not reported because this model is saturated, and all the parameters in the structural model have relationships, so the degrees of freedom will be 1.00.

Table 4.1: Result of the structural model test

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Unstandardized Estimate</th>
<th>Standardized Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Label</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Structure</td>
<td>&lt; - Outsourcing</td>
<td>0.906</td>
<td>0.807</td>
<td>0.051</td>
<td>17.794***</td>
<td>B</td>
<td>Supported</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>&lt; - Outsourcing</td>
<td>0.668</td>
<td>0.707</td>
<td>0.051</td>
<td>13.013***</td>
<td>D</td>
<td>Supported</td>
</tr>
<tr>
<td>Operational Performance</td>
<td>&lt; - Outsourcing</td>
<td>0.638</td>
<td>0.571</td>
<td>0.085</td>
<td>7.54</td>
<td>A</td>
<td>Supported</td>
</tr>
<tr>
<td>Operational Performance</td>
<td>&lt; - Organizational</td>
<td>0.221</td>
<td>0.222</td>
<td>0.065</td>
<td>3.399***</td>
<td>C</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>Structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt; - Organizational</td>
<td>0.167</td>
<td>0.141</td>
<td>0.064</td>
<td>2.596 0.009</td>
<td>EE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Causal Effect was tested, as this study focused on testing the following hypotheses:

H 1: There is a direct significant impact of outsourcing on the operational performance in the industrial companies in Jordan at a significant level (P ≤0.05).

H 2: There is a direct significant impact of outsourcing on the organizational structure in the industrial companies in Jordan at a significant level (P ≤0.05).

H 3: There is a direct significant impact of outsourcing on the organizational culture in the industrial companies in Jordan at a significant level (P ≤0.05).

H 4: There is a direct significant impact of organizational structure on the operational performance in the industrial companies in Jordan at a significant level (P ≤0.05).

H 5: There is a direct significant impact of organizational culture on the operational performance in the industrial companies in Jordan at a significant level (P ≤0.05).

H 6: Organizational structure mediate the impact of outsourcing on operational performance at a significant level (P ≤0.05).

H 7: Organizational culture mediate the impact of outsourcing on operational performance at a significant level (P ≤0.05).
4.2 Testing the Direct Impact

**H 1:** There is a direct significant impact of outsourcing on the operational performance in the industrial companies in Jordan at a significant level (P ≤0.05).

The results of path (A) testing (Outsourcing – Operational Performance) showed that the standardized regression coefficient was (0.571, P = 0.000), t-value was found to be (7.54), the high t-value and its significance (P≤0.05) means accepting the alternative hypothesis that assumes an impact of Outsourcing on Operational Performance in the industrial companies in Jordan.

**H 2:** There is a direct significant impact of outsourcing on the organizational structure in the industrial companies in Jordan at a significant level (P ≤0.05).

The results of path (B) testing (Outsourcing – Organizational Structure) showed that the standardized regression coefficient was (0.807, P = 0.000), t-value was found to be (17.794), the high t-value and its significance (P≤0.05) means accepting the alternative hypothesis that assumes an impact of Outsourcing on Organizational Structure in the industrial companies in Jordan.

**H 3:** There is a direct significant impact of outsourcing on the organizational culture in the industrial companies in Jordan at a significant level (P ≤0.05).

The results of path (D) testing (Outsourcing – Organizational Culture) showed that the standardized regression coefficient was (0.707, P = 0.000), t-value was found to be (13.013), the high t-value and its significance (P≤0.05) means accepting the alternative hypothesis that assumes an impact of Outsourcing on Organizational Culture in the industrial companies in Jordan.
**H 4:** There is a direct significant impact of organizational structure on the operational performance in the industrial companies in Jordan at a significant level (P ≤0.05).

The results of path (C) testing (Organizational Structure–Operational Performance) showed that the standardized regression coefficient was (0.222, P = 0.000), t-value was found to be (3.399), the high t-value and its significance (P ≤0.05) means accepting the alternative hypothesis that assumes an impact of Organizational Structure on Operational Performance in the industrial companies in Jordan.

