INFLUENCE OF SUPERVISOR SUPPORT, SELF-EFFICACY, LEARNING STYLE AND INTENTION TO TRANSFER TRAINING ON TRAINING EFFECTIVENESS AMONG UNIVERSITIES IN SAUDI ARABIA

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ABSTRACT

The role of training for the improvement of employees' skills and knowledge has long been acknowledged. Employees who are exposed to effective training generally possess the technical knowledge, skills and attitudes to carry out their tasks. In Saudi Arabia, the government has been investing generously in training so as to enhance the employees' knowledge and skills. However, the present human capital, particularly in the tertiary institutions, falls way below expectations. The theoretical framework of this study was developed based on past research and the underpinning theory of planned behavior and social learning. This study examined the direct and indirect relationship between self-efficacy, learning style and supervisor support on intention to transfer training and training effectiveness among the managerial staff of the universities in Saudi Arabia. A total of 364 managerial staff representing six public universities in Saudi Arabia participated in the study by completing the survey questionnaire. The Partial Least Squares (PLS-SEM) approach was utilized to test the hypotheses. The results for the direct relationships between the independent variables (self-efficacy, learning style, supervisor support) and the dependent variable (training effectiveness) show that only learning style directly influences training effectiveness. At the same time, it was found that all the independent variables significantly influence the mediator, that is, intention to transfer training. Regarding the indirect relations between the independent variables and the dependent variable when the mediating variable was incorporated into the relationship, it was found that intention to transfer training partially mediated the relationship between learning style and training effectiveness but not self-efficacy and supervisor support. The theoretical contributions, policy implications, limitations of the study and suggestions for future research were discussed as well.

Keywords: training effectiveness, intention, self-efficacy, learning style, supervisor support

ABSTRAK

Peranan latihan untuk meningkatkan kemahiran dan pengetahuan pekerja telah lama diakui. Pekerja yang terdedah kepada latihan yang berkesan secara amnya memiliki pengetahuan teknikal, kemahiran dan sikap untuk menjalankan tugas-tugas mereka. Di Arab Saudi, kerajaan telah membuat pelaburan yang banyak dalam menyediakan latihan bagi meningkatkan pengetahuan dan kemahiran pekerja mereka. Walau bagaimanapun, modal insan ini terutamanya di institusi pengajian tinggi telah jatuh jauh di bawah jangkaan yang sebenarnya. Rangka kerja teori kajian ini telah dibangunkan berdasarkan kajian lepas yang bersandarkan kepada teori tingkah laku terancang dan teori pembelajaran sosial. Kajian ini meneliti hubungan langsung dan tidak langsung di antara kecekapan diri, gaya pembelajaran dan sokongan penyelia kepada niat untuk memindahkan latihan dan keberkesanan latihan dalam kalangan kakitangan pengurusan universiti di Arab Saudi. Seramai 364 kakitangan pengurusan mewakili enam universiti awam di Arab Saudi telah mengambil bahagian dalam kajian ini dengan melengkapkan borang soal selidik yang diberikan. Pendekatan *PLS- SEM* telah digunakan untuk menguji hipotesis kajian. Keputusan bagi hubungan langsung antara pemboleh ubah bebas (kecekapan diri, gaya pembelajaran, sokongan penyelia) dan pemboleh ubah bersandar (keberkesanan latihan) menunjukkan hanya gaya pembelajaran secara langsung mempengaruhi keberkesanan latihan. Pada masa yang sama, didapati bahawa semua pemboleh ubah bebas secara signifikan mempengaruhi pemboleh ubah pengantara iaitu niat untuk memindahkan latihan. Bagi hubungan tidak langsung di antara pemboleh ubah bebas dan pemboleh ubah bersandar apabila pemboleh ubah pengantara dimasukkan dalam hubungan itu, didapati bahawa niat untuk memindahkan latihan menjadi pengantara sebahagian antara gaya pembelajaran dan keberkesanan latihan tetapi tidak kepada kecekapan diri dan sokongan penyelia. Akhir sekali, sSumbangan teori, implikasi dasar, batasan kajian dan cadangan untuk kajian akan datang turut dibincang.

Kata kunci: keberkesanan latihan, niat, ecekapan diri, gaya pembelajaran, sokongan penyelia

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LIST OF ABBREVIATION

CBSEM	:	Covariance-Based Structural Equation Modeling
IPA	:	Institute of Public Administration
PLS	:	Profit and Loss Sharing
PLS-SEM	:	Partial Least Squares Structural Equation Modeling
TPB	:	Theory of Planned Behavior
PBC	:	perceived behavioral control.
HRD	:	Human resource development.
HRM	:	Human resource management.
CR	:	composite reliability.
LS	:	Learning Style.
SE	:	Self Efficiency.
SS	:	Supervisor Support.
TE	:	Training Effectiveness.
ITT	:	Intention to transfer training.
LV	:	Latent Variables.
KSA	:	Kingdome of Saudi Arabia.
UK	:	United Kingdom.
USA	:	United Sates of America.

LIST OF APPENDICES

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter discusses the background and the motivation that prompted for this study starting with the issues related to the training effectiveness in Saudi public universities then it presents the problem statement of the study, research objectives, research questions, the scope of the research, the significance of the study, justification of the study as well as the contributions of the study to the body of knowledge.

1.2 Background of the Study

Universities are currently facing severe challenges, nationally and internationally. This phenomenon holds true not only in developed countries, but also in other parts of the world. National and international competition in the university sector continues to grow, while demands from stakeholders are increasing. At the same time, new management strategies and transformation processes lead to significant changes in the job description of university leadership, not limited to the university's top management, but for deans of faculties and head of department as well. Along with this newly broadened mandate, responsibilities and excess demands of various stakeholders, university leaders/managers at all levels of the hierarchy have to possess and update their skills and competencies to meet the challenging demands of the present day learning environment.

