TALENT MANAGEMENT: RETAINING AND
MANAGING TALENTS IN VOCATIONAL,
TRAINING AND RESEARCH CENTERS

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THESIS APPROVAL PAGE

I certify that in my opinion the thesis submitted by Khaled Suliman Ali ELGOMATI titled "TALENT MANAGEMENT: RETAINING AND MANAGING TALENTS IN VOCATIONAL, TRAINING AND RESEARCH CENTERS" is fully adequate in scope and in quality as a thesis for the degree of DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION.

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The degree of Doctor of Philosophy in Business Administration by the thesis submitted is approved by the Administrative Board of the Institute of Graduate Programs, Karabuk University.

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DECLARATION

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

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Signature:

FOREWORD

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ABSTRACT

The development and success of vocational, training and research centers in Libya heavily rely on their outstanding human workforce. Furthermore, retaining this distinctive pool of highly-skilled workforce (talents) while achieving institutional objectives is a challenging task for most organizations especially in public sector. Hence, the issue of developing those talents has taken main attentions of numerous government public sectors around the world. Libyan public sector is no exception about this hurdle.

Libya declared its intention to invest on human resource at the beginning of 21st century and brought up investments from all over the world and liberalized its economy with fast introduction in latest communication technologies. This has caused talents' brain-drain from public institutions due to many reasons. Here, the study sought to explore and answer the questions: what are the reasons behind this move and what best initiatives that aim at retaining and managing talents at Libyan institutions, with an eye on the experience of similar institutions around the world. Based on the literature, there were no complete study that covered all aspects that may affect talent retention. The researcher used a quantitative descriptive analytical methodology using widely spread survey seeking opinions of emigrated Libyan Talents. The research sample was 508 emigrated Libyan-talent, which were purposively selected. Data were collected utilizing the researcher's own-developed-questionnaire and sampling was done using handful of methods and consequently data was analyzed using IBM SPSS 25 software. There were four groups of factors that affect talent retention; country's macro-environment factors, institutional micro-environment factors, international pull environment factors and talents' needs represented in the form of Maslow's pyramid of needs. The validity of the measurement tool was done by translational and content validity while its reliability through Cronbach Alpha. The result of the hypotheses shows statistically significant relationships between talent retention and macro environment, micro-environment, international pull environment factors, and Talents perceived needs. Also, those factors combined predict-well talent retention in Libyan institutions. However, there were indications to areas of focus where Libyan institutions could focus on toward improving their talent retention strategies. The research is significant because it draws attention to the brain-drain phenomena in Libyan public institutions and ring the bell to maintain talents locally.

Keywords: Public institution; talent retention; Talent Management, Brain-Drain, and talent turnover

ÖZ (ABSTRACT IN TURKISH)

Libya'daki meslek, eğitim ve araştırma merkezlerinin gelişimi ve başarısı büyük ölçüde olağanüstü insan işgücüne güvenmektedir. Dahası, kurumsal hedeflere ulaşırken bu yüksek vasıflı işgücü havuzunu (yetenekleri) korumak, özellikle kamu sektöründeki çoğu kuruluş için zorlu bir görevdir. Bu nedenle, bu yeteneklerin geliştirilmesi konusu, dünya çapında çok sayıda kamu kamu sektörünün dikkatini çekmiştir. Libya kamu sektörü bu engelle ilgili bir istisna değildir.

Libya, 21. yüzyılın başında insan kaynağına yatırım yapma niyetini açıkladı ve dünyanın her yerinden yatırımlar getirdi ve en son iletişim teknolojilerine hızlı bir giriş yaparak ekonomisini serbestleştirdi. Bu, birçok nedenden dolayı yeteneklerin kamu kurumlarından beyin göçüne neden oldu. Burada, çalışma şu soruları araştırmaya ve cevaplamaya çalışmıştır: bu hareketin arkasındaki nedenler nelerdir ve dünyadaki benzer kurumların deneyimlerini göz önünde bulundurarak Libya kurumlarında yetenekleri korumayı ve yönetmeyi amaçlayan en iyi girişimler. Literatüre dayanarak, yetenek elde etmeyi etkileyebilecek tüm yönleri kapsayan tam bir çalışma yoktu. Araştırmacı, göç etmiş Libya Yeteneklerinin görüşlerini almak için geniş çapta yayılmış bir anket kullanarak nicel tanımlayıcı bir analitik metodoloji kullandı. Araştırma örneği, 508 göç edilmiş Libya yeteneğiydi; Veriler araştırmacının kendi geliştirdiği anket kullanılarak toplanmış ve örnekleme birkaç yöntem kullanılarak yapılmış ve sonuç olarak IBM SPSS 25 yazılımı kullanılarak analiz edilmiştir. Yeteneklerin korunmasını etkileyen dört faktör grubu vardı; ülkenin makro-çevre faktörleri, kurumsal mikro-çevre faktörleri, uluslararası çekme ortamı faktörleri ve yeteneklerin ihtiyaçları Maslow'un ihtiyaçlar piramidi biçiminde temsil edilmektedir. Ölçüm aracının geçerliliği çeviri ve içerik geçerliliği ile güvenilirliği Cronbach Alpha ile yapılmıştır. Hipotezlerin sonucu yetenek tutma ve makro çevre, mikro çevre, uluslararası çekme ortamı faktörleri ve Yeteneklerin algılanan ihtiyaçları arasında istatistiksel olarak anlamlı ilişkiler olduğunu göstermektedir. Ayrıca, bu faktörler Libya kurumlarında tahmin-yetenek tutma yeteneğini birleştirdi. Bununla birlikte, Libya kurumlarının yetenek elde tutma stratejilerini geliştirmeye odaklanabilecekleri alanlara ilişkin göstergeler vardı. Araştırma önemlidir, çünkü Libya kamu kurumlarındaki beyin göçü fenomenlerine dikkat çeker ve yetenekleri yerel olarak korumak için zili çalar.

Anahtar Kelimeler (Keywords in Turkish): Kamu Kurumu; Yetenek Tutma; Yetenek Yönetimi, Beyin Gücü ve Yetenek Devir Hızı

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ABBREVIATIONS

Abbreviations 1: Specification

TM: Talent Management

HRM: Human Resource Management

SHRM: Strategic Human Resource Management

PESTLE Factors: PESTEL stands for – Political, Social, Economic, Technological, Environmental and Legal factors

EVP: Employee Value Proposition

DNA: Deoxyribo Nucleic Acid

LTR: Libyan Talent Retention

LIST OF DEFINITIONS

Academic Center: Public institution that provide learning to certain professions such doctors, dentists, or engineers

Management: Controlling process of certain abstracts such as people resources, or material

Performance: The act of conducting a business in skillful way

Practice: The execution of method or use of policy at something at hand or usual business conduct

Public Institution: Any governmental institution

Research Center: Business entity that is conducting research in its field

Talent: Natural abilities or qualities one can possess. In other words, it is a natural aptitude or skill

Talent Management Process of hiring, developing, and maintaining talents

Talent Retention: Maintaining and keeping talents at job

Talented People: -People who are furnished with talents; possessing skill or talent; mentally gifted
-Someone who has a natural ability or skill to be good at something

Training Center: Business body that provide certain training in its specialty

Turnover: Replacing employee (voluntary or involuntary)

Vocational Center: Any center that provide trade and technical training and improve their skills to perform the tasks of certain job in best way possible

Brain-drain: The process of emigration of talents, highly trained or qualified people from a country to another of interests.

GENERAL FRAME WORK OF THE RESEARCH
SUBJECT OF THE RESEARCH

When we look at the accelerated international economy, one can clearly notice that the war on talent is ever intensifying to the point that the matter of existing in today's world is highly depending on maintaining and managing the scarce talents. It has become the primary goal for companies, corporations, public institutions and even countries to invest in their talented human resource to keep up with the fast-developing economy and cutting-throat competition. This investment embodies the highest levels of talent management and staff development. Talent retention is a crucial step toward maintaining one's institution in leading successors in its field. However, Talent turnover still occuer and effective talent retention programs should be implemented to stop this phenomena. When we look back to the 1990s, war for talents was intitiated among companies in major countries, companies trying to attract high-profile employees and others seeking to maintain and retain them. Those mentioned earlier are described under the term of Talented employees. However, since 1990s, TM has evolved and become a system applied in all departments of institutions as one of the strategies of development and change.Talent Management (TM), which is the core of this study is based on attracting and maintaining the "valued" employee with focus on the Libyan Public Institutions.

The focus of this research is on the vocational, training and research institutions in Libya but not limited as there are other academic entities as well that were considered among this study. Although, we might consider them as public sector yet their framework is considered private-like-organizations, especially, after the Arab-spring uprising where waves of local talents have left and are still quitting jobs in an unprecedented manner. Talent Management is the key to business success in today's economy, allowing institutions as well as countries to retain the best talent while increasing productivity.

Talent Management: Retaining and Managing Talents in Vocational, Training and Research Centers is the title of this research and it was conducted to shed the light on this Brain-Drain Phenomena and try to bring about effective solutions in an efficient manner.

PURPOSE AND IMPORTANCE OF THE RESEARCH

This research was conducted for a purpose in mind, which is to find out the main problems facing Talents in Libya and help the Vocational, Training and Research Centers retain their valued talents. Since, those centers have been in business in the last couple of decades and still in active. However, they are struggling keeping up with recent talent turnover and lack of knowledge and expertise caused consequently. Consequently, the study draws its significance from effect that talent turnover is causing to the society at large and to the mentioned institutions at smaller scale.

Also, the importance of this study for the whole society to benefit from its well-trained talents in all fields once the problem is properly tackled. This also, will help those previously mention institutions to achieve their objectives in most efficient (productive) and effective way possible. Not only that but it will also mitigate the inflated problem of talents migration and finally reduce the cost of replacement of those talents.

In a nutshell, the study tries to point out the following:
1. Generally, this study tries to help the whole society benefit from its well-trained talents in all fields.
2. This study aims at guiding the institutions on how to achieve their objectives through aligning those objectives with those of talents by best utilizing the talents.
3. The study also tries to shed some light on mitigating the inflated problem of talents turnover from Libyan Institutions.
4. This research also is trying to warn the Libyan institutions from the cost of replacing the turned-over talents.
5. The study tries to uncover the main problems facing Talents in Libya.
6. Helping the Vocational, Training and Research Centers retain their valued talents.

The relevance of the study will be based on its finding which would be high important to various parts of the population. Firstly, Libyan institutions would be better prepared for the research problem. Secondly, the country at large will benefit through maintaining Libyan talents locally through many ways. The least would cost related but most

importantly would be keeping the core competitive advantage for Libyan Institutions at their respective centers and employers. Thirdly, the findings of this research are predicted to be applicable to all public as well as private institutions in Libya and the region if the researcher may find due to the proximate culture and business practices. The topic of talent retention is interesting and applicable to recent working environment and decisive in the success of those institutions.

RESEARCH METHODOLOGY

The research method here is based on quantitative descriptive analytical method in a widely spread survey seeking Libyan Talents to answer the survey questions. However, it is considered a combination of both exploratory and descriptive research designs. This is because to better understand the Talent Management Practices the researcher got deeper into how the management on those institutions are doing in retaining talents in their respected centers. This study is under the category of "describing in depth an issue" by looking at the research questions, collecting all relevant data and presenting answers to those questions.

In this research, the data and details from talents who used to work for Libyan public institutions were collected while taking into consideration reaching answers to the research questions and testing hypotheses. Those Talent's perceptions, attitude, characteristics, feelings, incentives, and perspectives on their turnover decision and on how they acted according to the study factors in regarding HR management and employee behavior while working for Libyan Institutions.

Research methodology, study population, sample size and the used analytical tool. Are part of Chapter Three (Research Methodology). Testing the validity and reliability of survey tool will be mentioned in the Third and Fourth chapters as well.

QUESTIONS AND HYPOTHESES

Research Questions:

Research Question 1: Why talented employees leave the Vocational, Training and Research Institutions in Libya with an eye on international similar institutions?

Research Question 2: What is the most Effective Retention Management Strategy for those working for public entities in Libya?

Research Hypotheses:

Research hypotheses contribute significantly in providing solutions to the research problems of scientific/social research. They are preliminary solutions to the research problem that the researcher must verify through the research materials and practical procedural steps. They are temporary partial solutions in the researcher's mind and imagination that verifies their quality and validity while studying the research problem using the available cognitive factors in the research.

Hypothesis is a predictive statement the researcher writes to relate independent variable to a dependent variable and its validity is tested. The hypothesis is tested for its validity and proved or disproved by analyzing the data from the sample (Pilot Study) and adjusted according to the referee recommendations and applied to the whole research sample. Analysis tool is applied and results discussed. The hypotheses formulated for testing in this research are:

1. **Hypothesis 1**: There is a statistically significant relationship between PESTLE factors (external environment) and talent retention in the vocational, training and research centers.
2. **Hypothesis 2**: There is a statistically significant relationship between internal environment components and talent retention in the vocational, training and research centers.
3. **Hypothesis 3**: There is a statistically significant relationship between External Pull Factors (International Attractive Environment) and talent retention in the vocational, training and research centers.

4. **Hypothesis 4**: There is a statistically significant relationship between the components of Maslow's Pyramid of Needs and talent retention in the vocational, training and research centers.

5. **Hypothesis 5:** There is a statistically significant relationship between the PESTLE factors, internal organization environment, international pull factors and components of Maslow's Pyramid of Needs and talent retention in the vocational, training and research centers in Libya.

There are sub-hypotheses for each hypothesis mentioned earlier and will be shown in details in the third chapter.

POPULATION AND SAMPLE

There are numerous public Research, Training and Vocational Centers distributed in big geographical area of Libya. From which, talented employees count for a small percentage of the work force in those institutions but have a valuable impact on the success of those entities. The same applies on other Libyan public institutions from which big chunk of those talents has got the chance in one way or another and left their institutions for good and worked for different employers around the world. This group of emigrated Libyan talents are considered the research population of this study. Reaching out to them was biggest challenge for the researcher. More details will be shown in the relevant part of the third chapter. The sample size was 508 individuals from a group of selected emigrated talents working abroad. Based on official resources from the Libyan Ministry of Education, and several published articles, the population size was 7300 talented Libyan employees who preferred to leave their job for a better one abroad. Here, the researcher used the purposive sampling technique because the researcher needs access to a subject of people (emigrated Libyan talents) and to distinguish this group, this method was used. To assure this, while taking the sample, unwanted entities were ignored. In some research, it is known as a judgmental sampling. The sample was compounded of 508 participants. Further detailed information and explanation will be found later-on in Chapter Three titled Research Methodology.

The main problem in this study was, how to distinguish talented employee from a big pool of emigrated employees. This was discussed further on the introduction and literature review chapters.

SCOPE OF THE RESEARCH

The focus of this research was how to enhance the talents retention in public institutions in Libya and mitigate Talent turnover. Moreover, it will answer why talents are leaving and what are the best strategies to prevent this phenomenon. It covered talents working internationally on recent years and it was through internet-based survey. Surely, this scope of study is the basis for future business decision at least in similar public and private institutions in Libya and elsewhere in the world.

LIMITATIONS AND DIFFICULTIES OF THE RESEARCH

There were many limitations to this study, and the researcher categorized them in two sections. Methodological and Research limitations. Here, is brief list of the study limitations:

1. Methodological limitations such as:
    a. Sample size, availability of primary vs secondary data
    b. The use of internet as a mean of distribution helped in terms of the speed and data tabling, however, reaching out to the designated sample was the challenge.
    c. Self-reported data: for example, inside data gathering (inside job)
    d. Lack of prior research regarding TM practices in Libya.
2. Researchers Limitations
    a. Access, the possibility of face to face meeting with related personals
    b. Longitudinal effects. The time span to complete literature review, design research methodology, its implementation and analyzing results.
    c. Cultural vs bias. Bias usually negative but could affect positively the research process.
    d. Difficulties in reaching out to a sound secondary resource to prove the existence of the problem how big it is.

Typically, study limitations are restrictions on generalization, practice requests, and / or usefulness of results that are the result of the ways in which a research study is conducted. The researcher tackled them as they came by during the research process. However, they were mainly related to the research design (methodology) that have influenced the data analysis and findings. In the other hand, in the eyes of the researcher,

those limitations are an opportunity for further research. Any unanswered questions in this study should have opened the door for a new research in the future and is discussed in the future suggestion part.

The study core purpose was to shed some light on the "black box" in TM in the heart of North Africa (Oil-rich country – Libya). Trying to solve the problem of brain-drain. However, several questions on the talent managing process remain unanswered; therefore, the researcher encourages further research at all institutional levels about TM practices and all its different processes and factors that caused the worst-case scenarios - talent migration.

CHAPTER ONE: INTRODUCTION

1.1. General Introduction

Survival and success are strategic goals for Vocational, Training and Research centers in the light of successive developments and global competitiveness (Michaels, Handfield-Jones, & Axelrod, 2001, pp. 264-279). Today, the intensification of competition over the scarce talents between institutions in general is a challenge. From this fact, investment in human resource became imperative part of the institutions' strategies to be competitive (Allen, 2008; Boselie & Thunnissen, 2017; Chambers, Foulon, Handfield-Jones, Hankin, & Michaels III, 1998; Da Gama, 2009; Jackson, 2002, pp. 455-475). The centers are ranked according to their research achievements, so that the academic achievement of certain centers to international awards as a result of their research excellence indicates the effectiveness of their human talent management strategies (Ali, 2011; Brunila & Baedecke Yllner, 2013).

Thus, attention has been given to the application of the human TM strategy in contemporary institutions. One of the sources of power that cannot be imitated, which contributes to ensuring growth and continuity, has become talent discovery. It is not limited to discovering them but maintaining a good pool of talented employees should assure competitive advantages. This is the prime and primary task of human resources departments in carrying out their core functions, from recruitment, selection and training of those distinctive workers (Cappelli, 2009).

Today's expected function of Human Resource Departments is to identify potential talent, understand, conceptualize and apply relevant strategies to enable their institutions effectively contribute to achieving their organizational goals (Chaubey & Gupta, 2013).

Thunnissen (2016) on the other hand, found that employers and talented employees have different perceptions of Talent Management (TM). He assumed that the institution are able to formulate and implement their understanding of TM system that met their goals, so from an organizational perspective TM would be effective (Thunnissen, 2016). This does not always work unless the institution's objectives and talents goals are aligned and the vision is shared. The opposite scenario could take place if talented employees needs are not adequately met in their intended and actual TM practices, TM has less value for

them (Thunnissen, 2016). Different influence factors are identified at the institutional and individual levels (Thunnissen, 2016).

The reader of any article regarding talent management may be easily excused for thinking that talent ship is a very recent phenomenon, phenomena that was not around until the late nineteen nineties, but the author consider it misleading (Swailes, 2011, p. 2). Although, literature review could possibly misleading but the war for talents have been there for centuries. In the book, Talents improved; or, the philanthropist, all civilizations were dependent on their skilled and talented people (Corp, 1923). Corp added that talent or any kind of genius are improperly applied or utilized, this could be because they are undervalued or under encouraged. For them appreciation and recognition are crucial for any entity they belong to.

Quigley (1979) in his book "The Evolution of Civilizations: An introduction to historical analysis" claim that talent when connected with innovativeness has nothing to do with inherited gene or characteristics. He supported his claim by argument that if it was inherited biologically, we would have tremendous decrease in innovativeness by Chinese in the last ten centuries as they used to be before. Anglo Saxons in North America, in opposite, there were increase in innovativeness in a "used to be" non-innovative people originally from Eastern who immigrated to America. Based on his argument, there is no such thing as inventive race. (Carroll, Ford, & Taylor) reveal that inventiveness is highly dependent on how societies are organized, work environment setup and inventive people encouraged and rewarded. Talents have existed since human landed on earth, one great example was the invention of the arrow and bow that was used to hunt their preys in old civilization. There was a need for new ways to catch animals with a minimum effort. The clue is here, whenever there is a demand, brain and time, there will be inventiveness (Quigley, 1979).

Furthermore, Bassi and McMurrer (2007), quoting from their paper "Maximizing your return on people." They say that managers are fond of stating that: "Our human resources are our most important asset, while many officials consider and deal with human resources as costs" (Bassi & McMurrer, 2007). This assumption is serious because its human resource are organizations' the only source of competitive advantage for all types of organizations (Allen, 2008; Dhanabhakyam & Kokilambal, 2014; Egerova, Eger, & Jirincova, 2013, pp. 23-36).

(Bassi & McMurrer) stated that organizations that do not invest in their human resources risk not only their success but also their existence. To elaborate on this, from the experience of most organizations all over the world shows that all entities who failed to consider their valued human resource as a competitive advantage, did not succeed in maintaining their competitive advantages, innovativeness or keeping their market share (Bassi & McMurrer, 2007).

Michaels et al. (2001) in their book titled "The War for Talent", defined talent as the sum of a person's born and acquired abilities, instinct, skills, gifts, knowledge, judgment, attitude, experience, intelligence, personality and drive (Chambers et al., 1998). They added that it is the person's capacity and ability to acquire new knowledge and grow in the surrounding environment (Chambers et al., 1998).

Coyle (2012) assume talent is largely instinct gift naturally in people given out at birth and could not be acquired. Although, development and nourishing it will help it become noticeable and appreciated. Also, suggested creating healthy, innovative, and productive work environment should significantly boot engagement and consequently increase performance which should retain talents.

(Michaels et al.) stated that a lot of organizations in the late nineties had vacancies that they could not fill. The war for talent even intensified after dot-com bubble burst and the implementation of automation technology. Talent is now the critical player for any viable institution performance. Their influence increase with managerial hierarchy. Talent is now the essential driver of corporate success, particularly people with the ability to lead a business or organization, a production team or cross-cultural team and.

Human resource managers are responsible in dealing with human factor in each organization, which in general, is the difficult job (Cappelli, 2009). However, talent management is even more difficult when compared with the loss that an organization may encounter if it losses one or more of its core talent employees-achiever (Berger & Berger, 2004; Pal & Bansal, 2010). Therefore, retaining talent may be the most difficult task for managers and HR managers. This term is not a new emerging term, and evidence of this can be seen in many articles and history books. The main goal of talent retention is to increase their potential and contributions to it. In other words. Any loss of key

talents to any company, institution or country will ultimately be detrimental (Berger & Berger, 2004; Pal & Bansal, 2010).

People in business-world usually use the term "employee retention" more often than "talent retention", this is because it is difficult to comprehend the word "talent", measure or compare its contribution to respected institution. Employee retention is the organization ability to maintain its employees, and retention rate is the percent of employee who stay within the organization to those who left (Berger & Berger, 2004). However, talent retention cannot be easily defined, but steps involved would be through selecting the relevant talents, offering them the training to boost, coaching them to excel along the institution objectives while compensating and retaining them and exploit their potentials for maximizing the organization's benefits. A good example to explain is that Burger King firm business will not be influenced by a turnover of a normal salesman, however, it will face a crucial challenges if a key director left them (Berger & Berger, 2004). First case will be considered due to weaknesses of Burger King's of employee retention, on the contrary, the cause will be shortages of talent retention measures (Berger & Berger, 2004).

Bassi and McMurrer (2007) concluded their paper with this statement "Globalization has paved the way for profitability for companies or institutions operating in developed high-wage countries: to build their competitive strategy on exclusive human capital management. Any benefits that have historically been associated with advanced technologies and access to capital (financial and physical) are now faster than delivering a sustainable advantage. In today's business world, a competitive organization will be the one that manages its employees like most-valuable assets. Therefore, the researcher has conducted this study.

Before going any further in this study, one must admit that the proper definition of the term "Talent" and all related commonly used terms need to be addressed and defined to get the big picture and let the reader be aware of the utilized terms in this study.

1.2. Talent and Talented Employees

When it comes to defining the word talent, one must be convinced that this word has become a quite familiar. It is widely used, and abstract word in recent times. To better grasp the meaning hundreds of authors from all over the world have tried hard to get it

right. Simply, here, the author concluded that talent is an instinct quality of an individual, which is the sum of all capacities to think, learn, related and act differently as compared with his/her colleagues (Park, 2014).

In todays' word, many highly-talented, smart, creative and innovative people think they are not outstanding as talent simply because the things they were talented at were not valued in their organizations or were stigmatized (Florida, 2014). Selecting talented employees based on organization's needs becoming a trend as a skillful salesman is considered useless in a small industry type business that heavily rely on talent craftsmanship. This means that the quality or qualities needed from the employees need to be developed through dedicated and specialized training programs so the employees' qualities and skills can positively contribute for the organization success in the future (Park, 2014).

In the next 30 years, according to UNESCO website, more people worldwide will be graduating through education since the beginning of history. Consequently, degrees are not worth anything as a result of this. The business society need to think of talents as a diverse pool of people who can perform tasks that are considered hard for other with ease.

Like the English versions of talent, other European languages or dictionaries such as: German, Danish, Russian and French, define talent as an innate giftedness which is manifested itself in a specific field of endeavor and is directly connected to outstanding performance (Tansley, 2011, pp. 266-274).

Renzulli (2016) reported that top performer employees are distinguished through three intertwined clusters of abilities, these over average clusters (though not necessarily superior) task commitment, ability, and creativity. He brought his model as show in below.

Above
Average Ability

Creativity

Gifted
Behaviour

Task
Commitment

Figure 1.1: The Ring Concept of Giftedness Equation 4. 1
https://www.thepositiveencourager.global/g-is-for-giftedness/

So, instinct ability or quality is one that a person is born with, not the have learned over time. They also relate the word ''talent'', as in English, to talented persons. In the German language talent is regarded as innate disposition to good achievements in a field. This quality is seen as a ''gift'' which enables someone to achieve a conspicuously exceptional or above-average performance, especially in the arts.

Carroll et al. (2019) defined talents as those who's through their skills and knowledge performs superiorly. In other words, normal or above average performance is always expected from run-of-the mill employees. Thus, distinguished employee's skills, vision, and ability perform the job at hand and achieved tasks that difficult to accomplish in the eyes of regular employees (Park, 2014). Talent term in organizations is widely replaced with the word (potential). It is knowingly that talent is viewed as a human with an

immense potential that to flourish within a period of time (NAIK, 2012). However, there is no a master talent that fits all. As each job or job rank require certain skills and abilities that will fit most with it. However, There is a darwinistic-take on this - the most talented are those who adapt successfully to their organizational environments changings (Swailes, 2011).

Leigh Branham who is the vice-President of consulting service firm and author of the book says, "Keeping People Who Keep You in Business", a talent is not scarce nor rare to find, however, they are precious to whom they value. Everyone has talent, however, this talent is needed most where it belong (Leighn, 2002). He explains talent as behavior; things a person might do more easily than the next person. However, there is a natural born talent, but those with a gift, skills, ability or flair for something can refine and develop that talent through experience (NAIK, 2012). On the same previously cited thesis, the researcher, mentioned that talent, however, cannot be taught. As Fernández-Aráoz (2010) wrote in his book, "you can teach a turkey to climb a tree, but it's easier to hire a squirrel". Any organization is always better off with hiring the talents who are on top of their games and value their organization and help it move forward rather than trying to catch up with utilizing normal employees' abilities to achieve those objectives.
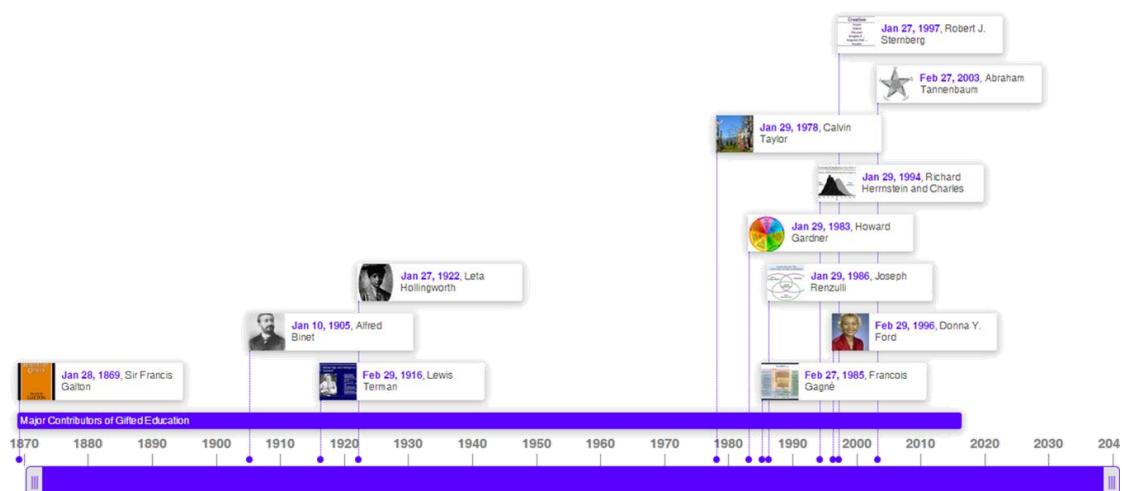
Figure 1.2: Timeline created by Lisatjohnson in History explains Major Contributors in Gifted Education
Source: https://www.timetoast.com/timelines/major-contributors-in-gifted-education

In our world today, the war for talent have exceeded our imaginations, crossed borders and recognized no ethics nor laws (Michaels et al., 2001). The game of globalization

helped increase the competition intensity between organizations seeking talented workforce to be better prepared for the new competitive era (Michaels et al., 2001). Libya is no exception from this, as talents are leaving for private sector and multinational corporations for many reasons locally and internationally. Since here, the case is about public centers competing with private competitors who seek acquiring ready skilled talents, instant and sound human resource management measures need to be implemented. The concept of talent management became an important topic in today's organizations because they realized that the main competitive advantage or asset are their talents. Again, answering the following questions will ease the understanding of the reader of this study; what talent is? what talented people are? and what talent management means? Just to be clear from the beginning that we are putting all in the same page.

Talent is a gift or aptitude (a skill) that certain employee naturally possesses to do something extraordinary when compared to other people. In the business dictionary, it is a natural ability to excel at duty or action. Consequently, people who has one talent or more are called talented people.

Several authors defined Talented employees, as "those individual who can make a difference to organizational performance either through their immediate contribution or, in the longer-term, by demonstrating the highest level of potential" (Berger & Berger, 2004). Boudreau and Ramstad (2007) defined talent as 'the resource that includes the potential and realized capacities of individuals and groups and how they are organized, including those within the organization and those who might join the organization'. In addition, talent is also about the motivation, the efficient way your talents are motivated, the best results could be harnessed from them.

The use of talent in a business context goes back at least to Adam Smith who noted that a man prospers as he is able to "cultivate and bring to perfection whatever talent or genius he may possess for that particular species of business" (Swailes, 2011). He observed that differences in talents were not a cause of the division of labor but an effect of it (Swailes, 2011). The difference, he said, "Between a philosopher and a common street porter seems to arise not so much from nature as from habit, custom and education". Until the age of around 6 to 8 years, the philosopher and porter were "very

much alike" and it is when they encounter work in different occupations that Smith felt the difference in their talents "widens by degrees" (Swailes, 2011).

In the late 19th century, the American political scientist Arthur Hadley observed that, "the man who possessed organizing talent or who could foresee the contingencies of a business and so prevent waste of capital and labor would be successful" (Swailes, 2011). Hadley saw talent as underpinning a natural selection process that prevented incompetent employees from "maintaining themselves for long at the head of large enterprises". This replacement process of course is not now just confined to heads of organizations but to most levels of hierarchy as competitive conditions have intensified (Swailes, 2011). Also, for any entity to outgrow the notion that ability is to be discovered and pinpointed not to be developed as previously mentioned "why train Turkey to climb a tree when you have a squirrel".

According to Tansley (2011) "how talent is defined is generally organizationally specific, being highly influenced by the type of industry and the nature of its work". He concluded that these is no unique contemporary definition in any one language for the word, talent. (Tansley) claim that different institutions have different perceptions of talent and influenced highly by the nature of the work undertaken.

To sum it up, a normal person might be lucky to find him/herself in a job where he/she is fired up and exceled then his/her talent most likely will emerge while other employee may find this atmosphere restricting and his/her desire and passion for work decline over time. Some normal employee can be discovered and turned into competent employee as the Gagne's Model of Giftedness and Talent illustrated (Gagné, 2005, pp. 98-119). A general definition of talent be the "superior mastery of systematically developed abilities or skills" (Pal and Bansal, 2010).

Table 1.1: Talent in other languages

Domain	Definition
French	The Danish language is consistent with these definitions: "innate abilities for a specific field"; "a person who has talent" (Politikens, 2000); "innate abilities"(Politikens, 2000).
French	One authoritative French dictionary refers to a given disposition, given by God (Grand Robert, 1991). This is a rare occurrence of lexicologists attributing talent to divine inspiration. The same dictionary also suggests that talent, however endowed, serves "to succeed in something" ("pour re'ussir en quelque chose"), noting that talent is also "a particular aptitude" which is "appreciated by social groups". This reminds us that talent can only be recognised as such by people capable of appreciating it.
Russian	Definitions in Russian also relate to "outstanding innate qualities, especially natural gifts" (Ozhegov, 1984) and "outstanding capabilities in a given field(artistic, scientific, political), giftedness and being a gifted person" (Leikhin, 1955)
Polish	In Polish we not only see similarities with these other definitions, but also an important expansion of the term. In a Polish-English dictionary we find a distinction between the singular (talent) and plural (talenty) in Polish. The singular word is translated by "talent" and "gift"; the plural by "accomplishments" and"endowments" (Stanislawski, 1994). In a Polish business dictionary the entry is: "A person endowed (lit. gifted) with unusual ability; innate or acquired (learned) ability to do something in an outstanding, creative way"

Source: Holden and Tansley 2011

1.3. Talent Management and Talentship

The term "war for talent" first was coined by McKinsey's Steven Hankin in 1997 from which Michaels et al. (2001) defined Talent Management (TM), as the process of controlling and retaining them. Furthermore, he elaborated on this by stating that the process of TM is usually connected to finding, attracting, deploying, and maintaining staff who add distinctive value to the organization. It has an elite edge to it; focus on only a few manpower that is thought to have an X-Factor (Pal & Bansal, 2010). Also,

when defining management, Urwick et al. (1993) in their book titled (Henry Fayol), said "To manage is to forecast and plan, to organize, to compound, to co-ordinate and to control.". On the other hand, Weihrich and Koontz (2005) define management, quote; "Management is the art of getting things done through and within formally organized group." (Pal & Bansal, 2010). This group must be efficient, effective, and capable of achieving aligned objectives.