**H 5:** There is a direct significant impact of organizational culture on the operational performance in the industrial companies in Jordan at a significant level (P ≤0.05).

The results of path (EE) testing (Organizational Culture – Operational Performance) showed that the standardized regression coefficient was (0.141, P = 0.000), t-value was found to be (2.596), the high t-value and its significance (P ≤0.05) means accepting the alternative hypothesis that assumes an impact of Organizational Culture on Operational Performance in the industrial companies in Jordan.

### 4.3 Testing the Indirect Impact

According to Hair et al. (2010), The role of a mediator is providing an indirect effect of independent variable on dependent variable. Therefore, the researcher needs to test the significance of a mediator in the independent and dependent relationship. To begin with, the simple effect of all independent variables on dependent variables has to be significant, note that this condition was achieved.

The mediation effect can be described as an intermediate effect. The mediator is a predictive link in the relationships between two other variables. The intermediate variable can usually become an external variable and an internal variable. By testing meditative
effects, a researcher can examine the effects between these variables (Barron and Kenny, 1986). According to Zainudin Awang, (2010) there are three types of mediators in mediation: full mediation, partial mediation, and non-mediation. In this structural model, it was found that the mediator variables (Organizational Structure, Organizational Culture) partially mediated the effect of outsourcing on operational performance. As

1. The hypothesis testing for regression coefficient of Outsourcing on Operational Performance is still significant.

2. The hypothesis testing for regression coefficient of Outsourcing on Organizational Structure and Organizational Culture is significant.

3. The hypothesis testing for regression coefficient of Outsourcing on Organizational Structure and Organizational Culture on Operational Performance is significant.

4. The absolute value of (B*C) and (D*EE) is Lower than the absolute value of A.

Not that (B*C) is absolute value of the product of the effect of outsourcing on the organizational structure and the organizational structure on the operational performance, while (D*EE) is absolute value of the product of the effect of outsourcing on the organizational culture and the organizational Culture on the operational performance. The Path (A) represents the direct impact of outsourcing on operational performance.

Referring to the structural model, hypothesis (6) can be tested as follows:

**H 6:** Organizational structure mediate the impact of outsourcing on operational performance at a significant level (P ≤0.05).

The standardized regression coefficient for direct impact (A) outsourcing on operational Performance found to be significant (0.571, P= 0.000), Path (B) is significant, Path (C) is also significant. Since the product of the path multiplication (B*C= 0.18) is lower than the direct effect, and all paths are statistically significant, it can be concluded
that there is mediation, and the type of this mediation is partial. The indirect effect has a statistical significance as shown in the table below:

**Table 4.2: Statistical significance test for indirect effect**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unstandardized Estimate</th>
<th>Lower</th>
<th>Upper</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outsourcing_through_OrgStructure</td>
<td>0.2</td>
<td>0.085</td>
<td>0.307</td>
<td>0.01</td>
</tr>
</tbody>
</table>

**Figure 4.3: Estimate of Indirect Impact (Outsourcing_through_OrgStructure) on Operational Performance**

**H 7:** Organizational culture mediates the impact of outsourcing on operational performance at a significant level (P ≤0.05).

The standardized regression coefficient for direct impact (A) outsourcing on operational Performance found to be significant (0.571, P= 0.000), Path (D) is significant, Path (EE) is also significant. Since the product of the path multiplication (D*EE= 0.099) is lower than the direct effect, and all paths are statistically significant, it can be concluded that there is mediation, and the type of this mediation is partial. The indirect effect has a statistical significance as shown in the table below:

**Table 4.3: Statistical significance test for indirect effect**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unstandardized Estimate</th>
<th>Lower</th>
<th>Upper</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outsourcing_through_Org. Culture</td>
<td>0.112</td>
<td>0.032</td>
<td>0.208</td>
<td>0.016</td>
</tr>
</tbody>
</table>
Figure 4.4: Estimate of Indirect Impact (Outsourcing through OrgCulture) on Operational Performance