Institutional managers at the rank of dean and head of department are the Executive Head's partners in ensuring that change happens. The institutional heads play leadership role in managing the entire activities of the institutions and people in transition. As their duties are described in details, all they need is to acquire tangible competencies consisting of management skills such as team building and helping staff to grow academically and professionally; basic calculation skills and a knowhow of financial and cost issues; IT awareness; sensitivity to new progress in the external environment, for example competitive threats; understanding clients; strategic awareness of the institution's position; understanding of how to use institutional decision making processes in a collegial environment. In addition, they also have to be able to negotiate, decide, coordinate and integrate as well as allocate scarce resources and manage crises.

To perform effectively, university managers require specific and appropriate training courses that focus on the improvement of management skills of university staff. In general, the current practice is that anyone who at a certain point in their careers decides to take on management responsibilities have rarely been trained and developed for their newly appointed positions. Thus, developing managerial staff, especially through consistent training program that reflects the changing needs accordingly will help to ensure that their skills continually reinforced and improved in the face of challenges.

The objective of training is considered to have failed if the workers are not able to deliver their acquired knowledge, skills and attitude to the workplace and these new abilities have contributed to the relevancy of organizational activities (Holton, 2005; Ford & Weissnien, 1997). It then becomes a necessity for managers of human resources

development to concentrate on effective evaluation and assessment of training effectiveness so as to ensure that it rewarding result should consistently improve working conditions and worker efficiency. Training effectiveness is an extensive concept that stems from social cognitive theory. It is described as an individual and situation process that happens prior to, during and following the training. It is the process influencing the possibility that training will be brought to the workplace (Kraiger *et al*., 1993).

In Saudi Arabia, human capital development is the central to the ongoing proposed development plans and the achievement of the related capital's development goals. Over a span of many years, the Saudi government has stressed on human resource development (HRD). Pioneering reports from Syneder (1963) showed that in the period spanning from 1952-1953, Saudi Arabia has shown a dynamic increase in the number of educational institutions and school registrations indicating greater government commitment to human resource development. Quite recently, the Saudi government has prioritized training and education programs (MoHE, 2013). In particular, the National Commission for Accreditation and Assessment (2012) highlighted the standards for quality assurance and accreditation of higher education institutions in the Kingdom. According to the Commission, training programs are compulsory within the institution to be provided new and present teaching staff with the inclusion of part time teachers and non-teaching staff namely the managerial staff. Training for the non-teaching staff should encapsulate acquisition and application of hard and soft-skill knowledge of their daily tasks. Sufficient opportunities should be offered for additional development of the teaching and managerial staff at the level of the profession and the academy, with special attention provided for those facing challenges.

A model of training effectiveness recommends that comprehending individual and situational variables would lead to the justification of why training succeeded or failed in goal achievement. To clearly explain how training effectiveness is influenced by other conceptual factors such as supervisor support, learning style, intending to transfer training and self-efficacy, the present social cognitive theory and the theory of planned behavior (TPB) to provide principle explanations that are useful in predicting why the excessive investment channeled towards improving human resources has not yielded its expectations. However, the study has shown that personal and environmental factors pose serious barriers to a successful training program as well (Matheiu *et al*., 1993). These factors were identified as dominant issues and conditions potentially influences the application processes. Among the notable factors highlighted in previous literature include supervisory attitudes, group norms, innovation-existing standard conflict and operation procedure respectively (Vosburgh, 1986). At the individual level, these issues include level of education, technical competence and professionalism (Scheirer, 1987), absence of clarity concerning organizational innovation (McDonald, 1989), internal and external incentives and individual attitude towards innovative application.

In Saudi Arabia, the present human capital, particularly in the tertiary institutions falls below expectations (Osama *et al*., 2012). Based on the Ninth Five-Year Plan explained by Osama *et al*. (2012), major spending of the government comprised of investment in human resource development specifically for education and training, to reinforce the Kingdom's goal of developing a society that is knowledge-based. The requirement to maximize appropriation of budget for the development of the Kingdom's human resources is consistent with the 2025 development plan. Accordingly, the Ministry

of Economy and Planning (2010) stated that the services sector, including education sector are among the top sectors that are involved in the development of economic diversification during the strategy period. This is important to bridge the gap of international progress in communications and IT which has been integrated into the Kingdom's service sector. The role of the present upgrade of the scientific cadres innovative skills in the Kingdom and the enhancement will significantly of improving the Kingdom's geographic position in offering services that positively contributes to international trade and capital flows through international markets (Ministry of Economy and Planning, 2010).

From the above statement of the Ministry, it is evident that increasing Saudi government spending appropriated for the development of personal skills indicates that more attention is drawn to training and skill acquisition of employees. Specifically, a more detailed clarification is needed to justify the shortcomings of training transfer in the Kingdom indicated by the poor management capability over significant money spent. To thoroughly examine the causes behind the inability to transfer training, performance, the training program has to be evaluated (Huang, 2001).