Talent management emerged because of the need to differentiate between talented employees from others. This assumptions is about the volume or load of contributions toward organizational development or incremental performance made by different 'talented employee or a group of them' within the workforce (Meyers, 2015). On the other side, some advocates of this idea argue that talent is a highly exclusive structure that typically suggests that their contributions vary significantly between individuals and talented employees referred to as high potential, high performers, talented employee contribute to the overall performance of a company way better than normal employees.(Allen, 2008; Meyers, 2015; Morgan & Jardin, 2010).

Brittany Brathwaite, who is a Labor Management Advisor, said that human resource departments became more involved in overall business strategy like leading corporate communications, organizational development through training, and developing total compensation systems. Usually, Human Resource departments continue to focus on the previous mentioned strategic goals, new actions toward utilizing the term "talent management." This introduced new strategic goals to streamline acquiring and leadership succession processes using the employee life-cycle model (Aarnio & Kimber, 2016). Using the employee life-cycle model, HR guides their employees through each transition of their career with the organization from competency-based recruitment to career development, through termination or transition (Aarnio & Kimber, 2016). They supported their claim saying that HR managers strive to measure and manage employee performance through providing training, getting feedback, and initiating the needed support. Based Pareto's 80/20 rule, interestingly also known as the "law of the vital few", elitist talent management fits think that about 80% of an organization's value added is gained from about 20% of its employees (Swailes, 2011).

Since the case scenario will be about certain institutions in Libya with an eye on a group of similar institutions around the globe, the need for addressing what Vocational, Research and Training Centers are is very important. They are national centers that serve the private and public sector in terms of preparing a new workforce for the local market regarding weather it is industrial or service sector. Mainly they train new employee in certain trades such as Welding, CNC machines Operation, or Inspectors but not limited to those professions or trades. However, those public institution are widely distributed over a wide spectrum of careers. All of those centers were founded and funded by the Libyan Government as a response to the demand for such institution at different times (Libyan-Ministry-of-Education, 2015). Qualified selected employee, middle managers, and academic managers, were trained in their field locally and internationally to get them ready for the private and consultations services in Libya, there are numerous centers starting from then HR training center, Information Technology, to the Petroleum Training and Qualifying Institute. However, there are more than hundred Vocational and Training Institute distributed all over Libya.

In a note shell, identifying what are certain organization or institution long-term goals are is considered the initiative for financial and personnel planning. The faster the institution cop with these two factors the quicker its business become competitive and effective in responding to the work environment. Although, there are too many definitions of talent also the way to harness those talents varies based on the institution and talents needed for this kind of job. Nevertheless, there are some shared factors that talent-harnessing programs must adopt as Swailes (2011) mentioned in his article (Swailes, 2011):

1. Robust selection against established criteria.
2. A talent testing program.
3. Psychometric tests such as a 360-degree performance or appraisal
4. Line manager, coach, or mentor involvement.
5. Direct use of executive mentoring relationships and others thorough thinking
6. Effective but confidential counseling and support may be required in high-risk jobs to affect work-life balance.

There also another term called talent ship, some called the decision science, which is vitally needed today, as it is crucial to enhance talent-decisions regarding structures,

behaviors, learning, capability, shared culture, collaboration, and the like(Koscianska, 2013). To gain competitive advantage, an organization or any institution need to develop a strategic approach to TM that both suits their business and gain the best use of their employees (Koscianska, 2013).

The key talent management strategy is to seek and categorize skills to sustain future competitive advantage. According to McCauley and Wakefield TM process must be more strategic, widely connected than ever. Talent management processes include human resource planning, talent gap analysis, recruitment, training, development, retention, talent review, and successive planning and evaluation. To improve its performance, it must deal with changes and adapt quickly. Each organization must link these processes with the business strategy (Blackman & Kennedy, 2008).

Gagné (2005) thoroughly see giftedness as a person's outstanding natural abilities or aptitudes that is in one or more of the following domains: intellectual, creative, social, perceptual, or physical. This make a student stand out among the top 10% of age peers (Gagné, 2005). Beside giftedness, he defined Talent as it is the superior mastery of systematically developed skills, called competences (knowledge and skills) in at least one human activity, to a degree that places a that person in at least 10% of the active or in age group of 10% (Gagné, 2005, pp. 12-15).

Prof. Gagné came up with his Differentiated Model of Giftedness and Talent (DMGT); a diagram of the DMGT is below (Gagné, 2005). He claims that each gifted person can be turned into talented person through the developmental process as per explained in his diagram DMGT shown in Figure 1. 3 on page 37.

In his view, gifts can be split into two groups: mental (intellectual, creative, social, and perceptual) and physical (muscular and motor control). There are talents in all different fields of: science, technology, academic, technical, arts, social service, games, business operations, administration/sales, sports and athletics (Gagné, 2005).

As stated in the previous paragraph; gifts are developed into talents through DMGT developmental process. This later term is designed to nurture and develop gifts into talents through emphasizing the following six main elements:

1. Enriched curriculum or training program
2. A clear and challenging excellence goal
3. Selective access criteria
4. Systemic and regular practice
5. Regular and objective assessment of progress
6. Personalised accelerated pacing

If the development process was not conducted properly, a gifted person may not become talented as expected. Students or gifted people performing extraordinary exhibit inherent giftedness that if nurtured and developed often results in emerge of talent from them (Gagné, 2005).

The development of management and business in recent years has contributed to the development of new administrative and organizational concepts, terminology and ideas in the field of human resources, human capital, management and planning of resources and managing talents(Ali, 2011; Boselie & Thunnissen, 2017). Attention to talent in business management has become necessary to achieve high performance, and new terminology and concepts have emerged in management talent and management, and increased interest in them recently as a concept focused on the concept of attention to the capabilities and talents and effective skills in human resources(Collings, Mellahi, & Cascio, 2017; Dhanabhakyam & Kokilambal, 2014; Gallardo-Gallardo, Nijs, Dries, & Gallo, 2015).

Feldman 1986 concluded his literature review connecting the word talent with potential while giftedness with achievment

Talent Management strategy and programs aim to develop the concept of a talent-focused culture as a source of competitiveness and entrepreneurship and provide these resources with the help of employees to achieve their best abilities and talents (Lewis & Heckman, 2006, pp. 139-154). It also helps businesses to respond to challenges, enter new markets, and move forward to compete and make distinguished performance. Companies with talent and a successful workforce can develop a reputation for being a great and attractive place to work, building loyalty and trust among existing employees.

The American, Japanese, German, Chinese, Korean, Malaysian and many other experiences confirm that excellence in production is achieved not only through the establishment of resource units to activate the role of human resources traditionally in the management of business organizations, but also to work strategically to increase the number of talented people through Education, training and development programs (Tansley, 2011).

Talent is the hot topic in human resource management in recent times, as this is a time of science, technology, geniusness and amazing progress, which is based on bridging the barriers and changing the familiar and new creativity (Chambers et al., 1998). Nations' civilizations, development and progress highly depends on the progress of their thoughts and scientific and technical output (Michaels et al., 2001).

1.3.1. Retaining Talent

Generally, employees leave or quite their jobs for too many reasons, some of which, simply because they are looking for better career, pay, location, or atmosphere. However, people are so different on this matter. To sum it up, to retain talented employee, an employer needs to create the right environment to be fully engaged at the task at hand so they will deliver their full and best potential.

CHANCE (C)

NATURAL ABILITIES

GIFTS (G) = top 10 %

DOMAINS

MENTAL

INTELLECTUAL (GI)
General intelligence ('g' factor)
Fluid, crystallized reasoning
Verbal, numerical, spatial (RADEX)
Memory: procedural, declarative

CREATIVE (GC)
Inventiveness (problem-solving)
Imagination, originality (arts)
Carroll's 'retrieval fluency'

SOCIAL (GS)
Perceptiveness (manipulation)
Interacting: social ease, tact
Influence: persuasion, eloquence,
leadership, courting, parenting

PERCEPTUAL (GP)
Vision, hearing, smell, taste,
touch, proprioception

PHYSICAL

MUSCULAR (GM)
Power, speed, strength,
endurance

MOTOR CONTROL (GR)
Speed (reflexes), agility,
coordination, balance

CATALYSTS

ENVIRONMENTAL (E)

MILIEU (EM)
Physical, cultural, social, familial

INDIVIDUALS (EI)
Parents, family, peers, teachers, mentors

PROVISIONS (EP)
Enrichment: curriculum, pedagogy (pacing)
Administrative: grouping, acceleration

INTRAPERSONAL (I)

TRAITS

PHYSICAL (IF)
Appearance, handicaps, health

MENTAL (IP)
Temperament, personality, resilience

GOAL-MANAGEMENT

AWARENESS (IW)
Self & others; strengths & weaknesses

MOTIVATION (IM)
Values, needs, interests, passions

VOLITION (IV)
Autonomy, effort, perseverance

DEVELOPMENTAL PROCESS (D)

ACTIVITIES (DA)
Access
Content
Format

PROGRESS (DP)
Stages
Pace
Turning points

INVESTMENT (DI)
Time
Money
Energy

2008

COMPETENCIES

TALENTS (T) = top 10 %

FIELDS

ACADEMIC (TC)
Language(s), maths, sciences,
humanities, vocational

R TECHNICAL (TT)
Transport, construction, crafts,
manufacturing, agriculture

I SCIENCE & TECHNOLOGY (TI)
Engineering, medical, social

A ARTS (TA)
Creative, performing
Applied: visual, written, spoken

S SOCIAL SERVICE (TP)
Health, education, community

E ADMINISTRATION/ SALES (TM)
Management, marketing,
protection, inspection

C BUSINESS OPERATIONS (TB)
Records, financial, distribution

GAMES (TG)
Video & card, chess, puzzles

SPORTS & ATHLETICS (TS)

Figure 1.3: Gagne's Model of Giftedness and Talent (DMGT) (2008)

Talent Fields

There are nine talent fields. Six of them are sourced from John Holland's work-related classification of personality types: **R** = Realistic; **I** = Investigative; **A** = Artistic; **S** = Social; **E** = Enterprising; **C** = Conventional. The other three complement the World-of-Work system: Academic (K-12) subjects; Games; Sports & Athletics (Gagné 2008).

1.3.2. What exactly is retention, or turnover?

Sandhya and Kumar (2011) defined employee retention as the ability of any employer to hold on their individual employee and normally can be represented in numbers or ratios. Usually the higher the efforts made toward keeping those employees the high the retention rate. Normally, good practices of employee retention strategies can help increase productivity and enhance reputation (Fukofuka, 2014).

Employee turnover as seen by Chaubey and Gupta (2013), is the process of replacing existing employee with another for some reason. However, this is normal for companies to do so when faced with some difficulties or employee underperforming. In the other hand, which is the case discussed in this thesis, when turnover happen voluntarily from the employee for some reasons that might be personnel, institutional, regional or being attracted to other external factors such as lucrative job offers(Allen, 2008). Employee turnover rate is the percentage of employees who leave an organization to the replaced employees. Measuring employee turnover can help employers who want to assess the reasons for employee turnover to avoid undesirable turnovers(Allen, 2008; Chaubey & Gupta, 2013). What is more important is when these two terms are related to an important asset for any organization (Talented employees).

David Allen (2008), reported that one of the most crucial problems facing all types of organizations today is Talent retention. To start with this, one must understand the main first classifications of turnover. One being whether the turnover is voluntary process or being imposed in the talent (involuntary) which is will not be discussed in this study. Then, whether it is functional or dysfunctional turnover (Allen, 2008, pp. 1-43). The latter is the core point in this study, which is the most harmful types of turnover on which high performers (talents) or employee with irreplaceable skills depart the work force at any institution (Allen, 2008). This is costly process, not like the functional turnover, on which the exit of poor-to-normal performer employees whose skills or talents are easy to replace. Figure 1.4 shows turnover classification and retention can be functional where employee is high performer and is willing to remain and employer is providing essential needs. Retention can also be dysfunctional where low performer and undersirable employee remain at job.

The following Figure 1.4 shows the main classification of turnover (Allen, 2008).
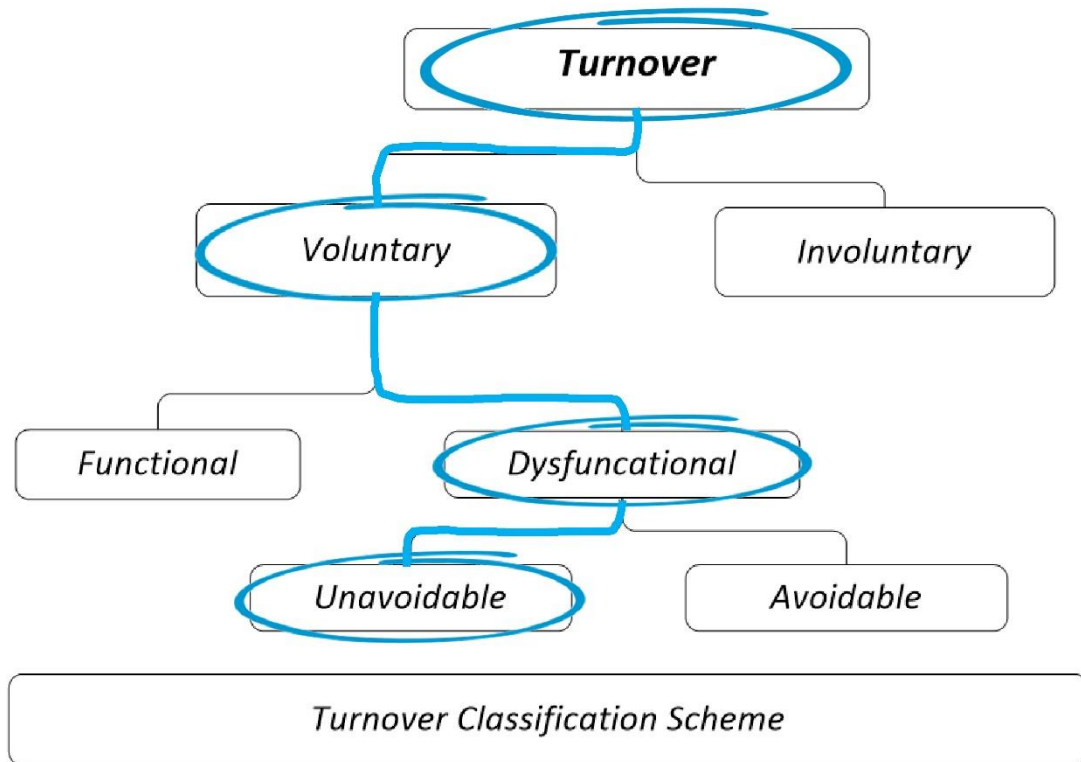
Figure 1.4: Turnover Classification Scheme
Based on the source: https://www.shrm.org/hr-today/trends-and-forecasting/special-reports-and-expert
views/Documents/Retaining-Talent.pdf

1.3.2.1. Why turnover is important?

Turnover is important simply because of three main reasons: first being it is costly; it is considered an expensive process because of distinctive characteristics that specific talent have. Furthermore, time is money, and replacing time is costly to any organization. second being it affects a business's morale which consequently affects performance and lastly but not least, it may become increasingly difficult to keep productivity (Allen, 2008). In recent business world, the value of talent to its organization is a very crucial to its success. It has become a must-to-have skill for all HR managers to know how to maintain their talents (Chaubey & Gupta, 2013).

1.3.2.2. Why talent leave?

There are too many reasons for this to take place, however, one can summarize or take note of the following; where there are no opportunities to learn and grow for those talents , work environment inflexibility and lack of appreciation to the work they do and excel

at (Allen, 2008). Furthermore, when management take no action plan or any initiative to solve problems faced by talents, they tend to search for better alternatives. However, it is well known that manager's job is to achieve organizational goals through employee while meeting their employees' expectations and needs. Last but not least, talent turnover take place when talents are not being connected or made aware of the institutions vision and mission statements (Allen, 2008; Chaubey & Gupta, 2013). Interestingly, keeping valuable talents on-board has never been an easy task but understanding the reasons behind their move is not impossible to diagnose or evaluate. Here, the research tries to uncover all possible causes in all business levels.

1.4. Identifying and selecting Talents

Björkman, Ehrnrooth, Mäkelä, Smale, and Sumelius (2013, pp. 195-214) suggest that the process of hiring talent among a pool of employees is sophisticated. Conducting job analysis are the cornerstone for selecting employees. Based on the analysis, it is possible to translate the required competencies and the performance indicators into functional asset. Performance of talent and their potential is principle dimension in relation to talent identification (Egerova et al., 2013). That performance is then measured and compared to meet specific objectives. The ability to express future competencies and performance is determined by a combination of observation assessment and discussion. Possibility is difficult to determine because it requires inferring a future contribution based on current data.

The potential expresses future competencies and future performance. It is determined by a combination of the observation assessment and discussion where potential is difficult to determine because, it requires inferring future contribution based on the current data (Egerova et al., 2013). Talent management requires both the performance and the potential. The talent review process involves different data collection techniques among which centralized assessment methodology, and a set of standardized and reliable psychometric tests. It also includes processing and integrating data into a format which then used for interpretation and comments (Egerova et al., 2013). Garavan, Carbery, and Rock (2012) consider Talent Maps as interesting tools in visualizing the output of talent review process. This occur by analyzing current talents, assessing their performance and

evaluate their skills related to their job at hand (Garavan et al., 2012). Usually, this require three main steps which are predict or proactively determine any new vacancies that a business require, reevaluate the existing job roles based on the institution needs and providing a promising career development to retain top players (Garavan et al., 2012).

Egerova et al. (2013) claim that psychometric tests are considered a convenient tool for distinguishing talent. Well-constructed psychometric-tests and set of questionnaires used skillful and qualified people should provide a realistic basis for making a decision on selecting potential talent and recognizing his/her capacity (Egerova et al., 2013). They should be used together with other data to get the whole picture. HR managers must use their instinct and experience alongside with the job interview and Psychometric tests' results to make decision as whether to hire or not.

1.4.1. Psychometric Tests

Psychometrics is basically a field of logical think about. The 'metrics' portion alludes to measuring, whereas the 'psycho' portion alludes to a person's mental capacities. This concise definition does not very well cover it all, although – psychometric tests are too valuable for analyzing identity characteristics and behaviors. In other words, to degree delicate aptitudes or soft skills if the researcher might say.

To start with, these "soft skills" are not skills, as they cannot be taught. They are characteristics or personality traits that are naturally inherent in the person. While in old and current school an interview may not be the right way to assess soft skills, they are easily identified through a psychometric test. DEPESA could be a Nicaraguan company, established in 2003, specializing in recruiting and selecting, work-force administration and cutting-edge stages with highest quality measures for the administration of talented people. However, hundreds of specialized companies offer services in this field. SHL is also one of them. Here, DEPESA offer this test into four categories:

1.4.1.1. Behavioral Tests

Behavioral assessment provides the basis for behavioral change, behavioral change requires treatment, and treatment requires empirical treatment and assessment. Therefore, it has been found that throughout the history of behavior evaluation, it is consistent among the main characteristics of the experimental method. Psychological

evaluation has several purposes. It is possible to evaluate the psychological / behavioral definition of the subject or to predict future behavior (selecting staff or making recommendations). This test is considered an integral part of the overall human soft-factor test.

It helps administrators, executives, managers, and directors evaluates two areas. Firstly, it evaluates values such as moral, honesty, indifference corruption. Secondly, it evaluates interests among which are economic, political, social, and religious factors.

1.4.1.2. Personality Tests

Personality test could be a strategy of evaluating human identity develops. Most identity appraisal disobedient are in truth reflective self-report survey measures or reports from life records such as rating scales. It uses eight cards with various colors to detect needs and anxieties, in addition to repressed aspects and other factors like dominance, will-power, efficiency and job satisfaction as compared with others.

Profile and Personality Inventory assesses the identity of the person with eight personal traits that are noteworthy within the everyday working of the individual. This test comprises of thirty-eight questions. Test for Administrators, Directors, Administrators and Supervisors. Variables that are assessed are obligation, self-esteem, vigor, friendliness, creativity.

1.4.1.3. Intelligence Tests

Intelligence test for Officials, directors, administrators, and supervisors. It evaluates intellectual ability, mental capacity, level of concentration, examination, ability to plan and seven more components. Each of the 10 sub-tests has a time parameter. Intelligence test for specialized levels. Tests mental nimbleness. Assesses the brainpower through consistent, numerical, and verbal thinking. Contains fifty questions in arrange of expanding trouble.

1.4.1.4. Integrated Reports

The above three tests are grouped and included in this report. All of which, to assess behavior for middle supervisors and officials. This integrated assessment evaluates the administration way of considering and common administration, considering the taking

after components: opportunity zones, normal ranges and qualities related to: professional movement, result introduction, imagination and development, issue investigation, organization, collaboration, authority potential, communication, perseverance, working under pressure, arranging and checking and mental proficiency

(Cappelli, 2009).

Egerova et al. (2013) developed her Talent Management Model on which she emphasizes the importance of assessment process in determining one's talent ship. To increase the chance of discovering talents, rigorous evaluation process must be conducted on potential employees. Whoever, master this evaluation process, surely will enjoy long term growth simply because they will pick the talent employees to lead (Lewis & Heckman, 2006). Companies that master talent management will be well-positioned for long-term growth in workforce performance for years to come (Lewis & Heckman, 2006).
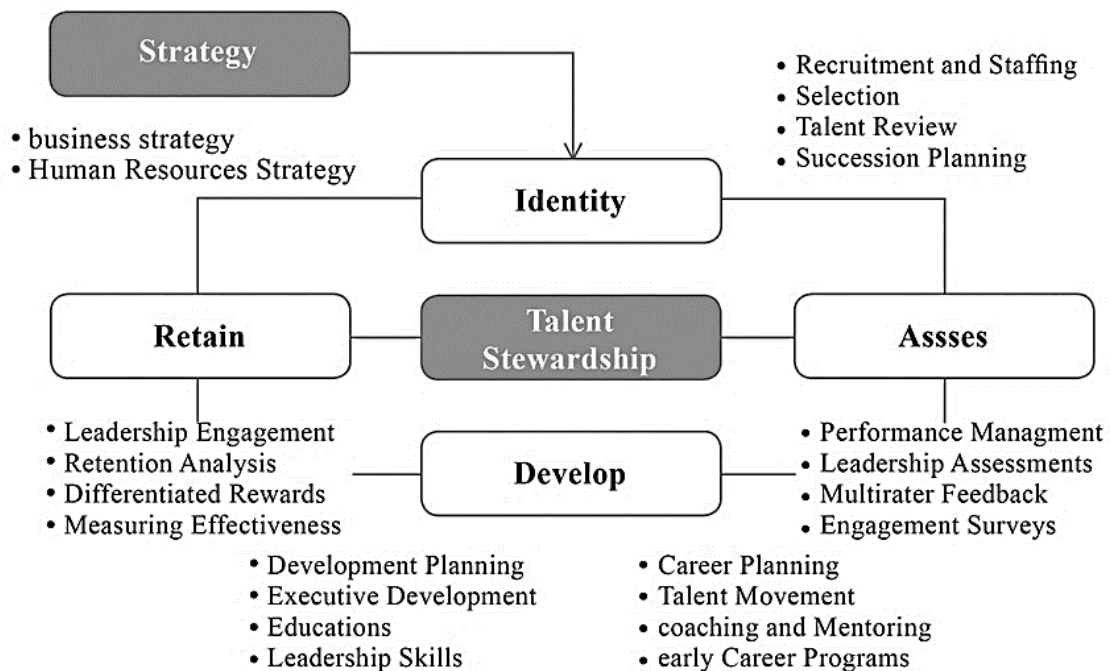
Figure 1.5: Model of Integrated Talent Management
Source: https://www.researchgate.net/figure/Model-of-Integrated-Talent-management_fig2_308086942

A study conducted by Fukofuka (2014) indicated that the literature on selecting talents or identifying them incline toward using the industrial organization psychology. However, some researchers think that it is relied on unscientific methods like the one used by major corporations like Google, Apple, or Alibaba. However, most of them

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advocate that using a combined method of 360 feedback provides a valuable source of information, to form an accurate picture of a person's performance, personality measures, face to face interviews.

A study found that employee who are being identified as talent showed better commitment and building competencies (Björkman et al., 2013, pp. 195-214).

Major companies consult HR specialized firms to help them distinguish their talents from their high performers. This normally is a complicated process which involves the choosing employee who have aspiration to rise to senior roles in their organization, who can be effective in their senior roles, and finally, who has the desire to be fully engaged and be committed to the organization.

1.5. Talent Management in Public Sector

According to Thunnissen and Buttiens (2017) public sector organizations are faced with strong competitions for their scarce talents. Finding an empirical research about this topic was very limited. The researchers tried to clarify how the public organization conceptualize their talent management practices. Their article was among the firsts to tackle this problem and this research should add more information regarding talent retention in the Middle East area (Libyan-Ministry-of-Education, 2015) . It is concluded that TM in public sector is very contextual because internal and external context heavily affect TM (Thunnissen & Buttiens, 2017, pp. 391-418). Normally, in public sector institutions' employee are being treated equally (Thunnissen & Buttiens, 2017). Due to the stiffness and bureaucratic system and HR practices in public sector, TM practice or initiatives are being resisted although, those institutions need to reform their HR practices to be more flexible and efficient. With that flexibility only, they will be able to retain their asset – talent. They added that inclusive and exclusive interpretation of Talent and the understanding-conceptualization of TM strongly related besides operationalization of TM objectives.

1.6. Background of the study

Recent studies on the effect of successful talent management practices on the performance of public organizations were conducted (Thunnissen & Buttiens, 2017). In Libya, The Libyan Authority for Natural Science Research and Technology (2018), have initiated at least twenty research, training and vocational centers in different fields and

industries, and spent millions of Euros in the establishment of those centers from infrastructure, equipment, laboratory to selecting, recruiting, on-boarding and training the workforce for each of those centers. However, the purpose of those centers was to help local businesses and universities do the required research in their respective core industry at the facilities with an exchange of return regardless weather it is monetary or service (Libyan-Ministry-of-Education, 2015). From this, we can per say consider those centers as on the edge between private and public centers. However, it is obvious, that recently, mainly valuable employees (talented employee) leave those centers for good. This has been a challenge for these institutions due to their value to their institutions. The short come of this turnover, is not easy nor quick to be fixed. As the task of filling of those vacancies expensive, time consuming and destroying to the morale of those institutions.

There are tens of vocational, training and research Institutions in different fields that bridge the vocational, training and research processes with the industry in Libya (Libyan-Ministry-of-Education, 2015). However, as those bodies are mostly publicly governed and considered national centers, talents are leaving in big numbers when faced with the reality that their future are not secured or the performance of the centers, they work for are under performing. Initially, they tend to join those centers to leverage themselves and get the qualifications and skills needed for private sector regardless of the location locally or internationally. Unfortunately, those institutions lack the skills needed to harness the most possible outcome from those talents. Also, those centers are tied to certain regulations that do not differentiate between talented and skilled employee from normal employee. A bit of variation from here and there could be found in terms of using managerial positions in encouraging some talents from turning over.

In support of this claim, the eighth annual study by Hill+knowlton strategies (2017) of the reputable corporate reputation of MBA students at major European, American, and Asian universities and colleges has shown that the Middle East needs to do more to attract the best talent on Global level. As talents are being leaked toward western countries in unprecedented manner.

The study added that the Middle East is one of the areas that lose the battle of reputation in the international "war" to attract talent. Despite the region's booming economy, high foreign direct investment, and high oil prices, the Middle East is still among a group of

important emerging markets whose reputation has not reached the level that attracts the world's best young talent. The study found that based on what they have read or heard about the Middle East, only twenty percent of university students with postgraduate degrees in business administration are interested in working in the region, compared to fifty seven percent who are not.

The old reality
People need companies.
Machines, capital and geography are the competitive advantage.
Better talent make some differences.

Jobs are scarce.
Employees are loyal and jobs are secure.

People accept the standart package they are offered.

The New Reality
Companies need people.
Talented People are the competitive advantage.
Better talent makes a huge difference.

Talented people are scarce.
People are mobile and their commitment is short.

People demand much more.

Figure 1.6: Comparison of priorities of the environment. in the past and at present
Source: Michaels, Hanfield-Jones, Axelrod: The War for Talent, 2001, p. 6

The gap between supply and demand in the labor market will continue to expand as we move into a competitive global economy. In this fierce war, successful companies or institutions improve their strategies, policies, and practices to attract, develop, recruit, and retain the required manpower to keep the organization competitive. Talented individuals are capable of leading corporate performance. Local employers wonder why this war and the conflicts over talent and competencies between companies have continued.

1.7. Country Overview: Libya

Located in the middle of North Africa, Libya has a very important geographical location. Its boarders from the North is over 1900 kilometers along The Mediterranean Sea. Libya shares its borders from the East with Egypt and Sudan, Algeria, and Tunisia from the West while it shares its borders with Niger, Chad, and Sudan again from the South. More than 90% of Libya is deserted land and has a limited fresh water sources with area of 1,759,540 square kilometers which is about two and half times that of Texas and slightly larger than Alaska. The climate is Mediterranean in the north and bit dry and deserted

toward the deep south. According to UN statistics, population in Libya is about 6,653,210 in July 2017.

Despite proceeding distress, Libya remains a goal nation for financial vagrants. It is additionally a center for illegal migrants to Europe since of its vicinity to southern Europe and its remiss border controls. Labor vagrants have been drawn to Libya since the advancement of its oil segment within the 1960s. Until the late nineties, most migrants to Libya were from Arab neighbor countries (mainly Tunisians, Egyptians, and Sudanese). In any case, universal confinement stemming from Libya's inclusion in universal fear mongering and a seen need of bolster from Middle easterner nations driven QADHAFI in 1998 to embrace a decade-long pan-African arrangement that empowered huge numbers of sub-Saharan migrants to enter Libya without visas to work within the development and agricultural activities. Although sub-Saharan Africans given a cheap labor source, they were ineffectively treated and were subjected to occasional mass expulsions.

Oil industry employee big chunk of Libyans and contributes of most of Libyan economy. On the other hand, higher percentage of people work in state-owned manufacturing facilities such as cement and construction equipment, machinery, appliances, cigarettes, clothing, textiles, leather goods, fertilizers, shoes, and industrial chemicals. Agricultural industry does contribute to the employment as well as to the production of food.

There was a big move toward conducting researches in all fields in the 1990s. This move was initiated with the Ministry of Education. This helped the establishment of over 25 different publicly funded privately operated research institutions. Libya in the last couple of decades went into different political systems starting with Independence from the Italian colonization in 1951 to 1969 military coup going through ups and downs over 42 years then ended up with the Arab Spring movement on which Gaddafi were taken out. However, the country did not settle down since then and still fight back to setback but the intervention of strong power using regional allies to destroy any corrective measures toward stability and return of investors and big construction firms to the country.

Figure 1.7: The Map of Libya
Source: https://www.mapsofworld.com/libya/

1.8. Libya External Analysis Report (PESTLE Analysis)

PESTLE analysis primarily looking at the external environment that a certain organization or institutions are operating in. It identifies how various macro-environmental factors may affect any organization and its competitivity in the market. Within this context of managing and retaining talent in the Libyan institution, one must conduct this analysis to better grasp the whole external (to the institution) business environment. This analysis is also called Macro-analysis and it is considered a strategic management tool (Rastogi & Trivedi, 2016, pp. 384-388).

Analyzing PESTLE Factors is easy and simple to use and understand. It is used to better comprehend the business environment(Rastogi & Trivedi, 2016). Furthermore, it helps unfold the strategic thinking while reduces the effect of future business threats. If used properly, it could predict future difficulties in institutions such as talent turnover and act

to avoid or mitigate the effect of any related problem. Moreover, it helps institutions to foresee upcoming opportunities and effectively utilize them (Rastogi & Trivedi, 2016).

1.8.1. Political Factors

Since the military cop in Libya back in 1969, political system has not been stable and sound for businesses to run smoothly. According to CNN report by Clay Claibrne (2018), Libya under the Gaddafi regime was a weak administrated police state. A about 15 years ago, Amnesty International (AI) was able for the first time in 15 years to write its report that reveals that the state policies, including the elimination of political opponents in 1980. Also, reports indicate that several deaths while in custody have gone with any investigation nor explanation. Furthermore, the "disappearance" of political and opponent prisoners, especially since mid-nineties; and the "disappearance" of Libyan abroad and in some cases the disappearance of foreign nationals visiting Libya.

This era was very expeller to whoever can survive abroad like talents, well-educated people, and skilled workers. However, Libyan thought things will get better but with the turbulent transition that followed the 2011 uprising (Arab spring) against Al Gaddafi has brought significant political, social, and economic changes in Libya. They sought to rebuild the political system but ended up with a fragmented landscape of competing actors after almost nine years. Political instability can highly affect the employee retention and can lead to severe shortage in skilled workers. Since the Summer of 2014, a political struggle has ruptured Libya among competing governments, based either in Tripoli or at Tobruk in the east of the country. To sum it up, political factors include all government policies, legislative changes, which could affect a smooth conduction of business long-term projects. Some activities that may hinder any business success are the disruption of business environment like economy, for example any sudden changes to employment laws, tax laws and import and export regulations.

1.8.2. Economic Factors

Libyan economy is clearly socialist oriented that is highly depending on revenues from the export of oil and recent decade on natural gas as well (Kamoche, Debrah, Horwitz, & Muuka, 2004). This contributes to the highest per capita Gross Domestic Product (GDP) due to the small population as compared to other oil producing countries. Also, due to the poor soil, climate condition and scarce water sources, Libya imports more

than 75% of its food. Normally, economic factors are considered strong determinants of business conduct as well as human resources development indicator (Kamoche et al., 2004). Inflation, exchange rates, supply and demand, and recession make most of this category.

Due to the nature of business conducts in Libya only certain jobs are considered high paid jobs due to the Law No. 15 which consider all government employees to be almost in pay regardless of their job type. This has reverse effect in keeping employees attached to their employer. According to CIA world Factbook (2002) Libya has an estimated labor workforce of 1.5 million (Kamoche et al., 2004). During the 1969-2011 competition were high seeking well paid jobs in Libya and many factors play crucial role in the selection and hiring process for those mentioned jobs. Recently after the Arab uprising, foreign companies left their campuses and there was turbulent oil production which affected many sectors including employment. Talent retention seem to be at its highest level during this period.

1.8.3. Social Factors

During the last several decades, family and social structure in Libya have been widely changed. Families have strong bond and tribal reputation are very important and due to this and social reparation, employees are concerned about their fames. Also, management style in Libyan culture is influenced heavily by social norms and values. Managers will give up organizational goals for the sake of meeting social norms. This also applies to business relations and communication.

