

## FACTORS DRIVING TECHNOLOGICAL CHANGE AND ITS IMPACT ON HUMAN RESOURCES DIVERSITY MANAGEMENT PRACTICES: TEST OF THE MEDIATOR ROLE FOR STRATEGIC RENEWAL

AN EXPLORATORY STUDY IN A SELECTED SAMPLE OF MULTICULTURAL COMPANIES IN JORDAN

العوامل الدافعة للتغير التكنولوجي واثرها في ممارسات إدارة تنوع الموارد البشرية أختبار الدور الوسيط للتجديد الاستراتيجي

دراسة استكشافية في عينة مختارة من شركات متعددة الثقافات في الاردن

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#### Authorization

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#### Committee Discussion and Decision

This thesis is discussed under the title:

Factor Driving Technological Change and its Impact on Human Resources Diversity Management Practices:

Test of the Mediator Role for Strategic Renewal Exploratory study in a Selected Sample of Multicultural Companies in Jordan

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Finally, I would like to express my gratitude to the esteemed doctors and professors who took the time to arbitrate my questionnaire. Your input was highly appreciated.

#### **Dedication**

This work is dedicated to my parents who are the shining light of my life, my father who has always supported me and been proud of me in every step of my life regardless of any short comings. My mother, who my entire world revolves around her, my care taker who makes every problem seem so small.

I would also like to dedicate this thesis to my brothers; they have always been there for me during difficult and stressful times

Thank you all, for without you none of this work would have been possible.

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### FACTORS DRIVING TECHNOLOGICALCHANGE AND ITS IMPACT ON HUMAN RESOURCES DIVERSITY MANAGEMENT PRACTICES: TEST OF THE MEDIATOR ROLE FOR STRATEGIC RENEWAL

#### AN EXPLORATORY STUDY IN A SELECTED SAMPLEOF MULTICULTURAL COMPANIES IN JORDAN

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#### **Abstract**

This study aims to explore the factors that drive technological change and its impacts on the diversity management practices of human resources through testing the mediator role for strategic renewal. The study used the qualitative method by collecting data via questionnaires for a sample that size of 230, which were distributed among top and middle management employees of multi-cultural organizations, (Huawei, LG, Orange, Microsoft, and Ericson). In addition, the researcher used the Statistical Package for Social Science (SPSS ver.22) for descriptive statistics and AMOS. The study concluded that there is high agreement on the importance of technological change and strategic renewal among the diversity management practices according to the questionnaire respondents. The study recommends that organizations have to carry out intercultural training and workshops to increase the awareness of diversity management practices and increase workforce diversity which will enhance the knowledge sharing process between employees thus speeding up the process of implementing and understanding new technologies. Moreover, they have to change their structures and shift responsibilities, in order to face technological changes and enhance their weakness in performance.

Key words: Factors Driving Technological Change, Human Resources Diversity Management Practices, Strategic Renewal, Multicultural Companies in Jordan.

# العوامل الدافعة للتغير التكنولوجي واثرها في ممارسات إدارة تنوع الموارد البشرية أختبار الدور الوسيط للتجديد الاستراتيجي دراسة استكشافية في عينة مختارة من شركات متعددة الثقافات في الاردن إعداد: قيس مسعد إشراف: الدكتور أحمد علي صالح ملخص

هدفت هذه الدراسة الى التعرف على العوامل الدافعة للتغير التكنولوجي واثرها في ممارسات إدارة تنوع الموارد البشرية عن طريق اختبار الدور الوسيط للتجديد الاستراتيجي .

ولغرض تحقيق هدف الدراسة صيغت ستة فرضيات, أربعة فرضيات رئيسات و اثنتان فرعياتان, وأستخدمت الأستبانة التي تم تطويرها كأداة لجمع البيانات والمعلومات من عينة الدراسة والتي تتكون من المديرين في ألأدارة العليا و الوسطى عددهم (230), والذين يعملون في شركات متعددة الثقافات في الاردن (هواوي, مايكروسوفت, ال جي, اورنج, ايركسون)

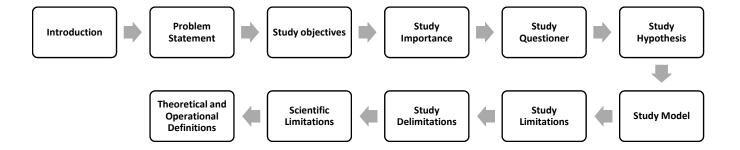
حللت نتائج الدراسة وأختبرت فرضياتها بأستخدام وسائل الأحصاء الوصفي مثل الوسط الحسابي, الأنحراف المعياري والنسب المئوية, وكذلك وسائل الاحصاء الاستدلالي مثل الانحدار المتعدد وتحليل المسار بأستخدام برنامجAmos

و خرجت الدراسة بمجموعة من الاستنتاجات كان اهمها: ان مستويات التغير التكنولوجي في الشركات عالي وهذا مؤشر على قابلية الشركات على تبني أي تكنولوجيا جديدة وأيضا كانت الشركات المبحوثة تستخدم التجديد الأستراتيجي بشكل دائم وهذا مؤشر على قدرة الشركة على هيكلة الاقسام تبعا للتحديات التي تواجه الشركة وكانت أخر الأستنتاجات ان قسم الموارد البشرية في الشركات المبحوثة تستخدم ممارسات ادارة التنوع بشكل كبير لأستيعاب مختلف الثقافات ، كما ظهر ان اثر التغير التكنولوجي على ممارسات أدارة التنوع أازداد بوجود المتغير الوسيط التجديد الأستراتيجي .

وقدمت الدراسة مجموعة من التوصيات كان أبرزها حاجة الشركات المبحوثة الأخذ بعين الأعتبار ان اعادة هيكلة الشركة ضروري لمواجهة التغيرات البيئية . أيضا من الضروري على شركات الأتصالات و الألكترونيات في الأردن زيادة وعي الموظفين على ضرورة استخدام ادارة التنوع من خلال عقد الورش التدريبية ولمواجهة التغير التكنولوجي على الشركات زيادة فاعليتها من خلال اعادة هيكلة الشركة مما يتناسب مع التكنولوجيا المدخلة . واخيرا فأنه من الضروري زيادة نسبة العاملين من مختلف الثقافات لما له من أهمية في تبادل الخبرات لتسريع عملية فهم التكنولوجيا المدخلة حديثا

الكلمات المفتاحية: العوامل الدافعة للتغير التكنولوجي، ممارسات إدارةتنوع الموارد البشرية، التجديد الاستراتيجي، الشركات متعددة الثقافات في الاردن

#### **Chapter One: Study Background and Its Importance**



#### 1.1. Introduction

Today's companies are facing many challenges as a result of the rapid and constant development in the business market. Keeping pace with these developments requires bonding traditional management methods with new policies to cope with global competition and increase the competitive effectiveness of companies at the local and global levels.

Krell (2000) believed that technological change alters human nature and deals with work in a straightforward way as it affects the workers in addition to the durability of organizations. Technology plays an important role in the performance of the company where the success of any company depends on its ability to keep up with technological changes, which includes the introduction of modern technologies to increase the company's opportunities for creativity and ability to compete on a larger scale (Dauda & Akingbade, 2011).

Al-Ameri (2013) stressed that technological change has played amajor role in the growth and advancement of companies in light of global openness and the rapidly changing work environment.

The success of dealing with technological changes is associated with the renewal of the structure and attributes of the organization that have the potential to substantially affect its long-term prospects (Agarwal & Helfat, 2009). Strategic renewal is an important factor in dealing with internal and external variables to meet market challenges since it is consider done of the required elements for any business organization to survive and succeed in the business world (Stienstra, 2008). Therefore, it appears that the success of dealing with technological change requires professional HR personnel to possess advanced knowledge and multiple skills.

Martin (2014) argued that the advantage of cultural diversity in the organization is having workers from different cultures with different ways of thinking. This could help the company in handling problems and matters from a variety of perspectives. On the other hand, when all of the workers are from the same culture, they could face problems in achieving multi-cultural results when they are asked to do the same task.

Within this context, Friday and Friday(2003) said that the company environment that has a diverse nature of cultural, intellectual, ethnic, linguistic, and professional management aspects between the managing members creates pillars of success which provide a great opportunity to meet and exchange views and experiences.

Globalization has had a major impact on cultural diversity because development in technology breaks international boundaries and opens cultures to a new area (Amadi and Agena, 2014).

Al-Zubi (2015) said that in order for a company to adopt new technologies, changes in beliefs, values, and structure are necessary since it cannot remain unaffected by the development.

Cukier and Middleton (1996) noted that organizations which take cultural diversity into account when implementing technology tend to be more successful than other organizations.

According to Barak (2014), Al-Jenaibi (2011), Dwertmann (2013), and Sucky et al. (2015), technological change, and market changes play an important role in the

diversity and human resources management structure. This leads human resources to adopt new practices in order for the companies not only to survive but also to thrive during this time of economic, social, and cultural changes.

Linda, Viktoria, and Linnea (2015) said that in a world of consistent and rapid change, the process of strategy implementation along with organizational renewal is crucial in order to maintain a competitive position.

Barak (2014) believes that managing a diverse and cross-culturally diverse workforce is necessary for the complete transformation of HR strategies. In addition, the relation between diversity management objectives, individual desires, and organizational outcomes have to be identified by managers.

The environmental drivers such as the changing labor market composition and the global economy have a great effect on the organizational strategic choices. In addition, analyzing these drivers can help the company in determining the expected benefits to be gained from its diversity management.

Liberman (2013) stated that a strategic approach to diversity presents a shared sense of the organizational direction and purpose around diversity. In addition, it requires providing a framework for the organization's diversity-related missions, goals, and strategic plans. He also argued that diversity initiatives become associated with organizational policies, procedures, and practices by having an established corporate diversity management strategy.

This study will identify the framework of the different variables and their relationship with each other since those chosen variables play an important role in the human resources literature.

#### 1.2. Problem Statement

Many researches indicate that employee performance is related in many ways to environmental changes, most of them studied the relation between factors driving to technological change and diversity without considering the strategic renewal as a

mediator variable. Therefore, considering the urgency and importance of assessing these variables and the relation between them, this topic was chosen for study.

Al-Zubi (2015) recommended in his study to carry out continuous training programs regarding new technologies and through one-team efforts.

Based on the previous studies and their recommendations to achieve a company's goals and objectives, the relation between changing technology and diversity management practices needs to be studied considering strategic renewal as a mediating variable.

With rapid improvements prevailing nowadays, companies are in a severe competition with each other. The researcher's position at Samsung allowed him to carry out interviews at Huawei and Orange which actively execute policies to manage diversity. After interviewing some of the company's employees, the researcher noticed that technological changes have a huge impact on most of the company processes in most of the departments, which requires keeping pace through updated company strategies.

#### 1.3. Study Objectives

The current study seeks to identify the factors that drive technological change and their impact on diversity management practices with the existence of strategic renewal as a mediating variable by:

- 1. Providing a conceptual and intellectual framework for basic study variables (Factors driving technological change, Strategic renewal, and Diversity management practices).
- 2. Describing the level of:
  - Factors driving technological change in multi cultural communication and electronics companies.
  - Strategic renewal in multi-cultural communication and electronics companies.
  - Diversity management practices in multicultural communication and electronics companies.

- 3. Detecting the direct impact of factors driving technological change on diversity management practices.
- 4. Detecting the direct impact of factors driving technological change on strategic renewal.
- 5. Detecting the direct impact of strategic renewal on diversity management practices.
- 6. Diagnosing the indirect impact of factors driving technological change on diversity management practices with existing strategic renewal as a mediating variable.

#### 1.4. Study Importance

This study focuses on the multicultural communication and electronics company environment, where some of the variables which have impact on the company management will be analyzed. It is expected that the results will also have advantages for researchers in enhancing the fields of management.

This study will introduce an overview about the variables (factors driving technological change, diversity management practices, and strategic renewal) and their correlations. The study variables and results could be generalized to cover many companies since most companies are affected by technology and diversity in its different types.

Finally, the results from this study will benefit companies regarding how to deal with technological change, how to take advantage of having workforce diversity, and how to handle it correctly which can lead to a successful sustainable company. Furthermore, these results might be applied to human resources since the variables deal with aspects that almost every industry shares.

`

#### 1.5. Study Questions

Based on the above main problem, the following questions were determined:

#### First main question:

1. What is the level of practice for the study main variables?

#### **Second main question:**

- 2. Is there an impact of the factors driving technological change on diversity management practices in the study sample companies?
- 2.1 Is there an impact of corporate evolution on diversity management practices in the study sample companies?
- 2.2 Is there an impact of technological development on diversity management practices in the study sample companies?

#### Third main question:

3. Is there an impact of the factors driving technological change on strategic renewal in the study sample companies?

#### Fourth main question:

4. Is there an impact of strategic renewal on diversity management practices in the study sample companies?

#### Fifth main question:

5. Is there an impact of the factors driving technological change on diversity management practices with existing strategic renewal as a mediating variable in the study sample companies?

This study will be based on the views of the top and middle managers from the selected companies.

`

#### 1.6 Study Hypothesis

H01: There is no direct impact of factors driving technological change on diversity management practices, in the study sample companies at  $\alpha \le 0.05$ .

Based on the components of factors driving technological change, the main hypothesis can be divided in to two sub hypotheses:

- H01.1: There is no direct impact of corporate evolution on diversity management practices in the study sample companies at  $\alpha \le 0.05$ .
- H01.2: There is no direct impact of technological development on diversity management practices in the study sample companies at  $\alpha \le 0.05$ .
- H0.2: There is no direct impact of factors driving technological change on strategic renewal in the study sample companies at  $\alpha \le 0.05$ .
- H0.3: There is no impact of strategic renewal on diversity management practices in the study sample companies at  $\alpha \le 0.05$ .
- H0.4: There is no indirect impact of factors driving technological change on diversity management practices with existing strategic renewal as mediating variable in the study sample companies at  $\alpha \le 0.05$ .

#### 1.7. Study Model

The model below shows the study's variable, where the factors driving technological change is an independent variable, diversity management practices an dependent variable and the strategic renewal a mediator variable.

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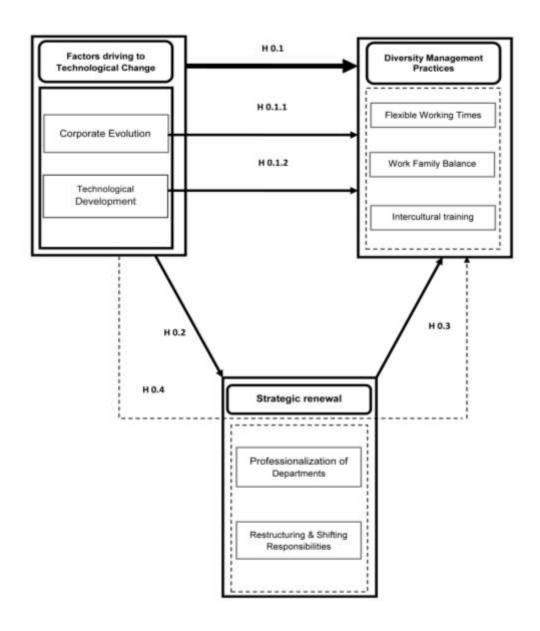


Figure (1.1) Study model

**Source**: Prepared by researcher based on:

Independent: Al-Ameri (2013)

Dependent: Worch, Emberhard, & Truffer (2012)

Mediator: Alca'zar, Ferna'ndez,& Gardey (2013)

#### 1.8. Limitations

• Spatial: Multi cultural communication and electronics companies

• Field study: Top and middle management levels

• Temporal: 2016

#### 1.9. Delimitations

To the researcher's knowledge not much comprehensive research in the field of diversity management has been conducted. Also, the result of this study will reflect the perceptions of the organizations involved, so it cannot be generalized to all companies due to social and cultural differences.

Another constraint was the time since most of the workers had busy fulltime working schedules. Also, some of them are field employees, so it was challenging to meet with them.

#### 1.10. Scientific Limitations

In this research, the relation between the factors driving technological change, strategic renewal, and diversity management practices are going to be analyzed. The first variable, factors driving technological change, was divided into two sub-variables: corporate evolution and technological development based on Al-Ameri (2013). Worch, Eberhard, and Truffer (2012) divided the strategic renewal into two sub variables: professionalization of departments and restructuring and shifting responsibilities. The last variable, which is diversity management practice, was divided based on Alca'zar, Ferna'ndez, and Gardey (2013) into three sub-variables: flexible working times, work family balance, and intercultural training.

#### 1.11. Theoretical and Operational Definitions

#### **Technological Change**

Technological change is a term that used to illustrate the process of invention diffusion and innovation of processes and technology (Jaffee et al., 2002).

The operational definition of technological change for the study purposes:

Factors driving Technological change holds two sub-variables (corporate evolution and technological development), and in this study it was measured through the individual's response to the questionnaire.

#### **Technological development:**

The operational definition of technological development for the study purposes:

Technological developments is the process of producing short cycle products, helps the firm solving customers problems and leads to change in the organization's social culture. In addition, it can be successfully achieved when the management fully understands this process and can be improved by the research and development.

#### **Corporate evolution:**

The operational definition of corporate evolution for the study purposes:

Corporate evolution is defined as the process of introducing new products, find new markets for these products, and increase the market share. It also can be seen as a response to technological changes that might increase the demand of some products which requires an increase in capacity.

#### **Strategic Renewal**

Worch et al., (2012) stated that strategic renewal is a process of great change with respect to key organizational attributes in order to sustain a firm's long term prospects and viability. Renewal may involve the business model, technology, organizational structure, customer base, and product market strategy.

The operational definition of Strategic renewal for the study purposes:

Strategic renewal sub variables are professionalization of departments and restructuring and shifting responsibilities, and it is measured through the individual's response on the questionnaire.

#### **Professionalization of department:**

The operational definition of professionalization of department for the study purposes:

Professionalization a concept used in the organizations which finds the best employees who fit the available positions in order to increase the quality of work and helps to run its functions more easily.

#### Restructuring and shifting responsibility:

The operational definition of restructuring and shifting responsibility for the study purposes:

Restructuring is defined as a rapidly response to the environmental changes which face the organizations, in order to make the organizations more profitable, achieve positive results to the company and enhancing the company's weakness in performance.

#### **Diversity Management Practices**

The workforce diversity acknowledges that people are different in many ways, mainly gender, age, marital status, social status, personality, disability, sexual orientation, religion, culture and ethnicity. (Shen, Jetal, 2009)

The operational definition of diversity management practices for the study purposes:

Diversity management practices were divided into three sub-variables: flexible working times, work family balance, and intercultural training. They were measured through the individual's response to the questionnaire.