There are training evaluation frameworks that stand out regardless of the fact that training evaluation encompasses both objective and subjective measures (Cohen, 2005; Kirkpatrick, 1998). However, most institutions and organizations have not examined these measures in their evaluation of training programs. Huang (2001) stated that institutions evaluating training programs have more chances of finding a higher level of effectiveness of the training as there appears to be a significant link between training

evaluation and training effectiveness. In addition, regardless of the requirement to link training, training evaluation and training effectiveness, it is notable that some institutions doubt as to the way training evaluation could reinforce the transfer of employees training in the workplace (Cheng, 2001). The training and development process effectiveness is gauged through the employees' ability to transfer new knowledge, skills and behavior required for effective job performance in the organization (Noe, 1986).

A case in point would be Saudi Arabia's administrative service; reports show that the government is extensively attempting to develop employees' skill by providing training programs for them, but the issue lies in the under-examination of these programs (Aldolaimi, 2006). Through the evaluation of the efforts exerted by the Institute of Public Administration (IPA) in a case study, Al-Ammar (1986) revealed that the only way to evaluate in-service training programs is through the observation and opinions of employees reflecting their perceptions of the program and its module. Additionally, the current method to evaluate training focuses on employee-trainee as the analysis unit and the evaluation interest is confined to events taking place in the training environment. According to Carr and Claxton (2002) this method undermines the question of whether or not the behavioral changes gained through training are transferred to daily organizational work tasks.

Effectiveness of training program can be described as comprising of getting and transfer of training (Tracey, 2001) with the latter indicating training effectiveness (Baldwin & Ford, 1988) which is reflected in behavioral changes in the workplace. Training is not as valuable if it is not transformed into effectiveness by the transference

of behavioral changes (Goldstein & Ford, 2002; Kirkpatrick, 2007). Training effectiveness gauges the level to which training, achieves what it is intended to – i.e. enhance job effectiveness. In order to properly assess training effectiveness, variables enhancing or inhibiting the achievement of goals should be understood. Several models of training effectiveness were utilized to determine these factors and their effect on the training goal (Mathieu *et al*., 1993). These models reveal the significance of both individual and environmental variables in the transference of training. In the meantime, organized training program may not be effective if variables (individual and environmental) offset processes of learning and transfer.

1.3 Problem Statement

The pressing need for a thorough evaluation of training effectiveness is on increases owing to huge investments made by the Saudi Arabia government towards the development of human resource with marginal payoff. In response to the ineffective management, many questions have raised to justify the contribution of significant investments made towards national development, especially in the educational sector (Aldolaimi, 2006; Al-Otaibi, 2008; Al-Qahtani, 2011; Collins & Kim, 2010; Huang, 2001; Cheng, 2001). In the context of the KSA, training effectiveness among the management staff in the tertiary institutions falls below expectations (Osama *et al*., 2012) despite huge amount of money spent yearly on training. Accordingly, the Ministry of Economy and Planning (2010) stated that the services sector, including education is likely to be the top sector involved in the course of economic diversification during the strategy period owing to international development and globalization will be employed in

the Kingdom's service sector. This role with the increasing, upgrading of the scientific cadres innovative skills in the Kingdom and the enhancement will significantly of improving the Kingdom's geographic position in offering services that contributes to international trade and capital flows through international markets (Ministry of Economy and Planning 2010).

However, the evaluation of training effectiveness and transfer of knowledge becomes a challenging issue as the organizations in Saudi Arabia are failing in meeting with the global standard (Hesketh & Laidlaw, 2007). This is needed in the institutions of higher learning because most institutions are operating based on the conventional administration after various training programs. Therefore, if a change in administration in all settings in Saudi Arabia is a necessity, employees must understand how acquired skills and knowledge can be transferred to adopt modern technology in improving the service provided by important sectors such as education. The employee's intention to transfer the training skills could determine how knowledge is imparted to learners. Training transfer is an important agenda in Saudi Arabia government plan according to the Ministry of Economy and Planning (2010) because various administrative services are expected to be used for economic diversification in the Kingdom's service sector.

The problem of mastery and transfer of skills acquired to actual work environments has not changed (Madhi & Barrientos, 2003; Ministry of Economy and Planning, 2010). Based on the Ninth Five-Year Plan as explained by Osama *et al*. (2012), the majority of the government spending is comprised of investment in human resource development specifically for education and training, to reinforce the Kingdom's

goal of developing a society that is knowledge-based. The requirement to maximize appropriation of budget for the development of the Kingdom's human resources is consistent with the 2025 development plan

A study carried out by Maroun, Samman, Moujaes and Abouchakra (2003) has shown that huge investment in education and training of staff in many developing countries has not yielded the expected returns in terms of improving the workers' effectiveness. Similarly, Kirwan and Birchall (2006) found that only around 10-20% of return on investment is achieved in light of practical implementation of knowledge gained during training on the actual job. Regardless of the extensive research dedicated to the training-productivity increase relationship with the organization, evidence of training evaluation effectiveness is still negligible (Al-Otaibi, 2008). This evidence has encouraged several researchers to examine the training evaluation and its effectiveness. Among them, Huang (2001) and Collins and Kim (2010) claimed that training programs may be frequently conducted and replicated, but there is little effort given to the evaluation of their effectiveness. Additionally, it was argued that carrying out frequent training in the organization does not translate into effectiveness of staff as the effectiveness of training can only be gauged through the success of the training program.

Inability of trained personnel to translate skills and knowledge acquired to fulfilling practical task in the work environment poses a serious threat to organizational goal and development, especially in the present technology based-society that requires consistent update and modification. This necessitated for a research to understand the mediating effect of training transfer on training effectiveness among the managerial staff

in the universities in Saudi Arabia. Study in this direction will provide detailed information on the influences that constrains the transfer of knowledge and skills by trained worker into the functioning system to improve the working conditions in terms of efficiency and effectiveness.