These social factors examine the social environment of the market and measure determinants such as cultural, demographic and lifestyle trends. Demographic analytics play a key role in maintaining talent within the state.

1.8.4. Technological Factors

The use or implementation of technology in today's business environment extremely facilitate the conduction of business or work that a certain institution is specialized in. Examples of technology ranges from the use of information technology in data processing, achieving, or mining to the use of automation. Other examples such as: computer engineering, robotics, fully managed factories, highly sophisticated drugs,

space communications, lasers, etc., have created significant impacts on helping easing the human power conducting work at hand. And dangerous for different business organizations. Those factors highly influence the development of institutions and considered an important asset for talents commitment and full engagement at their jobs. First adaptors of technology normally attract talents from all over the world simply because they wanted to be in a pioneer in their field. For this, government must implement latest technology trends to compete with the trend in any specific field.

The impact of high technology can create new markets, new and developed products, change the position of relative competitive cost and make existing goods and services obsolete; they affect the products and services of the Organization, its customers, distributors, providers, competitors, markets, and operations. Productivity, marketing practices, and competitive position. In addition, with the new communication technology, the globe become a small town in which talents as well as entrepreneurs seek vacant jobs all over the world simply because they know their capabilities and skills. Furthermore, the existing of a technology system that can deal with protecting licensing and patents rights while fostering innovativeness environment surely will help talents maintain their positions. Regionally, this is highly dependent on how technology is being utilized in different sectors and industries and research.

Talent retention normally are affected by the rate of acquiring and implementing the technological innovation that can affect industry or market some of which but not limited to include:

- Basic infrastructure level.
- Rate of technological change.
- R&D expenditure.
- Technological incentives.
- Technology legislation.
- The level of technology in the industry in which the company operates.
- Communications infrastructure.
- Access to the latest technology.
- Internet infrastructure and technological penetration.

1.8.5. Legal Factors

The law of Libya has verifiably been impacted by Ottoman Empire, French, Italian, and Egyptian sources. Libya's current legal and legislative structure is based on two protected constitutional records: The Constitutional Proclamation of December 1969 and the Declaration of the Establishment of the People's Authority. Since its establishment, Libya went under several ups and downs caused by inexperienced negligent government that most is run by individuals who bear no responsibility to their actions.

Each business institution should understand the legal aspects of its the industry in which it operates and be aware of legislative changes and their impact on business processes. Some of these factors are:

1. Anti-monopoly law.
2. Discrimination Act.
3. Intellectual Property and Copyright Law.
4. Consumer protection and e-commerce.
5. Employment Law.
6. Health and Safety Act.
7. Minimum wage regulation

Violating any of the previously mentioned laws by employee or his/her institution may endanger the existence of institution and could be punished. Talents, could find those factors encouraging in some way or discouraging in some other ways.

1.8.6. Environmental Factors

These components incorporate all those that impact or are decided by the encompassing environment. Variables of a trade natural investigation incorporate but are not constrained to climate, climate, geological area, worldwide changes in climate, natural offsets, ground conditions, ground defilement (contamination), adjacent water sources. Proximity from mechanically created nations too may donate reward to Libya as compared to other removed nations within the Center East. Usually, they have no to a little effect on the actual process of running the business. Libya is blessed with mild climate and is considered virgin land and yet to be discovered when compared to other

countries in the region. It is encouraging to work and invest in this country given its environmental factors.

1.9. Statement of the Problem

In most private and public sector institutions, the straggle for retaining and managing talents is a heavy burden and the notion that it is a straightforward process is no more valid in our current globalized world. Talents as defined earlier; are the core value of any institutions they work for unless they are not being looked-after. The old school of Human Resource Management (HRM) is not doing its job and a new era of HR management practices surfaced and need to be adopted. Talents are leaving their life long careers seeking better opportunities simply because of many reasons, understanding and evaluating the reasons behind this turnover is the reason behind conducting this research. Furthermore, Lack of effective strategy that maintain valuable workforce is considered a research gap between the implementation of TM in similar centers around the globe and in Libya. To make it easier, the researcher her is trying to link the impact of the TM strategy application to those public institutions' overall performance.

The challenge faced by any business or institution in Libya is not hiring the right person for the right job. It is not also an issue of Performance Management System, nor the work environment or culture, but retaining those core employees. It has been proven without doubt that it is the talented people who make or break their employers (Berger & Berger, 2004). They do not stay because there was only no enough monetary compensation, but mostly, they leave because of the lack of opportunity, lack of value, lack of recognition of their talents, skills, unique abilities to add value to their institutions. Most talents leave because they think they have potential that is not utilized. A quick review of HR theories the researcher can clearly see that TM practices are not explicitly or implicitly adopted in the Libyan Centers. One purpose of this study is to see to what extent those institutions are aware of those theories and their awareness of the implantations.

1.10. Objectives of the study

- To study the current HRM strategy adopted in the mentioned institutions with relative to similar institutions around the globe.

- To study the root causes of talents turnover problem in Libyan public institutions.
- To study benefits of implementing Talent Management practices to individual talents or an institution.

1.11. Specific Objectives

- To find out the main problems facing Talents in Libya.
- To help the Vocational, Training and Research Centers manage and retain their valued talents.

1.12. Research Questions

1. Why talented employees leave the Vocational, Training and Research Institutions in Libya with an eye on international similar institutions?
2. What is the most effective retention management strategy for those working for public entities in Libya?

1.13. Significance of the study

The study draws its significance from the effect that talent turnover is causing to the society at large and to the mentioned institutions at smaller scale. It is expected that the finding, contribution, of this study will help:

- The whole society benefit from its well-trained Talents in all fields
- The institutions achieve their objectives in most efficient and effective way possible
- Mitigate the inflated problem of talents turnover
- Reducing the cost of replacement of those talents

After conducting this research, collecting data, and analyzing it, it is obvious that the study brought its fruits by highlighting the core problems facing talents in general and public institutions in Libya. Details are explained in the third and fourth chapters. It is imperative for Libyan Public Institutions to retain their valuable assets "talents" in order to enter the global competitiveness arena.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

By conducting an academic search for the term "Talent Management" although, it is considered new but one can clearly say that the term is not young and become a hot-topic in all levels of businesses. Talent Management and Talent Retention in private sector have been heavily studied not like in public sector. This literature review focused on articles, books, and dissertations on TM. Since the definition of the basic related terms to TM was covered in the introduction chapter, more thorough understanding and findings will be covered here in this part.

Also, the main purpose of this literature review was mainly to shed the light on publications that entirely focus on talent and talent management with focus on its application on public sector organization. Around 50% of the database used here are from journals. Analyzing all these articles took tremendous amount of time and energy. However, the researcher focused on the outcome of those papers and paid less attention of their analysis process. The main viewpoints or assumptions were pinpointed in most of the documents.

2.2. Macro-environment Analysis vs Talent Management and Retention

Boselie and Thunnissen (2017); Collings et al. (2017); Thunnissen (2016), indicated that talent management and talent retention have always been recognized are crucial to the success of every institution. Boselie and Thunnissen (2017) states that all public institutions must develop TM strategies that bring values around inclusivity and public service. More importantly in the public sectors as it is most likely, talents are under-estimated and underpaid. Studying the countries' environmental factors and understanding their effects on talent retention should ease the inflated problem and reduce the phenomena of Brain-Drain. PESTLE factors' analysis is an excellent developed tool to generally analyze and monitor the macro-environmental factors, sometimes called as: external marketing environment, that have a noticeable impact on an organization performance (Rastogi & Trivedi, 2016).

Collings et al. (2017) believed that shifting the research toward understanding the effect of Macro-environment in relation to TM will strengthen the field. This should take place

by exploring the country level government activities, which will lead to enhancing that countries talent retention practices. There is a plethora of evidence that prove that national culture facilitate talent management policies an organization can use in that particular country (Collings et al., 2017). There is a tight relationship between a country's culture and a company's talent management practices and any organization or institution working in certain country must tailor their TM practices while taking into consideration that country's culture. This applies to and being implemented by all international companies. They learned it the hard way. Libya is nowhere to be mentioned in The Global Competitiveness Report 2019. This reflects on one way or another how weak the macro-environment in Libya is in attracting or maintaining their productive people. It is also weak in keeping talents locally. Researchers argued entering the competitiveness report is primarily dependent on strong emphasis on people-development programs (WEF, 2019).

Figure 2.1: PESTLE Analysis with Mind Map Tools
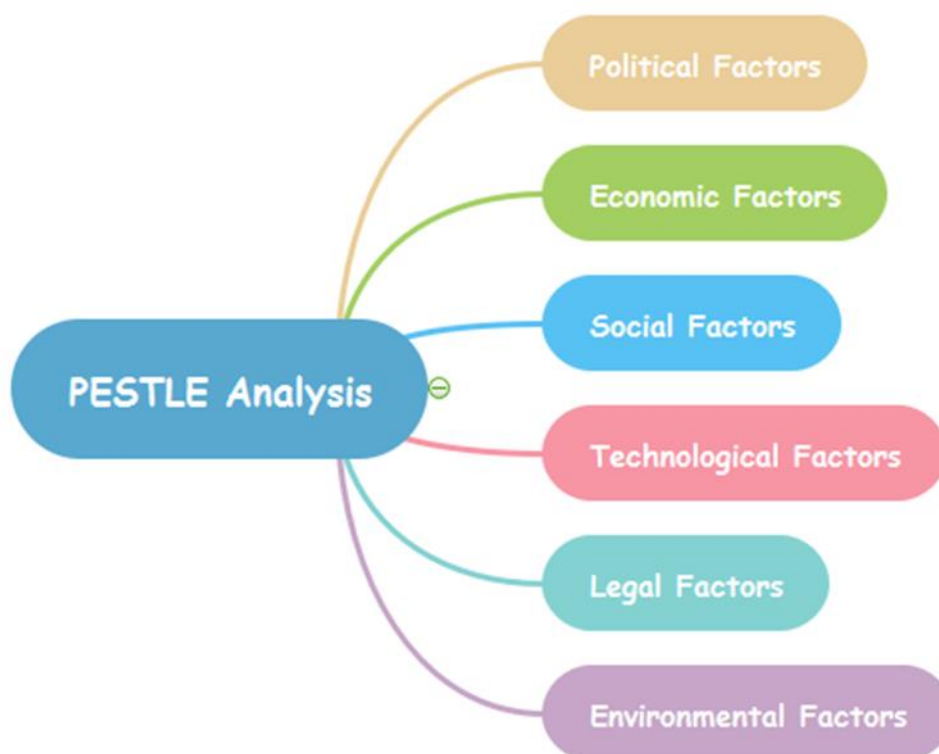Source: http://www.mindmapsoft.com/pestle-analysis-mindmap/

Eric (2013) who is the founder and CEO of eSkills Corporation predict that four out of six PESTLE factors affect human resource management activities. He claims that

governmental regulations, economic conditions, technological advancements, and workforce demographics have strongest impact on HR performance. He is specialized in hiring and motivating team members to contribute with the best they can to achieve their institutional goals. He suggests that HR personal should be on top of their game and know every type of factors that may affect their employees' attitude, loyalty or efficiency (Eric, 2013). Starting from internal factors which will be discussed in the following part to the external factors being discussed here.

Although very few researchers approached the cause-effect relation-ship between macro-environment represented here by PESTLE factors and talent retention, the researcher insist in finding any relationship or consistency between the mentioned variables.

Rastogi and Trivedi (2016) beyond that, insisted in enlightening the public institution about the severity of the brain-drain problem is essential. Many scholars foresee those six factors to be changing over time and TM actions encompass that talents lead their institutions and themselves once they found the macro-environment to be rich and inviting (Rastogi & Trivedi, 2016). Always, there must be new ways in finding any form of correlation coefficients or indexes and tacking this topic could be sensitive or difficult to analyze.

Thomas and Kerr-Phillips (2009) concluded that specific macro environmental factors directly affect the emigration in South Africa. Those are social, economic, and political factors. Despite this, this tend to take place with some variation according to the culture, diversity, and education. In fact, conducting such a research with numerous factors to be studied could affect the findings but hopefully, it should ring the bell for those who could oversee public institutions.

Corbridge and Omotayo (2012) summarized macro environment in a form of six factors with acronym PESTLE analysis. The author considers it a strategic management tool that is utilized to classify, evaluate, coordinate, and keep an eye on key external factors, which can have an impact on the current or future organization's activity. The groundwork of this tool is to evaluate opportunities versus threats due to the following listed factors. PESTLE as: Political, Economic, Social, Technological, Legal and

Environmental factors, to foresee planning and decision-making when dealing with organizational change such as talent retention (Corbridge & Omotayo, 2012, pp. 1-4)

2.3. Institutional (Micro) Internal Analysis vs TM and Retention

The success of any private or public institution is remarkable dependent on its internal environment. Countless papers and authors talked about this; however, a few wrote about its effect on public sector. Organization environment and culture have a direct impact on talent retention.

Yahya, Othman, and Shamsuri (2012) found that providing adequate training improve organizational culture thus enhance overall performance, which encourage talents stay longer. Based on his research training has positive impact on organization's performance (Yahya et al., 2012). Innovativeness is another point to be boosted in any organization to keep employee active and to fulfill their desire to explore new ideas and feel happy about themselves (Marin-Garcia, Aznar-Mas, & de Guevara, 2011). Oladapo (2014) insist on the importance of job security, compensation, and development opportunities in mitigating retention rates. He states that companies in the US will have to be active in searching for talents to replace those retiring as the demographic in the US is changing in un-precedented pace (Oladapo, 2014). Over 75 percent of corporate officers told that their companies chronically suffer from Talent-shortage(Oladapo, 2014). To conquer this, they invest heavily in improving their HR departments to acquire the best at the local and international market and in order to be effective in their businesses(Oladapo, 2014). He concluded that retaining key employees is vital to the health and profitability of their organizations. He also overwhelmingly believe that the use of effective TM practices surely will pay off in the long-run(Oladapo, 2014).

A study based on reviewing all literature reviews regarding TM by Kavita Rani (2014) suggested that factors affecting talent management practices are related to the age and experience of those talents will have direct and noticeable impact on their retention. It found that the level of education of talents has no impact on their retention while good package of salary and benefits affects their retention (Kavita Rani, 2014). In support with (Oladapo) they found that providing training and offering development opportunities, succession planning, excellent organization culture and enhancing working environment will have significant influence in maintaining acquired pool of

talents within the organization (Kavita Rani, 2014). The commitment of any organization to its mission and vision statement always have positive impact on job performance and work-force retention. Job security, flexibility and satisfaction are also factors that the researchers founded to be effective in retaining high performers (Kavita Rani, 2014). Recognizing the work achieved by talents is motivating for them to continuo their journey with the organization. Also, providing a challenging but meaningful work tasks ensures that talents will be able to see their contributions and the impact they make on the success of their organization (Kavita Rani, 2014). Last but not least, excellent leadership skills, clear communication channels, continuous motivation and superior interpersonal relationship within the institution should all have strong and effective impact on improving talent retention(Kavita Rani, 2014).

Sandhya and Kumar (2011) mentioned that numerous retention strategies are proved successfully. Transparent work environment, open mindedness both facilitate communication, responsibility, accountability, trust, , pride and belonging (Sandhya & Kumar, 2011, pp. 1778-1782).

Furthermore, a study by Thomas and Kerr-Phillips (2009) found that seven institutional factors highly affect talent retention. Those are talent development, high performance culture, personal growth, transparency, recognition, valued and branding. He added that quality of leadership, employment equity and organizational culture could predict talent turnover.

For the organizations that want to retain valuable talents, they must establish a favorable organizational environment and enhance their human resource practices to address the differing work-personal needs of their various work-force (Coetzee & Gunz, 2012, pp. 1-4).

2.4. International Pull Factors VS TM and Retention

Brain-drain phenomenon have been defined as the migration of people in search of the better quality of life, improved standard of living, higher income, access to advanced technology and more stable political conditions in different places worldwide (Dodani & LaPorte, 2005, pp. 487-491). This migration of talents particularly is of growing concern worldwide because of its impact on the development of developing countries (Michaels et al., 2001). The questioned being asked here in this study and elsewhere in

the effected countries can be stated as why do talented people leave their countries for abroad opportunities? What are the consequences of their move on the public sector of their origin countries? What strategies can be implemented in mitigating such moves? What factors that encourage talents to leave when compared to their countries?

According to The Global Talent Competitiveness Index 2019 Entrepreneurial Talent and Global Competitiveness, developed countries are attracting migrants in competitive way between them. As talents are scarce asset and they are offering opportunities for highly-skilled migrants with focus on talents and entrepreneurs to contribute to innovation, establishment of start new businesses. Talents come from an increasingly diverse number of developed and undeveloped countries. However, all move to a shrinking pool of countries that provide for them what they are looking for such as but not limited to US, Canada, Australia, or Switzerland. The mobility of the top talent, such as scientists and inventors, is even more concentrated to certain regions on those countries where innovative firms are located.

Mahroum (1999) found in his study that five major channels for international mobility of highly skilled personnel. He has shown that different push and pull factors influence the volume, frequency, length, and direction of mobility in the various channels (Mahroum, 1999). He also concluded that whenever a highly skilled persons are involved in any sort of geographical movement or travel such as but not limited to a short term abroad visit, long-term stay (student stay or temporarily work assignment) or permanent stays, various outcomes can take place (Mahroum, 1999). Two main outcomes could evolve as a result of this, either "Brain exchange" or 'brain waste". No need to comment on this as it is clear. Moreover, receiving countries normally have structured their policies to make it attractive for those talents and skilled workers or professionals those providing superior research infrastructure, higher tax incentives and irresistible wages (Mahroum, 1999).

In a discussion paper about the international migration about Analysis of Economic and Non-Economic Determinants by Mayda (2005), the less restricted the immigration laws is in receiving country the more likely the talents will turn into. Family reunification is considered the most sought point when choosing a country to immigrate to (Mayda, 2005).

The argument that different people can be driven by different reasons to relocate internationally is a proved fact. Some chose to economic pull factors, for example, their intention to start a business, or worked for companies that offer lucrative pay package. However, some others choose to emigrate for family-related reasons such as joining the family, or providing better education for family members like children. Seek better healthcare, living in a country with high safety standard are another factors sought by emigrants (Schoorl, Heering, Esveldt, Groenewold, & Van der Erf, 2000). In this view, as the subject of the study here is talent management and retention, there are other pull factors that may attract talents, some of which are less taxation, openness in communication, ease of establishing business and available funds for projects if sought.

From the above, one can conclude that pull factors have a great impact on the movement of talents. However, one should analyze them and understand their effects based on regional and country levels while taking into consideration its own push and pull factors.

2.5. Maslow's Pyramid of Needs and TM and Retention

Talent Management and Retention became a crucial for companies and institutions in private and public sector. As business is being evolving and HR departments need to catch up implementing best TM practices to maintain their employee fully engaged. This engagement can be achieved by intertwining achieving employee needs along the organization objectives. Those needs are being summarized and categorized in Maslow's Hierarchy Needs (Upadhyaya, 2014).

Maslow (1943) brought a theory that is called Maslow's Hierarchy of Needs. In this theory, motivation helps an individual to satisfy his basic needs to be active and fully engaged in her/his surroundings (Upadhyaya, 2014). As explained in Figure 2.2, personal needs are divided into groups with priorities. Employee will seek the lowest first and moving up the pyramid toward self-actualization.

A study by Jerome (2013) indicates that the theory of Maslow's hierarchy needs is applicable to employee motivation as well as organizational orientation. Although, he suggested its functionality, it is concluded that a causal relationship between employee needs and organizational performance cannot be made easily. This is because persona opinions are prone to be bias (Jerome, 2013, pp. 39-45). This suggests that this theory should not be used blindly as a tool alone. One good reason for this could be the

applicability of this theory. On the contrary, it found that meeting those needs are good indication of employee performance which is an indicator of attaining the organizational objectives (Jerome, 2013, pp. 39-45).
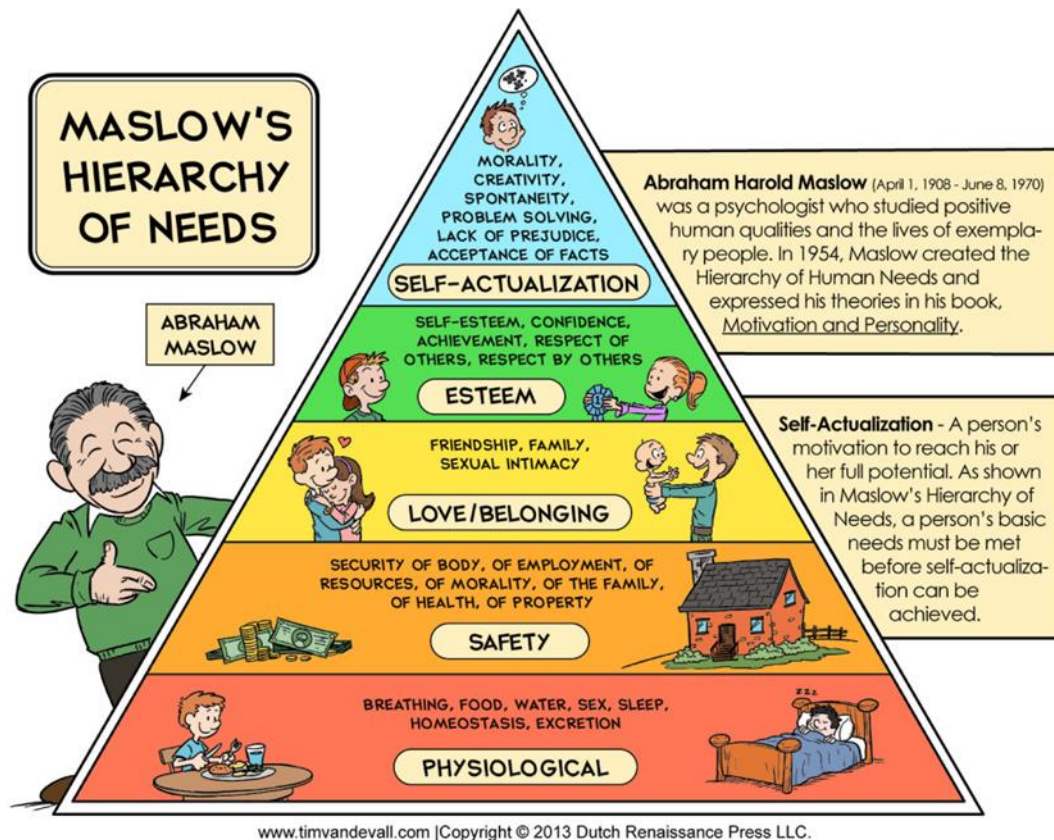
Figure 2.2: Maslow's Hierarchy of Needs
Source: https://www.tfnhealthylifestyle.com/

Starting with securing the most basic needs while facilitating day-to-day activities and rewarding performance. Rewarding can take many forms including monetary or emotional compensation. A part from this, organizations need to address horizontal and vertical development opportunities.

Every employer should have a HR strategy (TM) that satisfies personal needs (Maslow's Needs) to avoid or anxiety, insecurity and stress among staff or employees, which ultimately reflected into enhanced employee productivity.

2.6. Theoretical framework

It presents theories and models that explain or showcase how employee retention is influenced when adopting talent management practices. Theory normally compounded of a group of statements that explain any phenomenon or any behaviors that human show when exposed to different work environment. They are used to predict the results of any theory-based tests (Berger & Berger, 2004). Researchers in this field introduced numerous theories but in this study only seven theories will be explained and discussed to explain employee retention and TM (Berger & Berger, 2004).

2.6.1. Resource-Based View Theory

Resource-Based View theory (RBVT) is when an entity has a distinctive competence, on which it can performs better than its competitors. Those resources can be tangible or intangible. (Toyota, Starbucks). To sum it up, it must have valuable, rare, imitable, and organized features. The RBVT of the firm asserts sustainable competitive advantage. On contrary, competitive survival is crucial and required when exposed to dynamically unstable business conditions. Strategic talent management focuses on talent attraction, identification, engagement, succession planning and talent retention for sustainable competitive advantage. Here, the research thought that a hybrid approach needs to be followed (Kibui, 2015). According to RBV supporters, leveraging potential opportunities utilizing existing resources in a new way is far more realistic than trying to acquire new skills for each opportunity. Resources are given the big role in helping organizations achieve higher organizational efficiency in the RBV model. There are two resource types: real, and intangible. The following Figure 2.3 depict the main elements of RBV theory.
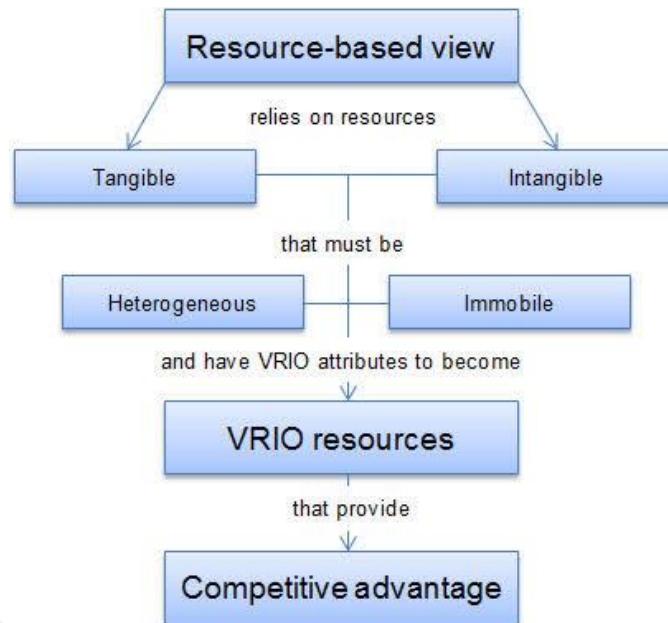
Figure 2.3: Resource Based View Theory key points
Source: https://strategicmanagementinsight.com/topics/resource-based-view.html

2.6.2. Social-Exchange Theory

Emerson (1976) reviewed the Social-exchange Theory and mentioned how it developed and reviewed over time and the major contributed to its development were George Homans. John Thibaut. Harold Kelley, and Peter Blau starting from 1959. It is considered economic theory, as it is suggest forming relationship if rewarding. Institutions in the eyes of this theory attempt to maximize rewards and minimize costs when creating and maintaining relationships. This theory depends on three main factors (Emerson, 1976). First being the comparison level in which the comparison level through own experience. Second is the comparison level for alternatives when comparing benefits from existing relationship with gain expected from alternative relationship. Thirdly, the investment model where commitment to a relationship depends on satisfaction with this relationship, investment in this relationship, the availability of alternative relationships (Emerson, 1976). This theory is intertwined with equity theory as both works parallel in achieving relationship goals. Most mega factories in Asia and mainly in China adopt this theory.

2.6.3. Person in Environment Theory

The person in environment theory (PIE theory) is based on the degree of fit between employee and work environment. PIE is used mainly to help clarify the processes of HR

development but not necessarily the outcome (Kibui, 2015). For example, person environment theories are not intended to explain how students develop their psychosocial identities such as black, Asian, or Arab. Instead, this theory is intended to explain how people interact with their environment. Neufeld et al. (2006), reached to a point where he said that development is a function of person's interaction with the environment. A context must be considered when dealing with human resource. In more simplified words, employee X may excel in a company A while fails miserably in company B.

2.6.4. The Social Cognitive Career Theory

Basically, the Social Cognitive Career Theory (SCCT) is considered a new theory. It was brought about to clarify three elements of career development. How the interest for academic and career is developed, how educational and career decisions are made? and how success is obtained (Greenhaus & Callanan, 2006). It is a way to acquire social skills and many nonsocial behaviors. SCCT developed by Lent and Brown (2006) and was based on Bandura's general social cognitive theory. Bandura's theory was influential cognitive and motivational theory that have many applications and organizational development is one of them (Greenhaus & Callanan, 2006) . This theory has been termed as the most promising career theory that may prove satisfactory in employee retention and their career development. Lent and Brown (2006) broadened the SCCT scope, suggested three intertwined variables; self-efficacy and theory outcome expectations and personal goals (Berger & Berger, 2004). This method has been used extensively by researchers to employee retention.
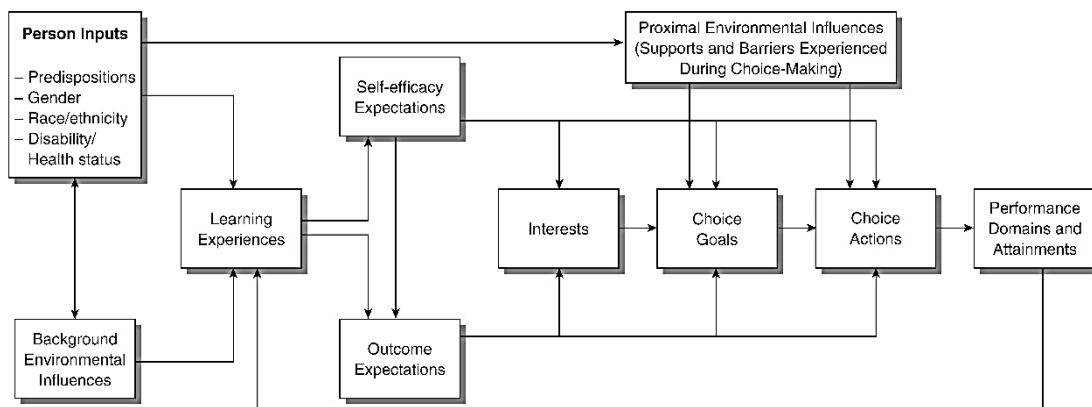

Figure 2.4: Simplified view of how career-related interests and choices develop
http://career.iresearchnet.com/career-development/social-cognitive-career-theory/

2.6.5. Herzberg's Motivation-Hygiene (the two factors) Theory

Mullins (2010) according to Herzberg, there are hygiene factors that if realized and accomplished in work environment, employee will be satisfied. They are essentials needs, working environment conditions and motive factors. However, if ignore, employees (talent) work engagement and commitment noticeably decrease and start to search for alternative better employment opportunities (Mullins, 2010). Herzberg suggested that the factors (motivators) that make employees satisfied with their current employment are related to the job content. Contrary to this, factors (hygiene factors) that bring dissatisfaction to the work environment are related to the job context (Mullins, 2010). Bottom line, motivators are for job satisfaction while hygiene factors for dissatisfaction with work environment. Herzberg assume that hygiene or motivator hygiene factors are two separate dimensions that are major players in shaping employee behavior. They tend to be caused by the presence or absence of job dissatisfies. Employee satisfaction decrease if work environment value hygiene factors and vice versa (Mullins, 2010). To avoid job dissatisfaction, those factors are necessary and treated as preservative factors but do not enhance job satisfaction and personal motivation. They are only meant to retain employees. Therefore, HR managers job is to provide those hygiene factors to minimize dissatisfaction and provide motivation factors to enhance job satisfaction. Examples of hygiene factors are but not limited to; job security, institution policy, supervision, interpersonal relationship, personal life, status que and salary (Mullins, 2010) . Contrary to hygiene factors, there are motivation factors that lead to job satisfaction and are always related the job practices or policies such as challenging assignments, recognition, advancement and development opportunities as explained in the Table below . Kibui, Gachunga, and Namusonge (2014, pp. 414-424) while studying factors that affect job-satisfaction, and dis-satisfaction of employees, brought about the notion that the factors, which contribute to their satisfaction are, recognition, achievement and responsibility (Mullins, 2010). The current focus on competency mapping, self-development, and career development are claimed to be drown from Herzberg's theory. In nutshell, employee without hygiene and motivation factors are dissatisfied and unmotivated but with hygiene factors they will not be dissatisfied but still unmotivated. However, with both hygiene and motivation factors, employees will be both satisfied and motivated. Main critic of this theory is the nature

of human when being faced with dilemma, they tend to claim the reasons on the environment but when things go well, they tend to claim it to themselves.

Table 2.1: The Hygiene and Motivation factors Herzberg's theory of motivation by Frederick Herzberg

Hygiene factors	Motivation factors
Salary	Responsibility
Security	Advancement
Work conditions	Achievement
Interpersonal relationships with co-workers and supervisor	Recognition
Technical competence of supervisor	Work itself
Quality of supervision	Personal growth
Company policies and practices	

Based on the source: http://www.humanbusiness.eu/herzberg-two-factor-theory-of-motivation/

2.6.6. Equity Theory

This is Adam's equity theory which refers to the perceived gain as compared with peer's gain in surrounding environment (Laurie, 2005). Input weights vs outcome perceived value. Perceived unfairness, this can affect motivation that could result in employee retention. However, employee will try to find equity and re-adjust their performance based on the perceived fair outcomes they think they deserve. It helps understand how value affect motivation. The following Figure 2.5 illustrates Adam's equity theory
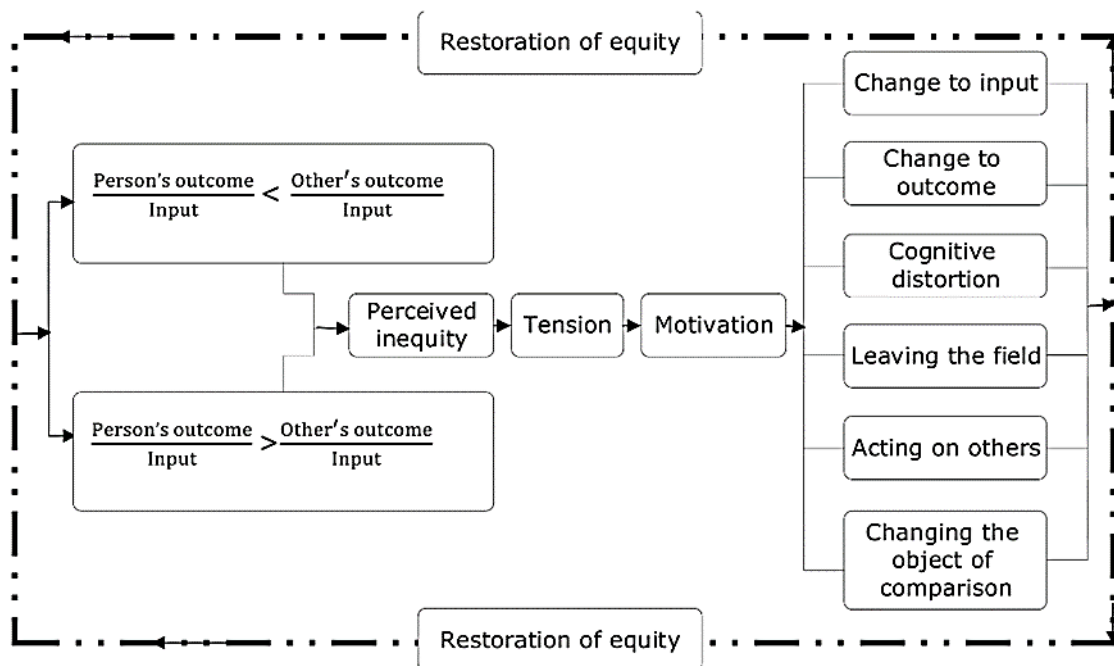

Figure 2.5: An illustration of Adams's equity theory of motivation
By the researcher based on the source: Management & Organizational Behaviour, 7th edition page 497

2.6.7. Alderfer's ERG theory

Laurie (2005) Clayton Alderfer in 1969 went into developing his new theory (ERG theory) based on Maslow's five need theory but regrouped the levels into only three levels. They are existence, relatedness and growth based on the core needs. Alderfer claim that a person is motivated to meet some the needs, and if one of the needs is blocked, then other level's needs to be met. Here in the following table, a linkage of the three motivational theories and how they categorize the needs (Laurie, 2005).