#### **Flexible Working Times:**

The operational definition of flexible working times for the study purposes:

Flexible Working Times is a concept that is used in the organization, which provides the employees with sufficient time for the family Employees and determining their working hours at the company with the agreement with the management with accomplishing their tasks and responsibilities.

#### **Work family balance:**

The operational definition of work family balance for the study purposes:

Work family balance is a process that gives the employees the ability to achieve a the balance between work life and family life, communicate with their families, and being equally involved and satisfied with their work family roles.

#### **Intercultural training:**

The operational definition of intercultural training for the study purposes:

Intercultural training is the process of using the scientific methods in determining the training needs for employees and achieving the competitive advantage for the company. In addition, it is committed from the management to employ a set of strategies that reduce negativity in the work place.

#### **Multicultural Companies:**

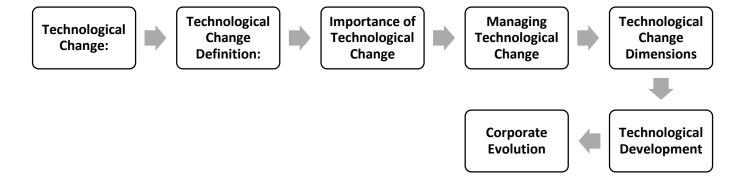
Multicultural organization is an organization that has achieved high level of diversity, can capitalize fully on the advantages of the diversity, and has few diversity related problems (Denisi, A & Griffen, R, 2005).

Salih, (2012), identified the multicultural companies as the companies which possess human resources from different backgrounds, experiences, and diverse cultures. In addition, managing and employing their full capabilities and abilities will lead to contribution to achieve the planned goals, with benefits to the organization and employees.

The operational definition Multicultural organization is for the study purposes:

It is a group of companies which are specialized in the telecommunication and electronics; Microsoft, LG, Huawei, Ericsson and Orange. These companies have a multi cultural human power, experiences and cultures as they are considered as global and international companies.

#### **Chapter Two: Theoretical Framework and Previous Studies**



#### 2.1 Theoretical Framework

#### **Technological Change**

#### **Technological Change Definition**

In order for companies to better adapt to new technologies, market challenges, and changes, new strategies are needed that intend to change structure, beliefs, attitudes, and values of the organizations (Bennis, 1969).

Khalil (2000) sees technology as the result of what has been learned and the acquired knowledge or technical skills on how to do things in the best way.

Technological change is the ability to change the market environment by participating in cost reductions, product features, and its existence in the market. As a result, technological change can increase the speed of introducing products in the market (Dahlman, 2007).

According to Krell (2000), technological change transforms human nature interaction with work; it also transforms market nature by changing product cost and features. Furthermore, in order to implement technologies, the support of top management is required, and they have to provide clear leadership and articulate technology. It also requires a technological change which includes tracking new

technology, changing organizational culture, and setting new personnel tasks (Trainor et al., 2010; Kamath et al., 2011).

Moreover, technological change brings innovation, and over the last twenty years, it has become a very important topic due to the fact that it is vital and of significance for organizations to survive (Alameri, 2013).

Based on the researcher's view, technological change is the introduction of new strategies and practices in order to increase the efficiency of a product or process. This is when organizations invent or improve a product or process to gain a better reward from the same amount of work. Moreover, it is considered to be an important key for companies to survive throughout all the changes which markets are facing.

#### **Importance of Technological Change**

According to the Betz study (2003), long-term economic development arises from technological progress, where new industries have been established in order to implement a new economic functional system. Furthermore, since the technological progress in any technology is finite, this will have great impact on industries for the reason that industrial structures are established from new basic technologies.

At first, it was proposed by Abernathy and Clark (1985) that technological change (innovation) can pervade on business. Innovation based on how it conserves core business competences can be classified as:

- 1. A regular innovation is an innovation which conserves existing production and market competences.
- 2. A niche is a creation innovation where an innovation conserves existing production competency but alters the market competency.
- 3. A revolutionary innovation is an innovation, which conserves existing production competency and preserves existing market competency.

Furthermore, technological change provides the opportunity to produce the same amount of output with a lower amount of production and has the ability to bring benefits including the following (Haile and Vivare, 2013):

- More employment in the capital goods sector
- Reduction in price resulting from lower production
- Costs as a result of technological innovations
- New investments made from the extra funds due to technological change
- Creation of new products as a result of employing new technologies

To conclude, globalization and technological innovations are responsible for the emerging pattern of increased request for skilled labor since globalization gives organizations the ability to increase its production for existing and new products where more employees are needed.

#### **Managing Technological Change**

According to Hadad (2002), work in Managing Technological Change focuses on the need for technological management as a necessity in order to make decisions, which are related to investing in new technology.

He stated as well that the effective management of the technological change process is based on an appropriate business strategy, and it should be designed in alignment with the organizations structure, rules, and processes for decision making to achieve the desired performance outcomes.

Innovation from new basic technology requires going through a radical innovation process. The following steps are needed to link the passing of information from science to the economy (Betz, 2003):

- Discovery and understanding
- Scientific feasibility
- Invention
- Technical and functional application
- Engineering and manufacturing
- Production process, production volume, and product improvement

Concluding from the above, in order for the organizations to benefit more from technology, they should have the ability to manage it through knowledge of inventing, designing, developing, and maintaining by which organizations can increase its proficiency and efficiency.

#### **Technological Change Variables:**

For measuring the technological change dimensions, technological development and corporate evolution have been chosen for being more related to this study which were studied and tested in (AL-Ameri 2013; Ghanem, 2001; Chapman, 2002). study, bellow is the explanation for each dimension:

#### **Technological Development**

Technological development has become a central topic of all matters because development has been driven by technology through the recent centuries up to the present time, including the economic-labor, political, and cultural dimensions of the development of new products.

According to Chapman (2002), technological development refers to a continuous improvement in a company's ability to do things better, faster, and cheaper. Also, in a different study, it is stated that in order for technological development to succeed, it has to fit the technological trends in the market (Geroski, 2000).

Technological development is the road followed by technology to search for humanity's evolution toward equality among sectors of the population and peoples (García-Vera, 2004).

In addition, Lakemond, Johansson, Magnusson, and Safsten (2007) stated that the interfaces between technology development, product development, and production are managed to eliminate the misfits between technology and product concepts and the sequences from fitting the product design and production process.

Alam, Guild, and Sparkes (2013) defined technological development as a concept used by companies with other organizational factors in order to solve customer problems

or design new products where it can be applied to the development of new products, services, or processes.

The definition of technological development from the point of the researcher is changing the methods and strategies used in organizations to accomplish tasks in a more efficient way. In addition, it is considered to be the process of developing new techniques which can produce goods and services at a lower cost and in less time. In addition, it influences organizations as it has an important strategic implication for the organizations and can greatly affect industries as a whole.

The outcomes of the Kiss study(2013) indicated that technological development needs timely, long-term, and flexible policy support, which involves diverse policy packages instead of a single policy instrument designed to support technology development.

García-Vera (2004) presented from an economic point of view that technological development and technology has the same path when striving for profitability, efficiency in market development, and investment benefits. From this perspective, technological development adopts the finality of contributing to the growth of the economic market, and it is seen as the road that technology follows when looking for some types of humanity evolution toward equality between the population sector and people taking the environment into consideration.

Another important aspect of technological development is being a significant source of growth and a key determinate of competitive advantage for many companies (Lazonick, 2005).

Technology development has many features that advance technical standards, improve accessibility, and increase communication capacity. The availability of new machinery, techniques, and strategies allows a company to compete with others globally and to enhance their market share in global markets. Technology development brings multiple resources to a company and stabilizes costs (Suebsin and Gerdsri, 2009).

Recently, new technology applications were created to provide the opportunities for the analysis of the development acquired through the use of technology and to study the practical possibilities that each technology has in different social environments (Vera, 2004). He also mentioned that technological development is seen as the central topic of training about the current computer and communication technologies, taking into consideration that any technology training is always preceded by a group of people who makes certain decisions and applies some strategies and plans of action.

Al-Ameri & Al-Ghalebi (2013) argued that technological development is connected to the production processes of a company, and modifications in the current methods and systems come from:

- 1. The top management, which often has a lesser impact, since they do not have the technical skills and are usually far from the processes and the production lines.
- 2. The supervisory management of the organizational levels who revert to the top management levels for the approval on their modifications and to follow-up on their implementation.

In addition, it was mentioned that some of the basic justifications for the technological development include the following:

- Creating new products
- Shortening the life-cycle of products
- Adjusting the organization to the current changes in the markets

Salih and Al-Ghalbi (2010) mentioned some of the technological development levels, which have an impact on the corporate by increasing its efficiency, as below:

A) Alpha change: These changes include modifications to some levels of the current state and give fixed standards to the measurement device connected to the conceptual stability of the field. Alpha change includes also some modifications in individual behavior. Some of these changes include simple or minor changes to some routine work, implementation time, and review of the work in an unfamiliar way.

- B) Beta change: These changes include modifications to some levels of the current state, but it is deeper and has more influence than the Alpha change. Beta changes touch the individual behaviors, services, and the current state at a specific level. Some of these changes are terminating some work procedures, replacing them with new procedures, merging specific operations together, expanding specific jobs, and enriching specific jobs.
- C) Gamma change: These changes include radical severe shocks in the current state which touch the service on a very large scale. Gamma change is considered to be the highest order of organizational change that results from implementing new technologies to the organization.

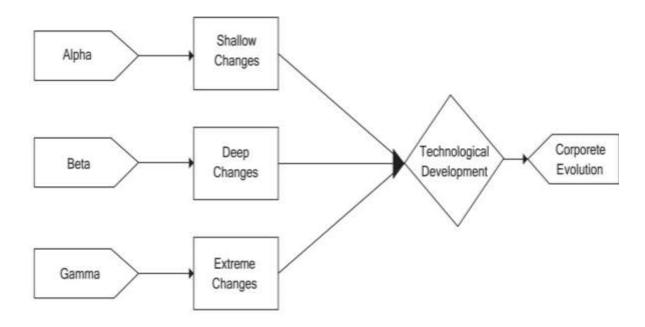


Figure (2.1) technological development levels Source: Prepared by researcher

#### **Corporate Evolution**

There are big changes that make it easier to challenge the new corporate culture. Companies have changed the traditional way of research and development and built up new strategies during the development process due to the increasing need for more innovative products.

Grant (2007) stated that corporate evolution is part of the overall development, which cannot stay unaffected by the development process. In order for the organizations to accommodate the new ideas, beliefs, and new technologies for progress, it has to change its beliefs, values, and structure.

According to the Chen and Kang study (2011), cooperative evolution is considered the process that enables organizations to take advantage of the capacities, resources, or know-how of the different institutions and thus compete in the market and succeed.

Another concept was mentioned by Smither, Houston, and McIntire (2016) who defined corporate evolution as a continuing process of long-term organizational development which consists of five stages with the emphasis on the organizational relationships, teams, and individuals.

The definition of corporate evolution according to the researcher's view is the attempt to influence employees to take greater responsibility for their own actions as organization members. It is also the body of practices, which enhances the organization's performance and the employees' development. It also aims to increase the market share and might be seen as a response to market implication.

According to the literature, corporate evolution has different impacts on organizations. It was mentioned in the Wargin and Dobiey study (2001) that a prompt change to technology-driven solutions means that the workforce has to be capable of multi-tasking. This makes the change process fit with corporate culture which could assist the organization in achieving its goals.

Ghanem (2001) stated that corporate evolution occurs when market implications force the company to change the policies regarding culture, values, and approaches. Creating an ambidextrous organization that is inventive and able to respond to change in the demands of the market is the goal of corporate evolution (Smith, 2001).

Organizational efficiency requires employee in strategic positions who feel the need for change and innovation. This includes the need to (Dauda & Akingbade, 2011):

- Change the managerial strategy
- Make the company more consistent with the changing individual and environment needs
- Change the structure and roles
- Change the workforce motivation
- Make better planning
- Improve the intergroup collaborations
- Adapt a new environment.

Based on Schein (2010), the corporate evolution principles represent some general rules that guide the practical and theoretical orientation, which are summarized in the following:

- 1. Authority: The authority of corporate evolution is the top management that moves it in a more formal way based on the adjustment requirements with goals and conditions of the organization for the environment.
- 2. Responsibility: The responsibility of corporate evolution is a common responsibility of all the levels of an organization.
- 3. Flexibility: Flexibility of the corporate evolution has roots in its bipolar movement, radical and gradual development.
- Continuity: Continuity resides in the corporate evolution as being a continuously renewed sustainable program because of the movement of environment and its instability.
- 5. Integrative: The integration of corporate evolution comes from its high coordination between the goals of the company and the goals of the sub-divisions and the groups and individuals, in order to reach the required organizational structure.

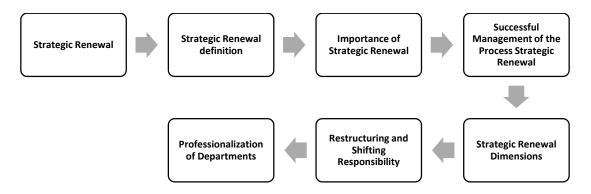
The targeted field for analysis includes individual, group, and regulation levels. These levels represent interactive chains within each other, and a defect in any level of the organization will be reflected on the individual and group level.

Furthermore, Salih & Al-Ghalbi (2010) stated corporate evolution is the application of the wide approach of the organization to functional, technical, structured, and personal relationships in the companies, with each stage in the corporate evolution depending on the proceeding one.

The first stage in corporate evolution is to anticipate the need for implementing the change. The second stage is the practitioner-client relationship development, and the third stage is the diagnostic part that includes data collection in order to provide a better understanding of the external and internal environment. The next stage is the action plans, techniques, and strategies, which include team building, job design, role analysis, goal setting, and development of intergroup. The final stage is self-renewal, monitoring, and stabilization, in view of the fact that corporations operate in a dynamic and changing environment.

In conclusion, corporate evolution is considered as one of the factors which can lead to a change in organizations. This occurs since market implications force the organizations to change their policies regarding values, culture, and approaches. These changes and implementation are considered as a logical process, which should be undertaken by top-level management and supported by all the organization's members.

#### **Strategic Renewal**



Nowadays where the pace of change has gone hypercritical, the most important race is the race for strategic renewal, where companies have to change as fast as the environment is changing and where they have to find new sources of profit before the

disappearance of the old ones. In addition, they have to reinvent their strategy and their business model before becoming obsolete.

Strategic renewal is based on achieving the appropriate balance between the benefit from what has been learned by the organization and what has been gained through new insights and solutions (Lengnick & Inocenio – Gary, 2013).

#### **Strategic Renewal Definition**

During the early years, strategic renewal took place when organizations applied new solutions. Also, it could be seen as organizational change in response to environmental change. It was considered as a transformation activity related to environment, objectives, and structure to guarantee long-term survival. (Snow & Hambrick, 1980; Chakravarthy, 1984).

In order for strategic renewal to succeed, the tension between stability and change needs to be addressed. (Volberda, Baden-Fuller et al., 2001). Strategic renewal was seen as a management process associated with accommodating new knowledge and innovative behavior that result in changing the product market strategy of the organization and its core capabilities (Floyd &Lane 2000; Floyd &Wooldridge, 2000).

Flier and Volberda (2003) defined strategy as the actions targeted at the transformation of the core capabilities related to competitive advantage. Renewal only considers strategy when it includes the whole company, not only the individual or group inside the organization.

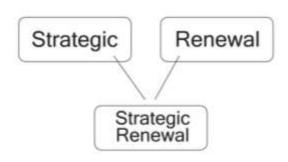


Figure (2.2) Strategic Renewal Source: Prepared by researcher

Another strategic renewal as a specific type of strategic change is the management process that promotes changes in a business's core competences while considering the alignment of organizational competences with the environment (Flier & Volberda, 2003).

Agrawal and Helfat (2009) related renewal to the activities that undertake to change its track dependence. It is the renewal or replacement of the present organizational attitudes. In addition, renewal businesses learn and explore new ways of using their competitive advantages. Agarwal & Helfat (2009) stated that strategic renewal is a process of substantial change, which considers the key organizational attributes to maintain the organizational long-term prospects.

Moreover, Hopkins et al. (2013) stated that strategic renewal is a vital process for companies' ability to maintain its competitiveness in the industry and build a sustainable future strategy. It also depends on achieving a balance between using what has been learned by the organization and what has been gained through new insights and solutions (Lengnick-Hall & Inocencio-Gray, 2013).

Dislers etal. (2016) defined strategic renewal as a concept that refers to the change and adjustment in strategic direction which is able to determine the long-term competitiveness of the organization.

Based on the point of view of the researcher, strategic renewal is a concept used to describe the process of aligning the competences of organizations to the external environment changes and is considered crucial to maintain the company's competitiveness and build a sustainable strategy.

### **Importance of Strategic Renewal**

Organizational renewal alters a business's resource pattern to reach a better and more sustainable economic performance. In addition, more efforts are needed involving more individuals and the finance function in order to be sustainable (Stopford &Baden-Fuller, 1994).

However, Rothaermel and Hess, (2007) mentioned that the causes of these transformations are often a declining primary market, globalization, or a change in the

demand or technology of the customers. Furthermore, they stated that incremental renewal is not always a response to a change in the external environment; many organizations conduct activities on a regular basis in order to facilitate renewal.

Albert, Kreutzer, and Lechner (2015) stated that strategic renewal researches analyze how organizations can change their track by transforming their capabilities and strategic policies since organizations operate in a dynamic business environment and changeable technology, politics, and economy.

The nature of what has been learned and the actions that lead to institutionalizing is different across work environments because of the varying problems and solutions complexity (Lengnick & Inocenio – Gary, 2013).

Moreover, McKinley, Latham, and Braun (2014) stated that all business organizations face external economic threats. Organizations will have a better opportunity from renewing sustainable success when purposively addressing conditions of economic decline with strategically planned actions.

According to Kwe et al. (2011), three of the primary elements that define strategic renewal's core importance are:

- Strategic renewal involves transforming the company's core capabilities associated with competitive advantages.
- Strategic renewal concerns the whole company and has implications across the levels of the organization.
- Strategic renewal is significant to break the track dependence and ensure longterm survival.

Strategic renewal influences the involvement of the organization in the industries where they compete and for entire economies. In addition, in order for the organizations to compete and maintain success, they have to develop strategies and cultures which can face the challenges and opportunities.

### **Successful Management of the Process Strategic Renewal**

For the successful management of strategic renewal, an increase in the flexibility of managers is needed which is done by changing structures, policies, and systems as equality in recruitment and career advancement along with the acceptance of special needs are required in order to support diversity (Kandola et al., 1995).