Learning style is a key component of managing training transfer and remains a key determinant of training effectiveness at all settings (Jaeger, Freeman & Whalen, 2007). Prior studies have shown that learning styles older people differs significantly from the learning style younger adult (Littin, 2002). Although previous literature studies have established a strong relationship between learning style and training effectiveness (Marrison & Frick, 1994; Smith & Holliday, 1986), yet in KSA, the relationship effect of learning style is not known among managerial staffs especially in the academic sector which is central to government development plan and is of great interest. Shaver (1985), found that learning style significantly increases skill acquisition and remains a strong determinant of training effectiveness. Since learning styles are considered as a significant factor of training effectiveness, it then implies that the findings of the present study will strengthen the managerial staff in the academic sector by providing an in-depth understanding of how learning style improves training effectiveness in the KSA universities.

In addition, employee self-efficacy is an important factor that determines workers' ability to complete a given task, yet nothing is known about self-efficacy among the academic staff in Saudi Arabia. As far as training effectiveness is concerned, self-efficacy plays a vital role in predicting the effectiveness of academic staff in transferring acquired

training skills in real life application, especially in the present days, when the government of Saudi Arabia is committed to boosting the education sector. Abbitt and Klett (2007), found that self-efficacy determine knowledge transfer effectiveness and asserted that the integration of learning technology between pre-service educators relies on self-efficacy. On the same hand, a study by Adlier (2012) found that self-efficacy is a necessity among computer students in Turkey. In Saudi Arabia, Al-Saleh (2004) found that graduate students require self-efficacy to assess electronic information. This is consistent with the study of Albakhaity (2001) who found that self-efficacy is fundamental to improving the use of internet in private organization across the Kingdom of Saudi Arabia in 2001. In confining to the content of the present study, self-efficacy in prior studies have shown to enhance raining effectiveness and will be validated using quantitative data in the present study.

Numerous factors have been proposed to control training transfer in the work environment. For instance, Van der Klink and Streuner (2002) claimed that attributes of a trainee like self-efficacy, past experience with the task and work place features like managerial support and workload are significant contributing factors towards the improvement or the hindrance of training transfer (Rouiller & Goldestein, 1993). This is consistent with the contention of several researchers (Baldwin & Ford, 1988; Elangovan & Karakowsky, 1999) that supervisory support is one of the significant factors that impact training transfer. Supervisor's support is described as the level to which supervisor's behavior maximizes the employee's use of knowledge, skill and attitude on the actual job (Nijman, 2004). It can be categorized into many kinds, including emotional and instrumental support. Other underlying factors include encouragement and assistance

to the trainee in determining situations where one can employ new knowledge, skill and attitude. Supervisors are believed to influence training transfer outcomes (directly or indirectly) through motivating employees. Empirical findings concerning the relation among the supervisor's support and transfer outcomes have yet to generate a clear relationship direction and extent. Supervisor's support was also shown through empirical findings as related to training effectiveness. Thus, the present study tries to investigate the relation among the main factors determined to be of significant influence upon the outcome of training transfer. It is interesting to note that the effect of supervisor's support on the outcomes of training transfer was examined by Facteau, Dobbins, Russell, Ladd and Kudisch (1995) with the pre-training motivation and trainees' transfer outcomes considered as dependent variables. The study concluded that a positive relationship existed among the supervisor's support and training effectiveness.

To reiterate, as supervisor's support is evidenced to have a positive influence on learning, motivation, it is assumed that there may be a direct or indirect influence upon training transfer. The present study examines both direct and indirect relation of supervisor's support upon training transfer outcomes. In addition to supervisor's support, goal orientation and self-efficacy (effective, skill-based and cognitive) are also reported to affect training performance. Evidence points to the fact that these variables could be critical motivational influences and possible leverage for the improvement of training outcomes. Although there is increasing focus on training evaluation and its effectiveness, the primary factor that influences the latter has been largely overlooked. As such the present study aims to tackle these issues and to extend the body of literature concerning training effectiveness and outcome.

In addition, it is noted that this study is conducted in Saudi Arabia, where the environment adheres to Islamic laws and principles within the Arab socio-cultural setting which is substantially contrast with the Western environment addressed by prior studies. This study also attempts to determine the challenges of training outcomes evaluation and the factors determining the training effectiveness specific to the environment of Saudi Arabia. However, the finding of the study can be replicated especially in an environment where Islamic laws govern administrative services.

Therefore, the present study aims to address most of these ambiguities by examining the influence of supervisor's support, self-efficacy and learning style on training effectiveness among Saudi Universities' managerial staff whereby supervisor's support depicts the situational variables, self-efficacy and learning style depict employee individual/personal variable respectively.

1.4 Justification of the Study

The Saudi Arabian government is convinced that enhancing human resource skills will enhance human capital resources towards providing a sustainable economic growth and job opportunities to accommodate the increasing population and the need to realize a knowledge based economy. Accordingly, the government spends a high proportion of the annual budget expenditure on human resource development. It is evident that such huge investment of the country's earnings is expected to generate returns in the form of high quality, productive and competent workforce. Unfortunately, human capital competence and quality of the present workforce, especially in the tertiary institution falls short of

justifying significant investment by government towards the development of managerial staff in the tertiary institutions in KSA.

Additionally, majority of Saudi institutions and organizations have yet to explore several available evaluation options for the training effectiveness. According to Hunag (2001), an institution that evaluates its training effectiveness tends to improve to a higher level of effectiveness. Similarly, Aldolaini (2006) stated that the need to evaluate training effectiveness in public institutions in Saudi Arabia should be based on observation of participants. This led to the prior assumption in the present study that the low level of training effectiveness in KSA organizations stems from poor level of evaluation of staff training programs.