Table 2.2: Linking Maslow's, Alderfer's and Herzberg's theories of motivation

Maslow's hierarchy of needs	Alderfer's ERG theory	Herzberg's two-factor theory
PHYSIOLOGICAL	EXISTENCE	
SAFETY		HYGIENE FACTORS
LOVE	RELATEDNESS	
ESTEEM		
SELF-ACTUALISATION	GROWTH	MOTIVATORS

By the researcher based on the source: Management & Organizational Behaviour, 7th edition page 484.

2.7. Models for Talent Management:

Based on literature review, there have been many models that focus on Talent Management strategies, which they will be shown here, starting with the most basic one and going through more difficult models. a very simple Talent Management Model that can be used is called the 5 B's. This is a model I was exposed to at a recent HR conference in Kenya. The model involves 5 steps that serve as a starting point for a developing effective talent management.

2.7.1. Five B's Talent Management Model

Based on KUMAR (2017) this considered the basic one toward developing effective talent management, and compounded of 5 points as following:

1. Buy – this reflect the selecting or hiring process and how HR departments choose their talents.

2. Build – this is a planning and development process based on need skills and competencies that should lead to competitive advantage.
3. Borrow – seeking internal and external knowledge and expertise regarding.
4. Bind – This is about utilizing all possible resources and strategies toward retaining talents
5. Bounce – This is about let-go employees who do not add value nor contribute to the success of the institution.

Linking the institution's main activities to talent's core competencies, institution culture, context and challenge should ease the job of HR department toward implementing the right talent management strategy.

2.7.2. Talent DNA Model

Based on Shravanthi and Sumanth (2008), proposed a plan to break down the talent's DNA into three main parts that compound knowledge infusion. TM is about developing talents' capacities. For organizations to achieve their goals, there must be a sound talent management plan that plan, hire, invest-in and retain core valued performers (talented employees) (Shravanthi & Sumanth, 2008). Following up, there must be a match between each institutions' need and talent's core competencies. Table 2.2 shows a brief steps of Talent DNA model, which is basically lying the ground floor for management to take effective decisions regarding talent acquisition step till retention point (Kibui, 2015, pp. 23-28).

While TM is about reinforcing potential talent's capacities, the later are considered the essential DNA of an institution. Looking on the table below, there is a point where departure process take place. In this process, institution's vision is translated into goals and competencies are shaped to achieve key objectives (Kibui, 2015). Then, institutions must evaluate talents to forecast their capabilities' levels. Investment in potential player are crucial for organizations to provide them with growing responsibilities (Kibui, 2015).

Planning process in TM is about utilizing existing and potential capacities toward present and incoming work environment needs. This talent model is related to this study as it helps predict where the problem exists. As for each institution, it have to identify, hire and relate all skills and capabilities toward job position (Kibui, 2015). DNA model

is a set of built blocks that form TM and is based on HR functions. Career development followed by performance management then mapping the existing competencies should form theoretic framework of TM. Understanding the concept of supply and demand on talented employee is fundamental in business environment in this era (Kibui, 2015).

A sound TM practices is about hiring the needed and related talents, in the right time, where mostly needed surely will prepare any institution to be ready for the unexpected. (Kibui, 2015).

1. Skills and capabilities required throughout the organization.

2. Skills and capabilities must be able to relate to job position.

3. Organizations must be able to hire the right people.

Putting into place the previous three components, organizations can utilize this model to any human resource supply and demand process.

Table 2.3: Talent DNA Model

Talent DNA Model

D	N	A
Point of Departure	**Navigation**	**Point of Arrival**
Translating organizational vision into goals and mapping the required level of capacities and competencies to achieve goals.	Aligning individual values and vision with organizational values and vision.	Clear understanding of the varied roles within the organization and appreciation of the value-addition from self and others leading to building a culture of trust, sharing and team orientation.
Assessment of talent to profile the level of capacities and set of competencies possessed within the organization.	Enhancing capacities to learn, think, relate and act through development initiatives.	Individual growth to meet and accept varied, incremental and transformational roles in an overall scenario of acknowledged need for change.
Gap analysis and identification of development path.	Helping individuals realize their full potential through learning and development.	Developed individuals enabling breakthrough performance.

Source: https://shodhganga.inflibnet.ac.in/bitstream/10603/2419/8/08_chapter%201.pdf

2.7.3. Deploy-Develop-Connect Model

Deloitte (2007) developed a frame work for TM and call it Deploy-Develop-Connect Model. He advices each organization to adopt it due to its features. It is considered a key

management methodology in HR development as well as in talent management. The model consists of three decisive steps. In the first step, inclusive capabilities and competencies of HR force are developed. Secondly, those mention will be widened and expanded to best utilize them. Last step is where strong ties and relationship is built to maximize talents' performances. Based on (Deloitte) TM used to focus heavily on the acquisition process and retention process of their respected talents. Based on this model, it is crucial for TM programs to focus on the three steps of this model namely: deploying, developing, and connecting those talents. It is considered a long term solution rather than the expensive old style of hire and retain(Deloitte, 2007). Institutions should prepare a good pool of needed talent to overcome any shortages that may cause service interruption because any shortages will tough all business process as well as it will affect the overall work engagement.
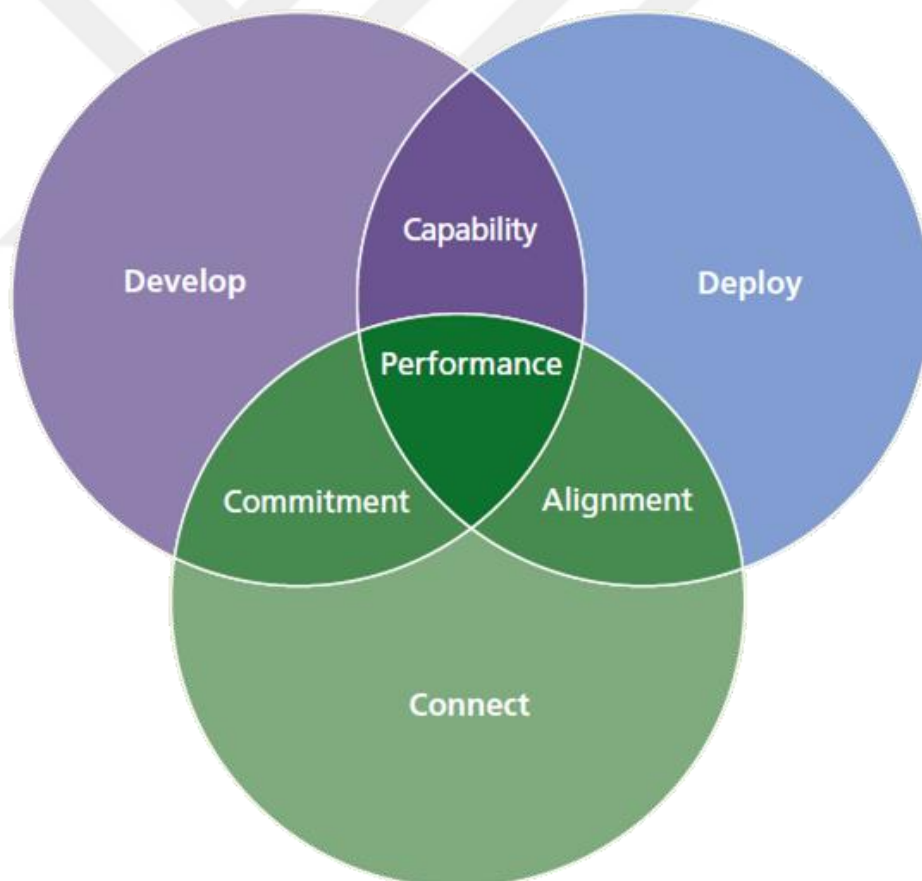

Figure 2.6: The Deploy-Develop-Connect Model
Source: http://edgeplusglobal.com/EPG_Stories.html

2.7.4. Peter Cappelli's Model

According to Cappelli (2009), TM is basically about a matter of foreseeing the HR needs, and then prepare a plan to meet those needs . For organizations to make their objective achievable, it must implement strong measures toward recruiting, selecting, measuring performance, recognizing, and rewarding their valued employees. A talent-on-demand is another work principle that (Cappelli) introduced just similar to just-in-time manufacturing strategy. This means, an organization treat talent as an asset or resource that need to be relocate and used where mostly needed. They are as follows:

Williams (2000) once stated that quote "The deepest principle in human nature is the craving to be appreciated" in his book titled "The War For Talents ", this means that people in general expect to be appreciated if they achieved something. This increases if that people are high performer or talented people. Organization brands is intertwined with Employee Value Proposition (EVP). EVR components are presented in Figure 2.7 where it shows the equilibrium balance between rewards and benefits that an employee receive in exchange for his contribution to their work (Michaels et al., 2001)

Table 2.4: Peter Cappelli's Model

Principle 1	Principle 2	Principle 3	Principle 4
Make or buy to Manage Risk	Adapt to the Uncertainty in Talent Demand	Improve the Return on Investment in developing employees	Preserve the Investment by Balancing Employee Employer Interests
A deep bunch of talent is expensive. So, companies should undershoot their estimates of what will be needed and plan to hire from outside to make up for any shortfall. Firms should be thoughtful about their precious resources in development of organization. Talent Management is an Investment, and not an Entitlement. So, every organization should think carefully the requirement of talented people.	This principle tells about managing the talent demand.

Bring employees from all the functions together in an 18-month course that teaches general management skills, and then send them back to their functions to specialize, instead of putting them as Management Trainees through a three-year functional program. | Get employees to share in the costs of development. That might mean asking them to take on additional stretch of assignments on a voluntary basis. Maintain relationships with the former employees in the hope that they might return someday, bringing back the investments in their skills. | Talent development is a perishable commodity. To reserve the investment in development efforts if possible, balance the interests of employees and employer by having them share in advancement decisions. To retain talent, organizations must elevate talent as a priority throughout the company by developing a sound employee value proportion. |

Source: Peter Cappelli (2008), ―Talent Management for the Twenty First Century‖, Harvard Business Review, South Asia, pp. 60-69.

. Employee satisfaction and retention based on this model is affected by exiting work environment, great company culture, wealth and reward-regardless whether it is monetary or intangibles and growth and development opportunities (Michaels et al., 2001).

The main core idea of TM is to understand that different employees are motivated by different EVPs (Hurt, Joseph, & Cook, 1977). The notion that certain motivation package fits all is no longer valid and need to adopt to new motivation strategies and practices.

Figure 2.7: Employee Value Proposition Components That Drive Satisfaction and Retention
Drawn by the researcher based on the source: https://www.slideshare.net/dkdmadhubhashini/the-warfthortalentmckinsey

Patil and Bhakkad (2014) suggest an example of such strategy based on many articles listed in his book titled Redefining Management Practices and Marketing in Modern Age as following:

1. Improving employee's knowledge by widening their learning capacity which can be measured as one's Learning Quotient (LQ).

2. Encouraging the employee's ability to think and be creative and being capable of analyzing ideas and judging decisions, which can be measured as Conceptual Quotient (CQ).

3. Enhancing employee's ability to relate any idea to their learning and thoughts which emphasize listening, empathizing and trust. This is measured as Relationship Quotient (RQ).

4. Strengthening employee capability to interact based on his/her intentions. It is to encourage them to turn their intentions into reality within given time, pressure, thought circumstances and limited allocated resources. It is measured as Action Quotient (AQ).

   Thus: (LQ + CQ + RQ + AQ) X Values = Talent

Based on the previous argument, TM practices should not focus only on developing one's intrinsic capacities but on nourishing and building a welcoming culture that provide talents with necessary elements for growth, health and being in a good moral that will be translated into performance.

Talent

+

Organizational Vision/Mission/Strategy

+

Skills & Competencies

+

Position & Configuration

+

Prospect

+

Support & Acknowledgment

+

Training & Development

+

Instruction

+

Action Plan & Goals

+

Resources

Performance Management

Talent Performance
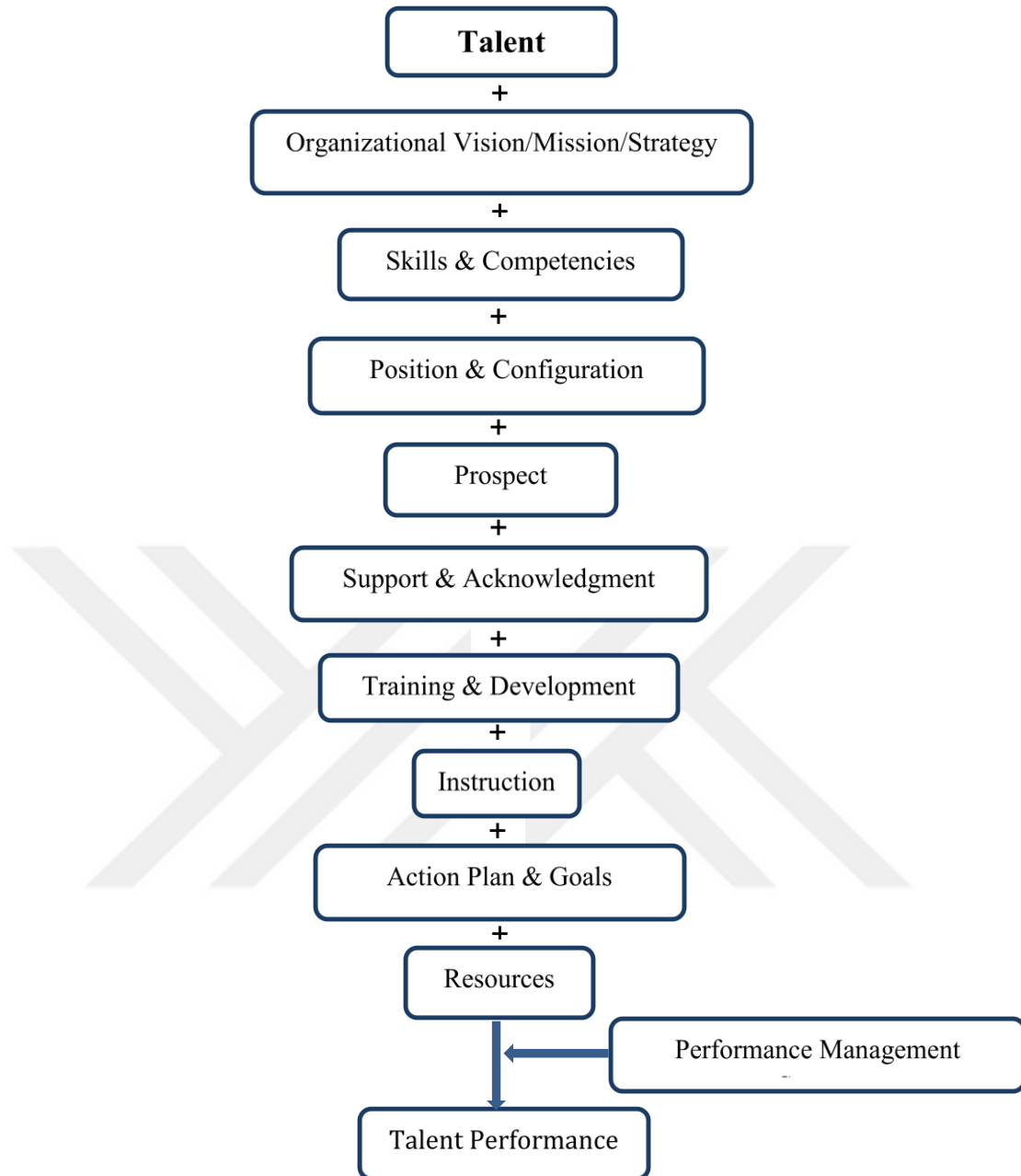
Figure 2.8: Talent Manifested into group
The researcher's drawing based on the source:

https://shodhganga.inflibnet.ac.in/bitstream/10603/2419/8/08_chapter%201.pdf

2.7.5. International Studies

In an academic journal, a study paper by Çalışkan and Kıyat (2013, p. 728) affirmed that currently all organizations or business institutions must be about the crucial necessity to follow SHRM practices which are hiring the right candidates for the job, attract them, developing their capacities and retaining the most valued among them who highly contribute to the success of that institution. This is crucial because it is their only way to

expand their potential, fully engage them which improve the overall performance. Basically, talented employees are the backbone for any successful institution, mainly with the high performers stand behind maintaining organizational stability (Çalışkan & Kıyat, 2013). They also claim that there is no difference in most of successful businesses and research, training vocational centers where core values heavily rely on the human skills and talents. They are considered the most vital element toward achieving or maintaining their competitive advantage (Çalışkan & Kıyat, 2013).

Furthermore, they assured that "talent management" should adopt this philosophy is newer version of human resource management (Çalışkan & Kıyat, 2013). Moreover, for them, it is clear that (TM) if executed right, it will be beneficial toward organizational performance through providing the suitable motivation practices which should enhance employee satisfaction that will increase their commitment.

Blackman and Kennedy (2008) in the other hand, warned from increased tension between the development of employee capability and his/her is TM implementation process was not properly conducted. They conducted a qualitative case study to demonstrate that feelings of inequity, overly fast promotion and lack in development if felt by untalented staff could create a negative atmosphere within the organizations (Blackman & Kennedy, 2008).

Interestingly, Lewis and Heckman (2006) consider TM formed by three disparate conceptions that related to the typical combination of HR need for the institutions, how they flow through the institution and the processes of sourcing, developing and rewarding the previous mention HR. A sense of pride and passion is always found on institutions who announced their interest in TM practices (Dhanabhakyam & Kokilambal, 2014). Additionally, they think that it is more viable solution to maturate a talent rather than hiring one (Dhanabhakyam & Kokilambal, 2014).

Indian Industry was heavily affected by talent attrition, as global talent seekers invest heavily in India by opening business and withdrawing low cost ready talent to their investment (Yiu & Saner, 2014). They questioned the main cause why large companies in India are losing talents (Yiu & Saner, 2014). The authors foresaw that Indian businesses must strengthen the social network bond and work on individual job satisfaction while encouraging organizations to be committed to reduce or mitigate talent

turnover problem. This could be achieved through a rigorous development program and employee job planning program (Yiu & Saner, 2014).

Thunnissen (2016),"Talent management", assured that the main two crucial actors in TM are the organization and the talented employee. Both actors have different points of views and perceptions about the desired and actual value of TM system. Factors affecting the TM process. He also, indicated that there will be environmental and organizational influence on implementing TM strategy. Further, institutions tend to execute TM strategy differently based on their local and international labor market, financial situation, nation's legislations when it comes to minimum wage regulations. (Thunnissen, 2016). In other words, to invest in the talents at hand, resources are needed and not all organizations can afford to do so. The study see that implementing TM is not as easy as the TM literature predicts (Thunnissen, 2016). Also, the study saw that TM is more than a system. The interests and talent philosophies of multiple actors have a significant impact on TM the study could not prove whether the TM approaches investigated were indeed effective (Thunnissen, 2016).

Based on an article by Mckinsey, (2017) "almost one-third of senior leaders cite finding talent as their most significant managerial challenge." It's no longer simply them, 82% of institutions suppose they may be hiring those who aren't "exceedingly talented," and most effective 7% of institutions who do assume they have got hired top skills agree with they can keep them around. Hiring distinguished talent is key to corporation success, as exceedingly skilled human beings are greater productive, ensuing in stronger returns and better rewarding to institutions, but institutions are floundering when it comes to locating them and bringing them onboard.

Ferry (2018) study indicated that the global talent brain-drain phenomena could hurt developed as well as undeveloped countries trillions of dollars. The talent crunch or shortage is an imminent skilled labor shortage affecting both developed and developing economies that could consequently results into shifting the global balance of economic power by 2030 that must not be ignored.

2.7.6. Local and Regional Studies

In an exploratory study by Benamer, Bredan, and Bakoush (2009) investigated the main reasons for brain-drain phenomena in the field of health-care in Libya, are Libyan

talents' desire to seek further education or research opportunity and their desire to be better off economical and improve their life style like the one provided to them in the welcoming countries. Those were major factors that contributed toward their decision of immigration or settling in where they were sent for their postgraduate studies. Although these factors reported by many researchers as reasons for moving from undeveloped to developed countries, the study findings are remarkable in that Libya is not considered as poor country but is considered as middle-income country (Benamer et al., 2009). The reality is opposite as the study indicated that workers, professionals in all fields are not fairly paid as compared with international stuff working in Libya. The government policy did not deal with this loss nor did it recognized as an alarming issue, instead it just let go and continued its scholarship program till the date of writing this thesis. More interestingly, it rub salt on the wound by signing contracts with foreign doctors, whose percentage exceeds twenty percent of doctors working and more than 45 percent of nurses as compared to locals. (Benamer et al.) summarized the reasons that talented doctors sought better career opportunities in countries of their choices that enjoy advanced related technology, internationally recognized academic institutions and well-established health infrastructures. The study findings were not surprising although it predicted some obstacles that professionals in this field are being faced. Toward the end, (Benamer et al.) indicated that those talents have the well to return to their home country if their demand is addressed. The situations nowadays seem unpromising due to the perpetual war and external intervention from other players in the region and elsewhere in the world. This does not exclude the need to reform the whole health care system in Libya. The same thing is happing in all sectors starting from oil and energy, aviation, marine transportation, training, research, and vocational education.

Maghur (2010) went into discussing the reasons why talents from different nationalities do not settle in Libya as opposed to Libyans who leave for their own reasons. She listed a serios of brain drain waves, first being during the first few years after the kingdom fall and the arise of Gaddafi regime who brough political tensions and criminalization of any tie with the previous regime. Initially there were Libyan students abroad who feared the persecution or any heavy penalty they might face. This showed the first reason as being political. Second wave was caused by political-economical chaos as a result of published green book by Gaddafi back then. During that era, private businesses were not allowed to operate that killed any desire to self-develop oneself. Instead, the regime went

into nationalizing all sort of institutions including public institutions. This sure, distanced any Libyans from returning home after completing studies, overseas jobs or even some diplomat assignments. Third wave of talent turnover was during the first years of nineties where young graduates with Islamic profile were hunted down or put into jails. The reason here was the safety and escaping torture or persecutions (Maghur, 2010). Another reason came but were not mentioned in Azza Maghur's article, was the Arab-upraising movement and turmoil that took place starting from 2011 till the time of writing this study were tens of rockets being slammed on civilians on the capital of Libya. This forth reason pushed tens of thousands of Libyan talents, skilled workers as well as investors to escape the war for safe and stable life elsewhere depending on their inclinations.

Finally, banning of teaching foreign languages also affected Libyans in general and resulted in financially capable families to send their children to finish school abroad, this also worsened the brain drain problem (Maghur, 2010).

Gamaty (2012) in his study tested the relationship between the brain drain and socio-economic political factors to help understand the brain drain phenomenon. He concluded his study by dividing the reasons into two different groups, push and pull factors. He elaborated by listing the push factors as lack of human security, lack of freedom, lack of democracy, and lack of investment in both education and research and development (Gamaty, 2012). While, according to him, pull factors that developed countries use to attract skilled human power by providing incentives are encouraging and promising. However, in developed countries, there are selective programs to accept applicants whose desire is to move to those potential western countries. Normally, young talents and skillful workers will fit those selection criteria (Gamaty, 2012).

According to report by Canadian Institute for Health Information, (2014), Libya is considered among the top ten contributors in the health care workforce. Libyan scholarship program was the main cause behind this, as Libyan students, establish their life during their post-graduate studies and fellowship periods, and once they finish their programs, they never turn back instead they turn their back to the country that sponsored their programs and waited for them for so long (Islam, 2014, p. 29). The same, happen in other fields and countries.

In a study by Megri (2014) proved in her analysis that the application of talent management system on the human resource department in the national company has a significant impact on the its performance (Megri, 2014, pp. 156-165).

Ali (2011) indicated that the only certain thing in the Middle east region is the ever-changing circumstances. Middle East is blessed with abundant natural resources and strategically located in the heart of the world that put it in the heart of worldwide struggle for energy sources and connecting harbors across continents. Since the discovery of oil and the independence from colonization, countries in the region took successful steps toward developing their countries infrastructure. However, this regions' expanding wealth, rich culture, ever-expanding business opportunities recently did not encourage conducting foreign investment businesses. This intensified talents' turnover from their countries seeking others of their own interests (Ali, 2011, pp. 155-177).

According to MIT Sloan Management Review article by Stahl et al. (2012) there are six effective principles for global talent management and two key ways to approach talent needs. They are an inclusive and differentiated approaches; the latter will focus incentives toward the top players "talented employee" that have deteriorated moral and hurtled any chances of achieving any gains. While, the first inclusive method where business entities address the needs of its employees at all levels (Stahl et al., 2012). Listing the principles as follows alignment with strategy, internal consistency, cultural embeddedness, management involvement, balance of global and local needs and finally, employer branding through differentiation (Stahl et al., 2012). A good illustration of those six principles are shown in the following Figure 2.9. A smarter institution will use combination of both approaches, hybrid, in which it can harness the benefits of both and avoid any shortfalls from any of them. This way will help institution provide encouraging work environment for their work force to help it work sustainably and achieve objectives and goals. The bottom line, for talent management to succeed, organization must attract, engage and retain talents in high-retention culture which will be centered around a learning organization through employee learning programs (Stahl et al., 2012). This is where organization that can enhance its capacity to learn, adopt and change in a corrective way toward achieving its goals through most cost-effective manner.

Figure 2.9: The Talent Management Wheel

Source: https://sloanreview.mit.edu/article/six-principles-of-effective-global-talent-management/

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Methodology of the field study and its procedures

In this section, methodology, conceptual framework, study population, sample, and data collection tools are discussed. However, pilot study, the study tool validation and its reliability are conducted to assure the fitness of the utilized tool.

3.2. Introductory Background

The focus of this research is on the vocational, training and research centers in Libya. Although, we might consider them as public sector but their framework is considered private-like-organizations. This has increased especially, after the Arab-spring uprising where waves of local talents are leaving and quitting jobs in unprecedented manner. Talent Management is the key to business success in today's economy, allowing all types of institutions retain the best talent while increasing productivity. In fact, talents are considered the only irreplaceable competitive advantage in today's business world (Michaels et al., 2001).

This research was conducted with a purpose in mind that is to find out the main problems facing Talents in Libya and to help the Vocational, Training and Research Centers retain their valued talents. Since, those centers have been in business during the last couple of decades and still active, they still operate each in its field while they are struggling keeping up with recent talent turnover and lack of knowledge and expertise caused consequently.

Also, the importance of this study for the whole society to benefit from its well-trained talents in all fields once the problem is properly tackled. This also, will help those previously mention institutions to achieve their objectives in most efficient and effective way possible. Not only that but it will also mitigate the inflated problem of talents migration and finally reduce the cost of replacement of those talents. In other words, fighting the brain-drain phenomena.

3.3. The Research Goals

1. Helping the whole society benefit from its well-trained Talents in all fields
2. Guiding the institutions how to achieve their objectives in most efficient and effective way possible through their talents.

3. Mitigating the inflated problem of talents turnover
4. Reducing the cost of replacement of those talents
5. Finding out the main problems facing Talents in Libya.
6. Helping the Vocational, Training and Research Centers retain their valued talents

3.4. Research Questions

1. Why talented employees leave the Vocational, Training and Research Institutions in Libya with an eye on international similar institutions?
2. What is the most effective retention management strategy for those working for public entities in Libya?

There are numerous reasons why an employee would leave the institution he/she works for. However, several researchers categorized those reasons to be internal and external factors (Allen, 2008, pp. 1-43; Chaubey & Gupta, 2013, p. 64). Also, there are factors that are related to the employee and others related to the management types and structure. In this study, the researcher tried to study all possible factors that may predict talent retention in public institutions in Libya.

In addition, the researcher here divided the reasons into two major different factors, firstly as expulsion factors, which are from within the institution and the external environment in the country (PESTLE Analysis). Secondly, attractive factors, pull factor, which are from uncontrolled external environment from abroad. Self-actualization factors are also considered through conducting an evaluation of the needs of those emigrated Libyan Talent through Maslow's Hierarchy of Needs structure.

This survey was divided into four different set of questions that will try to seek answers from different perspectives. An introductory part is given at the beginning of the survey to get personal information about the talent we are dealing with. Firstly, from the prospective of local external environment. Secondly, from the prospective of institution's internal environment. Thirdly, from the prospective of talents toward pull (attractive) international environment. Finally, from the prospective of Talents toward Maslow's Hierarchy of Needs at those mentioned institutions before their turnover. Moreover, one section was dedicated to non-monetary motives that talents consider when taking voluntarily turnover.

3.5. Research Hypotheses

The following table shows how the research linked the study objectives, questions, and hypotheses together to answer the research questions having in mind the research subject.

Roy and Konwar (2018) suggested that there are major determinants to talent retention that affect talent retention down the line which are recruitment and selection process, training and development strategy, rewards, and compensations packages, and working environment are.

Dhayitshaini (2016) supporting previous claim, they study stated that only fifty percent of employee turnover intention are caused by four independent determinents that were training, job security, performance appraisal and career development opportunities among talented staff.

Based on literature review, objectives of the study and research questions, the researcher hypothesized the five hypotheses as shown in Table 3.1

Table 3.1: The study Hypotheses Development Plan

TALENT MANAGEMENT: RETAINING AND MANAGING TALENTS IN VOCATIONAL, TRAINING AND RESEARCH CENTERS						
Objectives	**Research Questions**	**Developing the study hypotheses** **The following hypotheses are devised for the present study:**				
		1st Hypothesis	**2nd Hypothesis**	**3rd Hypothesis**	**4th Hypothesis**	**5th Hypothesis**
1. To study the current HRM strategy adopted in the mentioned institutions with relative to similar institutions around the globe. 2. To study the root causes of talents turnover problem in Libyan public institutions. 3. To study benefits of implementing Talent Management practices to individual talents or an institution. 4. To find out the main problems facing Talents in Libya. 5. To help the Vocational, Training and Research Centers manage and retain their valued talents.	1. Why talented employees leave the Vocational, Training and Research Institutions in Libya with an eye on international similar institutions? 2. What is the most effective retention management strategy for those working for public entities in Libya?	**H1:** There is a statistically significant relationship between PESTLE factors (external environment) and talent retention in the vocational, training and research centers.	**H2:** There is a statistically significant relationship between Internal Environment Factors including Motivational Factors and talent retention in the vocational, training and research centers.	H3: There is a statistically significant relationship between External Pull Factors (International Attractive Environment) and talent retention in the vocational, training and research centers	**H4:** There is a statistically significant relationship between the components of Maslow's Pyramid of Needs and talent retention in the vocational, training and research centers.	**H5:** There is a statistical effect of PESTLE factors, internal organization environment, international pull factors and Talent Needs (Motivational Factors) on talent retention in the vocational, training and research centers.

3.6. Research Methodology

The study was achieved using a survey research design. Generally, this design is appropriate when seeking out information regarding attitudes, opinions, preferences, feelings, and motives. Here in the survey of this study, the cross-sectional survey design was considered appropriate because it is a one-time testing of the hypothesized model. Although, the longitudinal survey design could be used but the researcher preferred the cross-sectional over it. This method normally allows the researchers to look at various characteristics at once, provide research data about what is going on while conducting the research, look at the main prevailing characteristics of the research population. This will pave the way for future related research.

However, the purposive sampling was used in this scenario because the researcher needed to access a certain subject of people (emigrated Libyan talents). So, when taking the sample, unwanted entities was ignored. It is also called judgmental sampling. Why, because it is one of the most cost-effective and time-effective sampling methods available. It is also considered the only appropriate method when there are limited number of primary data sources who are willing to take part in the study as it is the case in this study. Furthermore, this sampling technique is effective in exploring anthropological situations, where the discovery of meaning can benefit from intuitive approach.

Furthermore, errors are highly potential by the researcher. Also, low level of reliability and high bias level. Finally, research results cannot be generalized to other population due to many reasons. Uniqueness of political system, the recent upraising, wide spread corruption in the country and Libya business culture.

Fukofuka (2014), and Mostafa, Gaber, and Labib (2019) share the same strategy in conducting the analyzing the data, the researcher proposed the same tools which are conducting Pearson correlation were used to test hypotheses 1, 2, 3, 4. In addition, the researcher used multi-regression analysis to test hypothesis 5.

Based on the literature review, the researcher came up with potential solutins in the form of hypthoeses. The reseacher brought up fortmal statements that expect a direct relationship between dependent and independent variables and they are expected to explain the relationship and its strength among those variables. From the literature

review, macro environement factors were mentioned in several articles that support the claim that it have impact on talent management. The same applies to other factors from where hypothesized model was formed and each hypothesis written. It will be shown again with details in Research Design and Model section.

Main Hypothesis 1: There is a statistically significant relationship between PESTLE factors (external environment) and talent retention in the vocational, training and research centers. The following sub-hypotheses will seek answers of what talent are facing in their big environment.

Here, there will be sub-hypotheses to cover all related factors:

1. There is a statistically significant relationship between the political system in Libya and employee retention in the vocational, training and research centers.
2. There is a statistically significant relationship between the economic system in Libya and employee retention in the vocational, training and research centers.
3. There is a statistically significant relationship between the sociological factors in Libya and employee retention in the vocational, training and research center.
4. There is a statistically significant relationship between the technological factors in Libya and employee retention in the vocational, training and research centers.
5. There is a statistically significant relationship between the legal factors in Libya and employee retention in the vocational, training and research center.
6. There is a statistically significant relationship between the environmental factors in Libya and employee retention in the vocational, training and research center.