The standardized total impact was presented in table 4.4

Table 4.4: Standardized Indirect Effects

<table>
<thead>
<tr>
<th></th>
<th>Outsourcing</th>
<th>Organizational Culture</th>
<th>Organizational Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Culture</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Organizational Structure</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Operational Performance</td>
<td>0.279</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Total Effect: \((B*C) + (D*EE)\)
CHAPTER FIVE
Discussion and Recommendations

In the light of data analysis through confirmatory factor analysis in order to build the measurement model, and the use of SEM for hypothesis testing, this chapter focuses on presenting and discussing the findings of the study. This chapter included answering the study questions, as well as discussing the results of hypothesis testing, based on the discussion of the results, this study presented a set of recommendations for decision makers in industrial companies in Jordan, in addition to a set of recommendations for academics for future research.

5.1 Discussion of Findings

This study focused on measuring the impact of outsourcing on the operational performance in industrial companies in Jordan, as well as on testing the effect of the organizational structure and organizational culture in mediating this relationship. The study sought to answer several questions:

1- What is the impact of outsourcing on operational performance?
2- How does outsourcing affect the organizational structure?
3- How does outsourcing affect the organizational culture?
4- How does the organizational structure and culture mediate the relationship between outsourcing and operational performance?
5- What performance aspects in the industrial companies in Jordan are affected by outsourcing?

The researcher used SEM modelling to answer study questions. Where the confirmatory factor analysis was used in order to determine the underlying dimensions of
the conceptual study model and for development of a measurement scale to measure these
dimensions, and also use the method of structural equations to test the hypotheses.
Moreover, the results of the confirmatory factor analysis confirmed that the measurement
model that was developed is characterized by validity and reliability and fits the
environment of industrial companies in Jordan.

5.2 Confirmatory Factor Analysis

In order to emphasize the theoretical basis for the dimensions of the study and the
measurement paragraphs, the researcher had to ensure that the measurement model is free
of errors, and confirm the validity of the constructs, which consists of convergent and
discriminant validity. To achieve this objective, the researcher used a valid sample of 199
responses from managers in industrial companies in Jordan, and it was subjected to
confirmatory factor analysis. The appropriateness of the sample for analysis was also
taken into consideration after excluding missing and outliers’ values. The aim of
confirmatory analysis was to ensure more convergence with the theoretical underpinnings
of the conceptual study model and to provide a more in-depth interpretation of the
correlations, and inter-correlation between paragraphs and factors.

The researcher used goodness of fit indicators that showed acceptable levels to fit
the model with the selected sample, which indicates that the model can be used and
applied by managers in industrial companies in Jordan because the level of construct
validity has been achieved. All the paragraphs for which the loading factor has increased
more than 0.60 were retained, which confirms the integrity of the confirmatory study
procedures, and this also means that the indicators of validity, reliability are easy to
achieve, in addition to the overall reliability of the study instrument. The reliability of the
constructs was confirmed, and it was found that the paragraphs are close to its factors (convergent validity) through high factor loading, statistical significance, and high AVE.

The results also showed that the scale is devoid of redundant paragraphs or paragraphs that can measure more than one factor (discriminant validity) by comparing the square root of the average variance extracted with the correlations between all factors. Finally, the results showed that the scale is characterized by reliability and consistency between the paragraphs through a test of the composite reliability of all constructs, and the average variance extracted, which came above acceptable levels. In addition, reliability has been confirmed by using the Alpha Cronbach coefficient test for all factors, with a minimum reliability level of 0.848 for organizational culture, while the factor outsourcing has the highest consistency of 0.901. The overall stability of the tool was 0.958.

Two paragraphs were excluded from the measurement model namely "The company outsources cleaning services" which it is related to outsourcing, the sample members agreed that this paragraph is not related to the "outsourcing" factor, as its loading factor was weak, and the variance explained for this paragraph was also low. This result can also be explained in the fact that managers consider that attention should be focused on outsourcing specialized activities, the cleaning services are less important.