The transference of knowledge, skills and attitude acquired during the training program on to actual job situations is crucial in order to consider the training program as effective, efficient and capable of meeting the expected objectives of the investment. However, prior studies were dedicated to examining the actual level to which an individual worker transfers knowledge, skills and attitude obtained during training to the actual work situations are still few. However, little evidence available reveals that training transfer falls short of expectations particularly in light of the huge investment spent for human resources development (Brinkerhoff & Gill, 1994).

Moreover, human resource development is rife with challenges, including management's failure to address training effectiveness, and to date, researchers have failed to come up with an effective model to evaluate training programs that are relative to training effectiveness. This is due to the fact that researchers often overlook the link

between individual factors and training effectiveness. However, in a broader context, training effectiveness model should not only be confined to the training session but should show the significance of individual and situational variables. This is necessary because, a well conducted training may be ineffective if these variables offset the learning and transfer processes. Previous literature studies depicted that past studies consistently relates to age, education, cognitive ability, conscientiousness, emotional stability, extraversion, peer support and other environmental factors, but explain few individual differences as well as attention to goal orientation through self-efficacy has been largely ignored (Kraiger & Ford, 2007; Colquitt, LePine and Noe 2000). Moreover, several literatures have made use of the training effectiveness model to examine the personal goal orientations impact on the well-funded public organized training program's outcome. As a consequence, ambiguities concerning the effect of these factors upon the intention to transfer training (indicators of training effectiveness) existed. Therefore, in providing definitive direction that focuses on addressing the ambiguities associated with examining the influence of supervisor's support, self-efficacy and learning style on training effectiveness among managerial staff in Saudi Arabia Universities. Therefore, supervisor's support is conceptualized to depict the situational variables, self-efficacy and learning style depict employee individual/personal variable respectively.

1.5 Research Questions

For the purpose of addressing the issues and inconsistencies of prior research, the current research tries to find answers of the following research questions;

1. What is the influence of intention to transfer training on training effectiveness among managerial staff in Saudi Arabian Universities?
2. What is the influence of learning style on intention to transfer training among managerial staff in Saudi Arabian Universities?
3. What is the influence of learning style on training effectiveness among managerial staff in Saudi Arabian Universities?
4. What is the influence of self-efficacy on intention to transfer training among managerial staff in Saudi Arabian Universities?
5. What is the influence of self-efficacy on training effectiveness among managerial staff in Saudi Arabian Universities?
6. What is the influence of supervisor support on intention to transfer training among managerial staff in Saudi Arabian Universities?
7. What is the influence of supervisor support on training effectiveness among managerial staff in Saudi Arabian Universities?
8. What is the mediating effect of intention to transfer training on the relationship between supervisor support and training effectiveness among managerial staff in Saudi Arabian Universities?
9. What is the mediating effect of intention to transfer training on the relationship between learning style and training effectiveness among managerial staff in Saudi Arabian Universities?
10. What is the mediating effect of intention to transfer training on the relationship between self-efficacy and training effectiveness among managerial staff in Saudi Arabian Universities?

1.6 Objectives of the Study

The primary objectives of the present study are as follows;

1. To identify the extent to which the intention to transfer training influences the training effectiveness in Saudi Arabian Universities' managerial staff.
2. To determine the degree to which the learning style influences the intention to transfer training in Saudi Arabian Universities' managerial staff.
3. To examine the extent to which the learning style influences the training effectiveness in Saudi Arabian Universities' managerial staff.
4. To examine the degree to which self-efficacy influences the intention to transfer training in Saudi Arabian Universities' managerial staff.
5. To study the degree to which self-efficacy influences the training effectiveness in Saudi Arabian Universities' managerial staff.
6. To study the degree to which supervisor support influences the intention to transfer training in Saudi Arabian Universities' managerial staff.
7. To examine the extent to which supervisor support influences the training effectiveness in Saudi Arabian Universities' managerial staff.
8. To explore if intention to transfer training mediates the association between supervisor support and training effectiveness in Saudi Arabian Universities' managerial staff.
9. To investigate whether intention to transfer training mediates the association among learning style and training effectiveness in Saudi Arabian Universities' managerial staff.

10. To explore if intention to transfer training mediates the link between self-efficacy and training effectiveness in Saudi Arabian Universities' managerial staff.

1.7 Scope of the Study

Noe (2002) stated that the effective implementation of training and development results in behavior change, job performance and productivity. Similarly, Hunt and Hunt (2004) claimed that despite the short duration of training, its effective employment could result in attitude change and the consequent transfer of such an attitude.

In addition, learning style, self-efficacy and belief were examined to determine their influence or lack thereof upon training effectiveness. Also, perceived superior support was examined to highlight whether the presence or absence of such support allows staff to transfer skills obtained from training.

This study is confined to the managerial staff in the public universities in Saudi Arabia. These high ranking staffs are the ones who make critical decisions daily while running their respective faculties. Study participants are all the individuals of the targeted sample who participated in providing their opinions of their training, its relevance to them, and their motivation in training and the consequent transfer of the acquired job skills in a practical work environment. As the participants are all high ranking staff, the present study is developed towards the application of specific concepts and decision making skills training that the staff received in prior years.

In particular, the study participants comprise of Senior government officers in Saudi Arabian universities, including Dean, Deputy-Dean, Head of Department, Deputy-

Head of Department, Director and Deputy- Director. The reason behind selecting public universities lies in the fact that the Saudi Arabian government is increasingly convinced of the requirement of determining training effectiveness to achieve and maintain a high human capital profile for the country's progress and development.