According to Smith and Lewis (2012), in order to succeed in the process of strategic renewal, the organization has to:

- 1. Balance the employee's needs for stability with the organizational needs for change
- 2. Bridge the employee's needs for security with the need for learning and taking risks
- 3. Some handles to create a greater acceptance and success rate when applying innovations into strategies (Binns et al. 2014).
- 4. Top management has to select growth aspirations, which will connect with people emotionally.
- 5. Top management has to engage line managers in their strategy process and treat strategy as a dialogue.

Strategic renewal applies not only to established firms but also young firms and several levels of analysis including within organizations, across organizations, and through inter-firm relationships (Tushman & O' Reilly, 2004). Furthermore, the Kim and Pennings (2009) study investigated the impotency role of new designs in strategic renewal taking into account the assumption that innovation includes communication between firms and the market, not only the development and launch of new products.

He also stated that innovators have to manage the participants of the industries as an integral part of strategic renewal efforts. When facing competition and interaction between firms, the main focus of these efforts should be on the consumers.

To conclude, managers have to be aware that strategic renewal does not have to compete with the pressure of day-to-day activities and should be executed as other

projects. In addition, top management should maintain the tension balance between the short and long-term priorities.

### **Strategic Renewal Variables:**

The strategic renewal dimensions in this study have been chosen based on (Worch, Emberhard & Truffer, 2012; Lavie, 2006; Capron & Mitchell, 2009; Dominguez et al., 2009) study, as these dimensions fit the working environment of the studied organizations. The researcher ensured that these dimensions suit the organizations through making interviews; bellow is the description for them:

## **Restructuring and Shifting Responsibility**

These days and with the current globalization and environmental changes, a shifting in responsibilities for the employees and an organizational restructuring are needed in order for companies to keep pace with these changes and be able to compete in the market.

Dubrovsk (2005) stated that since globalization made competition very extensive and severe, it is important for companies to be involved not only in strategic alliances but also in the methods of radical restructuring and change.

Restructuring was defined as a profound change in the way that the company operates, which involves changes in its strategy and structure. This term is also used when it comes to downsizing though restructuring has more implications than just decreasing the workforce (Rogovsky, 2005).

Besides, research has addressed the restructuring process by focusing on important rules, such as changing structures in one area requires changes in other areas. Also, restructuring is derived from the corporation's fundamental strategies (Dubrovsk, 2005).

Another restructuring definition is reorganizing any organizational structure, such as the legal, ownership, and operational, to make it more profitable and planning for future needs (Norley et al., 2008). It also refers to the process where managers change the tasks, adjust authority relationships, and redesign organizational structure and culture in order to improve the effectiveness of the organization (Jones, 2010).

Worch, Eberhard, & Truffer, (2012) argued that shifting in responsibilities requires assigning new staff from outside the organizations; the required managerial skills in the decentralized units are mostly developed by providing training to the staff.

Based on the researcher's view, restructuring is a process where managers reduce the bureaucratic costs by streamlining the organizational ladder and decreasing the workforce by dismissing managers and employees.

Restructuring has several important features for organizations. Al-doori & Salih (2009) mentioned some of them:

- Sales and revenue growth along with the incapability of coping with environmental changes and transformations and adjusting structures to fit these modifications.
- The current organizational structure as a burden when involving the employees in the decision making process because of its focus on centralization and bureaucracy.
- Responding to the environmental changes and the competitors work modes and the need for adopting more flexible organizational structures.

Based on the literature, since organizations are operating in a changing world and are facing many difficulties dealing with the different environmental changes, the organizational structure should be changeable and flexible to keep pace with this changing world and can be a short and long-term solution to maintain the organization's viability. Restructuring and shifting in responsibilities have different benefits for organizations, such as increasing the organization's value and preparing it for sale or

transfer to the future generation. It also helps the company to position itself for growth, survival, and success.

Rogovsky (2005) stated that the restructuring process should take into consideration some significant steps such as:

- Analyzing the different options involved in restructuring.
- Preparing the employees through consultations, communication, and continuous dialogue during the whole restructuring process.
- Evaluating its effectiveness after the restructuring process has been carried out.

Based on Harper (2015), organizational changes come in three forms:

- A. Programmed Transformation: This form of transformation is planned through the search and development of goods and services based on a clear time scheduling which includes the start and end of the transformation programs, its costs, and the needed materials.
- B. Un-programmed Transformation: From one side, this transformation is planned in regards to the development and improvement goals, but on the other side, it is unprogrammed in regards to the duration and the amount of the available sources since it is difficult for the organization to predict when their resources will be available.
- C. Painful Transformation: This type of transformation is imposed on the organization, which occurs when there is a crisis and the situation requires making some decisions and actions. This kind of transformation is usually accompanied with painful and costly procedures at different organizational levels.

## **Professionalization of Departments**

During the earlier years, professionalism was considered a process of market closure and monopoly control over work, a successful ideology, and occupational dominance. The goal of professionalization is to promote professional practitioners' occupational self-interests in terms of their salary, status, and power. It was also

considered as a form of occupational control of work, which has advantages over markets and forms of organizational and bureaucratic control (Evetts, 2014).

Hammer (2000) argued that professionalism consists of attitudes and behaviors, where attitudes are often described and measured because of their relationship to behaviors. While Hoyle and Wallace (2007) mentioned that professionalism consists of the behaviors people have toward their profession. In addition, it is the behavioral orientation that individuals have to their occupations and it has to reflect the reality of daily practices.

Evans (2008) defined professionalism as strategies and theatrics that are employed by members of an occupation to improve status and conditions, or as an occupational control. In addition, according to another study Worch, Eberhard, & Truffer (2012) defined professionalization as a process set up to fill in the available positions more strictly with employees who are qualified and specialized. The objective is to make sure that adequate professional standards will be implemented in running the respective functions and departments.

Professionalization is a process articulated around the construction of a, access requirements, professional competencies, associated training, professional career development, and the evaluation process of professional performance (Fernández, 2013).

Bathzard (2014) defined human resources professionalization as the process where human resources professionals cooperatively work in order to achieve the recognition and status of the established profession. He also described professionalism as an approach to an occupation that is usually characterized by integrity, intelligence, maturity, and thoughtfulness.

In regards to the researcher's opinion, professionalism is the process by which a proficient status of the profession can be achieved in order to develop and maintain a group of professional employees who can attain the organizational goals.

Adler et al. (2008) stated that the challenges of professionalism as an occupational value are being documented by researchers. One of the documentation mentions that

powerful professionals are often resistant to managerial intervention and organizational control. Additionally, Hammer (2000) mentioned that the professionalization of departments aids a firm in making sure that it is implementing adequate professional standards and makes it easier to run the department functions.

The professionalization process has had the impact of shifting competences from an engineering base to a balanced capability structure (Worch, Kabinga, Eberhard & Truffer,2012). However, the most important tasks for professional institutions are continuities, challenges, and opportunities for the maintenance of professionalism as an occupational value (Evetts, 2014)

Fernandez (2013) described the professional employee as the one who is capable of managing complex working situations. He also mentioned some of the professionalism elements, such as:

- The ability to proceed properly in a specific environment or situation.
- The ability to combine personal and environmental resources to mobilize properly.
- The ability to transfer personal resources to contexts required for the situation.
- The ability to learn from experience and commit to work and professional relationships with others.

According to the researcher's point of view, professionalization is essential for organizations since it leads to a higher success rate for employees, and it helps to create better relationships between customers and employees to ensure that company goals and objectives are met.

In addition, having a professional workplace is necessary for the long-term success of organizations because it defines what the acceptable behaviors in the organization are and how employees should behave in the organization, and above all, it trains managers and leaders to deal with overseas organizations.

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## **Diversity Management Practices**



## **Diversity Management Definition**

Esty et al. (1995) presented a definition of general diversity as recognizing, accepting, appreciating, and enjoying peoples' differences, such as age, ethnicity, education, disabilities, gender, race, and sexual orientation.

Diversity management is defined as "A process intended to create and maintain a positive work environment where the similarities and differences of individuals are valued, so that all can reach their potential and maximize their contributions to an organization's strategic goals and objectives" (U.S. Department of Veterans' Affairs, Office of Diversity &Inclusion, 2009).

Egan & Bendick (2003) mentioned that the concept of diversity management, which was developed in the USA, is implemented with diverse results in a variety of national contexts.

The workforce diversity acknowledges that people are different in many ways, mainly gender, age, marital status, social status, personality, disability, sexual orientation, religion, culture, and ethnicity (Shen, 2009).



Figure (2.3) diversity Dimensions Source: Prepared by researcher

According to Mooghali & Safian (2016), diversity management means fostering values and workforce differences, such as individual characteristics, backgrounds, and religions to achieve the organizational goals.

Based on the above, the researcher views diversity management practices as a successor of the traditional positive action used in some organizations, that focuses on particular social groups defined by cultural background, ethnicity, religion, age, race, and gender, rather than focusing on individuals.

# **Diversity Management Importance**

The Australian Centre for International Business (ACIB) research indicates that diversity management improves the quality of management decisions and provides superior solutions and ideas to organizational problems (ACIB, 2000).

Shen (2009) stated that the aim of effective HR strategies is to increase organizational learning, knowledge creation, and the work environment's development, which is conducive to diversity management. In addition, diversity management plays an important role in HRM and it should be at the heart of human resource policies and practices. In addition, he mentioned that diversity management is seen by employees as being equal to having equal opportunities and the establishment of multicultural value sharing workshops.

McLeod, Lobel, & Cox (1996) stated that a diverse workforce has a better-quality solution to brainstorming tasks and can increase the organizational effectiveness, efficiency, and profitability.

According to the Noor, Khalid, and Rashid (2013) study, the organizational citizenship behavior between diversified workforces is necessary to value their attitudes towards the work environment and to ensure the business's success.

Based on the researcher point of view, diversity management has several influences on the organizations as it strengthen the employees' loyalty, decrease turnover

and enhance problem solving, which will increase work efficiency, performance and productivity.

### **Diversity Management Challenges**

According to Barak (2014), in order to response to the growing diversity in the workforce around the world, specific policies and programs have been instituted by many companies to enhance recruitment, inclusion, promotion, and retention of employees who are different from the privileged echelons of society. Flagg (2002) argued that managers must recognize their cultural biases, since each individual is unique and must be willing to change the organization if necessary.

Esty (1995) mentioned that there are challenges to managing a diverse work population because it involves recognizing the value of differences, combating discrimination, and enhancing inclusiveness since negative attitudes and behaviors can be obstacles to organizational diversity. Kreitz (2008) introduced some of the diversity management's challenges including diversity as part of an organization's strategic plan, linking diversity to performance, top management commitment measurement, accountability, recruitment, and diversity training.

#### **Diversity Management Variables:**

There are several dimensions, which were used to measure the diversity management practices. For the purposes of this study, flexible working times, work family balance and intercultural training have been chosen for being more related to this study, as these dimensions were studied and tested in (Alca'zar, Ferna'ndez & Gardey 2013; Hicks-Clarke and Iles, 2000; Kossek, Lobel & Brown, 2006; McCain, 1996; Alimo-Metcalfe, 1993; Sidney, 1994) study, bellow is the explanation for them:

#### **Flexible Working Times**

Since employees are increasingly aiming for more flexibility in how they balance their work with their personal lives, flexible working times are considered necessary.

Bond, Thompson, Galinsky, & Prottas (2002) mentioned that 39% of employees with high availability of flexible work arrangements reported "high levels of loyalty and

willingness to work harder than required to help their employers succeed". Also, Galinsky & Bond (1998) stated that more than one thousand American companies revealed that about 68% allow employees to change the start and stop times periodically while only 24% allow this change on a daily basis.

Hill et al. (2001) defined flexible working times as the workers' ability to make decisions that influence where and for how long they are going to engage in a work-related task. In addition, it is the ability for employees to have control over when and where they work outside of the standard workday.

Another concept showed that flexible working time involves a continuous choice on behalf of employers, employees, or both, regarding the amount (chronometry) and the temporal distribution (chronology) of working hours (Janssen and Nachreiner, 2004).

While Cole (2006) sees that flexibility at work is taking different forms and includes job sharing, changeable working times, and telecommuting alongside conventional part time schedules. These arrangements are different among countries and reflect work time control. Accordingly, flexibility in working time is not just the choice over the time or work place, but rather it extends to include the employees' choices in managing breaks, amount of time they are off from work, and even an organizational culture of flexibility (Kossek & Thompson, 2016).

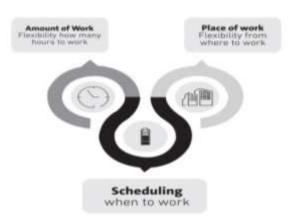
Concluding from the above, the researcher defines flexible working time as the employees the ability to decide their working hours in way that is different from the normal company start and stop time, where they can have a work-life balance.

According to the literature, many of the important points to flexible work arrangements include:

 Providing employers and employees with the ability to make choices about work-related activities. These types of work arrangements are popular nowadays due to a change in the demographics of the workforce and employee demands for better work-life balance (Wendt, 2010).

- 2. Helping organizations to maintain good employees and not force them to give up on their family life. It also helps them to gain personal and professional benefits and the result is to have more loyal, committed, and productive employees (Smith, 2002).
- 3. Providing considerable advantages to both employer and employee as it enhances the productivity of employees, facilitates recruiting and retention, and can reduce absenteeism and tardiness. Operational, managerial, or professional work settings can accommodate flexible times (Cohen and Single, 2001).
- 4. Offering different benefits to the organization and its workers. This includes employee job satisfaction, more commitment, less turnover, and absenteeism (Bailyn et al., 2001).

Flexible working times are important for the organization based on the researcher opinion, since with a more satisfied employees and a more trusting environment, productivity increases. In addition, it decreases the absenteeism since employees have the ability to maintain their required.



**Figure (2.4) Flexible Working Times**Source: Prepared by researcher

However, job flexibility faces many challenges, most notably:

- Employees are not supervised at all hours.
- Key people may be unavailable at certain times.
- Cross training is required to ensure coverage and may create difficulty in scheduling meetings.
- The degree of variation in the working hours for employees might not be accommodated based on the daily hours the organization operates, the hours each

- employee is required to be present, and the manager's tolerance of work schedule variability.
- Some of the managers prefer predictability and ask the employees to commit to a
  schedule that is permanent or fixed for a specific period. Other managers are
  prepared to approve a variable schedule whereby the employees schedule the
  working hours as their needs dictate (Anderson & Ungemah, 1999; Gottlieb et al.,
  1998).

## **Work Family Balance**

Increasing work family balance plays an important role in increasing organizational satisfaction and commitment. Nowadays organizations are offering work family balance in order to help their employees in balancing between work and family demands (Galinsky, Bond & Sakai, 2008)

In the Dunham (1987) study, work family balance is defined as a means of reducing employee stress. In addition, he stated that part-time workers and individuals engaged in job sharing have greater life satisfaction since they have lower levels of workfamily conflict.

In another concept, Gottlieb (1998) referred to work-family balance as the means to help employees balance between work and family responsibilities. While in another research, Clark (2000) defined the work-family balance as being satisfied and functioning well at work as well as home, with a minimum of role conflict.

According to Greenhaus (2003), work-family balance consists of time and satisfaction balance. In addition, it consists of work-family conflict and work-family facilitation. Furthermore, he has defined the work-family balance as the extent to which an individual is equally engaged and satisfied with the work and family role.

In a more recent research, work-family balance has been defined as a group of measure and good cooperation from all the organization's concerned sides, in order to reach the right balance among the different life fields of an individual (TomaZevic, Kozjek and Stare, 2014).

Work-family balance from the viewpoint of the researcher refers to the specific issues that arise when employees attempt to reach a balance between their occupational lives and their family lives in order to reach a satisfaction level of work and personal life.

Based on research, having a work-family balance has different important points in organizations. As mentioned in the Kim (2014) study, employees are experiencing conflict between work and life balance as they keep on achieving the quality of life that they need. As a result, a successful work and family life balance is an essential need for the employees.

While in another study, correlations among the perceptions of work-family balance and the job satisfaction were investigated. The results show quite diverse effects and evidence of trade-offs that are being made by employees who are utilizing family-friendly policies (Saltzstein, Ting & Saltzstein, 2001).

In other studies, the researchers mentioned some important points regarding a work family balance, which include:

- 1. Academic and corporate research confirmed the existence of work and family spread out and the importance of having a healthy work-family interface for both families and businesses (Hill et al., 2001).
- 2. Having a flextime and flex place reduces the stress that is related to the daily commute which usually is an average of about 45 minutes/day (Bond et al., 1998).
- 3. Helping employees to achieve a work-life balance assures their affective commitments. In this context, governmental and corporation efforts are necessary (Clark, 2000).

There are different advantages of having a work family balance in an organization, such as improving the job satisfaction, retention of skilled aged workers, earlier return to work after maternity leave, having better physical and mental health employees and availability of a broader talent pool.

### **Intercultural Training**

Intercultural training became known during the 1980s in order for businesses to turn diversity into an asset and to reduce racism, sexism, and intergroup conflict that were being experienced at the workplace (Paige and Martin, 1996). That is why it has been estimated that 67% of U.S. organizations and 74% of Fortune 500 organizations invest in intercultural training programs (Esen, 2005).

Based on Brislin (1979), there are three types of training that have been defined: cognitive, emotional, and behavioral. However, Tung (1981) distinguished in his study five different training programs: documentary programs, assimilation programs, linguistic programs, awareness programs, and field experiences.

According to the literature, intercultural training has had different definitions during the years. Paige (1986) defined it first as a training program that is designed to prepare people to live and carry out specific assignments as well as for people who will return to their home country after finishing their assignment. Brislin & Yoshida (1994) defined it as an effort to prepare people for effective interpersonal relations and job success when they interact with individuals from different cultures.

In other recent studies, Zakaria (2000) defined intercultural training as being any procedure that is taken by the organization in order to increase the ability of employees to cope with and work in a foreign environment. However, Bezrukova, Jehn, & Spell (2012) defined it as a distinct set of programs aimed at facilitating positive inter-group interactions, reducing prejudice and discrimination, and enhancing the skills, knowledge, and motivation of people to interact with diverse others.

Based on the researcher's point of view, intercultural training is a process by which the company assures a key to their success through an effective program design; also, it helps the company to be aware and well prepared about environmental change and its challenges.