These sub-hypotheses were answered by Questionnaire set No.2 in the questionnaire

Main Hypothesis 2: There is a statistically significant relationship between Internal Environment Factors including Motivational Factors and talent retention in the vocational, training and research centers. The following model will answer doubts about what talent needs to be fully engaged at the job at hand. Here, talent performance is directly connected to talent engagement which reflect talent retention.

Here, there will be three groups of points that are expected to cover all related factors:

"There are statistical relationships between institutional statements about talents previous employer in Libya and talent retention."

1. Aligning employees with the mission and vision of your institution
2. Assessing candidates' skills earlier in the hiring process
3. Creating environment on which those skills are transferred into competencies
4. Organizational structure
5. Creating a welcoming culture for new talents
6. Creating a culture that makes employees want to stay with the institution
7. Creating a culture that values employees work
8. Identifying gaps between current employees and candidate competency level
9. Providing necessary resources to achieve institutional goals
10. Creativity and innovation are encouraged

"There are statistically significant relationships between degree of importance about your previous employer in Libya and talent retention."

11. On-boarding and Orientation
12. Coaching and Mentor-ship Programs
13. Employee compensation including periodic review
14. Recognition and Rewards Systems including fringe benefits
15. Work-life Balance
16. Training and Development
17. Communication and Feedback
18. Dealing with Change
19. Fostering Teamwork
20. Team Celebration
21. Action Learning
22. Accuracy of job description
23. Adequate pay and linked to performance
24. Organizational Distributive justice reflects perceptions regarding fairness of outcomes
25. Organizational Procedural Justice reflects perceptions of processes that lead to these outcomes

"There are statistically significant relationships between degree of importance about your previous employer in Libya and talent retention."

26. Talents are being identified by competencies

27. Talents are being identified by potentials

28. Talents are being identified by results

29. There is Specific Talent Management Initiatives

30. Acquiring new talent is among your institution's Talent Retention Initiative

31. Leveraging existing talent is among your institution's Talent Retention Initiative

32. Retaining the current potential is among your institution's Talent Retention Initiatives

These sub-points were answered by Questionnaire set No.3 in the survey.

Main Hypothesis 3: There is a statistically significant relationship between External Pull Factors (International Attractive Environment) and talent retention in the vocational, training and research centers. Although, one must say that local employers can do nothing about it but they can change from within to retain their talented employee.

The following factors

1. There is a statistically significant relationship between infrastructure that results in adequate facilities and services abroad and employee retention in the vocational, training and research center.

2. There is a statistically significant relationship between the excellent healthcare and medical facilities abroad and employee retention in the vocational, training and research center.

3. There is a statistically significant relationship between promising job and educational opportunities abroad and employee retention in the vocational, training and research center.

4. There is a statistically significant relationship between low crime rate, high living standards abroad and employee retention in the vocational, training and research center.

5. There is a statistically significant relationship between democratic political stability abroad and employee retention in the vocational, training and research center.

6. There is a statistically significant relationship between standard of living and employee retention in the vocational, training and research center.

7. There is a statistically significant relationship between the entertaining environment and diverse culture abroad and employee retention in the vocational, training and research center.

8. There is a statistically significant relationship between creativity and innovation boosting environment and employee retention in the vocational, training and research center.

These sub-hypotheses are answered by Questionnaire set No.4 in the survey.

Main Hypothesis 4: There is a statistically significant relationship between the components of Maslow's Pyramid of Needs and talent retention in the vocational, training and research centers.

In short, talent will seek better opportunity when their deficient needs are not met so he or she can be fully engaged in the job at hand. There are several elements here and this set of questionnaires have tried to uncover. They are survival, at the bottom of pyramid, security comes next, then belonging and importance and finally self-actualization. Here, comes the sub-hypothesis:

1. There is a statistically significant relationship between fulfilling the survival needs (Physiological needs) and employee retention in the vocational, training and research center.

2. There is a statistically significant relationship between fulfilling the safety needs and employee retention in the vocational, training and research center.

3. There is a statistically significant relationship between fulfilling Belonging and Love Needs and employee retention in the vocational, training and research center.

4. There is a statistically significant relationship between fulfilling upper self-esteem and employee retention in the vocational, training and research center.

5. There is a statistically significant relationship between fulfilling lower self-esteem and employee retention in the vocational, training and research center.

6. There is a statistically significant relationship between Self-Actualization Needs and employee retention in the vocational, training and research center.

These sub-hypotheses were answered by Questionnaire set No.5 in the survey.

Hypothesis 5: There is a statistically significant effect of PESTLE factors, internal organization environment, international pull factors and Talent Needs (Motivational Factors) on talent retention in the vocational, training and research centers. Multiple regression to be used in this hypothesis (Fukofuka, 2014, pp. 1-8)

3.7. Research Design and Model

Research design indicates the structure and procedure followed to answer research questions. To achieve the research goals and objectives, a research model was constructed and it connects all major independent variables with dependent variable (Libyan Talent Retention) as per shown in Figure 3. 1. A quantitative analytical descriptive method was used here as it was inferred from literature review although none was covering all relevant variables that could lead Libyan talents to leave their vocational, training and research institutions and settle outside Libya. As most, of literature speak about factors that are related to business conduct or internal business environment which is also considered here in this study.

The model as per explained in Figure 3. 1 shows several variables that may lead Libyan talents to leave Libya. These are external analysis, internal analysis, pull international factors, and Maslow's hierarchy of needs. The interrelationships between these variables and talents retention that may exists can enhance a better understanding for the issue under investigating. These interrelationships are formed and categorized in five main hypotheses. Hypotheses are statements of the relations between two or more variables. Hypotheses are predictions about the nature of the relationship between the variables identified in the research questions (Cohen, Manion, & Morrison, 2007). This study's process of reviewing literature and reflective thinking on literature reviewed led to the formulation of hypotheses required for advancement of scientific knowledge about why Libyan talent employees leave vocational, training and research institutions in Libya with an eye on international similar institutions. Several hypotheses were emerged. The descriptive method is used to investigate the hypotheses and to answer the research questions.
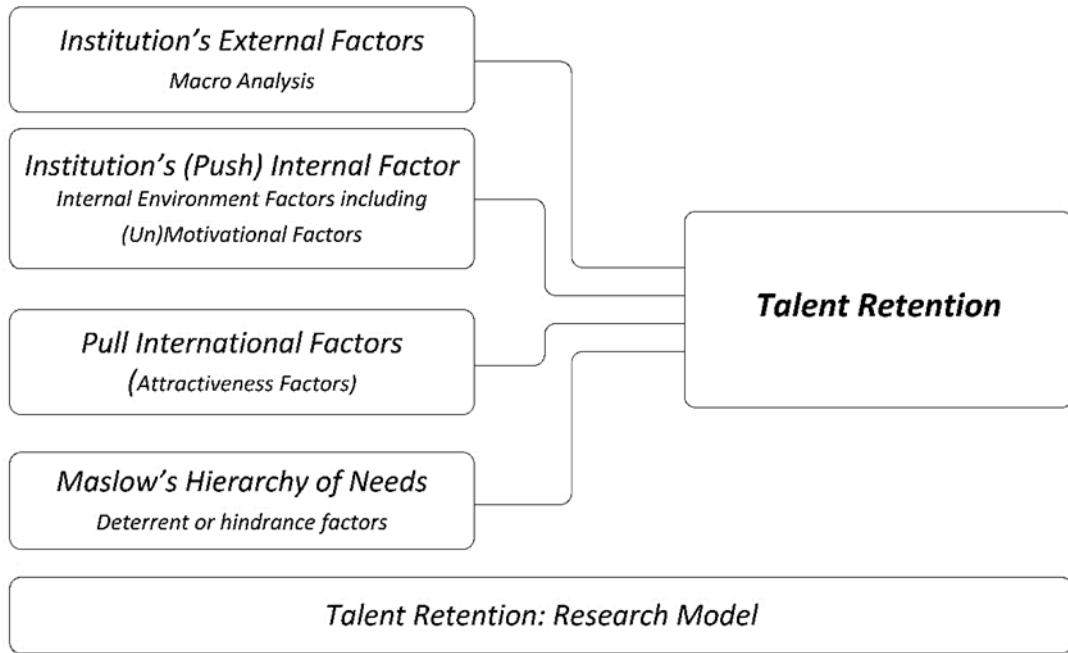
Figure 3.1: The Research Model
Source: The Researcher's own design

3.8. Target Population

Generally, a population is a group of individuals that have the same characteristic(s). Therefore, the population for this study compose all Libyan Emigrated talents who were previously employed mainly in vocational, training and research institutions in Libya. In addition to talents who used to work for other Libyan public institutions like universities or public firms.

Table 3.2: List of Vocational, Research and Training Centers in Libya

إسم المركز باللغة الانجليزية	إسم المركز	ر.ت
Biotechnology Research Center	مركز بحوث التقنيات الحيوية	1
Libyan Center for Remote Sensing and Space Sciences	المركز الليبي للإستشعار عن بعد وعلوم الفضاء	2
National Medical Research Center	المركز الوطني للبحوث الطبية	3
Center for Solar Energy Research and Studies	مركز بحوث ودراسات الطاقة الشمسية	4
Polymer Research Center	مركز بحوث اللدائن	5
Advanced Occupational Center for Welding Technologies	المركز المهني المتقدم لتقنيات اللحام	6
Electronic Systems and Programming Center	مركز المنظومات الإلكترونية والبرمجيات	7
High Vocational Center of Casting	المركز العالي المهني للسباكة	8
Advanced Laboratory for Chemical Analysis	المعمل المتقدم للتحاليل الكيميائية	9
Center for Engineering Research and Information Technology	مركز البحوث الهندسية وتقنية المعلومات	10
Legal Research Center	مركز البحوث القانونية	11

The Higher Technical Center for Training and Production	المركز التقني العالي للتدريب والإنتاج	12
Advanced Center of Technology	المركز المتقدم للتقنية	13
Libyan Center for Climate Change Research	المركز الليبي لأبحث تغيير المناخ	14
Arabic Center for Desert Research	المركز العربي لأبحاث الصحراء وتنمية المجتمعات الصحراوية	15
Olive Tree Research Center - Tarhona	مركز أبحاث شجرة الزيتون - ترهونه	16
Palm Tree Research Center	مركز أبحاث شجرة النخيل	17
The Libyan Center for Tamazight Studies	المركز الليبي للدراسات والبحوث الأمازيغية	18
Economic Research Center	مركز بحوث العلوم الإقتصادية	19
Center for Urban & Regional Planning Studies	مركز التخطيط الحضري	20
Plasma Research Laboratories	معامل أبحاث البلازما	21
The Libyan Science, Technology & Innovation Indicators Observatory (LSTIIO)	المرصد الليبي لمؤشرات العلوم والتكنولوجيا والابتكار	22
Marine and Marine Environment Research Center	مركز بحوث البيئة البرية و البحرية	23
National Project for Climate Change	المشروع الوطني للتغيرات المناخية	24
Libyan Laboratory for Meteorology Research and Studies	المختبر الليبي لأبحاث و دراسات النيازك	25

Source: Done by the researcher based on Libyan Ministry of Education website

The above Table 3.2 contains a list of the vocational, research and training centers at where the Libyan talents used to work. However, they are not all assigned institutions to be under the study.

Although, the target population is big and not limited to talents from the previous list of Libyan Institution, there are thousands of Libyan qualified and certified employees who met the Libyan Scholarship program and sent abroad to do their post-graduate studies. Some of which never came back, among those the talents the study is focusing on in addition to others who left their jobs and the country seeking other adventures. The following table shows figures of those sponsored students for post-graduate studies.

Table 3.3: Number of Libyans who are sponsored abroad for their Post-Graduate Studies

Country	No. Of Sponsored Libyan Student	Country	No. Of Sponsored Libyan Student	Country	No. Of Sponsored Libyan Student
UK	3681	S. Africa	307	Italy	92
Egypt	2078	France	295	Australia	90
Turkey	1533	Serbia	278	Tunisia	87
USA	1530	Ireland	217	Indonesia	69
Malaysia	1200	Cyprus	210	Spain	41
Canada	1150	Morocco	135	China	35
Germany	766	Lebanon	108	Sudan	29
Malta	344	India	104	Greece	26
	12282		**1654**		**469**
Total number of Libyan Sponsored Students					**14405**

Source: The Ministry of Education in Libya

3.9. Sampling Frame and The Sample

3.9.1. The Eligibility Criteria

According to Saunders (2011) there are numerous sampling methods one can choose while conducting a research. However, the sampling criteria in this study bounded by the characteristics that targeted Libyan possess in the study population to be considered valid for this study. The eligibility criteria in this research were that the survey should be answered by participants who are Libya, Talented in their own fields, used to work in Libya, emigrated and working for another employer abroad. However, the specialty, qualification and other sample characteristics were not considered eligibility criteria.
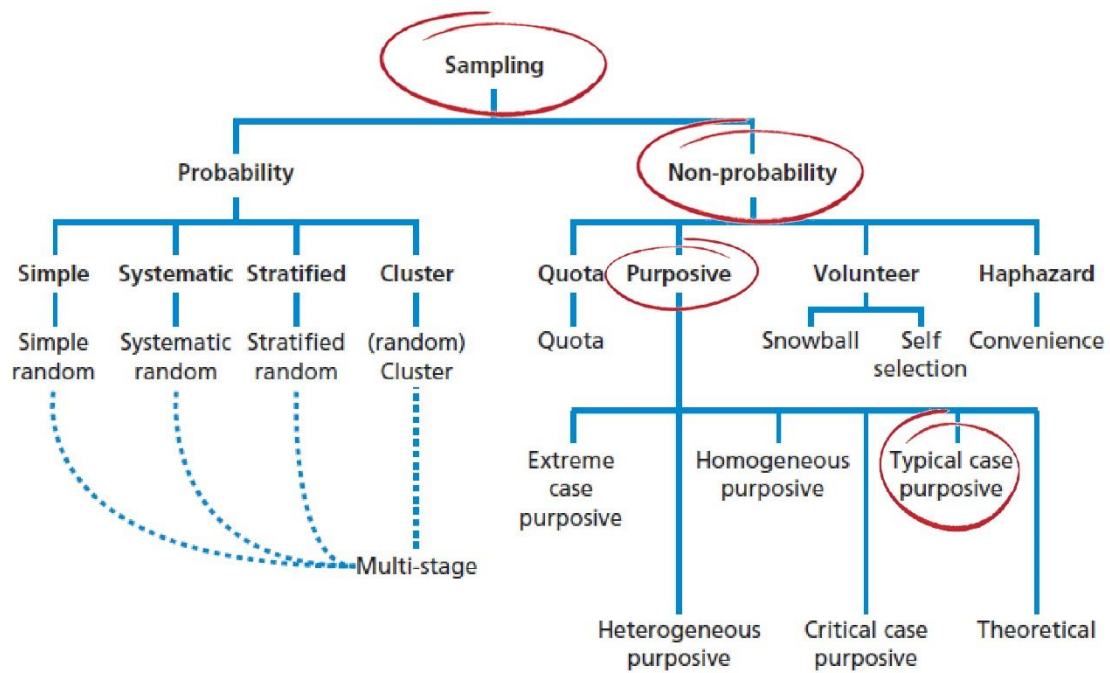
Figure 3.2: Sampling Techniques Methods
Source: https://research-methodology.net/sampling-in-primary-data-collection/

3.9.2. Sample size and Sample Technique

A sample is a subgroup of the target population that the researcher plans to study for generalizing about the target population. The purposive sample is used based on the nature of this study and the population. It is a non-probability type of sample. Non-probability sampling is the selection of participants because they are available, convenient, or represent some characteristic the investigator wants to study (Pelz, 2018).

Purposive sampling (sometimes referred to as purposeful sampling, Selection of purposeful, judgment or judgmental sampling) the researcher selects elements from the population that will be representative or informative about the topic. Based on the researcher's knowledge of the population, judgment is made about which cases should be selected to provide the best information to address the purpose of the research, (McMillan, 1996, p. 92) .

To support this claim, five methods were utilized in determining the sample size taking into consideration that population size was 7300 at 95 percent confidence level and error margin of five percent. Based on Saunders (2011, pp. 581-583), giving that in the pilot study conducted only 43 respondents of 60 answered the survey, this gave the researcher

71.6 % and remaining 28.4 %, first the researcher used the mentioned equation and found that minimum sample size was 313.

Second, the researcher used online sample calculator and tested several others that showed almost the same calculated minimum sample size was 383. (http://www.raosoft.com/samplesize.html).

Third, as Hair, Black, Babin, and Anderson (2010) and De Vaus (2001) recommended using at least ten percent of the population when it is in thousands in numbers. Furthermore, it is advisable to use highest sample size when conducting quantitative study unlike qualitative methodology studies recommend using one tenth of population as a sample (Saunders, 2011). Since the population was 7300, then 730 should be the sample size for this study. Although, many scholars suggest that for big populations, sample size should be between thirty to five hundred only.

Forth, In this descriptive and quantitative study, it is preferably that the sample size should not be less than ten times the number of variables of the study (Cohen et al., 2007; Hair et al., 2010; Pelz, 2018; Saunders, 2011). This was the case that the researched relied on while determining the sample size. There were sixty-six item questions in the survey, which means sample size is expected to reach 610.

Fifth, one more calculation adopted to determine sample size t to assure the accuracy of the determining criteria, the researcher used equation 3.1, from which, results are shown in the table 3.4. However, these were targeted but only 508 completed the survey questions and were considered the study sample size as it fit the criteria.

Table 3.4: Calculating sample size by equation

Confidence Level	95%	Actual used sample
P	0.5	
Error	0.04	
Population size	7300	
Alpha divided by 2	0.025	
Z-Score	1.96	
Sample size	554.6438	**508**

$$\text{Sample size} = \frac{\frac{z^2 . p(1-p)}{e^2}}{1 + \frac{z^2 . p(1-p)}{e^2 . N}} \implies \text{Equation 3. 1}$$

This researcher chose a purposive sampling in this scenario due to the need to access certain subject of people (emigrated Libyan talents). So, when taking the sample, unwanted entities were ignored from the beginning. The researcher distributed the survey online benefiting from social media through his trusted contacts with certain groups of Libyans emigrated talented. Several well-known Libyan groups on the social media such as Libyan doctors in Canada have supplied the researcher with names and e-mails of immigrated Libyan talents groups. The researcher sent six hundred and ten (610) questionnaire to Libyan immigrated talents who live in about twenty-eight (28) countries. Only five hundred -eight (508) completed questionnaires were received.

3.9.3. Data Collection Methods and Procedures

By using a descriptive quantitative research methodology, talent retention and turnover is analyzed. And after that, a content analysis will be made for the data collected from the questionnaires. Job descriptions and job specification models (knowledge, skills, and abilities KSA's), motivation policies, institutional support, performance appraisal systems, employee recognition programs, career development policies, training, internal and external environment analysis, and development strategies will all be asked designated questions. There are a group of open-ended questions, some of which, are aimed to gather information about attracting and selecting talents to the centers, development of talents in the center and keeping talents and providing their loyalty to the country as whole and to the center specifically.

3.10. Measuring Instruments-Questionnaire design

To achieve the aims for this thesis, data collection tool should be construct. Therefore, different related studies were reviewed, Gamaty (2012), Maghur (2010), Benamer et al. (2009, p. 242), , and Musette (2016). A quantitative questionnaire is used to validate or test these research questions and research hypotheses. The questionnaire is divided into two parts. The first part included a biographical, socio-demographic, and biographical data of the participants, age, sex, marital status, qualification, major: current job title,

former employee field, recent residential status, recent residence country, and main reason(s) behind subjects' move to the recent residence country.

The second part of the questionnaire is included statements that are distributed on different domains. These were PESTLE factors, internal environment factors and motivational factors, conditions about previous employer in Libya, statements about how subjects' previous employer dealt with talents in Libya, attractiveness factors that encourage subject members to move to the new country, people's needs summarized by Abraham Harold Maslow, institution's most effective means of rewarding, motivating and retaining talents in the country that that participants have worked in, and finally a general statement regarding how satisfied are participants with their previous institutions in Libya compared to the institutions they work at now. The last item statements represented talent retention as they should measure whether the talents have stayed or turnover.

3.11. Data Mining

The researcher used many methods in collecting the research related data, which is normally is a set of objective facts that are not related to each other and attracts, interalia, observation, research, and recording. Data can also be mined from various sources associated with a subject, and after collection, they are then processed into useful information. Data collection is a major focus of all types of researches. It cannot be completed without enough data and information on the research axis. In this study a structured questionnaire was set and distributed electronically and data collection was done using google forum from which, excel sheet were extracted and transferred to SPSS software for analysis

There are traditional sources of information (data) whether they are in written form-paper or electronic, audio or visual (Cohen et al., 2007; De Vaus, 2001; Hair et al., 2010; Pelz, 2018; Saunders, 2011). They are vital reference for any research and researchers dig for that information for a long period of time. Luckily, the development of information network and electronic libraries eased this process and became less energy and time consuming. The mined data can be divided into two major parts; primary data that the researcher collected and uncovered for the first time, which normally, the researcher's finding and discoveries and secondary data that are found on published

forms like journals, reports, official publications or even private like reports or unpublished such as: books, periodic or official journals. Both can be paper-based or electronic-based resources that rely entirely on information technology to put the data in the hands of the researcher, and reminded that the origin of paper collections has been automated in a new electronic method to facilitate use and exchange with others regardless of geographical location.

A considerable amount of time and energy was taken while overcoming multiple hurdles to gain access to different sources of information to answer the research questions and achieve its objectives while trying to prove/refute the research hypotheses specially with the recent three years of the study where digging for information from any Libyan institution was a night-mare for any researcher with last year being the most difficult.

3.11.1. Secondary Data

The researcher relied on Libyan official sources like the Libyan Ministry of Education and its sub-institutions in collecting most of the secondary data. However, related published thesis, journals, and official reports and TV interviews were of a great deal of information toward tackling this issue. The Minister of Education held tens of official meetings and discussed this issue several times and approached the research problem from their perspective in multiple occasions (Libyan-Ministry-of-Education, 2019, July 12).

3.11.2. Primary Data

3.12. Data quality management

To assure that quality and relevant data is collected int his study, the researchers used networking channels through social media relying on those who fit in the sample category. The researcher made sure that the study contains only quality and reliable data for the study to be fruitful. Pilot study was conducted and tested, questionnaire set was reviewed and adjusted.

A structured questionnaire set was sent via the researcher contacts and data was collected using google drive form. Thankfully, the process was easier than in the old school where

the research had to fill all the respondent's answers in his/her program manually. Here, in this study, respondents' identities kept confidential and anonymous, however, demographic information, were released in the reseach content to shed some light in the growing problem. Moreover, the researcher gathered valuable thoughts and opinions in his questionarre set in order to better serve Libyan Institutions retain their valuable talents through analysing their answers to the study questions.

3.13. Data Testing and Reliability

In all sciences disciplines, accuracy of measurement tool is crucial. However, in social science, this cannot be secured hundred percent. For this reason, in social science, the accuracy of measurement is split into two parts; validity and reliability. Where validity is about measuring how accurate the measurement tool of attribute of interest. On the other hand, reliability is about whether the measurement tool will produce the same results in other use or repeated applications. Measurement tool may be reliable but not valid. However, it cannot be valid without being reliable (Hammersley, 1987).

The methods that is used to evaluate the reliability of an instrument are not used for validity. This should be taken into consideration when using the techniques of item analysis since they address reliability, not validity. Like driving license test is meant to test the driver's ability to drive not to test his/her knowledge in school (Hammersley, 1987).

Many tools are used to assess the reliability of an instrument such as alternative-form method, retest method, the internal consistency method, and split-halves method. numerous methods are also is used to judge the validity of a measurement tool, some of which are face validity which at best is a weak, content validity and criterion validity (Hammersley, 1987).

3.13.1. Validation of the used Set of questionnaires

3.13.1.1. Pilot Study

Pelz (2018) stated that validity, often called construct validity, refers to the extent to which a measure adequately represents the underlying construct that it is supposed to measure. Validity can be assessed using theoretical or empirical approaches, and should ideally be measured using both approaches. Theoretical assessment of validity focuses

on how well the idea of a theoretical construct is translated into or is represented in an operational measure. This type of validity is called translational validity (or representational validity), and consists of two sub-types: face and content validity (Tavakol & Dennick, 2011). Translational validity is typically assessed using a panel of expert judges, who rate each item (indicator) on how well they fit the conceptual definition of that construct, and a qualitative technique called Q-sort (Tavakol & Dennick, 2011). Therefore, the first draft was presented to the advisors who suggested several points. Then four referees, as in Table 3.5 were asked to review the questionnaire. Their notes were taken into consideration to assure that any uncertainties are eliminated through using appropriate wordings and concepts in the statements' contexts.

Table 3.5: Referees committee

No.	Name	Institute
1	Associ. Prof. Saeed, Mohamed	Faculty Of Engineering Technology
2	Associ. Prof. Ahmed Belaid Kridan	The Libyan Academy
3	Ass. Prof. Abdussalam Ahmed Fituri	College of Engineering Technology - Janzour
4	Abdulhakim Ali Sultan, PhD	Higher Technical Center for Training and Production

Designed and written by the researcher

3.13.1.2. Benefits of Pilot Study

It is considered one of the most important steps in any research project. It is normally conducted prior to the whole research, to foresee any shortages, difficulties or deficiencies in the utilized research instrument or protocol. It also, determine with proposed methods are appropriate and relevant to the study topic. In addition, it helps detect any practical problems while executing the analysis. It helps the researchers familiarize themselves with the research procedures and predict any outcomes while they arise. Conducting pilot study also, can divert the whole research methodology from one technique to another such as from qualitative to quantitative like the case in this research.

Figure 3.3 explains the steps followed when conducting the pilot study, this figure itself show explanatory steps to the scenario of this process. Before conducting the pilot study, pre-pilot step should be conducted in which all relative information is pooled, literature

review is conducted, experts' opinions are sought, and brainstorming is finally briefed and jotted down. Then, organizing all previous information in meaningful information, finding out what dependent and independent variables are? Categorizing those variables and preparing relevant data collection instrument to be used.
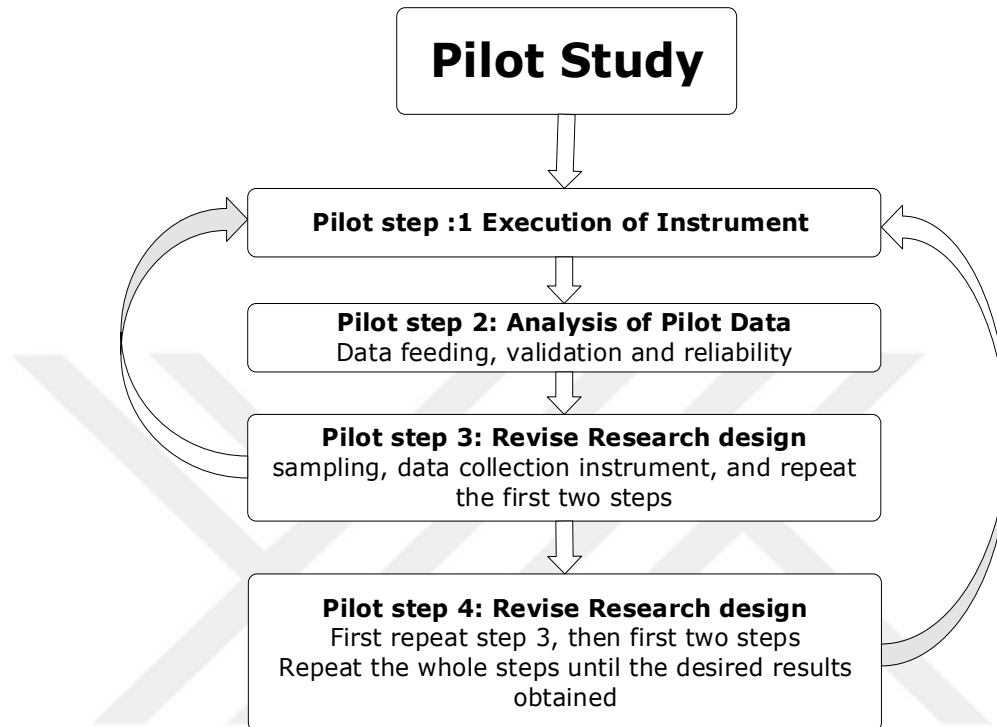
Pilot Study

Pilot step :1 Execution of Instrument

Pilot step 2: Analysis of Pilot Data
Data feeding, validation and reliability

Pilot step 3: Revise Research design
sampling, data collection instrument, and repeat the first two steps

Pilot step 4: Revise Research design
First repeat step 3, then first two steps
Repeat the whole steps until the desired results obtained

Figure 3.3: Flow chart of the pilot study
The researcher own design based on the following source:
https://www.slideshare.net/sarangbhola/pilot-study-in-social-sciences

3.13.2. Questionnaire Reliability (Alpha Cronbach)

Based on Tavakol and Dennick (2011) to calculate the statistics for reliability a sample of sixty (60) emigrated Libyan talents were chosen to represent the sample of the pilot study. All the questionnaires were sent by e-mail to the pilot study participants. Only forty-three (43) participants completed all the items and returned the questionnaires back. Data were manipulated using the IBM SPSS Statistics 25 to calculate the actual value for Cronbach's alpha for each domain that was included in the second part of the questionnaire. Cronbach's alpha is expressed as a number between 0.0 and 1.0. Internal consistency describes the extent to which all the items in each domain measure the same concept or construct and hence it is connected to the inter-relatedness of the items within the domain. Then, final distribution was done, among 610 sent, where only 508 received and considered in this study.

Table 3.6: Cronbach's alpha for each domain of the questionnaire.

Questionnaire Domains	Number of inter-statements	Cronbach's Alpha
PESTLE factors toward retaining talents in Libya.	6	**0.751**
Total institutional statements about talents previous employer in Libya.	9	**0.706**
Total degree of importance on each statement about previous employer in Libya.	15	**0.753**
Total how your previous employer dealt with talents in Libya.	7	**0.790**
Total degree of importance on each statement about your move decision to this country.	9	**0.754**
Total Maslow's Hierarchy of Needs.	6	**0.722**
Total	52	**0.746**

Table 3.6 shows that Cronbach's alpha values which were between (.706-.790). These values indicated moderate levels of internal consistency for the six domains that were included in the questionnaire. Schmitt (1996) has suggested that there is no general level (such as 0.70) where alpha becomes acceptable, but rather that instruments with quite a low value of alpha can still prove useful in some circumstances. and the total stability and reliability coefficients for this scale was (0.746), this indicates that the stability coefficient of the study is high. The used tool has a high degree of stability and it is suitable for measuring talent retention as the researcher suggested and the referees confirmed. Consequently, it is suitable tool to achieve the study goals. The procedures for validity and reliability confirm the suitability of the questionnaire for objectives of this study (Tavakol & Dennick, 2011).

The final draft of the questionnaire included two parts. The first part included biographical information. The second part of the questionnaire is included sixty-one statements, which are distributed on domains as shown in Fig 3.7.

Table 3.7: Distribution of items on Questionnaire Pars

Questionnaire Parts	
First part (Bibliographical information)	Number of Items
Biographical information.	9

Reason(s) behind talents' move to other country.			10
Second part			
PESTLE Factors			6
Internal work Environment Factors	Institutional statements about Retaining talents of previous employer in Libya.		10
	Statement about previous employer in Libya		15
	Statement about how previous employer dealt with Talents in Libya.		7
Attractiveness (Statements about talents move decision abroad.)			8
Maslow's Hierarchy of Needs.			6
Recent institution's most effective means of rewarding, motivating, and retaining talents.			9

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION

4.1. Preface

In this chapter sample's biographical characteristics, sample's responses on questionnaire and results discussion were presented. Age, gender, marital status, qualification, major, previous, and recent job title, former employer, current residential status, and country participants chose to settle in. In terms of analyzing data for the above-mentioned biographical characteristics, descriptive statistics was used. One sample t-test is used to determine whether the sample's mean score was statistically different from the theoretical mean score for each group of statements related to the variables namely, external analysis, internal analysis, pull international factors, and Maslow's hierarchy of needs. The one-sample t-test compares the mean of the sample to a predetermined value (hypothetical mean) to determine if the sample mean is significantly greater or less than that value. The hypothetical mean and the theoretical mean score were calculated by multiplying the mid-point score (5) for each statement by the total number of statements for each variable. Pearson correlation was used to test Hypothesis 1, 2, 3 and 4. Multiple regression was used to test hypothesis 5.

4.2. Introduction

The purpose of this chapter is to describe, explain, and explain the importance of the research findings. This is often the most important part of any research because it is where the researcher can highlight the importance of his study and its role in bridging the research gaps in research field. This chapter is where the researcher will show his abilities as a researcher to think critically, interpret his study findings, and propose creative solutions to his research problem based on his research results and link them to literature review.

4.3. Sample's biographical characteristics

In social sciences research, personnel characteristics of respondents have very significant role to play in expressing and giving the responses about the problem. Keeping this in mind, in this study a set of personal characteristics namely, age, gender, marital status, qualification, major, and previous and current job title were presented in

frequencies tables. One of the most basic ways to describe the data value of variables is to construct a frequency distribution. A frequency distribution is a systematic arrangement of data values in which the frequencies of each unique data value are shown (Johnson & Christensen, 2019). The meaning of the data is conveyed by arranging the data into a more interpretable form (i.e. by forming frequency distributions, calculating percentages, and generating graphical displays).

4.3.1. Sample's Age

Age of the respondents is one of the most important characteristics in understanding their views about the problems; by and large age indicates level of maturity of individuals in that sense age becomes more important to examine the response.