1.8 Significance of the Study

1.8.1 Methodological Significance

Majority of prior studies concentrated on determining whether any relationship exists between several individuals and organizational factors and training effectiveness (Cheng, 2001; Karuppaiya, 1996; Roberson & Huang, 2001; Tracey & Tews, 1995; Warr & Bunce, 1995). Despite the fact that some researchers such as Brown and McCracken (2009), Hunt and Hunt (2004), and Van Eerde (2003) made use of experimental designs in their evaluation of training effectiveness, according to Frese *et al*. (2003), an experimental design having only a single control group may be insufficient to determine if the behavior change is attributed directly to training and to obtain the Hawthorn effect of repetitive testing. Frese Brodbeck, Heinbokel, Mooser, Schleiffenbaum and Thiemann (2003) therefore recommended that more control groups are used to minimize or decrease the Hawthorn effect attributed to experimental designs. The above recommendation shows that experimental designs have their own issues when used to evaluate training effectiveness and hence the present study attempts to minimize these issues through the use quantitative research method based on the survey questionnaire. An array of data obtained using a survey will be sufficient to statistically analyze the factors that constrain training transfer capability of administrative staff in the Saudi Arabia education system.

1.8.2 Theoretical Significance

It is evident from the prior sections, and introductory discussions provided in this chapter that most research were conducted in the West. However, the present research works focus on training effectiveness in the Middle-East, specifically in Saudi Arabia and research available in the context of the present work is scanty and reflects poor performance of human management. Hence, the present study's main contribution is the unraveling and an examination of the issues of variables relating to training effectiveness in the context of Saudi Arabia. Additionally, the findings of this study contribute not only to providing in-depth information about managerial staff in the universities in KSA but also can be replicated to the higher institutions in the Arab world to improve managerial practices in the education sector. Besides the findings of this study adds substantial information to the body of knowledge specifically about Saudi Arabia.

Extending this contribution to training effective literature, this study focuses on the managerial staff in the universities' and thus affords the opportunity to be replicated in other academic institutions globally depicting how conceptual training skills of staff are acquired and transferred in the higher institutions of learning in any country. This will in turn improve the training effectiveness in the educational sector as well as the entire government establishment since the training are conducted primarily to improve worker effectiveness and to contribute to national development.

1.8.3 Practical Significance

In practice, training practitioners can immensely benefit from the present study findings along with educational consultants. More importantly, actions taken in light of the study findings may lead to the improvement of the present state of training evaluation's effectiveness. The present study may lead to the improvement of training through the extension of training activities towards the practical application in the environment of trainee work.

1.9 Definitions of Key Terms

The main concepts and terminologies of the present study are defined in the following paragraphs;

Training transfer intention: is the willingness as well a sense of responsibility to implement the skills learnt in training to the work environment (Foxon, 1993). Training transfer intentions are an important characteristic of trainee in the training transfer studies. This literature defines the participants' training transfer intentions right after the training. There are less chances of transferring skills after training if the trainees' intentions are low.

Supervisor's Support: is defined as the supervisor's attitude towards the employees, which indirectly translates into norms existing in the work environment. This includes motivation norms linked to staffing, development norms and perceptions of transfer environment. It is the confidence shown by supervisors in trainees immediately after training, which makes individuals comfortable in performing trained skills. The

participants' perception of their supervisor's support was measured after training in their previous training programs, as well as in the work environment.

Self-efficacy: entails the judgment and confidence of a person about his/her own ability to perform a particular task and it is not considered as evaluative in a sense that a person having low self-efficacy could still be a productive one (Gist & Mitchell, 1992). This definition is preferred as it considers self-efficacy from the viewpoint of performance of specific skills and stresses on one's belief about his or her ability to perform. Besides this, self-efficacy regarding training is described as the trainee's evaluation about his/her performance to successfully perform in the training environment (Guthrie & Schwoerer, 1994).

Learning Style: is adopted to reflect a concern with the application of cognitive style in a learning situation (Riding & Cheema. 1991). Also are the ways in which individuals characteristically approach different learning tasks (Hartley, 1998). For the purpose of this study learning style is conceived as the approach of managerial staff of acquiring and processing information to achieve the goal of the university.

Training Effectiveness: is described as a measure changes that can be observed in knowledge, skills, and attitude following training and the ability of the trainee to transfer the said skills and attitudinal changes towards the actual job (Bramley, 1996). The definition relevant to current research suggested by Broad and Newstrom (2001) is as the research attempts to measure the effective and ongoing application of trainees` knowledge and skills obtained from training to their jobs. This definition states that

training effectiveness is the affective and continuing application by trainees, the knowledge and skills gained in training, both onjob and off job.

Managerial staff: in this study are employees in university who usually involve in executive and management functions in university. They are also charged with the responsibility of directing the management policies and practices in their respective faculty or departments. These set of staff also involve in formulating and implementing management decisions, employer policies and other management responsibilities beyond discharging their daily routine duties.

Training Evaluation: is an organized process of data and information collection to evaluate training effectiveness (Goldstein & Ford, 2002). Goldstein and Ford's (2002) generic definition is adopted in this study although Kirkpatrick's (1998) four levels of evaluation is the actual evaluation model used.