The importance of intercultural training is the influence it has on the organization, which includes:

- Generating an awareness of the cultural differences and increasing capacities to well-manage the intercultural situations (Xaxin & Barmeyer, 2008).
- Enhancing cross-cultural communication and interpersonal relationships between colleagues (Payne, 2009).
- Improving the performance of the employees in their current jobs (Elmadssia, 2012).
- Being aware that 75% of the trainees who took intercultural training have positive diversity attitudes whereas only 9% of trainees entered with favorable attitudes. In addition, 68% of employees were skeptical prior to training while 7% reported skepticism after training (Rynes & Rosen, 1995).
- Developing knowledge and attitudes. The company can promote the acquisition and the development of these skills by offering intercultural trainings to its employees (Waxin & Panaccio, 2005).
- Building a common understanding of the value of diversity, which assists in building social cohesion to improve the individual and organizational outcomes (Shen, Chanda, D'Netto, & Monga, 2009).

Harris and Kumra (2000) mentioned some of the intercultural training objectives, such as:

- Increasing the awareness of cultural differences and its impact on work values and behaviors.
- Introducing key cross-cultural frameworks as a sensitizing tool.
- Providing process strategy for cross-cultural communication, negotiation, and teams.

According to the researcher, intercultural training helps the employees in understanding how culture affects communication. This will help the employees to cooperative more effectively, and for the managers to direct their colleagues more efficiently

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Multicultural companies are differentiated according to six characteristics when compared to uni-cultural companies, as show in the figure below (Cox, 2001).

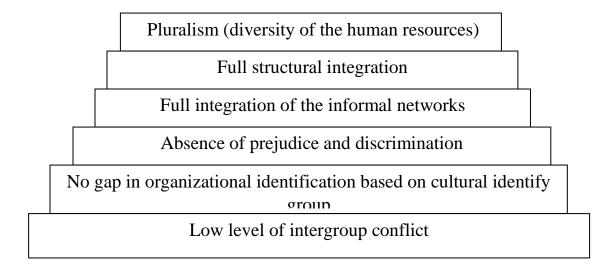


Figure (2.5) Characteristics of multicultural companies

Source: Cox Jr, T. (2001). Creating the multicultural organization: A strategy for capturing the power of diversity. Jossey-Bass.

In order to employ the full capacities and capabilities of working human resources in multicultural companies, it is required to understand the diverse cultures inside the companies or in their branches outside. This requires diving deeply into these cultures and exploring their components and implications, understanding them accurately to achieve the interaction and the fit between them, and then differentiating them in performance because the successful differentiation in global management depends on the awareness of cultural dimensions.

In recent years, cultural diversity in the work place has grown as a trend with the increase of globalization in the world. One positive effect is that employees belonging to different cultures usually have different ways of thinking, analyzing, and perceiving the issue at hand from different perspectives (Martin, 2014).

Therefore, the cultural diversity of the work force helps firms and organizations to shift their business to the online market place. Also, it helps in the expansion of an

organization's perspective, development of a marketing plan, design of a new operation, and evaluation of emerging trends (Alder, 2007).

In another study, Amendeo (2013) stated that with the increase of globalization in the world, cultural diversity in the work place has grown as a trend because differences in race, ethnicity, language, nationality, and religion are presented within a community and work place.

Martin (2014) concluded that cultural diversity has positive impacts including strong knowledge base, greater ability, and tendency. Also, the effect of cultural diversity in the workplace depends upon how well it is being managed by the organizational leaders because with the right strategic planning, top management can enhance the positive effects of cultural diversity.

On the other hand, Bialostocka (2010) mentioned in his study some of the negative effects of cultural diversity, such as the increased tendency of organizational personnel to engage in interpersonal conflicts.

Multicultural is considered the most important key success factor for the organizations, especially when they compete in an international market, and with considering the frequently changes that face the environment.

## 2.2 Previous Studies

Ely and Thomas (2001) study entitled "Cultural Diversity at work: the effects diversity perspectives on work Group processes and outcomes".

The aim of this study is to develop a theory about the conditions where cultural diversity enhances or detracts from the functions of the work group. The study used three organizations that have diverse cultures to conduct a qualitative research through using three different perspectives on workforce diversity, which are the discrimination and fairness perspective, the access and legitimacy perspective, and the integration and learning perspective. The study showed that these perspectives on diversity motivated

managers to diversity their employees, but the integration and learning perspective provided the guidance needed to achieve sustainable benefits from diversity.

## **Study Sample**

This study examined three professional services organizations, each one of them had significant success in hiring and relining culturally diverse employees; two organizations had reputations for being high functioning whereas the third organization experienced conflicts and had some worries about the quality of its performance. The organizations were specialized in law, financial services, and consulting.

Data were mainly collected by making interviews with the applicants. Data analysis shows that cultural diversity in the senior ranks of an organization was not enough to produce the shift in power relations.

In conclusion, the study recommended that it is necessary for these organizations to learn more about how and under what conditions work groups develop and change their perspectives on diversity to the more promising one of integration and learning.

Kossek, Markel, & McHugh (2003) study entitled "Increasing diversity as an HRM change strategy".

The study aims to examine the department's harmony regarding an organizational HR strategy in order to have a diverse demography in race and sex. Also, in addition to manage strategic demographic change in economic and labor markets, a common human resource change strategy is to increase the diversity of the workforce through hiring over time.

The number of people who participated in the study survey was 1,529 individuals. The response rates were 47% for white men, 46% for racial minority women, 51% for white women, and 43% for racial minority men.

The results showed that human resources strategies only focus on the structural change without considering the supportive group norms development and a positive climate, which might be insufficient change strategies.

**Folkeringa, Meijaard, & Stel (2005)** study entitled "Innovation strategic renewal and its effect on small firm performance".

This study examined the relationship between strategic renewal and the performance of smaller organizations, which have less than 100 employees. This study concentrated on one thousand Dutch companies, and the data set included information on the aspects of strategic renewal, which includes process innovation and knowledge management.

The study objectives were to figure out the most important aspects of strategic renewal and to understand the specifications of the relationship relative to the organization's size, the aspects of strategic renewal containing the introduction of new products or services to the market, the occurrence of firm that provides training, and the use of an external network to exchange knowledge.

The study results revealed that knowledge establishment and knowledge diffusion are important aspects of the strategic renewal process influencing the small organizations performance. The study recommended that organizations, which use external networks for knowledge exchange, and those who cooperate with other organizations experience more growth than those who do use external networks, so firms should be encouraged to participate in networks and to cooperate with each other.

**Cunningham** (2009) study entitled "The Moderating Effect of Diversity Strategy on the Relationship between Racial Diversity and Organizational Performance".

The aim of this study is to examine the degree to which diversity management strategy moderated the relationship between organizational performance and racial diversity.

The study sample was based on data, which were collected from 75 of the 117 NCAA Divisions I-A athletic departments by way of both archival sources and survey method. With respect to the latter data collection method 140 male and 82 female senior level administrators completed the questionnaires. The researcher used means, standard deviations, and bivariate correlations.

The results showed that while racial diversity was straightforwardly linked to the department performance, the effects were qualified by this strategy. Particularly, when coupled with a proactive diversity-management strategy, the effects of racial diversity indicates a highly positive increase.

**Dauda & Akingbade** (2011) study entitled "Technological Change and Employee Performance in Selected Manufacturing Industry in Lagos State of Nigeria".

This study analyzed how employee relations can be engaged in technological change management. In addition, it aimed to create an effective method of using technological innovation for improved performance in the Nigerian manufacturing industry. Additionally, they stated that the efficiency of organizations requires someone in a strategic position who feels the need for innovation and change, such as changing the managerial strategy, making better planning, changing the motivation of the workforce and changing the structure and roles.

The study sample was based on 1,256 questionnaires, which were circulated on 30 manufacturing industry in beverages, textile, steel, cement, and chemical industries in Nigeria. The researcher used the inferential statistical methods of regression and ANOVA.

The results of this study revealed that by adopting new technologies the performance and profitability of the Nigerian manufacturing industry improve. Furthermore, technology change should be complemented with good employment relations practice in order for both employers and employees to benefit from the technological change and to protect the stakeholders' interest.

**Simons and Kimberly (2011)** study entitled "Diversity and its impact on organizational performance: the influence of diversity constructions on expectations and outcomes".

This study examined the diversity definitions in the literature in order to determine whether differentiations are made in the theoretical or practical discussion of diversity management. Since the diversity implementation challenges in organizations are increasing by the lack of clarification regarding the difference between functional and

social diversity, the aim of this study was to examine the definitions offered within the literature and diversity.

To reach its goals, this study used a collection of case studies using a small number of previously published works and identified areas of improvement that can be made on the expected organizational outcome.

The used methodology in this study was literature search and review methodology. The articles selected were all field studies, surveys, or other empirical findings. The study result was based on 9 studies which were conducted over 20 years.

In conclusion, in order to manage diversity effectively it is necessary for firms to understand the difference between functional and social diversity and to treat diversity forms differently in terms of creating functional and innovative teams. This will help to improve the diversity management programs expectations and their outcomes.

**Al-Jenaibi** (2011) study entitled "The Scope and Impact of Workplace Diversity in the United Arab Emirates".

The purpose of this study is to analyze the benefits of having a diverse workplace on the organizations of the United Arab Emirates and its challenges. This study investigated the current work environment situation in the UAE in order to assist in contributing to the effectiveness of diversity and intercultural communication.

The study employed a multi-method approach, which combines data from 450 surveys of foreign employees with qualitative data from interviews with native officials of organizations.

The study results were as follows:

- Training is necessary for new employees in order to utilize the organization's rules.
- It is recommended to create more workplace rules or policies to accommodate diverse needs.
- To overcome differences, it is recommended to share knowledge and work with teams from different backgrounds and cultures.

Worch, Eberhard, & Truffer (2012) study titled "Strategic renewal and the change of capabilities in utility firms".

The aim of this study is to analyze the impact of strategic renewal on the reconfiguration of capabilities in the context of organizational change in large utility companies. The study also analyzed the evolution of the capability structure, through using an inductive multiple case study methodology to compare four capability reconfiguration processes in Eskom, which is one of the largest electricity suppliers in South Africa.

The study sample is based on ten semi-structured interviews. Former CEOs, former and current board members, former executive managers, and former and current senior-level managers served as key informants. The next step was to analyze the transcriptions and archival material using standard qualitative data analysis software (MaxQDA10).

The study results indicate that, throughout different processes which differ in their impact, the strategic renewal unfolds. Some of the processes have a direct effect on closing capability gaps. The others are with a significant time lag.

In addition, the study shows that the capability reconfiguration processes includes:

- 1. Professionalization enhancing.
- 2. Implementing a cost reduction and performance management system
- 3. Organization restructuring

The study findings have important implications for management practitioners and policy makers. Where it indicated that implementing and initiating strategic renewal might cause unintended results, and reconfiguring the capability structure may result in threatening the strategic renewal process, which could negatively affect the intended performance improvements.

**Leng (2012)** study entitled "Implementing an effective strategic renewal process: An IT – enabled agility perspective".

This study stated that strategic renewal is becoming increasingly a significant and essential approach for an organization competing in this changing environment. The study objective is to show that in the current business environment, the growth and survival of any business organization will depend on its ability to renew its strategies and timely response to environmental changes.

Furthermore, the study presents that strategic renewal is a type of strategic change, which in particular focuses on the refreshment, or replacement of strategic attributes, such as goals, services, resources, and capabilities of an organization that have a great impact on its long-term success.

The study recommended that the information technology role should not be ignored during the strategic renewal process because the effective combination of IT and business resources will bring capabilities that can help to reduce risks and complexities when implementing a strategic renewal initiative.

**Al Cazar et al.** (2012) study entitled "Workforce diversity in strategic human resource management model".

This study aimed to present a systematic review of the literature on diversity amongst employees in strategic human resources management and to identify the limitations in previous researches.

In order to develop a conceptual analysis, the paper reviewed previous literature on SHRM to understand how diversity has been treated in the SHRM literature.

The researchers conducted a search about:

- Diversity and strategic human resources management
- Diversity and human resource management strategies
- Cross- cultural and human resource management
- Workforce heterogeneity and human resource management

The study concluded that managing diversity and a cross-cultural workforce requires a complete transformation of human resources strategies. In addition, the efforts to develop diversity-oriented (SHRM) models and apply an integrative approach of SHRM in managing workforce diversity can help overcoming the potential problems that

could emerge from differences between employees to ensure a better manage to such problems, which consider the main challenge for HRM in the organizations.

**Dauda & Ismaila** (2013) study entitled "Influence of Technological Environmental Factors on the Strategic Choice of Quoted Manufacturing Firms in Nigeria's Food and Beverage Industry".

The aim of this study is to predict the effects of technological environmental factors on the organizations strategic choices. It also analyzes the relationship between technological factors and organizational choice of strategies.

The sample consisted of 6 firms and 159 management staff and utilized simple regression technique to analyze the data.

The results showed that technological variables, such as technological invention, availability of the nature of technological changes, development in technology, and diversity of technology in the manufacturing firms and the operating environment, Increase the chance for the organization to adopt multi-product marketing strategies.

**Al -Ameri** (2013) study entitled "Assessing Resistance to Technological Change for Improved Job Performance in the UAE".

The aim of this research is to develop a framework to identify the factors to assess employees' resistance to technological change within UAE public companies and the factors that drive technological change and to use this framework in order to identify opportunities for improvement in job performance.

The sample was based on four surveyed public sector companies. The study sample was comprised of 160 questionnaires from 200 given out in total.

The results showed that technology change has a significant impact due to globalization and technology innovation. The findings from this research showed that within UAE public companies, the most important factors that lead to employee resistance and management resistance to technology change are fear of losing control and power, the high cost of change, and a fear of losing their current job. Also, timely

communications, listening and fulfilling the needs of employees, and providing adequate training courses in order to increase job performance are all necessary strategies that have helped companies to mitigate resistance to technology and have shown a positive outcome in all the public sector companies in the UAE.

**Kumar & Kamal** (2013) study entitled "Impact of technology advancement on human resource performance".

This study analyzes the information technology and human resource management functions explaining the conditions and opportunities in human resource management with the presence of advanced technologies. The study showed how computers and IT could simplify the task of analyzing a large set of data, and they can be very valuable aids in HR management from payroll processing to record keeping by retrieving information with great speed and ease.

The main objective of this study is to shed the light on the importance of modern technology and its role in helping ensuring effectiveness of human resource function. In order to reach the study objectives, the survey method was used and applied to 18 human resources managers from different private corporations operating in Lahore Pakistan.

The study results showed that HR management systems are positively used as a tool to achieve a better administrative efficiency by adding value to the department. The study reached the conclusion that, due to the revolution in information technology, the nature of the contemporary workplace has changed and systems have been made more effective by introducing new technologies.

Mustafa, Richards, & Ramo (2013) study entitled "High performance resource practices and corporate entrepreneurship: the mediating effect of middle managers knowledge collecting and donating behavior".

This study developed a mediation model in which high-performance human resource practice affected corporate entrepreneurship through two dimensions of knowledge: sharing knowledge collection and knowledge donation.

The study used a sample that consisted of 292 middle managers from Malaysian companies. The results of this study showed that high-performance human resource practices have a positive relation with corporate entrepreneurship and this relation is mediated by knowledge sharing.

The study recommended that management should take in to account that employees contributions to positive organizational outcomes will depend on their behaviors regarding job satisfaction service oriented citizenship behaviors and social exchanges.

Marais, Pena, Sintilus, & Ruiz (2014) study entitled "Managing diverse employees at star bucks: Focusing on ethics and inclusion".

This study aimed to analyze the management of diversity at Starbucks in the United States. The study showed that the company is unique and one of the most successful companies in America because of its effective managerial leadership of diverse employees in a global environment. Effective management of diversity not only employed diverse employees, but also learned to appreciate, respect, and respond to the needs, values, and beliefs of diverse employees by providing a positive work environment.

The study recommended some mechanisms, which can help better understanding. The most important factors are that managers should be patient in understanding of their employees' diverse background. Managing diverse employees not only improves working conditions, but also increases the companies appeal when demonstrating multicultural competencies.

**Al-Zubi** (2015) study entitled "The Effect of New Technological Changes In Improving the Environment of Human Resource Management".

The aim of this study is to predict the effects of adopting new technologies to improve the human resource management environment. In addition, the study stated that there are wide changes in the environment of human resource management and it plays a key role in organizations. The environmental changes include work force diversity,

technological changes, conflicts, professional bodies, changes in the nature of jobs, and work organizational culture.

For this study, 40 questionnaires were distributed to a random selected sample of information technology department personnel and board of directors at Jordanian industrial companies listed on the Amman Stock Exchange. To dive deeper in the analysis, the study used arithmetic means, standard deviations, percentages, and simple regression.

The main result of this study showed that adopting new technologies has a major effect on the environment of human resource management, builds a more effective management, and can save time and money.

## What Distinguishes the Current Study from Previous Studies?

This study will emphasize on the variables, such as the technological change and its effect on diversity management practices with the introduction of strategic renewal as a mediator combined from these various studies that have not been connected before to study their effects.. The researcher will attempt to explore and research these unexplored territories of human resources studies and report the findings to enrich the knowledge of upcoming studies, and if possible come up with results that might introduce more horizons to be explored.

In addition, this study will be applied in the Jordanian environment, where these variables have not been studied in previous studies.

Finally, the current study applied in the electronics and telecommunication sector, and this sector has not been studied in previous studies.

# **Chapter Three: Study Methodology (Method and Procedures)**

# 3.1 Study Design

This study is considered as a causal study, where we will use the descriptive analytical approach to study the impact of factors driving technological change on diversity management practices with the existence of strategic renewal as a mediating variable in multicultural communication and electronics companies. It will start with a literature review and expert interviews to improve the currently used measurement model and to explore factors driving technological change, strategic renewal, and diversity management practices variables. Then, a panel of judges will assure that the items that will be included in the questionnaire will be suitable.

## 3.2 Study Population and Sample

The field of the current study will be five international companies: Microsoft, LG, Huawei, Ericsson and Orange. They were chosen because they have high diversity and advanced technology, in addition to performing global activities.

The study population will consist of top and middle managers, with a total number of 230 individuals (researcher's interviews). Because of the limited sample number to reach all the individuals, the researcher took the study population as the study sample by the comprehensive survey methods (see appendix 3, 4, 5)

The table (3.1) bellow, describes the names and details of the studies companies in this research;

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**Table (3.1) Details of the Studies Companies** 

Name of company	Founded	Industry	Area Served	Products	
Orange	1988 - France	Telecommunications	Worldwide	Landline telephony – Mobile telephony – Fixed internet – Mobile internet – IP television – IT services – Live box	
Huawei	1987 - China	Telecommunications Equipment	Worldwide	Mobile – Fixed broadband Networks – Consultancy and Managed services Multimedia technology – smart phones – Tablet computers – dongles	
LG	1947 – South Korea	Conglomerate	Worldwide	Electronics – chemicals – telecommunications engineering – information technology – power generation	
Microsoft	1975 – Unites States	Computer software – computer Hardware – Consumer electronics – Digital distribution	Worldwide	Windows – Office – Servers – Skype – Visual studio – Dynamics – Azure – Xbox – Surface – Mobile – MSN – Bing – One drive – MSDN – Outlook.com – TechNet – Xbox Live	
Ericsson	1876 - Sweden	Telecommunications Equipment -Networking Equipment	Worldwide	Mobile –Fixed broadband Networks – consultancy and Managed services – TV – Multimedia technology	

Source based on interviews and website.