The second paragraph that was excluded is "The propensity of outsourcing our activities exerts influence on reducing our cost". This paragraph is related to operational performance, As managers in industrial companies in Jordan do not see that outsourcing will reduce costs, on the contrary, outsourcing may lead to increased costs, and many studies agree that there are hidden and uncontrollable costs associated with external outsourcing, and it is difficult to highlight those costs in Financial records. Finally, the
measurement model is settled on 24 paragraphs that measure 4 factors, and these paragraphs were consistent with many previous studies such as (Yeboah (2013), Mwichigi (2015), Mitchell and James (2017), Wachira et al., (2016)).

5.3 Results of Hypotheses Testing

The results of the hypothesis test using Structural Equation Modelling also showed that the model is fit to the environment of industrial companies in Jordan. The Path Analysis shows the following results:

The following studies belong to this category. The main features of each study are highlighted after each hypothesis.

These studies relate to manufacturing companies (Bardhan et al. 2006; Cross and Ghosh 2010), the services sector (Polat Yilmaz 2009; Espino Rodriguez and Padron Rubina 2005) or both sectors (Grover et al., 1996). The national context for the studies was completely different: China (Li et al. 2008), Ireland (Gorg and Hanley 2005), USA (Bardhan et al. 2006), Spain (Nieto and Rodriguez 2011), India (Singh 2009) France (Bertrand 2011), Iran (Kamyabi and Devi 2011), Greece and Switzerland (Arvanitis and Loukis 2012). Data collection included a questionnaire between executives or engineers and employees (Grover et al. 1996; Li et al. 2008) and use of archive data (Gorg and Hanley 2005; Bertrand 2011). The researchers measured the performance of work in different ways. This included strict or direct measures such as Return on Investment (ROA), Return on Investment (ROI), Return on Equity (ROE), Profit and Sales Margin (Bertrand 2011; Kroes and Ghosh 2010; Thouin) 2009), Labor productivity (Gorg and Hanle 2005), Sales and Internationalization (Di Gregorio et al. 2009), Innovation and Innovation (Arvanitis and Loukis 2012) and Market Share, Sales Growth and Profitability.
Before Taxes (Singh 2009). Some researchers have used soft or indirect performance indicators such as customer satisfaction (Grover et al. 1996), gradual and radical innovations (Li et al. 2008), product and process innovations (Nieto and Rodríguez 2011) and customer performance (Novak and Stern 2008).

**There is a direct significant impact of outsourcing on the operational performance in the industrial companies in Jordan.**

This result agreed with many studies, for example, Kroes and Ghosh (2010), examined several factors related to costs, flexibility, innovation, quality and time business performance in terms of margin Profit, return on investment, and sales against assets. The convergence of business outsourcing engines and competitive priorities has a positive impact on supply chain performance, which in turn affects business performance.

Bertrand (2011), studied the value of intermediate goods provided by independent foreign suppliers divided by total sales, export performance = export sales of finished products, outsourcing increases the companies ’export performance. This effect is stronger in export markets, as companies import intermediate products.

George and Hanley (2005), tested the relationship between total imports and total inputs, labour productivity, Production per worker. Outsourcing to international materials leads to productivity gains, but this only happens for companies that have a very low export intensity. Thwin et al. (2009), examined the ratio of total annual sales to total annual costs of a particular IHDS group. A higher level of outsourcing for network and telecommunications services is associated with high financial performance.

De Gregorio et al. (2009), investigated the Internationalization sales (Foreign sales compared to total sales) and internationalization sales (the number of foreign markets in
which the company achieves sales). Outsourcing of external and technical services by small and medium-sized companies has a positive impact on international competitiveness.

According to Yeboah (2013), there is a statistically significant relationship between outsourcing and quality, and it is a statistically significant relationship between outsourcing and a competitive advantage. According to Mwichigi (2015), study results also showed that outsourcing services reduced operating costs and also led to operational efficiency. The study concluded that there is a positive and important relationship between administrative and financial services, services related to outsourcing, technical and operational performance. This has resulted in efficient services, enhanced efficiency and efficient allocation of resources to meet customer needs.