1.10 Organization of Thesis

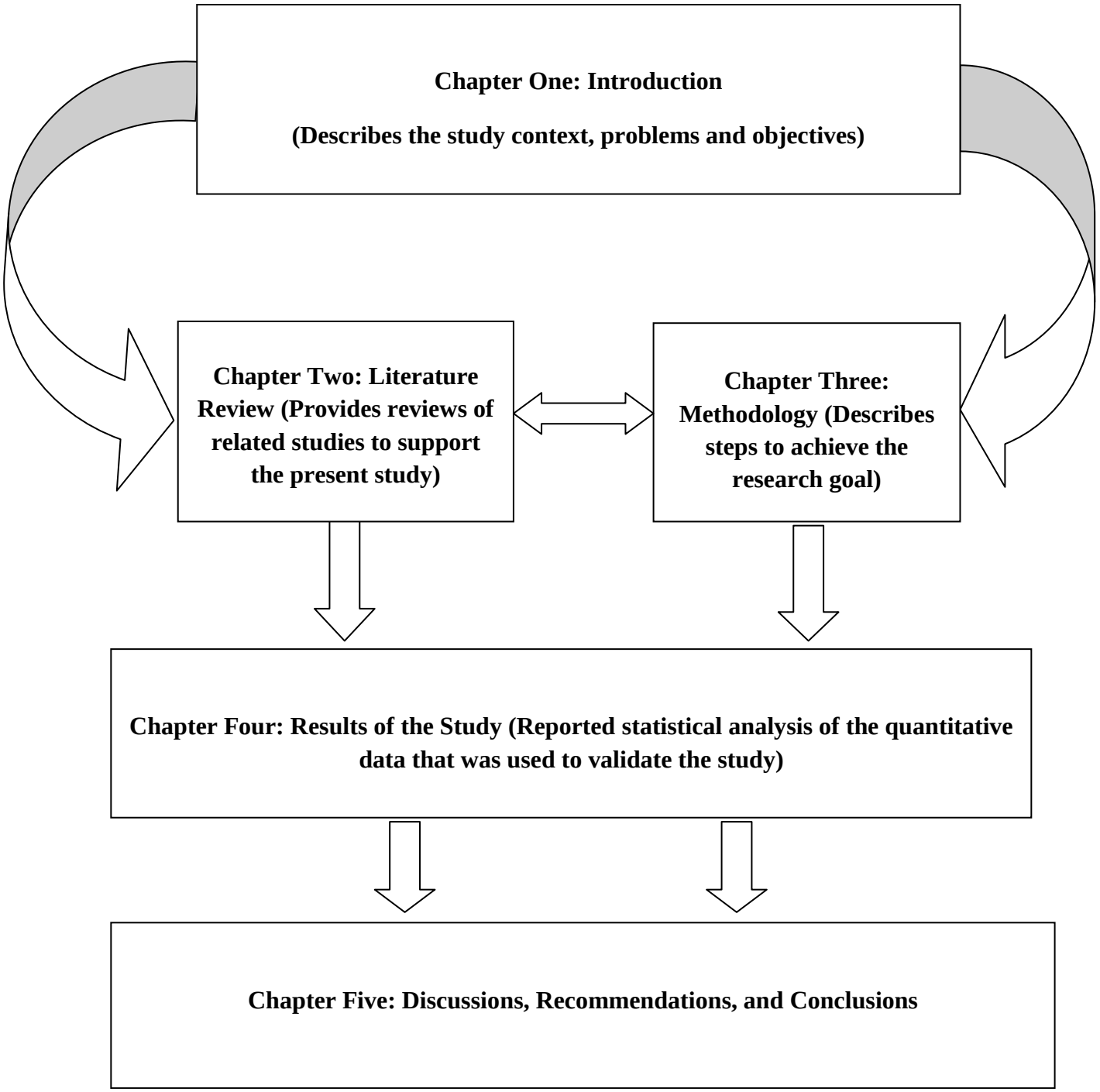

Figure 1.1
Organization of Thesis

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a review of prior studies and works relevant to the study objectives. Many studies addressing diverse fields can be found in the literature of training and training effectiveness. On the other hand, this study primarily focuses on training effectiveness and its evaluation along with factors that may influence it. This includes some training program main elements like training delivery and its management and some other concepts that are assumed to influence training effectiveness including supervisor support, self-efficacy and learning styles. Finally, intention to transfer training is justified as a mediating variable in light of factors of training effectiveness. The aim of this chapter focuses on providing a review of previous related literature studies to support the present study.

2.2 Training, Training Objective and Training Evaluation

2.2.1 Training

Levy (2005) described training as something that is expected to be integrated into every management's mindset. As organizations evolve and develop, training becomes more important now more than ever before. Employees should adapt to the dynamic changes characterized in the environment and they should be capable of maintaining and updating their capabilities. Along the same lines, management should also receive training and

development to improve their leadership skills and abilities. In many situations, employers have reported that effective training generates productivity advantages that more than make up for the training costs. Accordingly, training can be termed as the systematic development of attitude, knowledge, skills and patterns of behavior needed by an individual to sufficiently accomplish a task. In the context of work environment, training is provided to develop the employees' abilities and to meet present and future manpower requirements in the organization. A more generic definition of training was provided by Goldstein (1986) as a systematic acquisition of skills, rules, concept or attitude the leads to enhanced performance in another environment. Turell (1980) on the other hand, claimed that training occurs when an individual is able to do something which he was unable to do prior to it. Nevertheless, in the current society characterized by information technology, Morgan (1988) recommended that management should look for ways to develop and mobilize employees' intelligence, knowledge and creative potentials to every organizational level until they are skillful in placing effective people in main positions and in developing their optimum potential. Training therefore becomes increasingly significant to an employee who is motivated to learn how to be intelligent, flexible and adaptive.