The main attributes of the participating respondents are shown in the table below:

Table (3.2) Research respondents' characteristics

Respondent's characteristics	Frequency	Percentages	Cumulative Percent			
<u>Gender</u>						
Male	126	54.8	54.8			
Female	104	45.2	100			
Total	230	100.0				
<u>Age</u>						
From 20 – less than 26	30	13.0	13.0			
From 26 – less than 31	97	42.2	55.2			
From 31- less than 36	52	22.6	77.8			
From 36 – less than 41	29	12.6	90.4			
From 41 – and more	22	9.6	100			
Total	230	100.0				
Years of Experience						
5 years and less	53	23.0	23.0			
From 6 – less than 10	112	48.7	71.7			
From 11- less than 14	38	16.5	88.3			
From 15 – 19	15	6.5	94.8			
20 – and more	12	5.2	100			
Total	230	100.0				
Scientific Qualification						
Bachelor	148	64.3	64.3			
Master	64	27.8	92.2			
Doctorate	18	7.8	100			
Total	230	100.0				
Manageria		65	<i>( 5</i>			
Top Management	15	6.5	6.5			
Middle Management	215	93.5	100			
Total	230	100				
Job Position						
Chief Executive Officer	1	0.4	0.4			
Vice president	6	2.6	3			
Department Manager	46	20	23			
Division Manager	87	37.8	60.9			
Employee	90	39.1	60.9			
Total	230	100	100			

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It can be seen from the table above that (%54.8) were males and (%45.2) are females and their ages range (26-36). This implies that mature people have filled the questionnaire and this is consistent with the current level of the study results, as the table above shows that (%64.3) of the respondents have the Bachelor degree and (%27.8) of them have master degree and (%7.8) of them hold a PhD. Furthermore, the results above reveal that most of the respondents have from 6 to 14 years of experience in their field work. This demonstrates that the vast majority of people target participants who are responsible to respond, have mobilized the questionnaire. In addition the sample consists of (48.5%) were Jordanian, (13.6%) Korean, (10.5%) Chinese, (5.4%) American, (5.2%) Canadian, (4.1%) British, (3.8%) Palestinian, (3.1%) Australian, (2.9%) Iraqi, (2%) Egyptian and (0.9%) Syrian.

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#### 3.3 Data Collection Methods (Tools)

Data that will be used to achieve the purposes of the study can be divided into two groups: secondary and primary data. Secondary data will be collected from annual reports, journals, books, researches, thesis, dissertations, articles, working papers, and the Worldwide Web. Primary data will be collected from expert interviews, content analysis, panel of judges, and the survey (questionnaire).

The questionnaire will be developed in contrast with hypotheses and research model.

### 3.4 The Questionnaire

Initial items to measure various constructs will be developed depending on prior researches. The researcher have developed a questionnaire which consists of two parts; demographic data which is based on the Gender, Age, years of experience, Scientific qualification, managerial level, job position and Nationality. The second part consists of 41 questions that has three divisions. The first part contains the independent variable; factors driving to technological change, which contains 16 questions about two sub variables. The second part covers the mediator variable strategic renewal and has 10 questions regarding its two sub variables. The last part covers the dependent variable diversity management, and has 15 questions about its three sub variables.

All variables will be measured by the five-point Likert-type scale to tap into the managers' perceptions, ranging from 1 (strongly disagree) to 5 (strongly agree) used throughout the questionnaire.

## 3.5 Validity and Reliability

Validity implies whether the instrument measures what it is planned to measure. Whereas, the reliability refers to the internal consistency and stability; it is the prospect that there will not be changed in answers each time the measures are used (Sekaran & Bougie, 2016).

# **Face Validity**

The researcher used scales and items that were previously established and used by other examiners and academic researchers in their studies with similar concern. Additionally, the researcher distributed the study questionnaire on eight specialized experts and academics, whom are interested in this study area, in order to judge the entire questionnaire to escape the unclearness in the style of questions, difficulties in the language that was used, inappropriate response types for some questions, and to confirm that the questionnaire was well designed. (See appendix 1).

# **Construct Validity**

In order to examine the study model and to conduct the results of the study hypotheses, the researcher used the exploratory factor analysis and Confirmatory Factor Analysis:

-Exploratory factor analysis: concentrates on assess the construct validity for the study instruments. Additionally, to insure that all items loaded onto one factor with factor loading above 0.40 for all within-scale items and Eigen value greater than 1. But agreement among researchers in research appears to be that factor loadings above the 0.30 cut-off point are generally acceptable, but that 0.40 is preferable (Laher, 2010).

To confirm the appropriateness of factor analysis, Kaiser-Meyer-Olkin (KMO) test for assessing sampling adequacy is carried out (Hair et al., 2009). Also, Bartlett's test of sphericity to test homogeneity of variances is performed. Furthermore, in this study we used maximum likelihood factor extraction and Alpha factoring approaches. Since, Fabrigar et al. (1999) argued that if data are relatively normally distributed, maximum likelihood and Alpha factoring are the best choice because "it allows for the computation of a wide range of indexes of the goodness of fit of the model [and] permits statistical significance testing of factor loadings and correlations among factors and the computation of confidence intervals." (p. 277). Referring to the rotation method; which is used to simplify and clarify the data structure, the researcher did not choose any method, because the rotation method cannot improve the basic aspect of the analysis, such as the amount of variance extracted from the items.

The results in the following section shows that the KMO statistic for all scales is greater than 0.50 and Bartlett's test of sphericity statistics are statistically significant ( $\alpha$  < 0.05) with factor loading above 0.40 for all within-scale items and Eigen value greater than 1; inferring the appropriateness of factor analysis. However, the results reveal that there are two factors have been extracted from some variable of the study instrument. By using SPSS, however, the results reveal in the following section that the value of Cronbah' Alpha is greater than 60%. This shows that the internal consistency and the validity of the study questions is acceptable. Additionally, the study questionnaire has been used by the academic researchers in the previous studies. This in turn shows that the study questionnaire is statistically healthy. The researcher took the first factor of the Eignvalues. Since, it will always account for the most variance (and hence have the highest eigenvalue). The following section shows the Exploratory Factor Analysis and Eigen value of the study variables.

There are two ways to run the Factor Analysis; the first one is to discover the number of factors affecting variables and to analyze which variables go together (Decoster, 1998). The second one is Common factors are those that affect more than one of the surface attributes and specific factors are those which only affect a particular variable (Tucker & MacCallum, 1997). Therefore, the researcher used the second approach to discover the number of factor referring to each variable. For example, the technological development consists of 8 variables. Therefore, we examined wither those 8 variables are loaded into one factor or not as well as the value of factor loading is above 0.4 or not.

Table (3.3) Exploratory Factor Analysis (EFA) and Eigen Value for Factor Driving

Technological Change and Strategic Renewal

	Questions	Construct	
		Technological	Corporate
		Development	Evaluation
	Q1	0.410	0.542
	Q2	0.662	0.588
	Q3	0.528	0.46
	Q4	0.609	0.459
Factors driving	Q5	0.611	0.582
Technological Change	Q6	0.533	0.566
Technological Change	Q7	0.542	0.589
	Q8	0.470	0.553
	Eigen value	3.034	2.998
	KMO	0.784	0.772
	Bartlett's test of	376.088	385.022
	Sphericity		
	Sig	0.000	0.000
	Questions		Restructuring and
		Professionalization	Shifting
		of Departments	Responsibilities
	Q1	0.46	0.538
	Q2	0.678	0.716
	Q3	0.783	0.588
Strategic renewal	Q4	0.477	0.655
	Q5	0.493	0.634
	Eigen value	2.356	2.441
	KMO	0.716	0.666
	Bartlett's test of	222.299	294.846
	Sphericity		
	Sig	0.000	0.000

Table(3.4)Exploratory Factor Analysis (EFA) and Eigen Value for Diversity

Management Practices (2)

	Questions	Construct		
		Work	Flexible	Intercultura
		Family	Working Times	l Training
		Balance		
	Q1	0.731	0.704	0.573
	Q2	0.565	0.759	0.777
<b>7.</b>	Q3	0.705	0.752	0.743
Diversity	Q4	0.784	0.693	0.625
Management	Q5	0.811	0.681	0.664
Practices	Eigen value	3.079	2.898	2.830
	KMO	0.819	0.710	0.750
	Bartlett's test of	454.365	511.193	389.763
	Sphericity			
	Sig	0.000	0.000	0.000

#### -Confirmatory Factor Analysis:

The researcher used the Confirmatory Factor Analysis (CFA) to investigate the construct validity of the study measure. The vital purpose of the CFA is to determine the proposed model (construct model). The construct model composed of Latent variables or Exogenous variables which represent the proposed dimensions that should be measure. Furthermore, a group of lines directed to the second type of variables which known as the Endogenous variables; which represent the sentences for each dimension (Salah Al-dein, 2000, P: 504-507). The CFA confirms the validity of the study sentences and dimensions when the value of standardized regression weights for the Latent variables higher than (0.4) (Hair et al., 2010).

The following chart shows the construct validity of factor driving technological change:

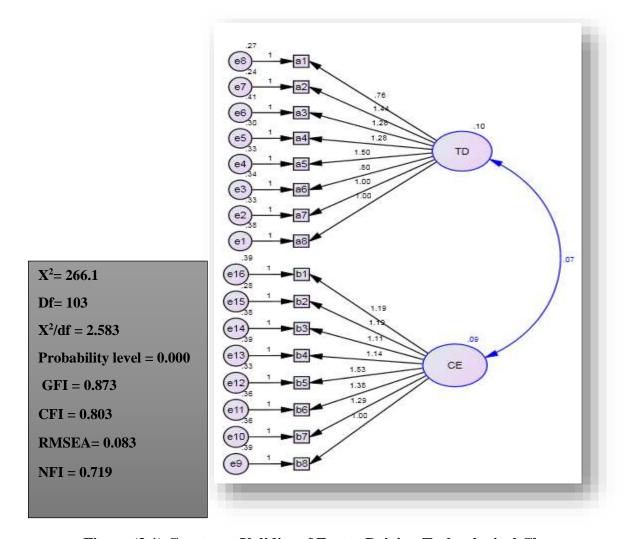


Figure (3.1) Construct Validity of Factor Driving Technological Change

The results in the above reveal that the value of Chi2 is 266.1 and it is significant at ( $\alpha \le 0.05$ ). Also, the Minimum Discrepancy value (Ch2 / DF) is 2.583 which indicate that the harmonization level is good; where (Arbuckle, 2008) stated that the harmonization level range 1 to 5. Additionally, the Goodness of Fit Index (GFI) which represent the harmonization of quality is (0.873) and this value is close to one (Full compatibility). In this regards, the value of Comparative Fit Index (CFI) is (0.803) and it is also close to one. Furthermore, the result above shows that the value of Root Mean Square Error of Approximation (RMSEA) is (0.083) is close to zero. Also, the value of Normed Fit Index (NFI) is (0.719) and it is close to one. Furthermore, the table below

shows that the values of Standardized Regression Weight are higher than (0.4) (Hair et al., 2010: 116). Accordingly, these results confirm the validity of factor driving technological change paragraphs.

# **Standardized Regression Weight**

		Estimate
a8 <	TD	.463
a7 <	TD	.494
a6 <	TD	.406
a5 <	TD	.644
a4 <	TD	.603
a3 <	TD	.540
a2 <	TD	.692
a1 <	TD	.430
b8 <	CE	.443
b7 <	CE	.551
b6 <	CE	.579
b5 <	CE	.633
b4 <	CE	.490
b3 <	CE	.485
b2 <	CE	.566
b1 <	CE	.504

The following chart shows the construct validity of Strategic renewal as below:

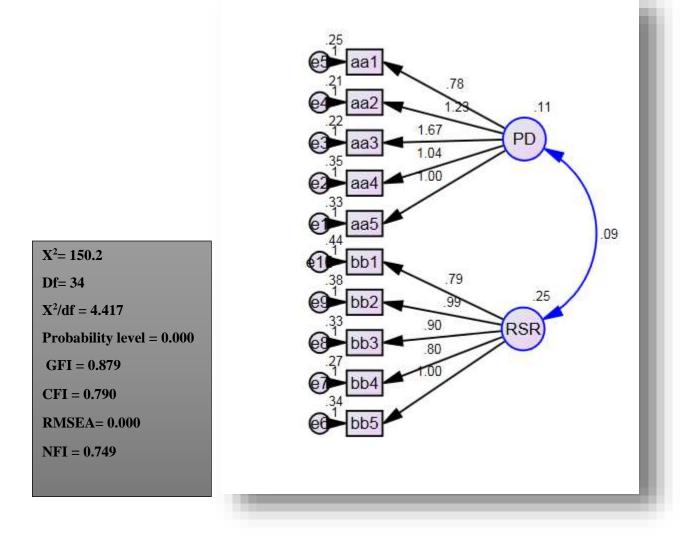


Figure (3.2) Construct Validity of Strategic Renewal

The results reveal that the Composite Reliability for Professionalization of Departments is 0.723 and for Restructuring and Shifting Responsibilities is 0.739. These results are consistent with (Hair et al., 2010) who stated that the value of composite reliability should be higher than (0.7). Additionally, the results show that the value of Chi2 is (150.2) and it is significant at ( $\alpha \le 0.05$ ) with (34) degree of freedom and the Minimum Discrepancy value (4.417) which indicate that the harmonization level is good; where (Arbuckle, 2008) stated that the harmonization level range 1 to 5. Furthermore, the

Goodness of Fit Index value which represent the harmonization of quality is (0.879) and this value is close to one (Full compatibility). In this regards, the value of Comparative Fit Index (CFI) is (0.790) and it is also close to one. Furthermore, the result above shows that the value of Root Mean Square Error of Approximation (RMSEA) is (0.000). Also, the value of Normed Fit Index (NFI) is (0.749) and it is close to one. Furthermore, the table below shows that the values of Standardized Regression Weight are higher than (0.4) (Hair et al., 2010: 116). Accordingly, these results confirm the validity of Strategic renewal paragraphs.

**Standardized Regression Weight** 

		Estimate
aa5 <	PD	.505
aa4 <	PD	.505
aa3 <	PD	.766
aa2 <	PD	.668
aa1 <	PD	.463
bb5 <	RSR	.650
bb4 <	RSR	.607
bb3 <	RSR	.615
bb2 <	RSR	.621
bb1 <	RSR	.511

The following chart shows the construct validity of Diversity Management Practices as below:

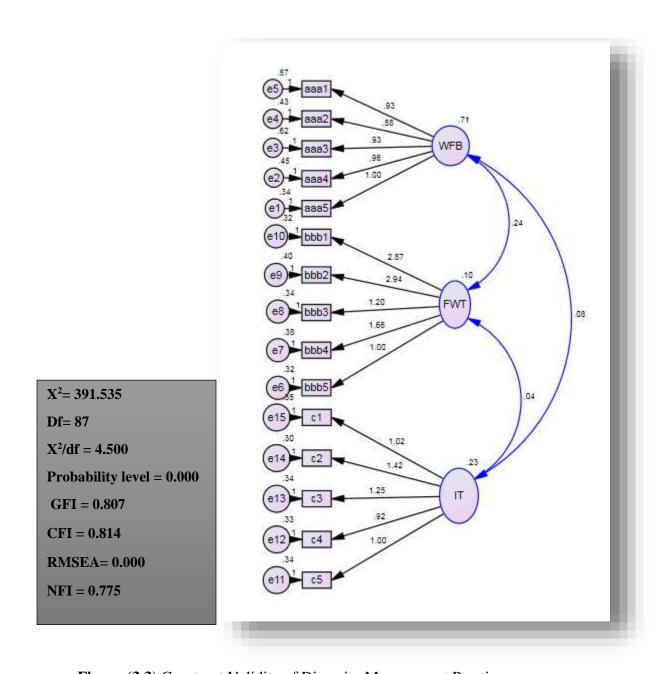


Figure (3.3) Construct Validity of Diversity Management Practices

The results reveal that the Composite Reliability for work family balance is 0.846 and for Flexible working times is 0.739 and for Intercultural Training (0.808). These results are consistent with (Hair et al., 2010) who stated that the value of composite reliability should be higher than (0.7) Additionally, the results show that the value of Chi2 is (391.535) and it is significant at ( $\alpha \le 0.05$ ) with (87) degree of freedom and the Minimum Discrepancy value (4.500) which indicate that the harmonization level is good; where (Arbuckle, 2008) stated that the harmonization level range 1 to 5. Furthermore, the Goodness of Fit Index value which represent the harmonization of quality is (0.807) and this value is close to one (Full compatibility). In this regards, the value of Comparative Fit Index (CFI) is (0.814) and it is also close to one. Furthermore, the result above shows that the value of Root Mean Square Error of Approximation (RMSEA) is (0.000).Also, the value of Normed Fit Index (NFI) is (0.775) and it is close to one. Furthermore, the table below shows that the values of Standardized Regression Weight are higher than (0.4) (Hair et al., 2010: 116). Accordingly, these results confirm the validity of Strategic renewal paragraphs.

Standardized Regression Weight

		Estimate
aaa5 <	WFB	.820
aaa4 <	WFB	.767
aaa3 <	WFB	.704
aaa2 <	WFB	.595
aaa1 <	WFB	.719
bbb5 <	FWT	.482
bbb4 <	FWT	.644
bbb3 <	FWT	.540
bbb2 <	FWT	.823
bbb1 <	FWT	.845
c5 <	IT	.639
c4 <	IT	.607
c3 <	IT	.717
c2 <	IT	.778
c1 <	IT	.635

#### 3.6 Reliability of Scales

#### **Stability Reliability**

To ensure that the results of the study questionnaire gives the same results over time, the researcher applied the tool on an exploratory sample of 20 members of the study population who are not included in the study sample and by using test and re test approach with two weeks' time difference between the two application; the results show that the value of Pearson Correlation of Factors driving technological Change attributes is  $(0.595^{**})$  and it is significant at 0.01. Also, the Pearson Correlation of the Diversity Management Practices  $(664^{**})$ ,  $(0.587^{**})$  and  $(531^{*})$  and they are significant at 0.01 and 0.05. Moreover, the Pearson correlation for Strategic Renewal is  $(0.521^{**})$  at level 0.01.