According to MOM (2002), the results of our analysis show that these designs can be used to analyse the differences between the three types of providers. Results show that resilience-focused suppliers are more willing or able to monitor if they are performing sustainable performance.

There is a direct significant impact of outsourcing on the organizational structure in the industrial companies in Jordan.

This result agreed with many studies such as (Thwin et al. 2009; De Gregorio et al. (2009), where many studies indicated that outsourcing leads to many changes in the organizational structure. These researchers agree that the outsourcing of some jobs may create more agile organizational structures, and this may lead to higher levels of performance in those companies.
There is a direct significant impact of outsourcing on the organizational culture in the industrial companies in Jordan.

Singh (2009), tested the following (a) the relationship between outsourcing production and internal production and (b) the proportion of separate products from Subcontract to the total amount of products manufactured separately, market share, sales growth, and profit before taxes. Subcontract granting affects both company capacity building as well as company performance. Outsourcing complements orienting companies in the market.

According to Arvanitis and Loukis (2012), studies show that the change in the organizational structure that is attributable to outsourcing creates many changes in organizational culture. There are many conflicts that may occur in organizations due to external outsourcing. For example, external outsourcing may create a problem in accepting the existence of a third party that performs tasks, and this may lead to an organizational conflict. There are those who point out that outsourcing is an opportunity to acquire new knowledge and skills. Jordanian industrial companies recognize that outsourcing may lead to providing employees with new knowledge, skills and expertise, and it will help in developing their capabilities, which leads for achieving high levels of performance.

According to Popoli (2017), study results show that some cultural factors, along with logical factors that play a role in the selection of outsourcing, significantly influence attitudes toward outsourcing, particularly i) pregnancy, selection, and (2) implementation the subsequent, especially with regard to the structure of the customer-client relationships. The specific cultural factors are degree of dependence on the path, avoiding
uncertainty and confidence. This was standardized in the concept of "relationship culture".

There is a direct significant impact of organizational structure on the operational performance in the industrial companies in Jordan.

Most studies in the field of outsourcing indicate that when organizational structures become more specialized, this leads to improved performance levels. Agrawal and Haleem (2013), examined the operational performance from the following improvements in organizational structure on the aspects of profitability, productivity, profitability, growth, cash management, market ratio, and market value: IT outsourcing has improved performance in terms of profitability, productivity, profitability, growth, cash management, market share, and market value. Non-outsourcing companies have not improved their performance. Han and Mithas (2013), studied the IT outsourcing as a percentage of their direct will cause changes in organizational structure and will impact revenue such as operating costs.

There is a direct significant impact of organizational culture on the operational performance in the industrial companies in Jordan.

Some studies such as Nieto, MJ and Rodríguez (2011) indicated that organizational culture that focuses on creativity leads to the creation of high levels of performance. Also, the organizational culture that focuses on acquiring knowledge and skills will necessarily lead to higher levels of performance in companies. Nieto, MJ and Rodríguez (2011), examined the product innovation and process innovation (dichotomous variables) take value 1 when a company introduces a new or improved product or process, and the market transfer abroad is related to product and process innovations. More influence on product innovation than process innovation.
Organizational structure partially mediates the impact of outsourcing on operational performance.

As we mentioned earlier, outsourcing leads to changes in organizational structures, and this may lead to the creation of more specialized organizational structures, or more agile and able structures to respond quickly to markets, and able to achieve high levels of performance. This finding is consistent with many studies such as Bardhan et al. (2006) and Kamyabi and Devi (2011). This means that the organizational structure mediates the effect of outsourcing on performance and has ability to explain the change in performance.

Organizational culture partially mediates the impact of outsourcing on operational performance

As we mentioned earlier, outsourcing affects organizational culture and creates many opportunities to acquire the knowledge, skills and capabilities needed to perform tasks. This increases performance levels, and many researchers have agreed on this, such as Polat Wilmaz (2009); Espino-Rodríguez and Padrón-Robaina (2005). This means that the organizational culture mediates the effect of outsourcing on performance and has ability to explain the change in performance.