Table 4.1: Sample's age

variable	N	Minimum	Maximum	Mean	Std. Deviation
Age	508	30.00	59.00	44.801	8.968

Source: Data analysis (SPSS 25)

The sample consisted of five hundred and eight (508) participants. Participants' ages ranged from 30 to 59 years (**M** = 44.801, SD = 8.968). The standard deviation showed how the age scores were deviate from the mean score.
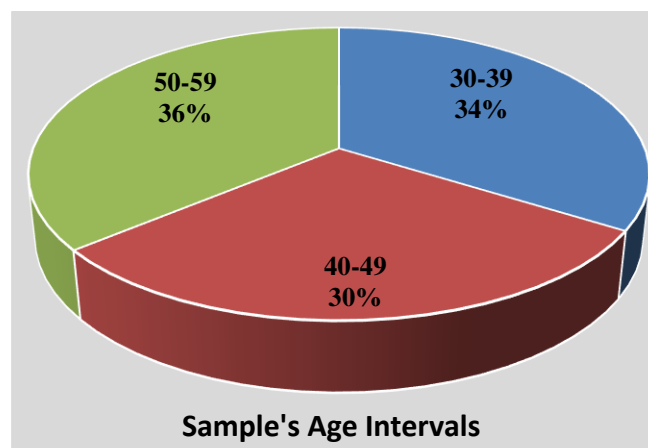

Figure 4.1: Sample's age intervals

Table 4.2: Sample's age intervals

Age Intervals	Frequency	Percent
30-39	172	33.9

40-49	153	30.1
50-59	183	36.0
Total	508	100.0

To have a broader idea of the participants' ages, they were distributed on three age intervals. The range of the interval was ten. Data in Figure 4.1 and Table 4.2 showed relatively close frequencies distribution of participants on the three age intervals. However, one can clearly see that more than 65 percent of respondents are older than 40 years of age, which may indicate they might belong to the second wave of brain-drain problem that Libyan Institutions faced.
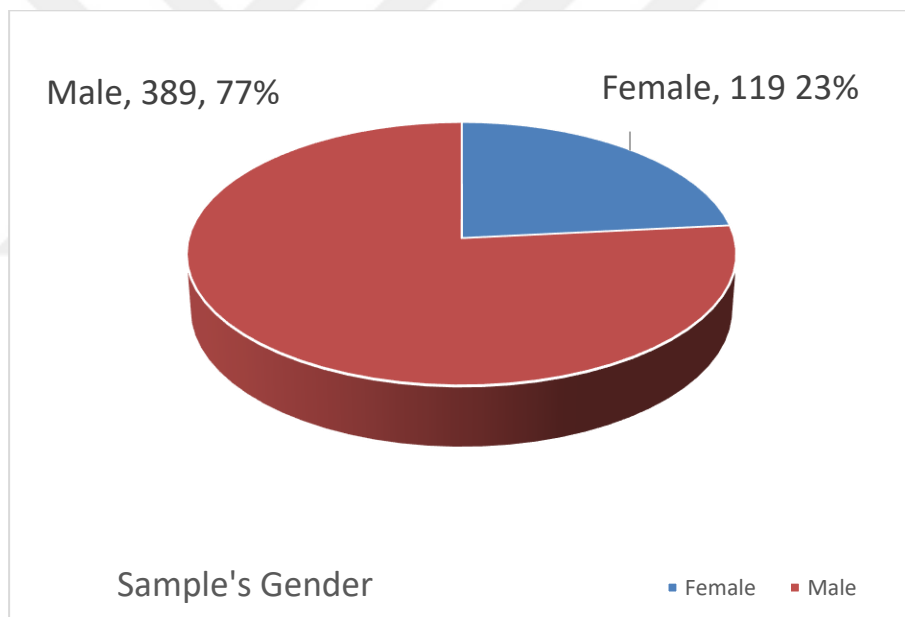
4.3.2. Sample's Gender

Male, 389, 77%   Female, 119 23%

Sample's Gender   ■ Female ■ Male

Figure 4.2: Sample's gender

Table 4.3: Sample's gender

Gender	Frequency	Percent
Female	119	23.4
Male	389	76.6
Total	508	100.0

It is quite clear that out of the total respondents investigated for this study, overwhelming majority (76.6 %) of them were males whereas about (23.4%) per cent was found to be females, Figure 4.2 and Table 4.3. This could be understood because of the culture and burden on women to travel and move as compared to men.

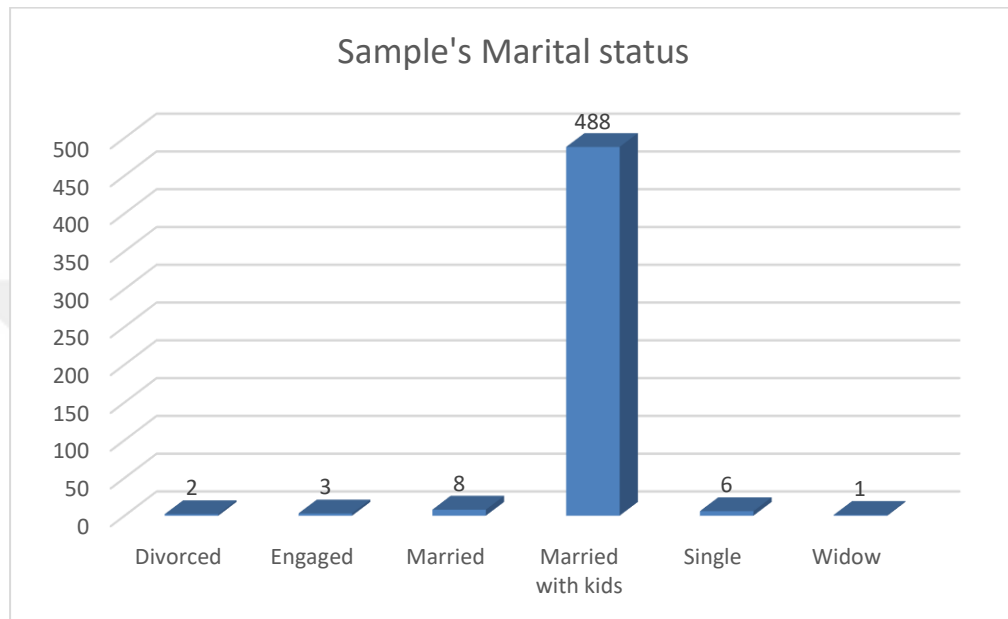### 4.3.3. Sample's Marital status

Figure 4.3: Sample's marital status

Table 4.4: Sample's marital status

Marital status	Frequency	Percent
Divorced	2	.4
Engaged	3	.6
Married	8	1.6
Married with kids	488	96.1
Single	6	1.2
Widow	1	.2
Total	508	100.0

Source: Data analysis (SPSS 25)

The data presented above Figure 4.3 and Table 4.4 shows that majority of the participants (96.1%) were married with kids, and the rest of them were distributed on five other marital status. This may indicate that those talents desire to form families and enjoy the benefits abroad.
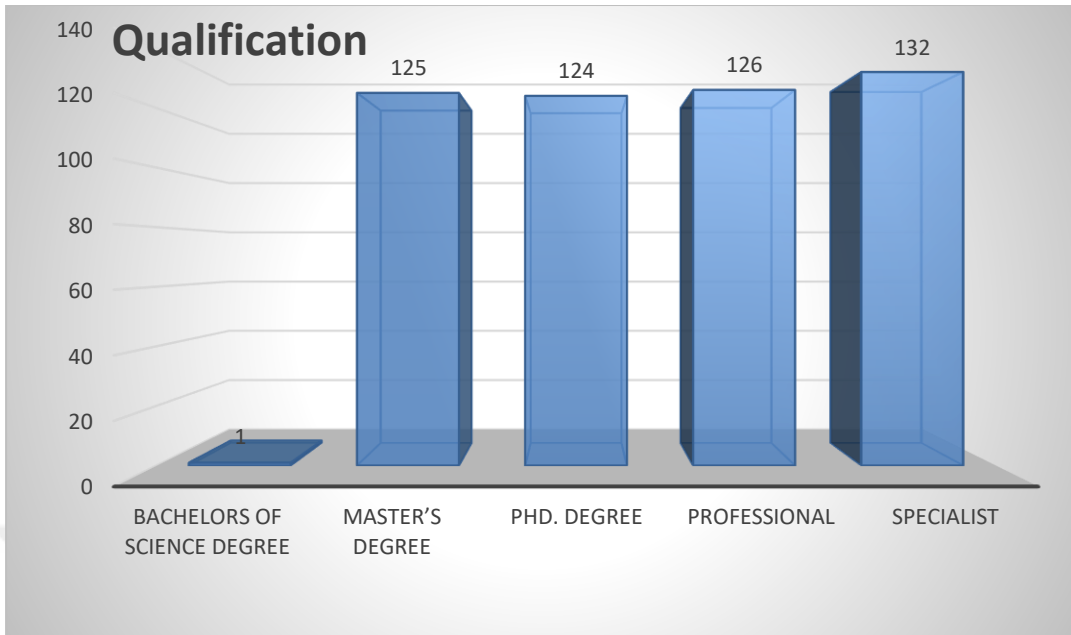
4.3.4. Sample's Qualification

Figure 4.4: Sample's qualification

Table 4.5: Sample's qualification

Qualification	Frequency	Percent
Bachelors of Science Degree	1	.2
Master's Degree	125	24.6
PhD. Degree	124	24.4
Professional	126	24.8
Specialist	132	26.0
Total	508	100.0

Source: Data analysis (SPSS 25)

Figure 4.4 and Table 4.5 show that (24.4%) percent of the respondents had a master degree, and (24.8%) had a PhD degree. The other participants were professional (24.8%) and specialists (26.0%). Only one participant had a bachelor degree. Education is one of the most important characteristics that might affect the person's attitudes and the way of looking and understanding any particular social phenomena and then his or her behavior concerning critical decision.
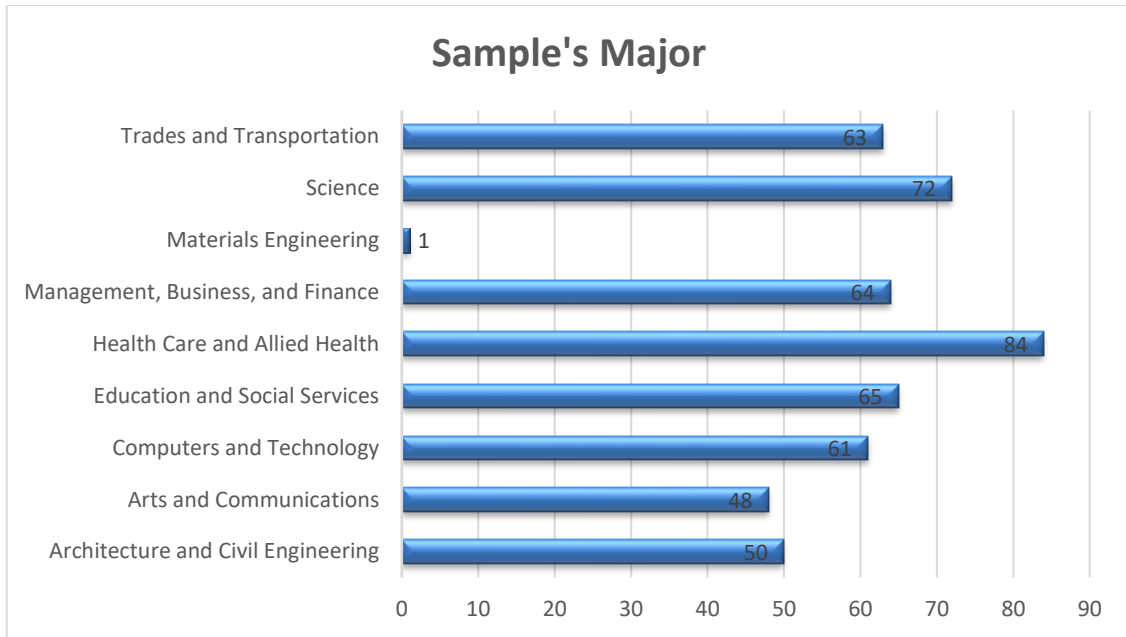
4.3.5. Sample's Major

Figure 4.5: Sample majors

Table 4.6: Sample's majors

Majors	Frequency	Percent
Architecture and Civil Engineering	50	9.8
Arts and Communications	48	9.4
Computers and Technology	61	12.0
Education and Social Services	65	12.8
Health Care and Allied Health	84	16.5
Management, Business, and Finance	64	12.6
Materials Engineering	1	.2
Science	72	14.2
Trades and Transportation	63	12.4
Total	508	100.0

Source: Data analysis (SPSS 25)

Data in Figure 4.5 and Table 4.6 show participants' majors which was distributed on a range of specialties. There were nine majors presented in the above-mentioned table. The two highest frequent majors were health care & allied health with (16.5%) and science with (14.2%). The other majors had relatively convergent percentages except the material engineering where there was only one participant.
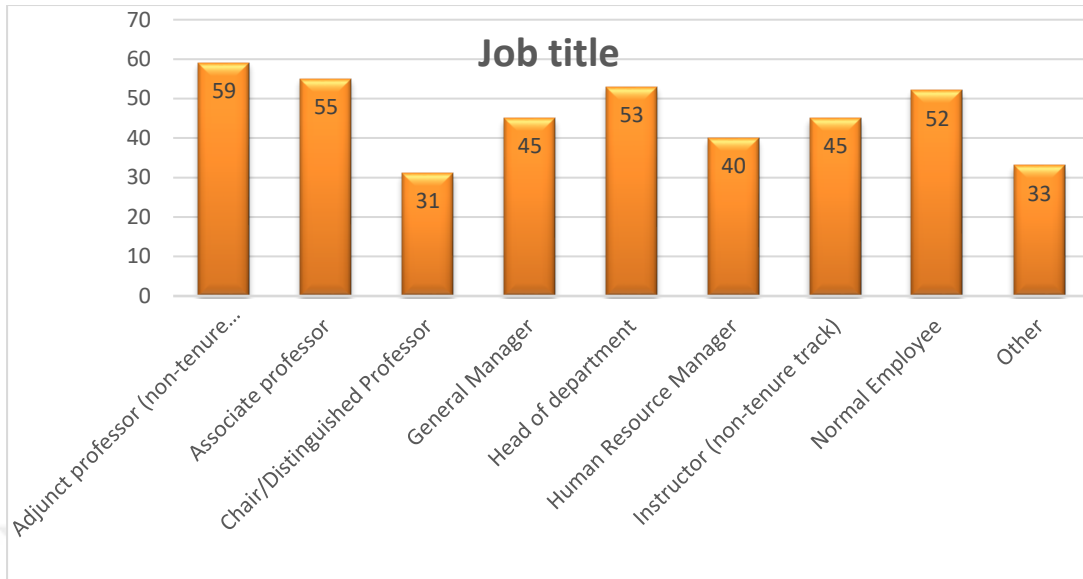
4.3.6. Sample's job title

Figure 4.6: Job title for participants

Table 4.7: Sample's job title

Job title	Frequency	Percent
Adjunct professor (non-tenure track)	59	11.6
Associate professor	55	10.8
Chair/Distinguished Professor	31	6.1
General Manager	45	8.9
Head of department	53	10.4
Human Resource Manager	40	7.9
Instructor (non-tenure track)	45	8.9
Normal Employee	52	10.2
Other	33	6.5
Professor (full)	66	13.0
Specialist	29	5.7
Total	508	100.0

Source: Data analysis (SPSS 25)

Figure 4.6 and Table 4.7 show that the sample was distributed over all the eleven-job titles. However, the three educational or teaching job titles, full professor, adjunct professor, and associate professor gained the highest frequency (66, 59, and 55). In addition, there were other educational or teaching job titles but they gained low frequencies. These were chair-distinguished professor (31), and instructor -non-tenure track (45). The total of these five job titles was (256). That represented fifty percent from

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the total participants. The other half of the participants distributed on job titles head of department (53), normal employee (52), general manager (45), and human resources manager (40).
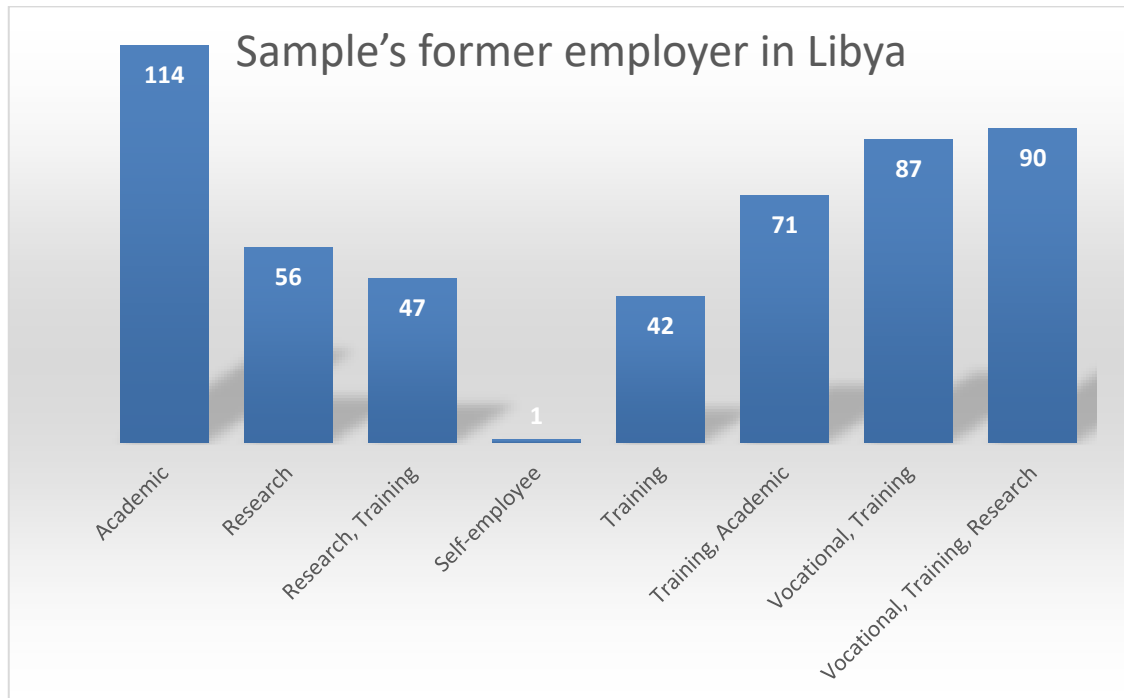
4.3.7. Sample's former employer in Libya

Figure 4.7: Sample's former employer in Libya

Table 4.8: Sample's former employer in Libya

Sample's former employer in Libya	Frequency	Percent
Academic	114	22.4
Research	56	11.0
Research, Training	47	9.2
Self-employee	1	.2
Training	42	8.3
Training, Academic	71	14.0
Vocational, Training	87	17.1
Vocational, Training, Research	90	17.7
Total	508	100.0

Source: Data analysis (SPSS 25)

Figure 4.7 and Table 4.8 provide information about Sample's former employer in Libya. Only one hundred fourteen (114) participants worked in academic institutions or universities and the rest of the sample worked in research training institution or training

academic, vocational training, and vocational training research. However, only one participant had his or her own business.
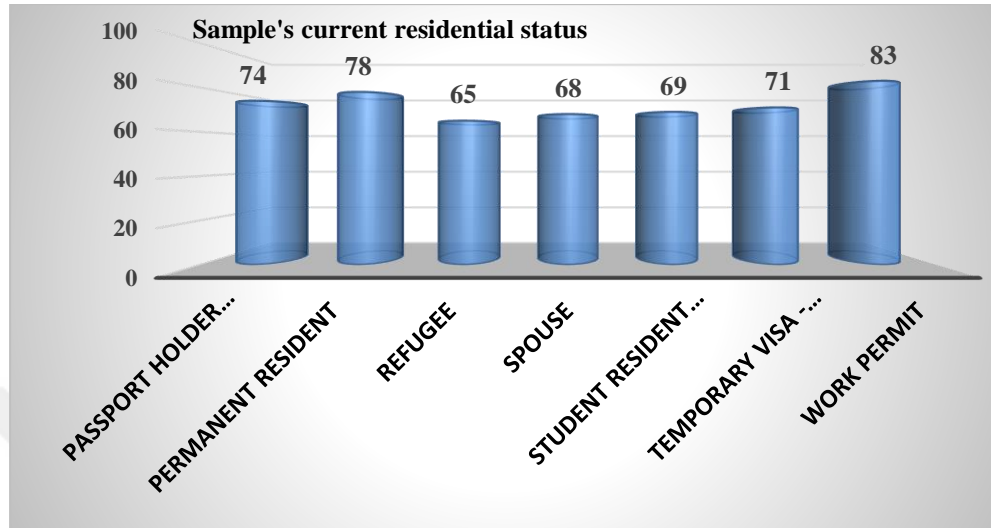
4.3.8. Sample's current residential status

Figure 4.8: Sample's current residential status

Table 4.9: Sample's current residential status

Current residential status	Frequency	Percent
Passport holder (immigrant) permit Spouse	74	14.6
Permanent resident	78	15.4
Refugee	65	12.8
Spouse	68	13.4
Student Resident Permit	69	13.6
Temporary visa - (tourist or short business visit)	71	14.0
Work permit	83	16.3
Total	508	100.0

Source: Data analysis (SPSS 25)

The sample current residential status was differed.
Figure 4.8 and Table 4.9 show that there were seven (7) types of residential status. Members of the sample were distributed in close numbers over the seven types of residence. Only sixty-five (65) participants were still refugees.
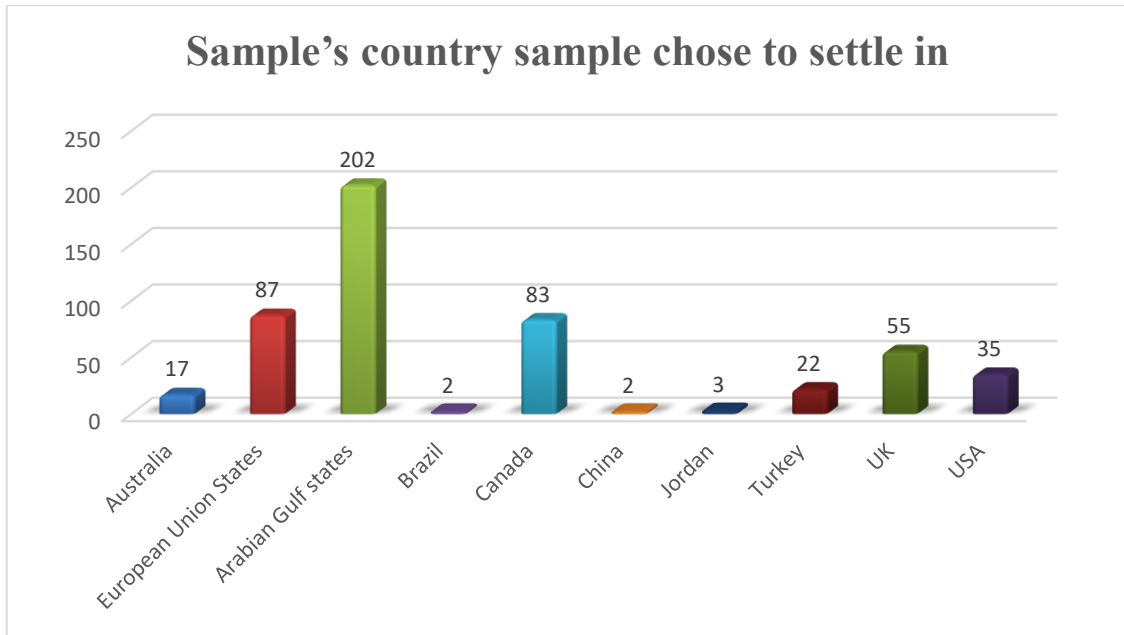
4.3.9. Sample's country sample chose to settle in

Figure 4.9: Sample's country chose to settle in

Table 4.10: Country sample chose to settle in.

Frequency	Percent	Frequency
Australia	17	3.34
European States	87	17.12
Arabian Gulf states	202	39.76
Brazil	2	0.39
Canada	83	16.34
China	2	0.39
Jordan	3	0.59
Turkey	22	4.33
UK	55	10.84
USA	35	6.9
Total	508	100.0

Source: Data analysis (SPSS 25)

Figure 4.9 and Table 4.10 indicate that participants were distributed over ten (10) countries. Originally, they were distributed over twenty-eight (28) countries. The twelve European States and the five Arab Gulf States were combined into two groups.

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Approximately forty per cent (40%) of the sample were residents in the Arabian Gulf states. Brazil, China, and Jordan received the smaller number of Libyan immigrated talents.

4.3.10. Sample's main reason(s) behind moving to other country.

Table 4.11: Main reason(s) behind moving to other country.

Main reason(s) behind moving to other country.	Frequency	%	rank
To escape past or future persecution based on race, religion, nationality, and/or membership in a particular social group or political opinion.	322	63.4	1
To get married from a person living abroad.	216	42.5	2
To gain proper education.	214	42.1	3
To escape poverty.	200	39.4	4
To escape unfair working condition and corruption.	195	38.4	5
To seek superior healthcare.	191	37.6	6
To seek jobs, business opportunities and career development.	183	36.0	7
To escape conflict or violence (Safety).	177	34.8	8
To offer more opportunities to children.	172	33.9	9
To be in a proximate location.	167	32.9	10

Source: Data analysis (SPSS 25)

To investigate the ten (10) reasons listed in the questionnaire behind sample's moving to other country, Table 4.11 shows the frequencies and percentages of participants and the rank order for each reason. All the reasons were important since the least reason was selected by about one third of the sample. However, persecution based on race, religion, nationality, and or membership in a particular social group or political opinion was the most selected reason. Most of the ten reasons represent important needs for human being. Inexpertly 42.5% per cent of the sample believed that "To get married from a person living abroad" is a motive to move to other country.

4.4. Results of Hypotheses Testing

Employee retention is one of the main challenges faced by any organization or institution. Generally, employees leave the organization because of job dissatisfaction, lack of supervisor assistant and feedback, lack of training and development and ineffective pay Kemelgor and Meek (2008). According to Mohd Yusof (2019), a satisfied employee is not just a retained employee but also an ambassador for the brand, internally and externally. She or he can help dispel the apprehensions of others and can defend the company in various mediums. Therefore, satisfied employees are critical to any company's success. Employees' satisfaction indicates their attitude toward their company. In this study, a general statement measures employees' satisfaction. "Overall, how satisfied are you with your previous institution in Libya compared to the institution you work at now?". A scale ranging from 0 to 10, while 0 extremely dissatisfied and 10 extremely satisfied is used here to allow the participants to express how much they were satisfied or dissatisfied with above statement (Aiken, 1987, pp. 51-54). The general question centers on whether the researcher should use a parametric or nonparametric test to analyze the data. To avoid this argument, the Pearson correlation was used to investigate relationships between talent retention (dependent variable) and other independent variables.

4.4.1. Testing the First Hypotheses

"There is a statistically significant relationship between PESTLE factors (external environment) and talent retention in the vocational, training and research centers".

4.4.1.1. Measuring Talent Retention

Table 4.12: Descriptive Statistics for Sample's Evaluation for Talent Retention

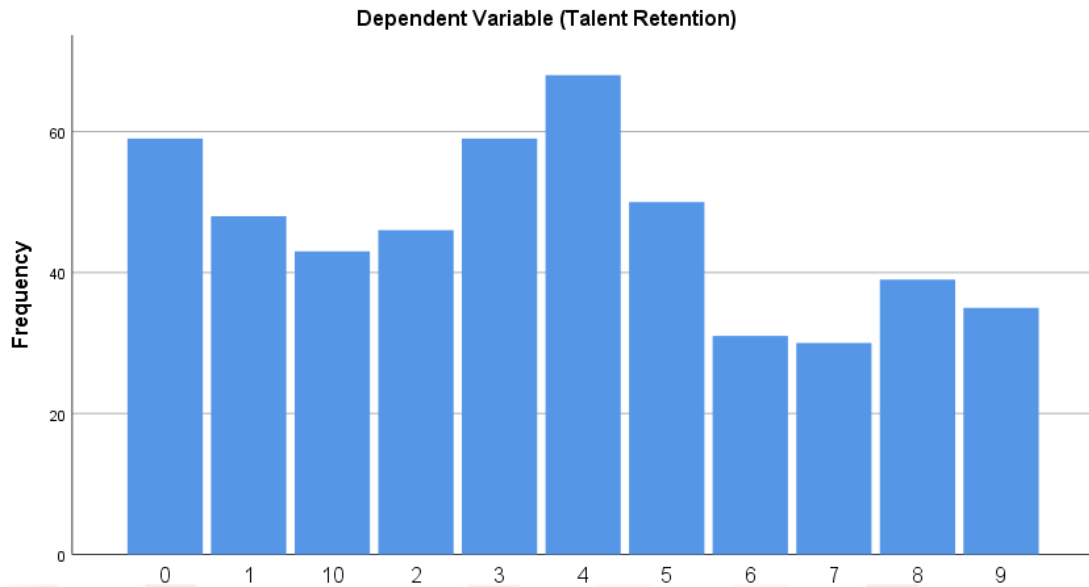| Variable Talent Retention	Minimum	Maximum	Mean	Std. Deviation
Overall, how are you with your previous institution in Libya compared to the institution you work at now?	.00	10.00	4.511	3.133

Figure 4.10: Sample's Talent Retention Scores.

Table 4.13: Participants' satisfaction with their previous institution in Libya compared to the institution they work at now Dependent Variable (Talent Retention)

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	0	59	11.6	11.6	11.6
	1	48	9.4	9.4	21.1
	10	43	8.5	8.5	29.5
	2	46	9.1	9.1	38.6
	3	59	11.6	11.6	50.2
	4	68	13.4	13.4	63.6
	5	**50**	**9.8**	**9.8**	**73.4**
	6	31	6.1	6.1	79.5
	7	30	5.9	5.9	85.4
	8	39	7.7	7.7	93.1
	9	35	6.9	6.9	100.0
	10	0	0	0	100.0
	Total	508	100.0	100.0	100.0

Source: Data analysis (SPSS 25)

Before testing the first hypothesis, the two variables, talent retention and PESTLE factors were calculated based on the type of measurement for these variables. Regarding talent retention Figure 4.10 and Table 4.13 show frequencies of participants' responses about the last statement in the questionnaire (The participant's degree of satisfaction about their previous institution in Libya compared to the institution you work at now?). The range of satisfaction was from 0 to 10 (0 being extremely dissatisfied and 10 extremely satisfied). More than fifty per cent (63.6%) of the participants were

dissatisfied, the rest (26.6%) were dissatisfied, and very slight percent (9.8%) were neither satisfied nor dissatisfied, and no one participant scored complete satisfaction about self-needs being met at their respected jobs. Therefore, participants evaluated their satisfaction about previous institutions in Libya compared to the institutions they work at now negatively. This result indicated that participants' satisfaction (retention) was low.

Table 4.14: One-sample t-test results between sample means and theoretical mean on importance of PESTLE factors.

PESTLE- Factors	Mean	Std. Deviation	Theoretical mean	Mean Differences	t- test	sig
Political Factors	**7.198**	2.440	5.0	2.198	20.303**	.000
Economic Factors	**7.267**	1.892	50	2.267	27.009**	.000
Socio-Cultural Factors	6.277	2.560	5.0	1.277	11.246**	.000
Technological Factors	**8.139**	1.430	5.0	3.139	49.480**	.000
Legal Factors	6.098	2.767	5.0	1.098	8.946**	.000
Environmental Factors	**3.204**	2.341	5.0	-1.796	**-17.284****	.000
Total PESTLE- Factors	**38.190**	7.526	30.0	**8.19**	**24.517****	.000

Source: Data analysis (SPSS 25)

**significant at p<0.01
*significant at p<0.05

Regarding the other variable (PESTLE) factors toward retaining Talents in Libya, participants had to evaluate it on a scale from 0 to 10, 0 not being important at all and 10 being extremely important. Table 4.14 shows participants' mean scores and standard deviations on each factor. The lowest possible score one each factor scale is zero (0) and the highest score is ten (10). Therefore, the midpoint is five (5), which represents the theoretical mean of the scale. The sample's highest mean score (8.139) is on the technological factor, while the lowest (3.204) is on the environmental factor. The possible range of the mean scores on the total six factors is between (0-60) and the theoretical mean score is (30.0). The participants' mean score is (38.190). To test the differences between sample's mean scores and the theoretical mean score on each factor, the *t-test* for one sample is used. Table 4.14 shows that participants score high mean scores on the first five factors while a low mean score on the last factor, environmental.

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The *t-test* values on all the six factors are significant because their significance levels were less than the critical value 0.05 level (p<.05). However, the t-test value (-17.284) on the environmental factor indicated that there were significant differences between the sample's mean score (3.204) and the theoretical mean score. Therefore, sample's mean score is less than the theoretical mean score. Consequently, participants' evaluation their satisfaction about the environmental factors in Libya comparing with the institution they work at now is very low as opposite to all other five factors

Regarding the differences between the total participants' mean score on the PESTLE factors (38.19) which is higher than the theoretical mean score (30.0), the *t-test* (24.517) value is significant at significance level (0.000) which is less than (0.05). Therefore, the participants evaluate the PESTLE factors positively except the environmental factor that had negative impact on talent retention. Consequently, the first hypothesis is accepted.

Table 4.15: Pearson correlations between PESTLE factors and talents retention.

PESTLE factors	Talents retention Pearson correlation	PESTLE Factors Pearson correlation
1. Political Factors	.891**	.815**
	.000	.000
2. Economic Factors	.693**	.739**
	.000	.000
3. Socio-cultural Factors	.544**	.659**
	.000	.000
4. Technological Factors	.483**	.600**
	.000	.000
5. Legal Factors	.214**	.560**
	.000	.000
6. Environmental Factors	**-.212****	.070
	.000	.057
PESTLE Factors	.753**	
	.000	

Source: Data analysis (SPSS 25)

**significant at p<0.01   The upper value is correlation coefficient
*significant at p<0.05   The lower value is significance level

Using Pearson correlations between PESTLE factors and talents retention reveal that there are significant positive correlations between all the PESTLE factors and talent

retention. All the significance values of the correlation coefficients are less than 0.05 level of significance. However, the correlation coefficient between the environmental factor and the talent retention is (-.212**) which is a negative. This relationship indicates that when sample's scores on the environmental factor decrease the talent retention scores increases.

Hair et al. (2010) mentioned that when two variables are trending up or down, the correlation analysis will often show there is a positive significant relationship. Simply because of the trend and not necessarily because there is a cause and effect relationship between the two variables. The trends of the sample's scores on the PESTLE factors were identical with that of talent retention. Therefore, significant, and positive correlations are found between each of PESTLE factors with talent retention variable except with the environmental factor, because the relationship is negative.

This result shows the association between each factor 's score and the total score of PESTLE Factors. It indicates the inter-consistency of PESTLE Factors first five domains.

Based on the above results the first hypothesis "There is a statistical relationship between PESTLE factors (external environment) and talent retention in the vocational, training and research centers". is accepted.

However, data in Table 4.15 reveal that there are significant positive correlations between each PESTLE Factors and total of the PESTLE factors. This result shows the association between each factor's score and the total score of PESTLE Factors. It indicates the inter-consistency of PESTLE Factors first five domains.