#### Cronbach's alpha

The researcher used the Cronbach Alpha technique to examine the internal consistency and the stability of the questionnaire. Cronbach's alpha reliability level as stated by Pallant, 2005): "Ideally, the Cronbach alpha coefficient of a scale should be above .7"

Table (3.5) Cronbach's Alpha Coefficients

Study construct	Number of <u>Items</u>	<u>Cronbach's Alpha</u> <u>Values</u>
Technological Development	8	0.762
Corporate Evaluation	8	0.760
Factors driving to Technological Change	16	0.833
Professionalization of Departments	5	0.715
Restructuring and Shifting Responsibilities	5	0.735
Strategic renewal	10	0.783
Work Family Balance	5	0.843
Flexible Working Times	5	0.807
Intercultural Training	5	0.808
Diversity Management Practices	15	0.868
All	41	0.886

69

It can be seen from the table above that all values are greater than (0.70) which is

good because it is greater than the accepted percent (0.60) (Pallant, 2005). The internal

consistency reliability was very good and acceptable and can be considered to be reliable

to achieve the research objectives.

The descriptive statistics will be displayed in this part to illustrate the overall trends in the

study data. The descriptive test includes measures of means and standard deviations for

the study variables.

3.7 Analysis Methods:

The statistical process will be carried out on SPSS-v.22 program as well as

AMOS.

The statistical tools employed would include:

1- Descriptive statistic

2- Path analysis.

3- Normality test

4- Pearson correlation coefficient and Bivariate Correlation

5- Cronbach's- alpha coefficient

6- Confirmatory Test

7- Exploratory Test

8- VIF and Skewness and Kurtosis Test

9- Multiple Regression

10- Simple Regression

Regarding the degree of importance (level of implementation) for the paragraphs

of the study, a statistical standard has been used to divide the levels of importance into

three levels (high, medium, low) according to the following equation (Nail, 2006):

Category length = (upper limit – lower limit) / the number of levels

Category length = (5-1) / 3 = 4/3 = 1.33 and thus the levels are as follows:

Low level of importance: 1-2.33

Medium level of importance: 2.34-3.66

High level of importance: 3.67-5

# **Chapter Four: Data Analysis Results**

#### 4.1 Introduction

The Following Chapter will display the Descriptive statistics, pre-tests and the inferential statistics.

This chapter contains an introduction about the study sample characteristics, which are resulted from statistical analysis that are mentioned in the research methodology. In addition, some statistical programs have been used such as SPSS and AMOS, in order to analyze the questionnaire's data.

# 4.2. Descriptive Statistical Analysis for All variables

The table (4.2) bellow shows the descriptive statistical analysis for all variables based on the study questionnaire:

**Table (4.1) Descriptive statistics of the study main variables** 

Variables	Mean	Std. Deviation	Relative importance	Rank	T-Statistics	Sig
Technological Development	4.18	0.419	High	1	31.663	0.000
Corporate Evaluation	4.12	0.435	High	2	28.694	0.000
Professionalization of Departments	4.11	0.447	High	3	27.326	0.000
Restructuring and Shifting Responsibilities	4.03	0.519	High	4	21.258	0.000
Work Family Balance	3.71	0.802	High	7	7.682	0.000
Flexible Working Times	3.82	0.665	High	6	11.758	0.000
Intercultural Training	4.02	0.599	High	5	18.337	0.002

• T-Tabulated ( $\alpha \le 0.05$ ) (+1.96) one Tailed

It is evident from the table above that the relative importance's for all the study variables are high, which indicates that the participating respondents have a positive attitude towards factors driving technological change and human resources diversity management practices. For more details, the descriptive statistics for all items of the study variables will be displayed below:

First main variable: Factors driving Technological Change

First sub variable: Technological Development

The table (4.2) below shows the Descriptive statistics of Technological Development:

**Table (4.2) Descriptive statistics of Technological Development** 

Statement	Mean	Std. Deviation	Relative importance	T- Statistics	Sig	Rank
Technological developments are needed to produce short cycle products	4.07	0.572	High	20.409	0.000	7
Determining the required formal transformational period depends on the technological development	4.04	0.676	High	16.582	0.000	8
Technological development might lead to change in the firm's social culture	4.14	0.766	High	16.706	0.000	6
Technological development can be successfully achieved when the management fully understand this process	4.29	0.690	High	21.689	0.000	1
Changes in the work methods will depend on the technological changes	4.22	0.753	High	18.575	0.000	4
Research and development improve the technological development	4.24	0.640	High	22.248	0.000	2
Technological development might help the firm solving customers problems	4.23	0.659	High	21.526	0.000	3

Designing new products is highly correlated with the technological	4.17	0.701	High	18.825	0.000	5
development						
Technological Development	<u>4.18</u>	<u>0.419</u>	<u>High</u>	<u>31.663</u>	0.000	

Table (4.2) shows the level of importance of Technological Development, where the lowest arithmetic means was (4.04) for "Determining the required formal transformational period depends on the technological development" and the highest arithmetic mean was (4.29) for "Technological development can be successfully achieved when the management fully understand this process". This indicates that the technological development is correlated with managers understanding the process of development. Since, the technology progress helps the companies to meet their customer needs through adopting new and modern approaches in manufacturing goods and products with a short time cycle.

#### **Second sub variable: Corporate Evolution**

The table (4.3) below shows the descriptive statistics of corporate evolution

**Table (4.3) Descriptive statistics of Corporate Evaluation** 

Statement	Mean	Std. Deviation	Relative importance	T-Statistics	Sig	Rank
Introducing new product is part of corporate evolution strategy	4.01	0.727	High	14.879	0.000	7
Corporate evolution incorporates finding new markets.	4.09	0.648	High	18.408	0.000	6
One of the corporate evolution goals is to increase market share	4.20	0.704	High	19.490	0.000	1
Corporate evolution takes in to account the development of the existing products	4.20	0.714	High	19.112	0.000	2
Corporate evolution might see as the response to the market	4.12	0.747	High	16.592	0.000	5

implications and events						
Creating new business that is innovative and creative is part of the corporate evolution mission	4.13	0.736	High	17.109	0.000	4
Corporate evolution can be viewed as response to the technological changes	4.16	0.721	High	18.107	0.000	3
Increasing capacity to meet the demand of technological change is the target of corporate evolution	4.07	0.696	High	16.772	0.000	5
Corporate Evaluation	<u>4.12</u>	<u>0.435</u>	<u>High</u>	<u> 28.694</u>	0.000	

Table (4.3) shows the level of importance of Corporate Evaluation, where the lowest arithmetic means was (4.01) for "Introducing new product is part of corporate evolution strategy" and the highest was (4.20) for "One of the corporate evolution goals is to increase market share" These results indicate that the market share is a vital factor that contribute in increasing the company profit and continuity, because the corporate evolution takes into consideration the development of the existing products and how to respond to the market implications and event as well as creating an innovative products and ideas that saves the company evaluation.

Second main variable: Strategic Renewal

First sub variable: Professionalization of Departments

The table (4.4) below shows the Descriptive statistics of Professionalization of Departments:

**Table (4.4) Descriptive statistics of Professionalization of Departments** 

Statement	Mean	Std. Deviation	Relative importance	T-statistics	Sig	Rank
Professionalization is needed to full- up the available positions more strictly with employees	4.02	0.564	High	19.401	0.000	4
Our company employs the qualified and specialize employees to perform specific tasks	4.01	0.613	High	17.540	0.000	5
Professionalization of departments help out firm to make sure it is implementing the adequate professional standards.	4.05	0.728	High	15.669	0.000	3
Professionalization of departments make it easier to run the department functions	4.18	0.688	High	19.461	0.000	2
Professionalization of departments helps to increase the quality of work.	4.26	0.662	High	22.014	0.000	1
<u>Professionalization of</u> <u>Departments</u>	<u>4.11</u>	<u>0.447</u>	High	27.326	0.000	

Table (4.4) shows the level of importance of professionalization of department, where the lowest arithmetic means was (4.01) for "Our company employs the qualified and specialize employees to perform specific tasks" and the highest mean was (4.26) for "Professionalization of departments helps to increase the quality of work". This shows that when company's employees are specialized in their field, the quality of work increases. Since, professionalization in fieldwork helps the industries to make sure that they adopting the sufficient professional principles and standards as well as it help to run the department functions easier.

#### Second sub variable: Restructuring and Shifting Responsibilities

The table (4.5) below shows the Descriptive statistics of Restructuring and Shifting Responsibilities

Table (4.5) Descriptive statistics of Restructuring and Shifting

Responsibilities

Statement	Mean	Std. Deviation	Relative importance	T-statistics	Sig	Rank
The goal of restructuring the firm is to make it more profitable	4.07	0.771	High	15.058	0.000	3
Response to environmental changes affecting the company's performance can be achieved through restructuring	4.10	0.793	High	15.222	0.000	1
Restructuring process might achieve positive results to the company	4.09	0.731	High	16.334	0.000	2
Restructuring can be used to enhance the company's weakness in performance	3.97	0.657	High	15.461	0.000	4
Restructuring might be considered is an organizational change to rapidly response to the changing environment	3.92	0.767	High	12.299	0.000	5
Restructuring and Shifting Responsibilities	<u>4.03</u>	<u>0.519</u>	High	21.258	0.000	

• T-Tabulated ( $\alpha \le 0.05$ ) (+1.96) one Tailed

Table (4.5) shows the level of importance of restructuring and shifting responsibilities, where the lowest arithmetic means was (3.92) for "Restructuring might be considered is an organizational change to rapidly response to the changing environment"

and the highest mean was (4.10) for "Response to environmental changes affecting the company's performance can be achieved through restructuring". This indicates that restructuring is a very crucial concept, because it helps the companies to response promptly to issues that might affect the company's performance. Additionally, restructuring improve and treat the weakness points which in turn improve the profit.

First main variable: Diversity Management Practices

First sub variable: Work Family Balance

The table (4.6) below shows the Descriptive statistics of Work Family Balance:

**Table (4.6) Descriptive statistics of Work Family Balance** 

Statement	Mean	Std. Deviation	Relative importance	T-statistics	Sig	Rank
I have enough time to communicate with my family members	3.58	1.086	Medium	3.886	0.000	4
Human resource management allows me to have creator time in case of urgent conditions in my family	4.03	0.814	High	13.523	0.000	1
Human resource management gives me different vacations in family accessions	3.54	1.112	Medium	3.321	0.001	5
Employees are equally involved and satisfied with their work family roles	3.65	1.049	Medium	5.090	0.000	3
Our firm cores about making the balance between work life and family life	3.73	1.026	High	6.359	0.013	2
Work Family Balance	<u>3.71</u>	<u>0.802</u>	High	7.682	0.000	

• T-Tabulated ( $\alpha \le 0.05$ ) (+1.96) one Tailed

Table (4.6) shows the level of importance of Work Family Balance, where the lowest arithmetic means was (3.54) for "Human resource management gives me different vacations in family accessions" and the highest mean was (4.03) for "Human resource management allows me to have creator time in case of urgent conditions in my family". These results indicate that the companies take into consideration their employees interests regarding their families need. Additionally, the management of human resources in companies core about making balance between family and work life which allow the company employees to spend enough time with their Families; this in turn might improve the quality of work and improve the performance of the company.

#### **Second sub variable: Flexible working Time**

The table (4.7) below shows the Descriptive statistics of **Flexible working Time**:

**Table (4.7) Descriptive statistics of Flexible working Time** 

Statement	Mean	Std. Deviation	Relative importance	T-statistics	Sig	Rank
Employees are provide with sufficient time for the family because of the work organization by human resource management	3.63	1.061	Medium	4.725	0.000	4
Employees have some degree in determining their working hours at the company with the agreement with the management	3.55	1.116	Medium	3.369	0.001	5
I can leave the company if one of my family member subjected to special conditions	4.07	0.692	High	16.954	0.000	1
I can accomplish what I am asked to do to spend more time with the family	3.83	0.807	High	9.890	0.000	3

Human resource management	4.00	0.647	High	16.396	0.000	2
considers special conditions and						
enables me to leave the work						
Flexible working Time	<u>3.82</u>	<u>0.665</u>	High	11.758	0.000	

Table (4.7) shows the level of importance of Flexible Working Time, where the lowest arithmetic means was (4.07) for "I can leave the company if one of my family member subjected to special conditions" and the lowest mean was (3.55) for "Employees have some degree in determining their working hours at the company with the agreement with the management". These results indicates that the human resources management considered as a significant department in the company as it can manage the employees time by allowing them to determine the working hours at the company with the agreement with their management. As a consequence, the staff can achieve what their managers ask to do in a timely manner.

**Third sub variable:** Intercultural Training

The table (4.8) below shows the Descriptive statistics of Intercultural Training:

**Table (4.8) Descriptive statistics of Intercultural Training** 

Statement	Mean	Std. Deviation	Relative importance	T-statistics	Sig	Rank
The management is committed to employ a set of strategies to reduce negatives in the work place	3.95	0.772	High	12.812	0.000	5
Enables the organizations to be evaluated based on their organizational culture	4.01	0.879	High	12.302	0.000	4
Training on cross culture	4.02	0.838	High	13.059	0.000	3

contribute to achieve the competitive advantage for the company						
Cross cultural training contributes to exchange of information experiences and skills among the employees	4.03	0.729	High	15.285	0.000	2
Cross culture training help in determining the training needs for the employees in the company through scientific methods	4.10	0.755	High	16.060	0.000	1
Intercultural Training	<u>4.02</u>	<u>0.599</u>	High	18.337	0.000	

Table (4.8) shows the level of importance of Intercultural Training, where the lowest arithmetic means was (3.95) for "The management is committed to employ a set of strategies to reduce negatives in the work place" and the highest mean was (4.10) for "Cross culture training help in determining the training needs for the employees in the company through scientific methods". These results indicates that the cross cultural have many implications and benefits. For example, it might help exchanging the information experience and skills among thee employees. Also, it helps in specifying the training needs for the workers in the corporation through scientific approaches.

#### • Test The Study Hypothesis

To examine the study hypothesis and to draw the study discussion and conclusion, the normality test will be examined to discover wither the study result is representative or not.

# • Test of Normality

## **4.3 Multi-Collinearity Diagnostics**

The multicollinearity happens when there is a strong correlation between more than two independent variables. Perfect collinearity happens when at least one independent/predictor variable is a perfect linear combination of the others. It means that if there are two independent variables that are perfectly correlated, then the values of  $\beta$  for each variable are interchangeable. Therefore, the collinearity Diagnostic test has been examined in order to examine the study hypotheses. Additionally, to make sure that there is no problem in the study models.

Based on the study hypotheses and study model, the following equations represent the study models:

- (1) Diversity Management Practices =  $\alpha + \beta 1$  Technological Development +  $\beta 2$ Corporate Evaluation +  $\epsilon$
- (2) Strategic renewal =  $\alpha + \beta 1$  Technological Development +  $\beta 2$ Corporate Evaluation +  $\epsilon$
- (3) Diversity Management Practices =  $\alpha + \beta 1$  Professionalization of Departments+  $\beta 2$ Restructuring and Shifting Responsibilities+  $\in$
- (4) Diversity Management Practices =  $\alpha + + \beta 1$  factors driving Technological change +  $\beta 2$  strategic renewal+  $\in$
- (5) Therefore, the collinearity diagnostics will be used for each equation as following:

Table (4.9) Multi-Collinearity Diagnostics for the study Models

	Variables	Collinearity Statistics	VIF	The Dependent Variables
		Tolerance		Diversity Management
Equation	Technological Development	0.726	1.377	Practices
One	Corporate Evaluation	0.726	1.377	
Equation	Technological Development	0.726	1.377	Strategic renewal
Two	Corporate Evaluation	0.726	1.377	
Equation	Professionalization of	0.822	1.216	Diversity Management
Three	Departments			Practices
	Restructuring and Shifting	0.822	1.216	
	Responsibilities			
Equation	Technological change	0.879	1.137	Diversity Management
Four	strategic renewal	0.879	1.137	Practices

It is evident from the above tables that the Variance of Inflation (VIF) values are near to 1 and does not exceed (10). Also, the Tolerance values are higher than (0.1) which indicate that the collinearity is not a problem in the study model (Gujarati and Porter, 2010).

Therefore, to overcome this issue, the skewness was conducted for them, if the absolute value of skewness is less than (1) and Kurtosis less than (7); this specifies that the study variables are close to the normal distribution (West et al., 1995). As shown in the table below, all the absolute value of Skewness of study variables are less than (2) and the Kurtosis less than (7). Therefore, the study variables are close to the normal distribution.

Table (4.10): Skewness and Kurtosis Test

Study variables	Skew	ness	Kurtosis		
	Statistic	Std.	Statistic	Std.	
		Error		Error	
<b>Technological Development</b>	-0.142	0.160	1.562	0.320	
Corporate Evaluation	-0.827	0.160	0.488	0.320	
<b>Professionalization of Departments</b>	-0.326	0.160	3.785	0.320	
Restructuring and Shifting	-0.210	0.160	1.607	0.320	
Responsibilities					
Work Family Balance	-0.956	0.160	0.230	0.320	
Flexible Working Times	-0.019	0.160	1.260	0.320	
Intercultural Training	-0.819	0.160	0.328	0.320	

# **Bivariate Correlation**

The following table shows the correlation matrix among the study variables as below:

 $Table\ (4.11)\ correlation\ matrix\ among\ the\ study\ variables$ 

	TD	CE	POD	RSR	WFB	FTW	IT	DIVERSIT Y	Renewal	TECH_CHAN GE
Technological Development	1									
Corporate Evaluation	.523**	1								
Professionalizati on of Departments	.179**	.306*	1							
Restructuring and Shifting Responsibilities	.259**	.433*	.422**	1						
Work Family Balance	0.1	.232*	0.084	.378*	1					
Flexible Working Times	.156*	.247*	0.107	.372*	.770* *	1				
Intercultural Training	0.121	.216*	.141*	.204*	.156*	.234*	1			
DIVERSITY	.160*	.270*	0.254**	.380*	.833*	.842*	.526*	1		
Renewal	.203**	.329*	.731**	.776* *	.174*	.186*	.133*	.193**	1	
TECH_CHANG E	.759**	.772* *	.294**	.391*	.235*	.262*	.222*	.277**	.348**	1

\*\*. Correlation is significant at the 0.01 level (2-tailed). \*. Correlation is significant at the 0.05 level (2-tailed)

The correlation matrix between the study variables has been conducted. Statistically, the value of coefficient correlation lies between the limit of -1 and +1. However, the correlation coefficient (1) is called perfect correlation. And thus, this might cause a collinearity problem. Therefore, the value of correlation coefficient should not exceed (0.9) (Gujarati, 1998). Therefore, the above table shows the relationship among the study variables. It is evident that each of corporate evaluation, Professionalization of department, Restructuring and shifting responsibilities and flexible working times has a significant relationship with technological development and the highest correlation is (r = 0.523\*\*) between corporate evaluation and technological development. However, both work family balance and intercultural training. Additionally, the results reveal that corporate evaluation has a significant relationship with all the study variables. The professionalization department has also a significant relationship with each of Technological development, corporate evaluation, restructuring and shifting responsibilities and intercultural training and the highest correlation among them is (r= 0.422\*\*) with restructuring and shifting responsibilities. Furthermore, the result indicates that restructuring and shifting responsibilities has a significant relationship with all the study variables and the highest correlation is (0.433\*\*) with corporate evaluation. The work Family Balance has a significant relationship with each of corporate evaluation, restructuring and shifting responsibilities, flexible working time and intercultural training and the highest correlation is  $(0.770^{**})$  with flexible working time. Moreover, the results reveal that flexible working time has a significant relationship with the entire study variable except with professionalization department. The intercultural training has a significant relationship with all the study variables except the technological development. However, the highest correlation is (\*\*0.234) between flexible working time and intercultural training. Also, the results shows that diversity management practice has a significant relationship with strategic renewal (r= 0.193\*\*) and factor driving technological change (r= 0.277\*\*). The strategic renewal has a significant relationship with factors driving technological change (r = 0.348\*\*).