5.4 Recommendations and suggestions for future research

The industrial companies in Jordan are imposing the outsourcing method and taking the advantage of the expected benefits out of it. This end result is somehow similar to the results of Lahiri’s (2016) study that showed outsourcing can produce both positive, negative, mixed, moderated or no big effect on the firm, due to the fact what determines the success of outsourcing is the extent of its suitability to a company’s objectives, the timeliness of use, and how it is being dealt with and managed. Outsourcing approach
advantages turned out to be highly perceived by the industrial companies in Jordan. This is evident in the study outcomes due to the fact respondents consider outsourcing to be an effective approach for their respective companies as it allows them to take care of their core activities in a better way to compete in the marketplace. Therefore, companies become aware of what activities to be outsourced. This confirms what John Hendry (1995) stressed, “any move in the direction of outsourcing needs to be assessed in terms of its influence on a variety of organizational characteristics and on the dynamic alignment between these.” Quality enchantment is one of the relatively rated benefits, due to the fact when companies have enough time to focus on their core activities and outsource the ones that do no longer pose a risk to them, customers will be more satisfied with the product, and manufactured products will meet the expectations and correct specifications. Such a result is similar to that of Corbett (2003) who confirms the formerly finding that there have been significant enhancements in quality resulting from outsourcing.

Finally, the researcher recommends that if industrial companies want to take advantage of external outsourcing to raise levels of performance, they should be taken as their organizational structures and culture when heading to external outsourcing.

Referring to the study limitations, the study recommends that future research should be directed to:

To expand the research among the whole industrial sector in Jordan; In order to reach the highest critical evidence. By evaluating the relationship between outsourcing and performance, exploring the effect of the outsourcing on the organizational structure, exploring the effect of the outsourcing on the organizational culture, determining the role of organizational structure and culture that mediates the relationship between outsourcing
and performance, and identifying the performance aspects in the industrial companies in Jordan that are affected by the outsourcing.

This study focused on industrial companies in Jordan, meaning that the results of this study can be generalized only in that sector. The researcher recommends that future research be directed to studying other sectors so that there is a possibility to generalize the study model.

The study also focused on examining this model in the industrial companies’ sector regardless of the size of the organization, that studying this model in several sectors may give more insight. Whereas, outsourcing differs if companies are large, medium, or even small. The researcher recommends that studies go to examine this model in companies of all sizes using multi-group analysis as companies differ in their characteristics, it also differs in its organizational structure and organizational culture, this means that the effect is different on performance levels.

Finally, due to the time limits, and despite the appropriateness of the sample size to achieve the empirical results, the sample size of this study may be considered little. The researcher recommends future studies to include large sample size in order to obtain accurate results.
References


Han, K. and Mithas, S. (2013). Information technology outsourcing and non-IT operating costs: an empirical investigation. MIS Quarterly, 37, pp. 315–331.


Outsourcing of HR continues. HR Focus 1997;74:2 (March). Jarvis J. Yes: outsourcing pays for Canadian businesses. Canadian HR


APPENDICES
Appendix 1: The Questionnaire

Thesis Questionnaire

The researcher is conducting a field study aimed at identifying the impact of "The impact of outsourcing on the operational performance in the industrial companies in Amman-Jordan: The mediating impact of organizational structure and culture" under the supervision of Dr. Mohammad Al Adayleh as a prerequisite for obtaining a master's degree in MBA, from the Middle East University in Jordan.

Based on the nature of your work, you are better able to provide the researcher with the correct information, and from this point of view kindly ask you to answer the paragraphs of the questionnaire accurately and objectively, and provide the researcher with your views, by placing the reference (✓) inside the box that you see appropriate.

Thank you for your attention.

Prepared By: Lana Al Junid
Demographic Data

Please select the appropriate answer by ticking (√) in the right place:

Gender:  ☐ Male    ☐ Female

Age of the company:  ☐ 1-5 years  ☐ 6-10 years  ☐ 11-15 years ☐ More than 15

Degree:  ☐ Diploma  ☐ Bachelor  ☐ Master  ☐ PhD

Total number of employees in the company:

☐ 1-20 employees  ☐ 21-50 employees
☐ 51-100 employees  ☐ More than 100 employees
### Outsourcing

Is the business practice of hiring a party outside a company to perform services and create goods that traditionally were performed in-house by the company's own employees and staff.