Based on the above results the first hypothesis "There is a statistical relationship between PESTLE factors (external environment) and talent retention in the vocational, training and research centers" is accepted.

4.4.2. Testing the Second Hypothesis

"There is a statistically significant relationship between Internal Environment Factors including Motivational Factors and talent retention in the vocational, training and research centers".

4.4.2.1. Testing the Second First-Sub-Hypothesis

"There are statistical relationships between institutional statements about talents previous employer in Libya and talent retention."

To understand the participants' responses on the institutional statements about talents previous employer in Libya, a scale from 0 to 10, 0 not being important at all and 10 being extremely important was used. Table 4.16 shows participants' mean scores and standard deviations on each factor.

Table 4.16: One-sample t-test results between sample means and theoretical mean
On institutional statements about talents previous employer in Libya.

Institutional statements about talents previous employer in Libya.	Mean	Std. Deviation	Mean Differences	t- test	sig
1. Aligning employees with the mission and vision of your institution.	6.874	1.98313	1.87	**21.299****	.000
2. Assessing candidates' skills earlier in the hiring process.	**7.566**	1.927	2.56	**30.023****	.000
3. Creating environment on which those skills are transferred into competencies.	**5.025**	2.818	.025	**0.205**	**.838**
4. Implementing an effective organizational structure.	5.517	2.660	.517	**4.386****	.000
5. Creating a welcoming culture for new talents.	6.681	2.049	1.681	**18.484****	.000
6. Creating a culture that makes employees want to stay with the institution.	6.248	2.436	1.248	**11.547****	.000
7. Creating culture that values employee work.	5.921	2.518	.921	**8.246****	.000
8. Identifying gaps between current employees and candidate competency level	6.645	2.178	1.645	**17.026****	.000
9. Providing necessary resources to achieve institutional goals.	5.417	2.401	.417	**3.917****	.000
10. Encouraging creativity and innovation.	6.007	2.506	1.007	**9.062****	.000
Total institutional statements about talents previous employer in Libya.	61.91	15.852	11.91	**16.927****	.000

Source: Data analysis (SPSS 25)

**significant at p<0.01
*significant at p<0.05

To investigate sample's responses on the ten institutional statements about talents previous employer in Libya, a scale from 0 to 10, 0 not being important at all and 10 being extremely important is used. Table 4. 16 show participants' mean scores and

standard deviations on each factor. Participants evaluate each factor differently because their mean scores were differing, but all the mean scores are above the midpoint (5) of the scale. The highest mean score (7.566) is on "assessing candidates' skills earlier in the hiring process factor", while the lowest mean score is on "creating environment on which those skills are transferred into competencies" (5.05). The possible range of the mean scores on the ten factors is between (0-100) thus the theoretical mean score is (50.0). The participants' mean score is (61.92) which is higher than the theoretical mean. Table 4.15 showed that participants score high mean scores on all the ten factors. To test the differences between participants' mean scores and the theoretical mean score (5.0) on each factor, the *t-test* for one sample is used. The *t-test* values on all the ten factors are significant because their significance levels are less than the critical value 0.05 level (p<.05) except on the third factor "Creating environment on which those skills are transferred into competencies" where the t-test value (.205) is insignificant because it's level (p>.05).

To investigate the statistical differences between the total mean score (61.92) that participants have on the ten factors, and the theoretical mean (50.0), the t-test value (16.927) is significant, (p<.05). Based on this result, participants evaluate the first part of internal environment factors positively except on the third factor where the mean score is moderate.

Table 4.17: Pearson correlations between Institutional statements about talents previous employer in Libya and talents retention.

Institutional statements about talents previous employer in Libya.	Talents retention Pearson correlation	Institutional statements about talents previous employer in Libya Pearson correlation
1. Aligning employees with the mission and vision of your institution.	.762**	.811**
	.000	.000
2. Assessing candidates' skills earlier in the hiring process.	.521**	.609**
	.000	.000
3. Creating environment on which those skills are transferred into competencies.	.950	.918**
	.000	.000
4. Implementing an effective organizational structure.	.864**	.857**

	.000	.000
5. Creating a welcoming culture for new talents.	.577**	.633**
	.000	.000
6. Creating a culture that makes employees want to stay with the institution.	.588**	.677**
	.000	.000
7. Creating culture that values employee work.	.267**	.438**
	.000	.000
8. Identifying gaps between current employees and candidate competency level.	.741**	.783**
	.000	.000
9. Providing necessary resources to achieve institutional goals	.609**	.656**
	.000	.000
10. Encouraging creativity and innovation.	.229**	.348**
	.000	.000
Total Institutional statements about talents previous employer in Libya	.911**	
	.000	

Source: Data analysis (SPSS 25)

**significant at p<0.01   The upper value is correlation coefficient
*significant at p<0.05   The lower value is significance level

To test the second first sub-hypothesis "There is a statistically significant relationship between the degree of importance toward retaining talents on each institutional statement about your previous employer in Libya and talent retention in the vocational, training and research centers", Pearson correlation is used as shown in Table 4.17. All the correlation coefficients are significant and positive. These results indicate that the scores of the two variables are trending up or down at the same time, and that is why the relationship shows a positive significant relationship. Which means, if independent variable change by value of one, it is reflected on dependent variable by the coefficient value that corresponds to it.

The third column of Table 4.17 shows that there are significant positive correlations between each internal environment factors including motivational factors and the total of the score. This result proves the association between each factor score and the total score which indicates the inter-consistency of institutional statements about talents previous employer in Libya domain. Based on the above results the second first sub-

hypothesis is accepted, "There is a statistically significant relationship between the degree of importance toward retaining talents on each institutional statement about your previous employer in Libya and talent retention in the vocational, training and research centers".

4.4.2.2. Testing the Second Second-Sub-Hypothesis

"There are statistically significant relationships between degree of importance about your previous employer in Libya and talent retention."

Table 4.18: One-sample t-test results between sample means and theoretical mean of degree of importance about participants' previous employer in Libya.

Degree of importance about your previous employer in Libya.	Mean	Std. Deviation	Mean Differences	t- test	sig
1. On-boarding and orientation	6.047	2.420	1.047	9.751**	.000
2. Coaching and mentor-ship Programs.	5.970	2.61936	.970	8.351**	.000
3. Employee compensation including periodic review.	4.460	2.339	**-.539**	**-5.197****	.000
4. Recognition and rewards systems including fringe benefits.	5.954	2.429	.954	8.858**	.000
5. Work-life balance.	6.218	2.536	1.218	10.829**	.000
6. Training and development.	6.275	2.266	1.275	12.683**	.000
7. Communication and Feedback.	6.846	2.143	1.846	19.413**	.000
8. Dealing with change.	5.450	2.996	.450	3.391**	.001
9. Fostering Teamwork.	6.626	2.434	1.625	15.053**	.000
10. Team celebration.	6.153	2.602	1.153	9.990**	.000
11. Action learning.	5.698	2.607	.698	6.041**	.000
12. Accuracy of job description	6.561	2.120	1.561	16.594**	.000
13. Adequate pay and linked to performance.	6.226	2.649	1.226	10.433**	.000
14. Organizational distributive justice reflects perceptions regarding fairness of outcomes.	6.011	2.463	1.011	9.256**	.000
15. Organizational procedural justice reflects perceptions of processes that lead to these outcomes.	6.326	2.377	1.326	12.578**	.000
Total degree of importance about your previous employer in Libya.	90.83	20.237	15.83	17.629**	.000

Source: Data analysis (SPSS 25)

**significant at p<0.01   The upper value is correlation coefficient
*significant at p<0.05   The lower value is significance level

To investigate sample's responses regarding the degree of importance about sample's previous employer in Libya, Table 4.18 shows mean scores and standard deviations on each statement. The sample scores higher mean scores than the midpoint on all the statements except the third statement, employee compensation including periodic review. It is negative value which implies that the sample mean is less than the theoretical mean (hypothesized).

To test the statistical differences between the sample' mean scores on each statement and the theoretical (5.0) mean of the scale, the *t-test* for one sample is performed. All the values of the *t-test* are significant. This result indicates that sample's evaluation for the importance of previous employer in Libya are relatively moderate, except the third statement, employee compensation including periodic review, which is evaluated less than the midpoint, or negative.

In regard, to the participants' total mean score (90.83) on the fifteen statements, the values of the *t-test* (17.629) is significant. Therefore, participants' degree of importance about their previous employer in Libya is higher than the midpoint of the scale. therefore, it can be considered a positive evaluation thus this sub-hypothesis is accepted.

Table 4.19: Pearson correlations between degree of importance about participants' previous employer in Libya and talents retention.

Degree of importance about participants' previous employer in Libya.	Talent Retention Pearson correlation	Total degree of importance about your previous employer in Libya. Pearson correlation
1. On boarding and Orientation.	.871**	.871**
	0	0
2. Coaching and mentor-ship Programs.	.334**	.411**
	.000	0
3. Employee compensation including periodic review.	.203**	.319**
	0	0
4. Recognition and rewards systems including fringe benefits.	.857**	.850**
	0	0
5. Work-life balance.	675**	.699**
	0	0

6. Training & development.	.564**	.583**
	0	0
7. Communication and feedback.	.537**	.582**
	0	0
8. Dealing with change.	**0.025**	.153**
	0.287	0
9. Fostering teamwork.	0.062	.151**
	0.083	0.001
10. Team Celebration.	.511**	.564**
	0	0
11. Action Learning.	.626**	.650**
	0	0
12. Accuracy of job description.	.604**	.624**
	0	0
13. Adequate pay and linked to performance.	.480**	.554**
	0	0
14. Organizational distributive justice reflects perceptions regarding fairness of outcomes.	.724**	.758**
	0	0
15. Organizational procedural Justice reflects perceptions of processes that lead to these outcomes.	.472**	.527**
	0	0
Total degree of importance on each statement about previous employer in Libya.	.906**	
	0	

Source: Data analysis (SPSS 25)

**significant at p<0.01   The upper value is correlation coefficient
*significant at p<0.05   The lower value is significance level

To investigate the relationships between degree of importance about participants' previous employer in Libya and talent retention, Pearson correlations are performed. Table 4. 18 shows significant correlations coefficients between all the statements for degree of importance about participants' previous employer in Libya and talent

retention, except with eighth statement, dealing with change, and the nineth, fostering teamwork. The two correlation coefficients are insignificant because their significance levels are $P>05$. In general, the results show that there are relationships between statements for degree of importance about participants' previous employer in Libya and talent retention, which were shown in Table 4. 19.

4.4.2.3. Testing the Second Third-Sub-Hypothesis

"There are statistically significant relationships between degree of importance on each statement about how your previous employer dealt with Talents in Libya and talent retention."

Table 4.20: One-sample t-test results between sample means and theoretical mean of degree of importance on each statement about how your previous employer dealt with Talents in Libya.

Degree of importance about how your previous employer dealt with talents in Libya.	Mean	Std. Deviation	Mean Differences	t- test	sig
1. Talents are being identified by Competencies.	**4.649**	2.226	-.3501	**-3.547****	.000
2. Talents are being identified by potentials.	5.232	2.641	.232	1.982*	.048
3. Talents are being identified by Results.	6.212	2.275	1.212	12.011**	.000
4. There is Specific Talent Management Initiatives	5.163	2.908	.163	1.266	.206
5. Acquiring new talent is among your institution's Talent Retention Initiative.	6.167	2.272	1.167	11.577**	.000
6. Leveraging existing talent is among your institution's Talent Retention Initiative.	5.480	2.553	.480	4.240**	.000
7. Retaining the current potential is among your institution's Talent Retention Initiative.	**2.994**	2.055	-2.006	**-21.991****	.000
Total statement about how your previous employer dealt with Talents in Libya?	35.90	11.259	.900	1.801	.072

Source: Data analysis (SPSS 25)

**significant at $p<0.01$
*significant at $p<0.05$

Responses of participants on degree of importance on each statement about how your previous employer dealt with talents in Libya seem to be different. Table 4.8 shows

different mean scores on the statements. Participants have moderate and low mean scores on the seventh statements, Retaining the current potential is among your institution's Talent Retention Initiative.

To test the statistical differences between participants' mean scores on each statement, and the theoretical (5.0) mean of the scale, the *t-test* for one sample is performed. The values of the *t-test* are significant, and the differences are for the theoretical mean on the first, talents are being identified by Competencies, and the seventh statements, retaining the current potential is among your institution's talent retention initiative. This result indicates the participants evaluate these two statements negatively. However, slightly higher mean scores are scored on the second, third, fifth, and the sixth statements and the t-test results are significant.

In regard, to the differences between the participants' total mean score (35.90) on the seven statements, and the theoretical mean for the seventh statements (35), the values of the *t-test* (1.801) are insignificant. Therefore, participants' degree of importance on each statement about how your previous employer dealt with talents in Libya is moderate.

Table 4.21: Pearson correlations between degree of importance about how your previous employer dealt with Talents in Libya.

Degree of importance a about how your previous employer dealt with Talents in Libya.	Talent Retention Pearson correlation	Total degree of importance about your previous employer in Libya. Pearson correlation
1. Talents are being identified by Competencies.	.566**	.658**
	.000	.000
2. Talents are being identified by potentials.	.432**	.604**
	.000	.000
3. Talents are being identified by results.	.685**	.713**
	.000	.000
4. There is specific talent management initiatives.	.952**	.866**
	.000	.000
5. Acquiring new talent is among your institution's talent retention initiative.	.699**	.756**
	.000	.000
6. Leveraging existing talent is among your institution's talent retention initiative.	.507**	.677**
	.000	.000
7. Retaining the current potential is among your institution's talent retention initiative	.068	.299**
	.063	.000
Total statement about how your previous employer dealt with Talents in Libya?	.866**	
	.000	

Source: Data analysis (SPSS 25)

**significant at p<0.01   The upper value is correlation coefficient
*significant at p<0.05   The lower value is significance level

To investigate the relationships between degree of importance about how your previous employer dealt with talents in Libya and talent retention, Pearson correlations are performed and results shown in Table 4. 20. Significant correlations coefficients are found between the seven statements and talent retention, except between the seventh statement, retaining the current potential is among your institution's talent retention initiative, where the correlation coefficient is insignificant P>0.05. It can be concluded that there are relationships between degree of importance about how talent's previous employer dealt with talents in Libya and talent retention.

4.4.3. Testing the Third Hypothesis

"There are statistically significant relationships between external pull factors (International Attractive Environment) and talent retention in the vocational, training and research centers."

Table 4.22: One-sample t-test results between sample means and theoretical mean of degree of importance on each statement about your move decision to this country.

Degree of importance on each statement about your move decision to this country.	Mean	Std. Deviation	Mean Differences	t- test	sig
1. Better infrastructure that results in adequate facilities and services.	7.021	2.091	2.021	21.781**	.000
2. Better healthcare and medical facilities such as hospitals.	7.431	1.686	2.431	32.484**	.000
3. Better job and educational opportunities.	7.423	1.692	2.423	32.273**	.000
4. Lower crime rates as a result of a combination of generally higher living standards and better, less corrupt, and more efficient police force.	7.789	1.523	2.789	41.272**	.000
5. Democratic political stability.	6.185	2.566	1.185	10.405**	.000
6. A generally higher standard of living.	7.582	1.970	2.582	29.534**	.000
7. More entertainment and better cultural options, which are a result of higher standards of living, higher education levels, and more disposable income.	7.702	1.616	2.702	37.695**	.000
8. Creativity and innovation boosting environment.	7.856	1.565	2.856	41.123**	.000
TOTAL degree of importance on each statement about your move decision to this country.	58.99	8.091	18.99	**59.205****	0.000

**significant at p<0.01 and *significant at p<0.05 Source: Data analysis (SPSS 25)

Table 4.22 shows mean scores and standard deviations on degree of importance on the eighth statements about participants' move decision to outside Libya. The sample score high mean scores on all the eight statements. To examine the statistical differences between sample's mean scores and the theoretical mean (5.0), the *t-test* for one sample is performed. All the *t-test* values were significant. These results indicated that participants believed that there are reasonable factors that motivate Libyan talents to leave Libya to other country. Concerning, the difference between participants' mean score (58.99) on the total of the eight factors, and the theoretical mean score (40.0), the *t-test* value (59.205) is significant. This result indicates that there are significant reasons behind Libyan talents to move outside Libya to look for a better working environment.

Table 4.23: Pearson correlations between a degree of importance on each statement about your move decision to this country and talents retention.

Degree of importance on each statement about your move decision to this country.	Talent Retention Pearson correlation	Degree of importance on each statement about your move decision to this country Pearson correlation
1. Better infrastructure that results in adequate facilities and services.	.561**	.595**
	.000	.000
2. Better healthcare and medical facilities such as hospitals.	.385**	.506**
	.000	.000
3. Better job and educational opportunities.	.581**	.640**
	.000	.000
4. Lower crime rates as a result of a combination of generally higher living standards and better, less corrupt, and more efficient police force.	.476**	.572**
	.000	.000
5. Democratic political stability.	.427**	.600**
	.000	.000
6. A generally higher standard of living.	.423**	.486**
	.000	.000
7. More entertainment and better cultural options, which are a result of higher standards of living, higher education levels, and more disposable income.	.114**	.367**
	.005	.000
8. Creativity and innovation boosting environment.	.476**	.606**
	.000	.000
TOTAL degree of importance on each statement about your move decision to this country.	.766**	
	.000	

Source: Data analysis (SPSS 25)

**significant at p<0.01   The upper value is correlation coefficient
*significant at p<0.05   The lower value is significance level

To investigate the relationships between decision to move outside Libya and talents retention, Pearson correlations were performed, table 4. 23. Significant correlations coefficients are found between all pull factors and talent retention. This result indicated that there are statistical relationships between external pull factors (International Attractive Environment) and talent retention in the vocational, training and research centers." Therefore, the third hypothesis is accepted.

4.4.4. Testing the Fourth Hypothesis:

"There is a statistically significant relationship between the components of Maslow's Pyramid of Needs and talent retention in the vocational, training and research centers."

On a scale from 0 to 10, 0 extremely dissatisfied and 10 being extremely important, from your prospective, please choose your degree of satisfaction on each statement about your needs being met while working for your previous employer in Libya?

Table 4.24: One- sample t-test results between sample means and theoretical mean of Maslow Hierarchy of Needs.

Statement about your needs being met while working for your previous employer in Libya. Maslow Hierarchy of Needs.	Mean	Std. Deviation	Mean Differences	t- test	sig
1. Fulfilling physiological needs.	4.891	2.419	-.10827	**-1.008**	.314
2. Fulfilling safety needs.	**4.769**	2.365	-.23031	**-2.195***	.029
3. Fulfilling belonging and love needs.	5.551	2.669	.55118	4.655**	.000
4. Fulfilling lower esteem needs (the need for respect from others (e.g., prestige, attention, status, and fame).	5.673	2.324	.67323	6.527**	.000
5. Fulfilling higher esteem needs (the need for respect from the self (e.g., freedom, independence, strength).	5.777	2.411	.77756	7.268**	.000
6. Fulfilling self-actualization needs.	5.700	2.550	.70079	6.192**	.000
TOTAL Maslow's hierarchy of needs.	32.36	12.318	2.364	4.326**	.000

Source: Data analysis (SPSS 25)

**significant at p<0.01
*significant at p<0.05

Jerome (2013); Upadhyaya (2014) discussed Maslow needs and believed every person had needs that need to be met. Abraham Maslow transferred his idea into a multi-levels' triangle design. Maslow believed that people are motivated to fulfill their own needs. The five basic needs were included model of this study. The need for esteem was divided

into two needs which are fulfilling lower esteem needs and fulfilling higher esteem needs. Participants had to define on a scale from 0 to 10, 0 not being important at all and 10 being extremely important about their needs being met while working for their previous employer in Libya.

Jerome (2013); Upadhyaya (2014) both claim in support of Maslow's needs, every person has needs that need to be met. This idea can be presented into a triangle design as pers shown in Figure 2. 2. People are motivated to fulfill their own needs. There are only five basic needs in the Maslow's Pyramid of Needs (Jerome, 2013). The need for esteem was divided into two needs which are fulfilling lower esteem needs and fulfilling higher esteem needs. Participants have to define on a scale from 0 to 10, 0 not being important at all and 10 being extremely important about their needs being met while working for their previous employer in Libya. Table 4.24 shows that participants gave very moderate mean scores on all the six needs. All the mean scores are either less than the midpoint (5.0) of the scale or slightly higher. To investigate the statistical differences between the sample's mean scores and the theoretical mean (5.0), the t-test for one sample is performed. All the test values including the t-test value for the total of Maslow needs are significant except on the physiological needs (-1.008) which was insignificant, P>0.05. Participants' mean score (4.769) on the "fulfilling safety needs" is less than the theoretical mean score and the t-test value is significant (-2.195). These results indicate that not all the participants' needs are satisfied. Based on the interpretation of the data shown in Table 4.24 not all the participants' needs being met in their respective centers in Libya and that could have caused them to leave and search for a better opportunity where those need can be achieved and gained.

To test the fourth hypothesis "There is a statistically significant relationship between the components of Maslow's pyramid of needs and talent retention in the vocational, training and research centers", the Pearson correlations are calculated. As shown in Figure 4. 25, significant correlations coefficients are found between the six needs and Libyan talents retention. In addition, significant correlation coefficients are found between each need and the total of Maslow's six needs. This indicates the inter consistency of participants' response on the six needs. From this, the fourth hypothesis was accepted.

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Table 4.25: Pearson correlations between Maslow's hierarchy of needs and talents retention.

Maslow's Hierarchy of Needs	Talent Retention Pearson correlation	TOTAL Maslow's Hierarchy of Needs Pearson correlation
Fulfilling Physiological Needs.	.830**	.859**
	.000	.000
Fulfilling Safety Needs.	.771**	.821**
	.000	.000
Fulfilling Belonging and Love Needs.	.905**	.902**
	.000	.000
Fulfilling Lower Esteem Needs (the need for respect from others (e.g., prestige, attention, status, and fame).	.794**	.847**
	.000	.000
Fulfilling Higher Esteem Needs (the need for respect from the self (e.g., freedom, independence, strength).	.596**	.714**
	.000	.000
Fulfilling Self-Actualization Needs.	.807**	.861**
	.000	.000
TOTAL Maslow's Hierarchy of Needs.	.941**	
	.000	

Source: Data analysis (SPSS 25)

**significant at p<0.01   The upper value is correlation coefficient
*significant at p<0.05   The lower value is significance level

4.4.5. Testing the Fifth Hypothesis:

"There is a statistically significant effect of PESTLE factors, internal environmental factor, international pull factors and Talent Needs (Motivational Factors) on talent retention in the vocational, training and research centers.

Based on the above hypothesis the dependent variable (response variable) is talent retention whereas PESTLE factors, internal previous organization environment, and international pull factors, are independent variables. Independent variable(s) (explanatory variable) have an impact on the dependent variable. To test the fifth hypothesis, multiple regression was used. The purpose of multiple regression is to

predict a single variable from one or more independent variables (Hair et al., 2010; Saunders, 2011).

Data in Table 4.26 shows values of descriptive statistics for the variables that entered in the regression model. The independent variables, predictors, involve PESTLE factors, total internal environmental factors, international environment factors (attractiveness factors), and total of Maslow's hierarchy of needs. While the dependent variable, response, is talent retention. Concerning the talent retention variable, the total mean score (4.511) was less than (5) theoretical mean while all other independent variables showed totals mean higher than their respective theoretical means. The following Table 4. 26 shows summary of Libyan talents' opinions on (PESTLE Factors, Total Previous work Environment Factors, Total International Attractiveness Factors and Total Maslow's Hierarchy Needs).

Table 4.26: Descriptive statistics for the dependent and independent variables.

Variables	Theoretical mean	Mean	Std. Deviation
Talent Retention.	5	4.511	3.13
PESTLE factors	30	38.19	7.52
Total previous-work Environmental factors in Libya.	160	188.62	45.482
Total Attractiveness Factors	40	58.99	8.09
Total Maslow's Hierarchy of Needs	30	32.36	12.31
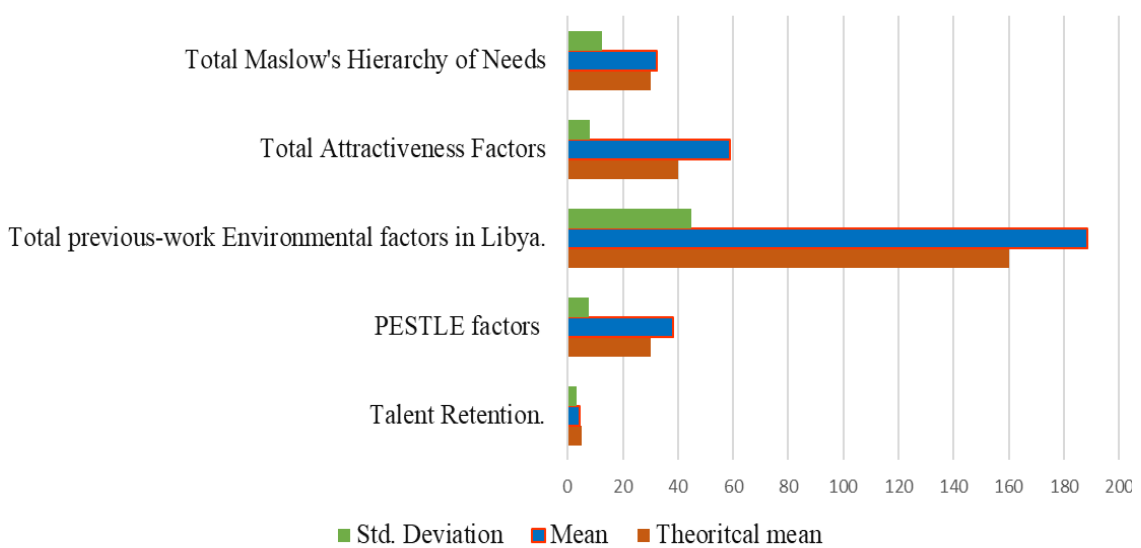
Figure 4.11: Differences between the participants' mean and the midpoint of the scale.

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Based on the data in Table 4.26 and Figure 4.11 , the differences between the participants mean scores and the midpoint on total previous work environment in Libya (188.35) were contradicted which should be less than the midpoint. However, on talent retention the mean was less than midpoint.

Table 4.27: Matrix between variables.

Matrix between variables.		Total PESTLE factors	Total Internal business environment factors	Total Pull Attractiveness Factors	Total Maslow's Hierarchy Needs	Talent Retention
Total PESTLE factors	Pearson Correlation	1				
	Sig. (2-tailed)					
Total Internal business environment factors	Pearson Correlation	.763**	1			
	Sig. (2-tailed)	.000				
Total Pull Attractiveness Factors	Pearson Correlation	.654**	.783**	1		
	Sig. (2-tailed)	.000	.000			
Total Maslow's Hierarchy Needs	Pearson Correlation	.735**	.922**	.772**	1	
	Sig. (2-tailed)	.000	.000	.000		
Talent Retention	Pearson Correlation	.753**	.950**	.766**	.941**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

Source: Data analysis (SPSS 25)

**significant at p<0.01
*significant at p<0.05

The correlation matrix in Table 4. 27 reveals that there are significant correlation coefficients between talent retention and the other four variables. This affected the regression model.

Table 4.28: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.965	0.931	0,931	0.825

Table 4.28 shows that the unadjusted multiple R for this data is (.965) but the adjusted multiple R (.931) which indicates that 93.1% of the variability in the constant variable is related to the predictor variables.

4.4.5.1. Summary of the five main hypotheses

Table 4.29: Examining the model of the regression by f- test.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4634.234	4	1158.559	1700.506	.000
Residual	342.695	503	.681		
Total	4976.929	507			

(F = 1700.506, df = 4.503, sig. = .000) shows that the test indicated that the independents variables had significant effect in predicting talent retention. Therefore, the linear regression model predicts very well the outcome.

Table 4.30: Overall Regression Coefficients - Predicting talent retention by PESTLE factors, Total previous work environment, Attractiveness factors, and Total Maslow's hierarchy of needs

Model	B	Std. Error	Standardized Coefficient	t-test	sig
Constant	-6.533	.376		15.4111	.000
PESTLE Factors	.014	.008	.057	2.788	.006
Total Work Environment Factors Libya	.038	.006	.332	11.127	.000
Attractiveness Factors	-.001	.008	.021	1.001	.317
TOTAL Maslow's Hierarchy of Needs	.108	.008	.589	19.780	.000

Source: Data analysis (SPSS 25)

**significant at p<0.01
*significant at p<0.05

B	The unstandardized beta
Std.Error (SE B)	The standard error for the unstandardized beta
Standardized Coefficient	The standardized beta (β),
t-test	The T test statistic (t)
Sig.	The significance level or the probability value (p)

To investigate the effect of each independent variable on the dependent (talent retention), when testing the fifth hypothesis Table 4.30, reveals that the four predictors, PESTLE factors, total internal environmental factors, environment factors (attractiveness factors), and total of Maslow's hierarchy of needs, predicts Libyan talent

retention (LTR) (p=0.000). Maslow's hierarchy of needs has the highest beta value (B=.108) follows by Total Work Environment Libya (B=0.038) and PESTLE factors (B=-0.014), and Attractiveness Factors (B=-.001) The adjusted r- The regression model is as follows:

$$LTR = -6.533 + 0.014 * PF + 0.038 * TWEF - 0.01TAF + 0.108 * TMHN ==>$$
Equation 4. 1.

Where, abbreviations in the equation explained below:

LTR	Libyan Talent Retention
PF	PESTLE Factors
TWEF	Total Work Environment Factors
TAF	Total International Attractiveness Factors
TMHN	Total Maslow's Hierarchy of Needs

From the above, it can be clearly stated that meeting Libyan talents' need have strongest impact among the other variables, followed by total work environment factors which if restructured according to talents welcoming environment should reduce talent turnover and improve talent retention in Libyan institutions. Resnick (2018) stated that 'more social science studies just failed to replicate. Here is why this is good'. This means, that what the research found based on his study, may be not applicable in other countries because each has its own the used independent variables.

Table 4.31: Variables Pearson Correlations between each independent variable and talent retention

	Source	Pearson's Correlation coefficient (r)	R square (r2)	Adjusted R square	Std. of Error	Sig.
Hyp. 1	PESTLE Factors	.753a	.567	.566	2.064	.000
Hyp. 2	Total Work Environment Factors Libya	.040a	.002	.000	3.134	.366
Hyp. 3	Attractiveness Factors	.766a	.586	.585	2.018	.000
Hyp. 4	TOTAL Maslow's Hierarchy of Needs	.941a	.885	.884	1.065	.000

a. Predictors: (Constant), vary each raw.
b. Dependent Variable: Talent Retention

4.5. Result of effective means of rewarding, motivating, and retaining talents in the institutions.

In order to shed the light on talent retention, participants had to specify different means and environment that their institutions use to encourages and supports employees to remain employed excluding monetary compensation. Table 4.32 shows nine means, which were arranged on rank, based on frequencies of selection by participants.

Table 4.32: Sample's most effective institution's means of rewarding, motivating, and retaining talents in the institution participants have worked for.

Means of rewarding, motivating, and retaining talents in the institution.	Frequency	%	Rank
1- Providing mentoring and fast track advancement opportunities.	**217**	42.7	1
2- Providing a collaborative working environment.	**204**	40.2	2
3- Maintaining the reputation of the institution.	**202**	39.8	3
4- Providing the opportunity to work with leading edge technologies.	**199**	39.2	4
5- Providing international opportunities	**197**	38.8	5
6- Funding educational needs.	**196**	38.6	6
7- Providing training	192	37.8	7
8- Working with employees to develop individual career path.	182	35.8	8.5
9- Encouraging risk taking and innovation.	182	35.8	8.5

Source: Data analysis (SPSS 25)

The first three motivating means were, providing mentoring and fast track advancement opportunities, providing a collaborative working environment, and maintaining the reputation of the institution. More than two hundred from the participants selected this mean. The second three rank means were, providing the opportunity to work with leading edge technologies, providing international opportunities, and funding educational needs. The last three rank means were, providing training, working with employees to develop individual career path, and encouraging risk taking and innovation. The highest percentage of selection was (42.7%) and the lowest was

(35.8%). Therefore, one third of the participants and higher selected these motivating means. This may indicate that Libyan immigrated talents have found in the new working environment what they had lost in their previous Libyan employers. The above results explained why talented employees leave the vocational, training and research institutions in Libya with an eye on international similar institutions.

CHAPTER FIVE: SUMMARY AND FUTURE SUGGESTIONS

5.1. Conclusion

Talent retention strategy in Libyan public institutions have been weak for the last couple of decades but intensified during the Arab uprising. Talents show tendency to leave their local employers seeking better opportunities elsewhere internationally, where they foresee their skills, knowledge, and abilities are well valued and recognized. Shedding the light on the main problems facing talents locally was the main purpose of this study. The focus was on four main factors that literature review shows direct effect on talent retention. Those were macro-environment factors (PESTLE factors), institutional internal (micro) business environment practices, international (pull) environment factors and fulfilling talents needs represented through Abraham Maslow Pyramid of Needs.

Initially, measuring talent retention was shown through the degree of their satisfaction with their previous employers in the range of 0 to 10, 0 being the lowest satisfaction level and 10 being the highest satisfaction level. Also, independent variables also were evaluated based on scale from 0 to 10. Interestingly, the study showed a statistically significant relationships between talent retention in Libya and all independent variables which are PESTLE Factors, Libyan work environment, international attractiveness factors, and Talents Needs represented through Maslow Hierarchy of needs.

There were sub-factors that showed weak correlations but the overall relationships were strong and all factors do predict talent retention in Libya. In a nutshell, this study merely touched the brain-drain phenomena in Libyan public institutions and wide spectrum of factors were analyzed. However, further studies with lesser number of variables and focus in specific factors need to be conducted to assure the accuracy of this study's finding. Retaining talents can be difficult but nurturing, developing, and rewarding them in best macro, micro environment while supporting them through providing their needs

and rewarding them with competitive packages surely will help tackle the phenomena at least in Libyan institutions.

Concluding the First Hypothesis

As mentioned in the first chapter, Boselie and Thunnissen (2017), Collings et al. (2017), Thunnissen (2016), stated that talent management and talent retention have always been recognized are crucial to the success of every institution. Studying the countries' environmental factors and understanding their effects on talent retention was not clearly a topic under research in the past based on the researcher conduction of the existing literature. PESTLE factors' analysis is an excellent developed tool to generally analyze and monitor the macro-environmental factors, sometimes called as: external marketing environment, that have a noticeable impact on an organization performance (Rastogi and Trivedi, 2016).