### **Inferential Statistics: Hypotheses Testing**

To examine the study hypotheses separately; the multiple regression analysis was applied. Additionally, the Step-wise Regression analysis used to examine the hierarchically impact of (Technological Development, Corporate Evaluation, Professionalization of Departments, Restructuring and Shifting Responsibilities) on the Diversity Management Practices. The results of the study hypotheses will be displayed below:

# **4.4 Hypothesis Testing:**

H01: There is no direct impact of factors driving technological change on diversity management practices, in the study sample companies, at ( $\alpha \le 0.05$ ).

Based on the components of factors driving technological change, the main Hypothesis can be divided into two sub hypotheses:

H01.1: There is no direct impact of corporate evolution on diversity management practices in the study sample companies, at ( $\alpha \le 0.05$ ).

H01.2: There is no direct impact of technological development on diversity management practices in the study sample companies, at ( $\alpha \le 0.05$ ).

**Table (4.12) Multiple Regression Analysis 1** 

Variables	Model summary			ANO	VA	Coeffic	cients(a)	unstandardized coefficients
	R	R Square	Adjusted R Square	F-value	Sig	T	Sig.(P-value)	Beta
	0.271	0.074	0.065	9.005	0.000			
Constant						6.137	0.000	2.370
Corporate Evolution						3.425	0.001	0.319
technological						4.501	0.02	
development						4.521	0.02	0.421

The dependent variable is diversity management practices

It can be seen from the result in table (4.12) that the multiple correlation coefficient R=0.271 indicates that there is a positive correlation between factors driving technological change and diversity management practices. Also, the value of  $R^2=0.074$ . This means that the factors driving technological change can account (7.4%) of the variation of the diversity management practices.

Furthermore, it is noticed that the value of adjusted  $R^2$  is very close to the value of  $R^2$ . If the adjusted  $R^2$  is excluded from  $R^2$  (0.074-0.065) = 0.009. This little shrinking (0.009) means that if the model has been fitted when the whole population participates in the study, the higher variance in the outcome will be 0.009.

Also, the table above shows the probability of F-value and it is significant at 0.05, which indicates that factors driving technological change has a significant effect on diversity management practices. Accordingly, the first main null-hypothesis will be rejected and the alternative hypothesis accepted (There is a direct impact of factors driving technological change on diversity management practices, in the study sample companies, at  $(\alpha \le 0.05)$ .

Referring to the sub hypotheses; the sig-value of corporate evaluation is (0.001) and it is significant at ( $\alpha \le 0.05$ ) and the t-calculated is (3.425) and it is higher than the ttabulated (1.96). This indicates that the corporate evaluation has a significant effect on the diversity management practices. Therefore, the first sub-null hypothesis will be rejected and the alternative accepted (There is a direct impact of corporate evolution on diversity management practices in the study sample companies, at ( $\alpha \le 0.05$ ). Also, the above table shows that the sig-value of technological development is (0.02) and it is significant at ( $\alpha \le$ 0.05 and the t-calculated (4.521) is higher than the t-tabulated (1.96). This indicates that the technological development has a significant effect on the diversity management practices. Therefore, the second null hypothesis Rejected (There is a direct impact of technological development on diversity management practices in the study sample companies, at  $(\alpha \le$ 0.05). Furthermore, the results show that the value of Beta for Technological development (0.421) and it is higher than the technological development (0.319). This implies that if the Technological development increased by one unit; then the diversity management practices will increase by 0.319.

To examine the first null sub hypothesis, the simple regression will be used as below "There is no direct impact of corporate evolution on diversity management practices in the study sample companies, at ( $\alpha \le 0.05$ )

**Table (4.13) Simple Regression Analysis 1.1** 

Variables	Model summary			ANO	V <b>A</b>	Coeffic	cients(a)	unstandardized coefficients
	R	R Square	Adjusted R Square	F-value	Sig	t	Sig.(P-value)	Beta
	0.270	0.073	0.069	17.962	0.000			
Constant						7.431	0.000	2.439
Corporate Evolution						4.238	0.000	0.336

The dependent variable is diversity management practices

It can be seen from the result in table (4.13) that the multiple correlation coefficient R=0.270 indicates that there is a strong positive correlation between Corporate Evolution and diversity management practices. Also, the value of R2=0.073. This means that the corporate evolution can account (7.3%) of the variation of the diversity management practices.

Furthermore, it is noticed that the value of adjusted  $R^2$  is very close to the value of  $R^2$ . If the adjusted  $R^2$  is excluded from  $R^2$  (0.073-0.069) = 0.004. This little shrinking (0.004) means that if the model has been fitted when the whole population participates in the study, the higher variance in the outcome will be 0.004.

Also, the table above shows the probability of F-value and it is significant at 0.05, which indicates that corporate evolution has a significant effect on diversity management practices. The sig-value of corporate evaluation is (0.000) and it is significant at ( $\alpha \le 0.05$ )

and the t-calculated is (4.238) and it is higher than the t-tabulated (1.96). This indicates that the corporate evaluation has a significant effect on the diversity management practices. Therefore, the first sub-null hypothesis will be rejected and the alternative accepted (There is a direct impact of corporate evolution on diversity management practices in the study sample companies, at ( $\alpha \le 0.05$ )

To examine the second- null sub hypothesis, the simple regression will be used as below "There is no direct impact of technological development on diversity management practices in the study sample companies, at ( $\alpha \le 0.05$ ).

**Table (4.14) Simple Regression Analysis 1.2** 

Variables	Model summary			ANO	VA	Coeffic	cients(a)	unstandardized coefficients		
	R	R Square	Adjusted R Square	F-value	Sig	t Sig.(P-value)		0 .		Beta
	0.160	0.026	0.021	5.999	0.015					
Constant						8.383	0.000	2.962		
technological development						2.449	0.015	0.206		

The dependent variable is diversity management practices

It can be seen from the result in table (4.14) that the multiple correlation coefficient R=0.160 indicates that there is a strong positive correlation between technological development and diversity management practices. Also, the value of  $R^2=0.026$ . This means that the technological development can account (2.6%) of the variation of the diversity management practices.

Furthermore, it is noticed that the value of adjusted  $R^2$  is very close to the value of  $R^2$ . If the adjusted  $R^2$  is excluded from  $R^2$  (0.026-0.021) = 0.005. This little shrinking (0.005) means that if the model has been fitted when the whole population participates in the study, the higher variance in the outcome will be 0.005.

Also, the table above shows the probability of F-value and it is significant at 0.05, which indicates that technological development has a significant effect on diversity management practices. The sig-value of corporate evaluation is (0.015) and it is significant at ( $\alpha \le 0.05$ ) and the t-calculated is (2.449) and it is higher than the t-tabulated (1.96). This indicates that the technological development has a significant effect on the diversity management practices. Therefore, the first sub-null hypothesis will be rejected and the alternative accepted (There is a direct impact of technological development on diversity management practices in the study sample companies, at ( $\alpha \le 0.05$ )

# H0.2: There is no direct impact of factors driving technological change on strategic renewal in the study sample companies, at ( $\alpha \le 0.05$ ).

The multiple regression will be used, because the factors driving technological change consists of two variables.

Table (4.15) Multiple Regression Analysis 2

Variables		Model	summary	ANOVA		Coefficients(a)		unstandardized coefficients
	R	R Square	Adjusted R Square	F-value	Sig	T	Sig.(P-value)	Beta
	0.331	0.110	0.102	13.964	0.000			
Constant						8.225	0.000	2.541
Corporate Evolution						4.176	0.000	.311
technological							0.7	
development						0.575	0.566	0.044

The dependent variable is strategic renewal

It can be seen from the result in table (4.15) that the multiple correlation coefficient R=0.331 indicates that there is a strong positive correlation between factors driving technological change and strategic renewal. Also, the value of  $R^2=0.110$ . This means that the factors driving technological change can account (11%) of the variation of the strategic renewal.

Furthermore, it is noticed that the value of adjusted  $R^2$  is very close to the value of  $R^2$ . If the adjusted  $R^2$  is excluded from  $R^2$  (0.110-0.102) = 0.008. This little shrinking (0.008) means that if the model has been fitted when the whole population participates in the study, the higher variance in the outcome will be 0.008.

Also, the table above shows the probability of F-value and it is significant at 0.05, which indicates that factors driving technological change has a significant effect on strategic renewal. Accordingly, the second null-hypothesis will be rejected and the alternative hypothesis accepted (There is direct impact of factors driving technological change on strategic renewal in the study sample companies, at  $(\alpha \le 0.05)$ .

Additionally, the above table shows that the corporate evaluation has a significant effect on strategic renewal at ( $\alpha \le 0.05$ ) as the sig value is (0.000) and the t-calculated is (4.176) and it is higher than the t-tabulated (1.96). The technological development however has no significant effect on strategic renewal. Since, the sig-value (0.566) is higher than (0.05). Additionally, the value of beta for corporate evolution is (0.311). This shows that if the corporate evolution increased in one unit, then the value of strategic renewal will increase by 0.311.

H0.3: There is no impact of strategic renewal on diversity management practices in the study sample companies, at ( $\alpha \le 0.05$ ).

The multiple regressions will be used, because the strategic renewal consists of two variables.

Table (4.16) Multiple Regression Analysis 3

Variables	Model summary			ANOVA		Coefficients(a)		unstandardized coefficients
	R	R Square	Adjusted R Square	F-value	Sig	t	Sig.(P-value)	Beta
	0.384	0.147	0.140	19.574	0.000			
Constant						7.169	0.000	2.417
Professionalization of department						5.652	0.001	0.411
Restructuring and shifting responsibilities						5.982	0.000	0.421

The dependent variable is diversity management practices.

It can be seen from the result in table (4.16) that the multiple correlation coefficient R=0.384 indicates that there is a strong positive correlation between diversity management and strategic renewal. Also, the value of  $R^2=0.147$ . This means that the strategic renewal can account (14.7%) of the variation of the diversity management.

Furthermore, it is noticed that the value of adjusted  $R^2$  is very close to the value of  $R^2$ . If the adjusted  $R^2$  is excluded from  $R^2$  (0.147-0.140) = 0.007. This little shrinking (0.007) means that if the model has been fitted when the whole population participates in the study, the higher variance in the outcome will be 0.007.

Also, the table above shows the probability of F-value and it is significant at 0.05, which indicates that strategic renewal has a significant effect on diversity management. Accordingly, the third null-hypothesis will be rejected and the alternative hypothesis accepted (There is impact of strategic renewal on diversity management practices in the study sample companies, at ( $\alpha \le 0.05$ ).

Additionally, the above table shows that the sig value of Restructuring and shifting responsibilities is (0.000) and it is significant at ( $\alpha \le 0.05$ ). This indicates that Restructuring and shifting responsibilities has a significant effect on diversity management practices. Also, the sig value of Professionalization of department (0.001) and it is at ( $\alpha \le 0.05$ ). This indicates that Professionalization of department has a significant effect on diversity management practices.

H0.4: There is no indirect impact of factors driving technological change on diversity management practices with existing strategic renewal as mediating variable in the study sample companies, at ( $\alpha \le 0.05$ ).

To examine the indirect impact of factors driving technological change on diversity management practices with existing strategic renewal as mediating variable; the Path analysis for mediation will be used to discover the indirect effect of both dependent and independent variable on the mediator and to examine the direct effect of independent variable on the dependent variable as shown in the following chart.

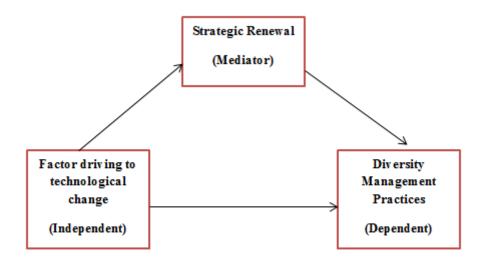
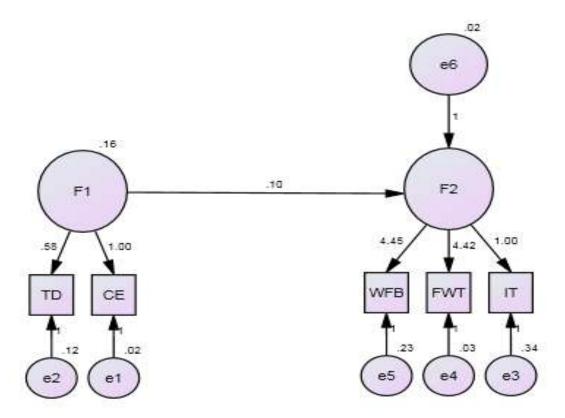


Figure (4.1) Examine the indirect impact of factors driving technological change on diversity management practices with existing strategic renewal

Therefore, on the one hand, if the direct impact is reduced and significant; there will be a partial mediation. On the other hand, if the direct impact (Factor driving technological change on Diversity Management Practices) is reduced and not significant; there will be a complete mediation.

Accordingly, to examine the role of mediator, the following two steps have been adopted as below:

The first step is to examine the direct impact of Technological Development on the Diversity Management Practices in order to show the value of impact as well as the sigvalue. The following diagram shows the results of direct impact:



**Diagram (4.1) Direct Impact Summary** 

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**Table (4.17) Direct Impact Summary** 

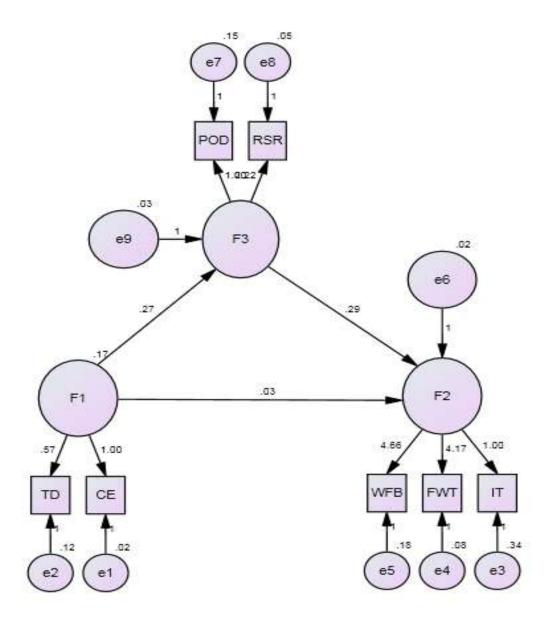
Technological							DIRECT				
Development	Chi <sup>2</sup>	chi²/df	GFI	CFI	RMSEA	SIG	IMPACT	Sig	C.R	T-value	AVE
- Diversity	9.3	2.325	0.985	0.983	0.076	0.055	0.101	0.05	1.958	4.348	0.298
Management											
Practices											

The results of the above table and diagram show that the sig-value is (0.05) and it is significant at  $(\alpha \le 0.05)$  and the value of impact is (0.101). This implies that the technological development diversity has a significant effect on the diversity management practices. Furthermore, the results in the above reveal that the value of  $Chi^2$  is 9.3 and it is not significant at  $(\alpha \le 0.05)$ . Also, the Minimum Discrepancy value  $(Ch^2 / DF)$  is 2.325 which indicate that the harmonization level is good; where (Arbuckle, 2008) stated that the harmonization level range 1 to 5. Additionally, the Goodness of Fit Index (GFI) which represent the harmonization of quality is (0.985) and this value is close to one (Full compatibility). In this regards, the value of Comparative Fit Index (CFI) is (0.983) and it is also close to one. Furthermore, the result above shows that the value of Root Mean Square Error of Approximation (RMSEA) is (0.076) is close to zero (Hair et al., 2010: 116). Moreover, the Average Variance Expositor is (0.298).

As a consequence, the next step is to examine the direct effect of Technological Development on the Diversity Management Practices in the presence of mediator (Strategic Renewal); to discover whether the strategic renewal play the role of mediator or not. So, if the direct effect of factor driving technological change on diversity management practice decreased and become insignificant as well as the value of AVE, then the strategic renewal

considered as a mediator and the factor driving technological change will have indirect effect on diversity management practices.

The following diagram shows the results of indirect effect:



**Diagram (4.2) Indirect Effect Summary** 

**Table (4.18) Indirect Impact Summary** 

	Chi <sup>2</sup>	chi2/df	GFI	CFI	RMSEA	SIG	DIRECT IMPACT	INDIRECT IMPACT	Sig	C.R	T- value	AVE
Technological Change- Strategic renewal								0.27	0.000	3.317	5.598	
Strategic renewal- Diversity Management Practices	19.1	1.736	0.977	0.981	0.057	0.059		0.29	0.009	0.291	2.970	1.813
Technological Change- Diversity Management Practices							0.03		0.475	0.714	4.348	

The results of the above table and diagram shows that the direct impact of factors driving Technological Change on the Diversity Management Practices (0.03) in the presence of strategic renewal is lower than in the absence of the strategic renewal and the significant value (0.475) is not significant at  $(\alpha \le 0.05)$ . This indicates that the strategic renewal play the role of mediating. Also, the above results shows that the indirect impact of factors driving technological change on strategic renewal (0.270) is significant at  $(\alpha \le 0.05)$  because the sig-value (0.000). This indicates that factors driving technological change has indirect effect on strategic renewal. Moreover, the result above shows that strategic renewal has an indirect impact on diversity management practices at  $(\alpha \le 0.05)$  and the value of indirect impact is (0.29). Additionally, the value of AVE increased in the presence of the mediator. Therefore, the effect of the factor driving to technological change on the diversity management practices has been increased in the presence of strategic renewal. Accordingly,

we reject the null hypothesis and the alternative accepted (There is indirect impact of factors driving technological change on diversity management practices with existing strategic renewal as mediating variable in the study sample companies, at ( $\alpha \le 0.05$ ).