<table>
<thead>
<tr>
<th>No</th>
<th>Evaluation</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The company outsources professional accounting services.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>The company outsources professional legal services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The company outsources professional IT services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>The company outsources its manufacturing processes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>The company utilizes outsourcing in the recruitment of experienced personnel.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>The company outsources marketing services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The company outsources call center services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>The company outsources maintenance services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>The company outsources graphic design services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>The company outsources cleaning services.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Operational Performance

The accomplishment of a given task measured against pre-set known standards of accuracy, completeness, cost, and speed. In a contract, performance is deemed to be the fulfilment of an obligation, in a manner that releases the performer from all liabilities under the contract.

<table>
<thead>
<tr>
<th>No</th>
<th>Evaluation</th>
<th>Always</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>The propensity of outsourcing our activities exerts influence on improving our service.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>The propensity of outsourcing our activities exerts influence on reducing our cost.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>The propensity of outsourcing our activities exerts influence on improving the quality of our products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>The propensity of outsourcing our activities exerts influence on flexibility.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>The propensity of outsourcing our activities exerts influence on delivering products on time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Organizational Structure

Is a system used to define a hierarchy within an organization. It identifies each job, its function and where it reports to within the organization. This structure is developed to establish how an organization operates and assists an organization in obtaining its goals to allow for future growth. The structure is illustrated using an organizational chart.
<table>
<thead>
<tr>
<th></th>
<th>The company structure promotes communication and information that facilitate outsourcing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>The company structure supports information sharing across organizational units.</td>
</tr>
<tr>
<td>18</td>
<td>The Company structure encourages individual initiatives towards outsourcing.</td>
</tr>
<tr>
<td>19</td>
<td>The company structure provides clear guidance on the completion of its operations.</td>
</tr>
<tr>
<td>20</td>
<td>The company structure is committed to follow the administrative sequence according to the organizational structure.</td>
</tr>
</tbody>
</table>

**Organization Culture**

Organizational culture includes an organization’s expectations, experiences, philosophy, as well as the values that guide member behavior, and is expressed in member self-image, inner workings, interactions with the outside world, and future expectations. Culture is based on shared attitudes, beliefs, customs, and written and unwritten rules that have been developed over time and are considered valid.

<table>
<thead>
<tr>
<th></th>
<th>The company culture supports the transfer of knowledge culture.</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>The company adopts a culture of knowledge acquisition.</td>
</tr>
<tr>
<td>23</td>
<td>The company adopts a culture of knowledge application.</td>
</tr>
<tr>
<td>24</td>
<td>The company is interested in solving the problems faced by its employees.</td>
</tr>
<tr>
<td>25</td>
<td>The company culture supports the engagement of employees when making management decisions.</td>
</tr>
<tr>
<td>26</td>
<td>The company give individuals an opportunity to present their initiatives.</td>
</tr>
</tbody>
</table>
Appendix 2: Arbitrators List

<table>
<thead>
<tr>
<th>Name</th>
<th>University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Ahmad Ali Saleh</td>
<td>MEU</td>
</tr>
<tr>
<td>Dr. Abd Al Aziz Sharabai</td>
<td>MEU</td>
</tr>
<tr>
<td>Dr. Samir Al Jabali</td>
<td>MEU</td>
</tr>
<tr>
<td>Dr. Amjad Twaiqat</td>
<td>MEU</td>
</tr>
<tr>
<td>Dr. Khaled Abu Al Ghanam</td>
<td>Amman Open University</td>
</tr>
<tr>
<td>Dr. Mohammad Maaitta</td>
<td>Applied Science University</td>
</tr>
<tr>
<td>Dr. Adel Al Hashem</td>
<td>Al Balqaa’ University</td>
</tr>
</tbody>
</table>

THANK YOU