Although, Collings et al. (2017) believed that shifting the research toward understanding the effect of Macro-environment in relation to TM will strengthen the field, literature review provided very a few related articles. This was one of research gaps that the researcher wanted to explore. There is a plethora of evidence that prove national culture facilitates talent management policies an organization can use in that country (Collings et al., 2017). Retaining talents increases performance, competitivity and productivity of local institutions internationally. Due to the growing brain drain problem in Libya, Libya is nowhere to be mentioned in The Global Competitiveness Report 2019. This reflects, on one way or another, how weak the macro-environment in Libya is in attracting or maintaining their distinguished innovative and productive people. It is also weak in keeping talents locally. Researchers argued entering the competitiveness report is primarily dependent on strong emphasis on people-development programs (WEF, 2019).

Based on the analysis results using Pearson correlations between PESTLE factors and talents retention reveal that there are significant positive correlations between all the PESTLE factors and talent retention. All the significance values of the correlation coefficients are less than 0.05 level of significance. However, the correlation coefficient between the environmental factor and the talent retention is (-.212**) which is a negative. This relationship indicates that when sample's scores on the environmental factor decrease the talent retention scores increases.

However, through using Pearson's correlations between PESTLE factors and talents retention revealed that there is a significant relationship between PESTLE Factors and Libyan talent retention (LTR) among the surveyed participants. Furthermore, there was a statistically significant correlations between each factor and total PESTLE Factors score domain which indicates the inter-consistency of PESTLE first five domains.

The researcher concluded that country's political, economic, and technological factors with less degree soci-cultural can predict talent retention with exception of environment factors. While, environmental factor had weak effect due to the nature of environment in Libya as it is considered for Libyan talents as attractiveness factor because it showed a trivial effect on talent turnover decision for Libyan Talents. Although there was no single article that connect the two factors together, the researcher tried to uncover any relationship that may have caused the talent turnover problem that Libyan public institutions are being faced with.

In this study, participants valued each factor differently, which could be interpreted differently by different researchers. Here, the researcher expect that this is due to how important political, economical, and technological factors are toward the success of their institutions which will reflect their engagement and retention. On the other hand, the researcher foresees why there was moderate influence because talents perceptions differ from one another. Finally, environmental factor was evaluated below the mean, it could be due to the assumption that the environment factor in Libya is considered attractive toward retaining talents. However, their total evaluation for the PESTLE factors was positive. The nature of this evaluation tool is intertwined and their effects on talent retention was possible to predict easily. The study proved this by showing different influences each factor plays in talent retention.

Concluding the Second Hypothesis

The current researches did not address the difference between category of talented employee according to their administrative jobs or employee categories. Likewise, in what economic sector do they work or the type of work they do. As the human power can be categorized in three simple categories; directors, managers, and employees, and since the talents can be among any of these categories, future researches should focus on the differences referred here. With a click of the computer mouse looking for the

relationship between internal environment and talent retentions, millions of articles, journals, books, and interviews can be found in no time. However, they all differ from each other in diagnosing the problem due to its complexity. Also, no comprehensive study was found toward this topic. A quite few studies shared the same findings as this study. Based on the literature review that support the results reached about this hypothesis.

Gulec and Samancı (2018) found that there is a statistically relationship between organizational commitment and job satisfaction that is differed significantly based on most relayed studies. Terera and Ngirande (2014) on the other hand, found in their study that employee compensations and rewards predict employee retention but however, the study found employee rewards do not predict job satisfaction. Adjacent to this, Priyadharshini and Sudhahar (2019) found that employees when satisfied are more inclined to be committed and loyal to their employers and positively contribute to enhance their organizations' performance. However, according to the authors, there was no correlation found between those satisfied-employee retention and their organizations' performance. In support to the previous findings, Jalagat, Dalluay, Al-Zadjali, and Al-Abdullah (2017) showed no relationship between the overall working-conditions as seen by professionals at Oman Air and their job satisfaction.

Furthermore, Gharib, Kahwaji, and Elrasheed (2017) showed that employee training and their professional development have no significant impact on their retention. On the contrary; job satisfaction, rewards system, and job security have statistically significant effect on staff retention. Besides that, Ćulibrk, Delić, Mitrović, and Ćulibrk (2018, p. 132) claim that in contrast to many recent related studies that were conducted in developed economies, organizational business practices and procedures have no significant effect on employee satisfaction.

In line with the study findings, Reukauf (2018) showed in their study which is based in Herzberg's 2-factor theory (previously mentioned in the Chapter One) that analyzed the relationship between extrinsic employee job-satisfaction, intrinsic employee job-satisfaction, and employee turnover. The study concluded that extrinsic motivation was a predictor of employee retention conversely, intrinsic motivation did not predict employee retention. Also, Kossivi, Xu, and Kalgora (2016, p. 261) in their research

concluded that business conduct, practices and policies do not affect employee satisfaction which normally leads to their retention.

Regional study also shared the same finding by Yousuf and Siddiqui (2019) where they claim that employee retention is although a difficult move for organizations but they need to understand that it is a lasting commitment and thus, they must integrate it in their general strategy and make it evident in HR management objectives. As there are numerous factors and aspects that directly or indirectly influencing the employee retention, consequently, organizations should consider these factors and formulate strategies accordingly.

Kossivi et al. (2016) stated any institutions' ability to continue and remain in business is highly dependent on its ability to keep and nourish their core talented employee. Although (Kossivi et al.) tried to uncover all the employee retention determinants, they claim that talent retention is a complex area of human resource that needs further investigations. They listed the main of those determinants such as organization culture, training programs and development opportunities.

Here, in this study, participants valued the internal environment factors including motivational factors moderately high above score of the mid-point of the total scale, which is significant. However, due to the numerous parameters involved, signicance decrease with the increase of number of variables.

This hypothesis was divided into three sets of statements where each set was analyzed separately with talent retention. There are significant positive correlations at significance 0.05 level between each internal environment factors including motivational factors and talent retention. Also, the result proves that there an association between each factor score and the total score which indicates the inter-consistency of internal business statements and talent retention in Libya domain. Based on this analysis of this hypothesis, it is conduded that there was a statistically significant relationship at significance 0.05 level between total internal work environment components and talent retention in the vocational, training and research centers in Libya with exceptions to multiple statements which their interpretation vary.

Concluding the Third Hypothesis

International pull factors are the reasons that attract a person to a new workplace. To elaborate on this matter, there will be attractiveness like a better-paying job, an opportunity for career advancement that could not be reached if stayed with their previous employers and so on.

The sample score high mean scores on all the eight statements. To examine the statistical differences between sample's mean scores and the theoretical mean (5.0), the t-test for one sample is performed. All the t-test values were significant. These results indicated that participants believed that there are reasonable factors that motivate Libyan talents to leave Libya to other country.

Significant correlations coefficients were found between all pull attractiveness factors and talent retention. This result indicated that there is statistically significant relationship between external pull factors (International Attractive Environment) and talent retention in the vocational, training and research centers."

Dodani and LaPorte (2005) although indicated that certain professions are more influenced than others, the study here did not study major variation nor any other biographical characteristics. (Dodani & LaPorte) also encourage involving immigrated talents and giving them the opportunity at their home country to contribute to the development of scientific capabilities of their respected institutions. Based on the frequency tables, talented men tend to migrate more for economical, educational and safety reasons while talent women showed inclination to migrate due to mainly family and career opportunities reasons. Another point to indicate here is the desire to return was shown mainly in Europe while talents in North America shows weak desire to return to Libya.

Concluding the Fourth Hypothesis

According to Maslow's needs, every person has needs that need to be met. The analysis of this hypothesis shows that participants gave very moderate mean scores on the six needs. All the mean scores are either less than the midpoint (5.0) of the scale or slightly higher. To investigate the statistical differences between the sample's mean scores and the theoretical mean (5.0), the *t-test* for one sample is performed. All the test values including the *t-test* value for the total of Maslow needs are significant except on the physiological needs (1.008) which was insignificant, $P>0.05$. Participants' mean score (4.769) on the "fulfilling safety needs" is less than the theoretical mean score and the t-test value is significant (-2.195). These results indicate that not all the participants' needs

are met and training, research, and vocational centers in Libya. This proves the researcher's expectations, as Libyan Talents' needs were not met at their previous jobs. This have pushed them to seek better opportunities elsewhere.

To test the fourth hypothesis, the Pearson correlations are calculated. Significant correlations coefficients are found between the six needs and Libyan talents retention. In addition, significant correlation coefficients are found between each need and the total of Maslow's six needs. This indicates the inter-consistency of participants' response on the six needs.

Also, no significant correlation was found between Maslow's needs and talent retention. However, significant correlation coefficients were found between total of each need and Maslow's six needs. This indicates the inter consistency of participants' response on the six needs.

Concluding the Fifth hypothesis

To test the fifth hypothesis, multiple regression is used. The purpose of multiple regression is to predict a single variable from one or more independent variables. The independent variables, predictors, involve PESTLE factors, total internal environmental factors which involve three sub variables,(General Information Regarding Internal Environment Factors including Motivational, degree of importance on each statement about your previous employer in Libya, and degree of importance on each statement about how your previous employer dealt with Talents in Libya), international environment factors (attractiveness factors), and total of Maslow's hierarchy of needs. While the dependent variable, response, is talent retention. The correlation matrix in revealed that there are significant correlation coefficients between talent retention and the other four mentioned independent variables.

Also, the summary model table shows that the unadjusted multiple R for this data is (.965) but the adjusted multiple R (.931) which indicates that 93.1% of the variability in the constant variable is related to the predictor variables

Moreover, when examining the model of the regression by f- test (F = 1700.506, df = 4.503, sig. = .000) test indicated that the independents variables had significant effect in predicting talent retention. Therefore, the linear regression model predicts very well the outcome.

When conducting regression analysis model, it revealed that the four predictors, PESTLE factors, total internal environmental factors, environment factors

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(attractiveness factors), and total of Maslow's hierarchy of needs, predicts Libyan talent retention. Maslow's hierarchy of needs has the highest beta value (B=.108) follows by Total Work Environment Libya (B=0.038) and PESTLE factors (B=-0.014), and Attractiveness Factors (B=-.001). Thus, Maslow's hierarchy of needs is the better predictor for LTR.

With all in mind, the study found a clue to answer the research question "why talented employees leave the vocational, training and research Institutions in Libya with an eye on international similar institutions?". As shown in the five parts of conclusion, careful consideration to highlighted factors in each main hypothesis that were addressed. Answer to the second question "what is the most effective retention management strategy for those working for public entities in Libya?" was tricky however, the study proved that comprehensive country scale as well as institutional scale strategy need to be implemented to tackle the talent brain drain problem in Libyan institutions.

Concluding the Non-monetary motives

The main three motivational points for retaining talents were providing mentoring and fast track advancement opportunities, providing a collaborative working environment. and maintaining the reputation of the institution. With less degree were providing the opportunity to work with leading edge technologies, providing international opportunities and Funding educational needs. The lowest were providing training, working with employees to develop individual career path, and encouraging risk taking and innovation. The highest percentage of selection was (42.7%) and the lowest was (35.8%). Therefore, one third of the participants and higher selected these motivating means. This may indicate that Libyan immigrated talents have found in the new working environment what they had lost in their previous Libyan employers. There were no sound reviews on this point and this was one reason why the researcher brought up this hypothesis.

5.2. Recommendations

According to a Global Study by McKinsey, "almost one-third of senior leaders cite finding talent as their most significant managerial challenge." From the conducted study and findings, it is obvious that talent management is beyond control especially in public institutions in Libya. However, talent retention can be achieved when the problem is

highlighted and address properly. Understanding the needs of those in Libyan public institutions is crucial because by conducting detailed studies based on specialty and country where talents immigrated, it clearly shown that what caused talent to stay in the one area could not be the same reason why the other stayed in another area. So, comprehending the context where talents are working is important. The following are some recommendations that public institutions can implement to keep their respected core valued employees:

1- The study indicate that it is imperative for government institutions to spread the awareness of retention strategies.
2- Talent benefiting policies and legislations should be implemented in public sector organizations to retain critical employees and attract others to join the public service.
3- Provide motivational packages to key talents in all public institutions.
4- Connect pay and rewards to performance.
5- Create win-win culture in those institutions and harnessing benefits together.
6- Creating ethical and nourishing work culture (Vision, values, and attitudes).
7- Encouraging talents to add value to themselves and their institutions.
8- Building a mutual trust atmosphere and sharing vision and mission of respected institutions with their talented employee.
9- Break the barriers such as bureaucracy environment.
10- The Libyan governmental ministries should have an UpToDate records about Libyan talents immigration .
11- Libyan governmental organizations should develop a formal system or program to ensure talent employees have opportunities to gain knowledge, engage, and use their abilities in various positions, special projects, and initiatives throughout their employment.

5.3. Suggested Areas for Future Researches

Given the current weak Libyan creativity business work environment, there is a need to enhance the competitiveness of Libyan public institutions locally and internationally. There must be a governmental-level plan to come up with solutions that will mitigate nationwide talent turnover. Therefore, it is recommended that the researcher suggest future research be considered in the following fields:

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1. A path analysis should be done on the relationships of the independent variables to each other and the dependent variable LTR.
2. Qualitative researchers should conduct further research by using the case study design to investigate LTR.
3. There is an urgent need for comprehensive understanding of the effectiveness of specific retention strategies in the for the public and private Libyan sectors.
4. Conduct a detailed analysis of talent needs and addressed accordingly in public institutions.
5. Measuring the turnover intentions of top achievers in various public institution
6. Conducting similar research on each profession while limiting the number of factors to be studied to minimize any correlation noise
7. Measuring the cost and time involved in replacing those who left for good, which should guide managers to enhance their development and leadership planning.
8. Designing a structural talent retention model that serve Libyan institutions to encounter this phenomenon
9. Copying best strategies in minimizing this problem
10. Choosing fewer variables
11. Limiting the study to one region as compared to bigger scale
12. Delegating the study to one field of profession at a time
13. Studying biographical factors as compared to talent turnover would help uncover differences between those elements and their effect.

5.4. Study Limitations and Implications

5.4.1. Limitations

There were many limitations to this study, and the researcher categorized them in two sections. Methodological and Research limitations. Here, is brief list of the study limitations:

1. Methodological limitations such as:
    a. Sample size, availability of primary vs secondary data

b. The use of internet as a mean of distribution helped in terms of the speed and data tabling, however, reaching out to the designated sample was the challenge.

c. Self-reported data: for example, inside data gathering (inside job)

d. Lack of prior research regarding TM practices in Libya.

2. Researchers Limitations

a. Access, the possibility of face to face meeting with related personals such as conducting interview with HR managers and local talents.

b. Longitudinal effects. The time span to complete literature review, design research methodology, its implementation and analyzing results.

c. Cultural vs bias. Bias usually negative but could affect positively the research process.

d. Difficulties in reaching out to a sound secondary resource to prove the exitance of the problem how big it is.

At last, regarding generalization, every study has its shortcoming that could not be overcome easily, here, the scope of this study was limited in time, sample and regions thus should not be replicated on other studies unless modifications and referees' opinion sought. The questions on the survey targeted only immigrated talents not local talents or existing talents thus cannot be distributed to this segment of people. Hence, the surveyed sample is compounded of four waves of immigrated Libyan talents which differ in their biographical characteristics.

Typically, study limitations are restrictions on generalization, practice requests, and / or usefulness of results that are the result of the ways in which a research study is conducted. The researcher tackled them as they came by during the research process. However, they were mainly related to the research design (methodology) that have influenced the data analysis and findings. In the other hand, in the eyes of the researcher, those limitations are an opportunity for further research. Any unanswered questions in this study should have opened the door for a new research in the future and is discussed in the future suggestion part.

There are shortages in regional research literature about this topic (Talent Retention) especially academic publications. Because of this, research compass should be directed toward talent retention practices and strategies that serve the country as a whole and

local institutions in maintaining their valued staff. HR departments should study and comprehend the topic of talent retention and allocate appropriate researches.

Furthermore, the practical implications of this research are but not limited to; the political, economical, and technological barriers that hinder any corrective measures toward retaining talents. Also, the bureaucratic system that public institutions are based on. Key lesson is that HRM practitioners must understand the decisive role that talent retention has on the success of their institutions regardless of its type; private, public, local, or international.

5.4.2. Ethical clearance

Ethical clearance declared in the questionnaire and the participants data was kept confidential and their identity is anonymous during and after the research is completed. Official letters were sent to the The Libyan Authority for Research, Science & Technology and to some of those centers to access secondary data and permission to conduct this study. However, due to the current circumstances and COVID-19 epidemic no response was received. Also, a consent statement is clearly stated at the header of the survey and every participants have read it before taking part in the survey process, and they were informed that the personal data and opinion they provide in the survey is kept confidential and the data will not be revealed along with their identities. There will be a plan to share this information for all stakeholders, the privacy of participants was not individually shown, analyzed, or included in the study.

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LIST OF FIGURES

LIST OF ATTACHMENTS

Study Questionaire:

Here is a link for this survey: you can just click here and it will show up if you have internet access otherwise you can scroll down and view the pdf copy.

Questionnaire for Libyan Emigrated Talents

Thank you for taking part in this crucial survey. Today, we will be gaining your valuable thoughts and opinions in order to better serve Libyan Institutions in retaining their valuable talents.

This questionnaire should provide the researcher with answers to why talented employees leave Vocational, Training and Research Institutions in Libya with an eye on international similar institutions? Also, it should find the best strategies to mitigate this phenomenon.

One can clearly see that Libyan Public Institutions suffer the Brian-Drain phenomena. It is expected that you can complete the survey in 10 -15 minutes.

The information provided in this questionnaire will only be used for academic purposes and will be kept confidential and your identity will be kept anonymous.

Personal Information:

This is "about you" type of questions, it is just to have an idea about who we are dealing with and to which category the researcher can divide the groups based on demographic information.

1.1- Please write down your age? ....

1.2- Please indicate your gender?   □ Male   □ Female

1.3- Please indicate your marital status?

- o   Single
- o   Married
- o   Married with kids
- o   Engaged
- o   Divorced
- o   Widow

1.4- Please indicate your qualification?

- o Bachelors of Science Degree
- o Master's Degree
- o PhD. Degree
- o Specialist
- o Professional

1.5- Please choose your major?

- o Computers and Technology.
- o Health Care and Allied Health.
- o Education and Social Services.
- o Arts and Communications.
- o Trades and Transportation.
- o Management, Business, and Finance.
- o Architecture and Civil Engineering.
- o Science.
- o Other: ----------------------

1.6- What is your current job title?

- o Assistant professor.
- o Adjunct professor (non-tenure track)
- o Professor (full)
- o Associate professor.
- o Chair/Distinguished Professor.
- o Instructor (non-tenure track)
- o General Manager
- o Human Resource Manager
- o Head of department
- o Specialist
- o Normal Employee
- o Other: ----------------------

1.7- Please choose the field of your former employer in Libya, you may choose more than one if your former employer has different functions?

- □ Vocational
- □ Training

□ Research

□ Academic

□ Other: -----------------

1.8- What is your current residential status in the country you are in?

o Work permit

o Temporary visa - (tourist or short business visit)

o Green Card holder

o Passport holder (immigrant) permit Spouse

o Spouse

o Student Resident Permit

o Permanent resident

o Refugee

o Other: ---------------------

1.9- Please Choose the country you chose to settle in?

o USA

o Canada

o UK

o Other: ---------------------

1.10- What was your main reason(s) behind your move to this country?

□ To escape past or future persecution based on race, religion, nationality, and/or membership in a particular social group or political opinion

□ To escape conflict or violence (Safety)

□ To seek superior healthcare

□ To escape poverty

□ To escape unfair working condition and corruption

□ To offer more opportunities to children

□ To gain proper education

□ To seek jobs, business opportunities and career development

□ To get married from a person living abroad

□ To be in a proximate location

General Information Regarding External Environment
(Macro Analysis)

Thoughtful answers to this part will help the researcher evaluate the effects of the country external environment factors (Macro-environment) on talents retention. Your answers will give the researcher a better image of the work environment in Libya

In this part of the survey, The PESTLE factors Analysis is used as a frame-work to scan the organization's external macro environment.

The letters stand for Political, Economic, Socio-cultural, Technological, Legal and Environmental Factors.

PESTLE Factors
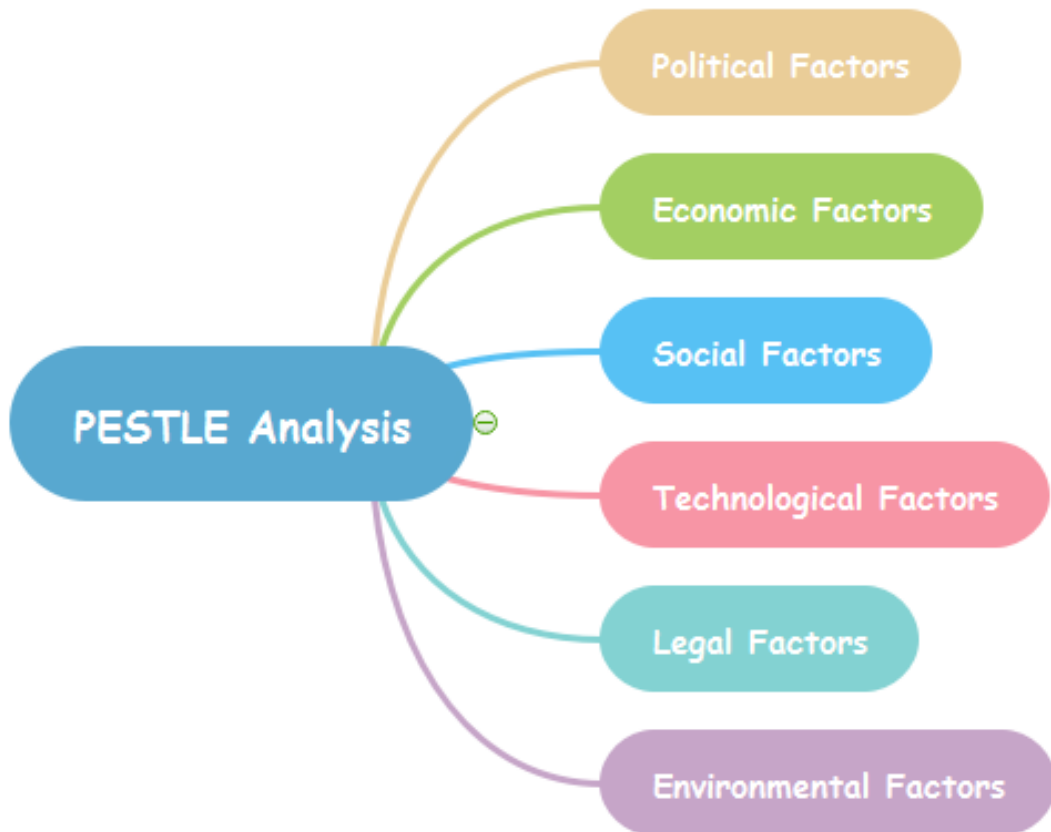
2.1- On a scale from 0 to 10, 0 not being important at all and 10 being extremely important, from your prospective, please choose your degree of importance on the following PESTLE factors toward retaining Talents in Libya?

Statement	0	1	2	3	4	5	6	7	8	9	10
Political factors											
Economical factors											
Socio-Cultural factors											
Technological factors											
Legal factors											
Environmental factors											

General Information Regarding Internal Environment Factors including Motivational Factors

Here in this section, the researcher will be gaining your thoughts and opinions about the internal environment and motivational factors of your previous employer in Libya.

Your answers will help the researcher bring about answers to talent turnover problems for future work practices in those institutions.

3.1- On a scale from 0 to 10, 0 not being important at all and 10 being extremely important, please choose your degree of importance toward retaining talents on each institutional statement about your previous employer in Libya?

Statement	0	1	2	3	4	5	6	7	8	9	10
Aligning employees with the mission and vision of your institution											
Assessing candidates' skills earlier in the hiring process											
Creating environment on which those skills are transferred into competencies											
Organizational structure											
Creating a welcoming culture for new talents											
Creating a culture that makes employees want to stay with the institution											
Creating a culture that values employees work											
Identifying gaps between current employees and candidate competency level											
Providing necessary resources to achieve institutional goals											
Creativity and innovation are encouraged											

3.2- On a scale from 0 to 10, 0 not being important at all and 10 being extremely important, please choose your degree of importance on each statement about your previous employer in Libya?

Statement	0	1	2	3	4	5	6	7	8	9	10
On-boarding and Orientation											
Coaching and Mentor-ship Programs											
Employee compensation including periodic review											
Recognition and Rewards Systems including fringe benefits											
Work-life Balance											
Training and Development											
Communication and Feedback											
Dealing with Change											
Fostering Teamwork											
Team Celebration											
Action Learning											
Accuracy of job description											
Adequate pay and linked to performance											
Organizational Distributive justice reflects perceptions regarding fairness of outcomes											
Organizational Procedural Justice reflects perceptions of processes that lead to these outcomes											

3.3- On a scale from 0 to 10, 0 not being important at all and 10 being extremely important, please choose your degree of importance on each statement about how your previous employer dealt with Talents in Libya?

Statement	0	1	2	3	4	5	6	7	8	9	10
Talents are being identified by competencies											
Talents are being identified by potentials											
Talents are being identified by results											
There is Specific Talent Management Initiatives											
Acquiring new talent is among your institution's Talent Retention Initiative											
Leveraging existing talent is among your institution's Talent Retention Initiative											
Retaining the current potential is among your institution's Talent Retention Initiative											

General Information Regarding International Environment Factors
(Attractiveness Factors)

Here in this section, the researcher will be gaining your thoughts and opinions about international Attractive environment (Pull Factors) that the country you move to is characterized with.

Your answers will help the researcher bring about answers to talent turnover problems for future work practices in those public institutions.

Your thoughtful answers will help the researcher suggest solutions to avoid this Brian-Drain Phenomena.

4.1- On a scale from 0 to 10, 0 not being important at all and 10 being extremely important, please choose your degree of importance on each statement about your move decision to this country?

Statement	0	1	2	3	4	5	6	7	8	9	10
Better infrastructure that results in adequate facilities and services.											
Better healthcare and medical facilities such as hospitals.											
Better job and educational opportunities.											
Lower crime rates as a result of a combination of generally higher living standards and better, less corrupt, and more efficient police force.											
Democratic political stability.											
A generally higher standard of living.											
More entertainment and better cultural options, which are a result of higher standards of living, higher education levels, and more disposable income."											
Creativity and innovation boosting environment											

General Information about the Talents Maslow's Hierarchy of Needs

Maslow's hierarchy of needs is a crucial factor in employee retention. organizations all over the world strive to meet employee's needs (including talent needs) when it comes to physiology, safety, love and belonging, esteem, and self-actualization. Individuals working under such conditions will want to stay in their jobs for years to come.

Your answers will help those public institutions provide those needs to their workforce.

People's Needs summarized by Abraham Harold Maslow
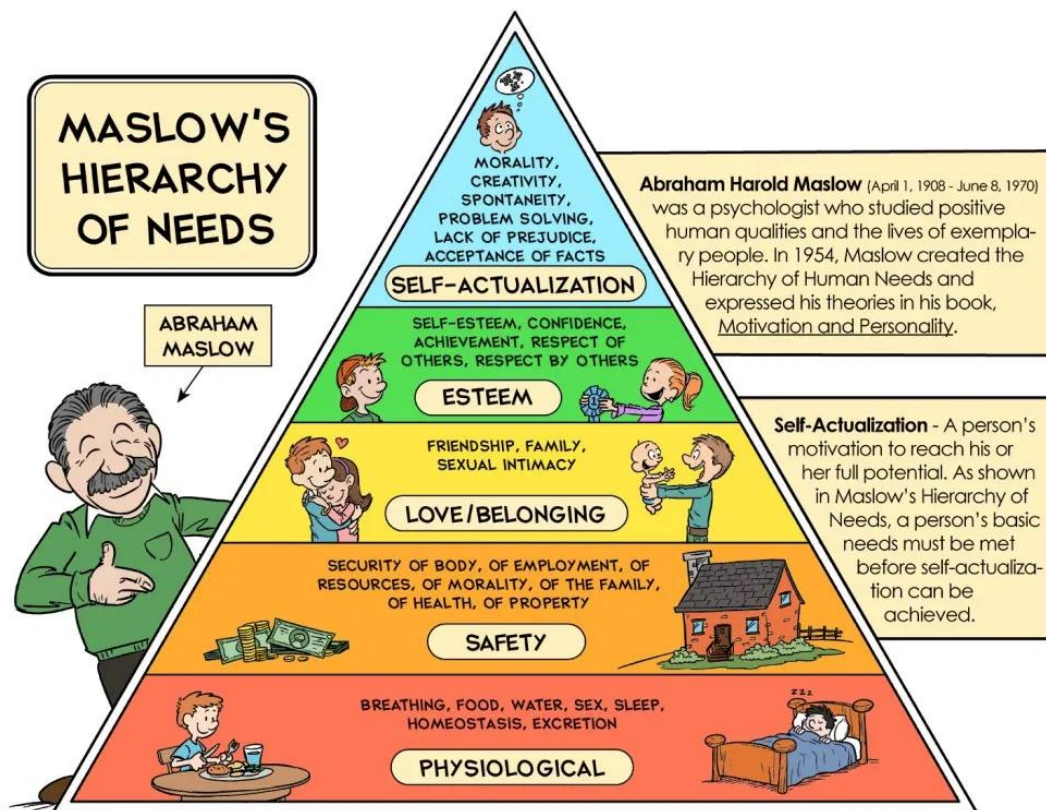
www.timvandevall.com |Copyright © 2013 Dutch Renaissance Press LLC.

5.1- On a scale from 0 to 10, 0 being extremely dissatisfied and 10 being extremely satisfied, from your prospective, please choose your degree of importance on each statement about your needs being met while working for your previous employer in Libya?

Statement	0	1	2	3	4	5	6	7	8	9	10
Fulfilling Physiological Needs											
Fulfilling Safety Needs											
Fulfilling Belonging and Love Needs											
Fulfilling Lower Esteem Needs (the need for respect from others (e.g., prestige, attention, status, and fame)											
Fulfilling Higher Esteem Needs (the need for respect from the self (e.g., freedom, independence, strength)											
Fulfilling Self-Actualization Needs											

5.2- Excluding monetary compensation factors which of the following do you believe are your institution's most effective measures of motivating, rewarding, and retaining talents in the institution you have worked for?

- □ Providing training
- □ Working with employees to develop individual career path
- □ Providing mentoring and fast track advancement opportunities
- □ Providing a collaborative working environment
- □ Providing the opportunity to work with leading edge technologies
- □ Funding educational needs
- □ Encouraging risk taking and innovation
- □ Maintaining the reputation of the institution
- □ Providing international opportunities

5.3- Overall, how satisfied are you with your previous institution in Libya compared to the institution you work at now? (0 being extremely dissatisfied, and 10 extremely satisfied)

Statement	0	1	2	3	4	5	6	7	8	9	10
Overall, how satisfied are you with your previous institution in Libya compared to the institution you work at now?											

CURRICULUM VITAE

Khaled Elgomati   Ankara- Turkey

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Objectives

− Completing my PhD in Business Administration for which I can capitalize on, enhance my research skills, and utilize resources for sustainable environment.
− Improving my research skills, critical analysis, program development, and business management in the global context.

Summary of Qualifications and Skills

− Site engineer with 12+ years diverse industry related experience driving profitable growth in challenging, competitive and volatile industrial and training markets.
− Master of Business Administration/Master of Science in International Business (MBA/MScIB)
− Bachelor of Science in Electrical Engineering
− Dynamic, forward-looking team player with a sound understanding in mechanical, pneumatic and electrical aspects.
− Excellent working knowledge in troubleshooting and maintenance, including ability to read and interpret electrical and mechanical sketches.
− Inspiring team leader with the ability to think laterally, provide solutions, exercise independent judgment and decision-making in the diagnosis and resolution of problems.
− Outstanding communication and interpersonal skills, with the ability to communicate effectively at all levels.
− Highly computer-literate performer with extensive technical proficiency covering wide range of applications and platforms.

Experience

Faculty of Trade and Applied Technology (T&AT)-Vancouver Island University 2011 to 2012
Internship Researcher

− Studied the business model and marketing strategy at T&AT
− Conducted a detailed research on the legislations and practices related to Trade Schools in British Columbia - Canada
− Suggested a marketing and business strategy that meets with T&AT capabilities given the current competitors as well as the global demand.

Higher Welding Technology Centre, Libya   2004 to 2015
Head of Training Department

− Managed and supervised training and development programs
− Improved quality and productivity of work through enhanced compensation strategy
− Minimized down-time through implementing predictive maintenance on machines and formed a group for conducting off-working hours periodic maintenance shift to increase productivity.

- Worked with a team in designing a training programs that paid back the costs of training our staff in European Union and
- Responsible for assigning tasks and resources in challenging projects
- Lead several successful overseas inspection assignments for the National Bureau for Research and Development in EU countries
- Successfully thought courses including technical and managerial related topics.

Karabuk University / Faculty of Management   2015 to 2020

- PhD. Candidate in Business Administration

Schlumberger Overseas (SLB), Libya   1999 to 2000
Field Engineer
- Conducted logging service and successfully provided SLB clients open-hole and cased-hole services
- Implemented SLB quality, health, safety and environment practices
- Integrated theoretical knowledge with technical skills on real logging jobs
- Achieved high performance coupled with excellent on-site work results such rig time management and efficiently delivered logging records

Advanced Centre of Technology (ACT), Libya   1997 to 1999
Site Engineer
- Controlled and maintained profitable operations of the Industrial Computer Numerical Machines at site
- Played key role in the success of the onsite training program by Voest Alpine, Tripoli office
- Planed and directed work load according to ACT policy and safety measures and customer requirements

Education and Special Training

− Full time PhD student at Karabük Universitesi	2015-2020
− MBA/MScIB	2011
− Public Managements and Leadership, London School of Economics	2008
− Establishment of Libyan Incubator for Technology and Innovation, ELITE	2007
− ISO 14001 Certified, International Organization for Standardization	2006
− International Welding Engineer Diploma, IWE	2004
− International Laser Welding Engineer	2004
− Heat treatment specialist	2003
− Electron Beam Welding Specialist, CETT Company DVS-SLV Mannheim	2001
− Electrical Maintenance Diploma in Computer Numerical Controlled Machines	1998
− Bachelor of Science in Electrical & Electronic Engineering	1996

References are available upon request