Furthermore, the results in the above reveal that the value of  $Chi^2$  is 19.1 and it is not significant at ( $\alpha \le 0.05$ ). Also, the Minimum Discrepancy value ( $Ch^2$  / DF) is 1.736 which indicate that the harmonization level is good; where (Arbuckle, 2008) stated that the harmonization level range 1 to 5. Additionally, the Goodness of Fit Index (GFI) which represent the harmonization of quality is (0.977) and this value is close to one (Full compatibility). In this regards, the value of Comparative Fit Index (CFI) is (0.981) and it is also close to one. Furthermore, the result above shows that the value of Root Mean Square Error of Approximation (RMSEA) is (0.057) is close to zero (Hair et al., 2010: 116).

Table(4.19) Summary of Hypotheses testing

Number	Results	Acceptance of alternative hypotheses		
H01		There is direct impact of factors driving technological change on diversity management		
	Rejected	practices, in the study sample companies, at $(\alpha \le 0.05)$ .		
H01.1	.1 There is no direct impact of corporate evolution on diversity management practices in			
	Rejected	study sample companies, at ( $\alpha \le 0.05$ ).		
H01.2		There is direct impact of technological development on diversity management practices		
	Rejected	in the study sample companies, at ( $\alpha \le 0.05$ ).		
H02		There is direct impact of factors driving technological change on strategic renewal in the		
	Rejected	study sample companies, at ( $\alpha \le 0.05$ ).		
H0.3		There is impact of strategic renewal on diversity management practices in the study		
	Rejected	sample companies, at $(\alpha \le 0.05)$ .		
H0.4		There is indirect impact of factors driving technological change on diversity management		
		practices with existing strategic renewal as mediating variable in the study sample		
	Rejected	companies, at ( $\alpha \le 0.05$ ).		

### **Chapter Five: Results Discussion, Conclusions and Recommendations**

#### **5.1 Results Discussion**

All the descriptive analysis results of the variables are high, which indicate that all of the studied companies are keeping pace with new technologies and development, which increases the corporate performance. Furthermore, based on the results the companies are using renewal strategies to face the environmental changes.

Additionally, these companies have a diversity management practices in order to manage the diver's culture in the organization effectively.

The result indicates that there is direct impact of factors driving technological change on diversity management practices, in the study sample companies, at ( $\alpha \le 0.05$ ), which means that adopting technological changes will enhance the use of diversity management practices. This is also confirmed by Nataatmadia & Dyson (2005) by stating that, using an appropriate technology breaks down cultural barriers and promotes knowledge sharing between employees of different cultures and therefore lead to successful collaboration.

The result indicates that there is direct impact of technological development on diversity management practices at ( $\alpha \leq 0.05$ ), this indicates that technological development will improve the diversity management practices outcomes. This is also confirmed by Al-Zubi (2015) study, where he stated that technological change has the highest effect on diversity management practices, and by adapting new technologies the organization's management will be more effective, and can save time and money.

The result indicates that there is direct impact of corporate evolution on diversity management practices at ( $\alpha \le 0.05$ ), which implies that corporate evolution enhances the divesity management practices. This is also supported by Guest, Culhane, & McDonald (2012), who stated that corporate developments changes the way that individuals interact with one another, and can bring new challenges and opportunities for diversity management. Also Cukier and Middleton (1996) noted that organizations which take

diversity into account when implementing new technology tend to be more successful than other organizations.

Furthermore, it is also confirmed by Allen & Montgomery. (2001) that corporate evolution effects the diversity management practices and that organizations which achieved diversity throughout all levels of management, stands a much better chance of success.

The result also indicates that, there is direct impact of technological change on strategic renewal in the study sample companies, at ( $\alpha \le 0.05$ ). This confirms that considering technological change as part of the organization will force the company to renew its strategies. The result correlates with the theoretical literature in that technological variable, such as technological invention, development in technology, availability of the nature of technological changes, and diversity of technology in accordance to Dauda & Ismaila (2013) encourage the organization to adopt renewal strategies.

In addition, Cockfield, (2005) supported that technological changehas a great impact on adopting renewal strategies by enabling new forms of participation and activism, also by improve the organizational activities and strategic choices.

The result shows there is direct impact of strategic renewal on diversity management practices in the study sample companies, at ( $\alpha \le 0.05$ ), which supports the fact that strategic renewal has a positive impact on diversity management practices. Liberman (2013) confirmed this relation by stating that, a strategic approach to diversity presents a shared sense of the organizational direction and purpose around diversity. In addition, it requires providing a framework for the organization's diversity-related missions, goals, and strategic plans. He also argued that diversity initiatives become associated with organizational policies, procedures, and practices by having an established corporate diversity management strategy.

There is indirect impact of technological change on diversity management practices with existing strategic renewal as mediating variable in the study sample

companies, at  $(\alpha \le 0.05)$ , this means that any factors driving technological change through renewal strategies will have a great impact on diversity management practices. The study found that there is an indirect impact of technological change on diversity management practices, through strategic renewal.

Therefore, the strategic renewal plays the role of mediator accordingly. This result has the main contribution to fill the gap between academic literature and the existing study results where there is no previous study, which shows the impact of factor driving technological change and diversity management practices with strategic renewal as mediator variable. In addition, it considered as a mediator variable, which helps building the bridge between previous studies and the study results.

#### **5.2 Conclusion**

- 1. The level of factors driving technological change in organizations was high; this indicates that these companies have the ability to adopt any new technology.
- 2. These companies constantly used strategic renewal; this is an indicator that they are capable of restructuring based on the current situation.
- 3. Human resources used diversity management practices in these organizations in a wide range to deal with the multi-cultural workforce effectively.
- 4. The results show that factors driving technological change has a positive impact on diversity management practices.
- 5. The results show that strategic renewal has an impact on diversity management practices; this means that by adopting new strategies, the organization has to increase its diversity management practices in order to succeed.
- 6. The results show that factors driving technological change has a positive impact on strategic renewal; this means using new technologies requires a change in the organization strategies to deal with them.
- 7. The results show that using strategic renewal as a mediator variable will increase factors driving technological change impacts on diversity management practices.

#### 5.3 Recommendations

- 1. It is important for multicultural communication and electronics companies to consider introducing new products as part of their corporate evolution strategy.
- It is necessary for these companies to involve the technological developments when producing short cycle products in order to gain more profit and spread in the market.
- It is recommended for multicultural communication and electronics companies to focus on employing qualified and specialized employees to perform specific tasks to increase the organization's efficiency.
- 4. Multicultural communication and electronics companies need to consider restructuring as an organizational change in response to the changing environment.
- 5. It is recommended for the human resource management of multicultural communication and electronics companies to give their employees some degree in determining their working hours at the company with the agreement of the management.
- 6. The human resources management has to give their employees different vacations in family accessions and enough time to communicate with their families.
- 7. The management is committed to employing a set of strategies to reduce negatives in the work place.
- 8. It is recommended for these organizations to carry out intercultural training and workshops to increase the awareness of diversity management practices.
- 9. In order for these organizations to face factors driving technological changes and enhance their weakness in performance, they have to change their structures and shift responsibilities.
- 10. It is necessary for these organizations to give their employees some degree in determining their working hours to increase the organizational satisfaction and commitment.

11. It is recommended to increase workforce diversity, which will enhance the knowledge sharing process between employees thus speeding up the process of implementing and understanding new technologies.

#### **Future Studies:**

The researcher suggested some of the future studies as follows:

- 1. Carry out a study to examine the impact of the strategic renewal dimensions on diversity management practices.
- 2. Carry out correlation examine between the sub-variables of strategic renewal and diversity management practices.
- 3. Carry out a study to examine the relation between diversity management practices and the size of the organizations.
- 4. Carry out a study to examine the impact of the organizational and national cultures on diversity management practices.

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## المراجع العربية

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# Appendix (1)

## List of Esteemed Academics That Arbitrated the Questionnaire

Prof. Dr. Haytham Alshibly	Al-Balqa' Applied University
Prof.Dr. Laith Alrabaiee	Middle East University
Prof.Dr.Mohammad Naiemi	Middle East University
Prof.Dr. Mousa Alouzi	Jordan University
Prof.Dr. Souood Mahameed	Middle East University
Associate Prof. Dr. Firas Alshalaby	Al-Balqa' Applied University
Associate Prof.Dr. Samer Eid Dahiyat	Jordan University
Assistant Prof. Dr. Hanadi Salameh	Middle East University



#### Middle East University

**Business faculty** 

### **Department of Business Administration**

#### Ladies and Gentlemen

Thank you for accessing this questionnaire – before you proceed, please read the information below:

 The main objective of this thesis is to understand the FACTORS DRIVING TO TECHNOLOGICAL CHANGE AND ITS IMPACT ON HUMAN RESOURCES DIVERSITY MANAGEMENT PRACTICES: TEST OF THE

#### MEDIATOR ROLE FOR STRATEGIC RENEWAL.

- This thesis submitted to obtain a Degree of Master in Business Administration.
- Your participation is voluntary, and you are implying consent to participate by completing and submitting this survey.
- This survey is anonymous, and no information that would identify you is being collected.
- Only aggregate data will be used in any presentations and publications that result from this research.
- The questionnaire should take around 15–20 minutes to complete.
- Accurately and objectively, answer on the questionnaire paragraphs. We will be achieving results; which contribute to develop the performance of your company in the future.
- Raw data kept confidential to the researcher.

Thank you for your time and cooperation.

Supervised by:

Dr. Ahmad Ali Salih

September, 2016

Prepared by:

Qais A. Masad

### **Demographic Data**

Please indicate to the answer by placing the sign (x) in the opposite box to the left.

1. Gender	
Male	Female
2. Age	
From 20 - less than 26	From 26 - less than 31 From 31 - less
than 36	
From 36 - less than 41	41 - and More
3. Years of experience	
5 years- and less	From 6-less than 10 From 11-less than
14	
From 15-19	20- and more
4. Scientific qualification	
Diploma and less	Bachelor Master Doctorate
5. Managerial level	_
Top Management	Middle Management
6 Johnogition	
<ul><li>6. Job position</li><li>Chief executive officer</li></ul>	vice president department manage
<u> </u>	
☐ Division manager	Employee
7. Nationality:	••••••

Paragraphs of the questionnaire					
First :Independent Variable:	The answer Options Scale				
Factors driving to Technological	·				
Change					
A- Technological Development: is					
used by companies with					
other organizational factors, in order					
to solve the customer's problems					
or for designing new products and	9				
development effort that fit with	strongly agree agree uncertain/ not applicable disagree				
technology trends has more chance to	strongly agree agree uncertain/ not applicable disagree				
succeed in the market.	strongly agree uncertai not appli disagree				
1 Technological developments are needed to					
produce short cycle products					
2 Determining the required formal transformational					
period depends on the technological development					
Technological development might lead to change in the firm's social culture					
. the firm's social culture					
4 Technological development can be successfully					
. achieved when the management fully					
understand this process					
Changes in the work methods will depend on the					
technological changes					

6	Research and development improve the technological development					
7	Technological development might help the firm solving customers problems					
8	Designing new products is highly correlated with the technological development					
	B- Corporate Evaluation:Corporate					
	evolution occurs to market implications					
	that force the company to change the					
	policies regarding culture, values and					
	policies regarding culture, values and approaches. Creating an ambidextrous					
						e e
	approaches. Creating an ambidextrous	gree		/ able		isagree
	approaches. Creating an ambidextrous business that is inventive and able to respond to the change in the demands of market is the goal of corporate	ongly agree	əə.	certain/ : applicable	agree	ongly disagree
	approaches. Creating an ambidextrous business that is inventive and able to respond to the change in the demands of market is the goal of corporate evolution.	strongly agree	Agree	uncertain/ not applicable	disagree	strongly disagree
1	approaches. Creating an ambidextrous business that is inventive and able to respond to the change in the demands of market is the goal of corporate evolution.  Introducing new product is part of corporate	strongly agree	Agree	uncertain/ not applicable	disagree	strongly disagree
1	approaches. Creating an ambidextrous business that is inventive and able to respond to the change in the demands of market is the goal of corporate evolution.	strongly agree	Agree	uncertain/ not applicable	disagree	strongly disagree
1 .	approaches. Creating an ambidextrous business that is inventive and able to respond to the change in the demands of market is the goal of corporate evolution.  Introducing new product is part of corporate	strongly agree	Agree	uncertain/ not applicable	disagree	strongly disagree
•	approaches. Creating an ambidextrous business that is inventive and able to respond to the change in the demands of market is the goal of corporate evolution.  Introducing new product is part of corporate evolution strategy	strongly agree	Agree	uncertain/ not applicable	disagree	strongly disagree
•	approaches. Creating an ambidextrous business that is inventive and able to respond to the change in the demands of market is the goal of corporate evolution.  Introducing new product is part of corporate evolution strategy  Corporate evolution incorporates finding new	strongly agree		uncertain/	disagree	strongly disagree
2	approaches. Creating an ambidextrous business that is inventive and able to respond to the change in the demands of market is the goal of corporate evolution.  Introducing new product is part of corporate evolution strategy  Corporate evolution incorporates finding new markets.	strongly agree	Agree	uncertain/	disagree	strongly disagree

	development of the existing products			
5	Corporate evolution might see as the response to the market implications and events			
6	Creating new business that is innovative and creative is part of the corporate evolution mission			
7	Corporate evolution can be viewed as response to the technological changes			
8	Increasing capacity to meet the demand of technological change is the target of corporate evolution			

	Second : Mediator Variable					
	Strategic renewal					
	A- Professionalization of					
	Departments: Is a process set up to					
	fill in the available positions more					
	strictly with employees who are					
	qualified and specialized. The objective					
	is to make sure that adequate	e e			<u>e</u>	ıgree
	professional standards will be implemented in running the respective	y agr		ain/	plicab e	y disa
	functions and departments.	strongly agree	gree	uncertain,	not applicable disagree	strongly disagree
1	Professionalization is needed to full- up the	\ \tag{8}			<del>م</del> ء	
	available positions more strictly with employees					
2	Our company employs the qualified and specialize employees to perform specific tasks					
3	Professionalization of departments help out firm					
•	to make sure it is implementing the adequate professional standards.					
4	Professionalization of departments make it					
	easier to run the department functions					
5	Professionalization of departments helps to					
	increase the quality of work.					

	B- Restructuring and Shifting				
	Responsibilities: Reorganizing any				
	structure of a company such as the				ee
	legal, ownership and operational to	strongly agree		n/ cable	strongly disagree
	make it more profitable and planned	ngly a	e.	uncertain/ not annlicable disagree	ngly (
	for the future needs.	stro	Agree	unce not disa	stro
1	The goal of restructuring the firm is to make it				
	more profitable				
2	Response to environmental changes affecting				
	the company's performance can be achieved		Ш		
	through restructuring				
3	Restructuring process might achieve positive				
	results to the company				
4	Restructuring can be used to enhance the				
	company's weakness in performance				
5	Restructuring might be considered is an				
	organizational change to rapidly response to the				
	changing environment				
	Third : Dependent variable				
	<b>Diversity Management Practices</b>				
	A- Work Family Balance: Increasing				e G
	work-life balance plays an important	gree		/ able	strongly disagree
	role in increasing the organizational	strongly agree	נס	uncertain/ not annlicable disagree	b ylgı
	satisfaction and commitment	stror	agree	uncertaii not annli disagree	stror

	.Workplace flexibility is the ability of					
	workers to make choices influencing					
	when, where, and for how long they					
	engage in work-related tasks					
1	I have enough time to communicate with my					
	family members			ш		
2	Human resource management allows me to have					
	creator time in case of urgent conditions in my		Ш	Ш	ш	
	family					
3	Human resource management gives me different					
	vacations in family accessions			Ш		
4	Employees are equally involved and satisfied					
•	with their work family roles			Ш		
5	Our firm cores about making the balance					
	between work life and family life					
	B-Flexible Working Times: is the ability					e
	of workers to make choices influencing when,	ree		<u>a</u>	5	agre
	where, and for how long they engage in work-	ly ag		ain/	e e	ly dis
	related tasks	strongly agree	agree	uncertain/ not applicable	disagree	strongly disagree
1	Employees are provide with sufficient time for					
	the family because of the work organization by		ш	ш		
	human resource management					
2	Employees have some degree in determining					
	their working hours at the company with the		ш	Ш		
	agreement with the management					

3	I can leave the company if one of my family member subjected to special conditions					
4	I can accomplish what I am asked to do to spend					
•	more time with the family					
5	Human resource management considers special					
	conditions and enables me to leave the work					
	C-Intercultural Training : Help					ā
	businesses turn diversity into an asset and to	ree		2	<u>ע</u>	sagre
	combat the racism, sexism, and intergroup	şly ag		tain/	ipilica ee	şly di
	conflict being experienced at the workplace	strongly agree	agree	uncertain,	disagree	Strongly disagree
1	The management is committed to employ a set					
	of strategies to reduce negatives in the work					
	place					
2	Enables the organizations to be evaluated based					
•	on their organizational culture					
3	Training on cross culture contribute to achieve					
	the competitive advantage for the company					
4	Cross cultural training contributes to exchange of					
	information experiences and skills among the					
	employees					
5	Cross culture training help in determining the					
	training needs for the employees in the company					
	through scientific methods					

### Appendix (3)



HR Dep. /2016

Subject: Survey Completion Letter

### MESSRS Middle East University:

This is to certify that the employees of Huawei Technologies Cooperatief have performed the surveys of Master Thesis Survey for Mr. Qais Albudelraheem Mohammad Masad

This certificate provided upon the request of Mr.Qais without any responsibility from Huawei Company.

Huawei Technologies Cooperatief/Jordan



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### Appendix (4)



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#### Subject: Survey Completion Letter

This is to certify that Employees of LG Electronics Levant have performed the survey of Master Thesis Survey for Mr. Qais Abdur Raheem Mohammad Masad.

This letter was given to Mr. Masad with no commitment by the company.

Dina Khalifeh Human Resources

LG Electronics Levant-Jordan

3450

3 Electronics LG

## Appendix (5)