2.2.2 Training Objectives

Robert and John (2004) claimed that training objectives and priorities must be laid down through a gap analysis that reveals the distance of where the organization is with regards to its employees compared to where it should be. This gap is hence filled with both training objectives and priorities where training is provided to enhance knowledge and

skills and to improve attitudes of employees. Accordingly, training objectives and priorities can be divided into three types;

Knowledge – provide cognitive information along with details to trainees.

Skill – developmental changes in behavior as to the way jobs and tasks are performed.

Attitude – create interest in and be aware of the training significance.

2.2.3 Training Evaluation

It is challenging to identify suitable indicators for training effectiveness, particularly when evaluating effectiveness criteria are ambiguous. Training evaluation has become a crucial aspect of the training program of the organization in recent years. These organizations are responsible for what employees learn and for making sure that employees transfer knowledge gained to their actual work tasks. Training evaluation was argued by Billets (1989) to involve mutual analysis of success and failure and the determination of each with the intent to improve skills and knowledge continuously in an effort to achieve work proficiency. Some researchers employed one of the popular organizational training evaluation frameworks proposed by Kirkpatrick, referred to as Kirkpatrick's four level models of training criteria comprising of reaction, learning, behavior and results (Praslova, 2010). Another study by Seyler, Holton, Bates, Burnett and Carvalho (1998) listed personal or general attitude, situational specific attitude, reactions and work environment as factors that influence training transfer. On the other hand, Bhatti and Kaur (2010) concluded that the twin factors that influence employee performance, self-efficacy are perceive content validity of training and positive trainee

reaction and Jones (2008) found pre-training levels of trainees to have a key role in training and post-training principles.

Moreover, Petty and Zulauf (2007) stated that organizational support, supervisory support, motivation, and self-efficacy significantly affects training transfer while Ismail, Ghani and Krishnan (2011) claimed that learning goal orientation significantly predicted learning motivation and training transfer. Meanwhile, attitudes towards work and confidence significantly impact the abilities and inclination of trainees to transfer knowledge in training to the work place (Mae and Wilkinso 2006). In addition, learning motivation and pre-training intervention affects training effectiveness (Weiss *et al*., 2010).

It can be summarized from the above discussed literature that self-efficacy, pre-training knowledge, attitude to change and support from supervisor are critical factors for training effectiveness and transfer. It is notable that the research gap lies in the oversight of examining supervisor support, self-efficacy, and learning style.

With regards to organizational environment, it can affect the implementation process through factors including; dynamics to adopt innovation, principle and existing organizational conditions, managerial commitment, sufficiency and availability of resources (McDonald, 1989; Walsh, 1989; Cohen & Collins, 1976). Thus, in order to counteract these deficiencies in training evaluation, it is important to evaluate training in the context of the organization. In particular, innovation and changes in behavior within an organization after the training program appears in five specific stages namely,

adoption decision, resource phase assembly, role change, problems solving and finally institution (Scherier, 1987).

Furthermore, trainee characteristics like self-efficacy, previous experience with the task and characteristics of workplace including managerial support and workload were revealed to significantly predict training effectiveness (Van der Klink & Streumer, 2002). Along a similar line of contention, Noe (1986) revealed that internal factors may impact the outcome of employee training and these factors are the trainee's cognitive ability, self-efficacy and learning motivation; these influences the trainee's ability to relate the training to the actual job. He further added that external factors such as training environmental design, the means of delivering the training content and technology use also determine trainee's outcome (Jacobs, 2003; Noe, 1986, 1999). This evidence has encouraged researchers to examine the training process and procedures to determine whether the variables significantly affect staff's training effectiveness.

Moreover, program evaluation is a process that determines the trend and the manner in which the programs objectives are determined (Ronsenfelf, 1999; Tyler, 1990). More specifically, the effectiveness of the research program is determined through the level of knowledge achievement, skills, participants' attitudes, issues and modifications that are reflected following the training program. Four elements of program effectiveness requiring measurement were highlighted by Dessler (2001). These elements are participants' reactions to the course, learning, behavior and results. An evaluation is conducted to determine the participants' performance and the effectiveness of the program implementation. Some of the most common evaluation tools used to measure

effectiveness are tested and examined, questionnaires, observation, interviews and discussion. Mior (1991) stressed on the formalization and strengthening of the program and the detection and evaluation of its outcome.

From the educational perspective, program evaluation is described as an assessment of teaching training program; to determine whether or not it is effective. This assessment is conducted by accomplishing the input and outcome goals (Tuckman, 1985). Similarly, Worthen and Sanders (1987) described the employment of such evaluation by determining the standards for quality budgeting, standards that are relative or obsolete, and relevant information. The evaluation of training effectiveness can be carried out with the help of the employees' application of knowledge or skill obtained to the job situation which trainees' are inclined to do upon returning to actual work environment (Seyler *et al*., 1998). In other words, participation reaction is critical for training effectiveness. The significance of knowledge gained about raining effectiveness should be assessed through the specific interest of trainees' participation in organizations as the trainee's interest is significant in the training transfer. Collecting information concerning the training effectiveness effect is an issue that is worthy of measurement and literature evidences attempts in secondary as well as tertiary education on gaining training efficacy; for instance, Flecknoe (2002) highlighted the requirement of U.K. Teacher Training Agency-funded courses provided for school teachers to explain the effect upon pupils, and that reports of measurement of this effect is inconsistent, lacking validity and reliability, burdensome, insufficiently promoting quality enhancement and depict low valued currency (Graham, 1999).

The trainee's positive/negative reaction is observed in order to determine if training obtained is transferred effectively to the work environment. Bhatti and Kaur (2010) opined that the trainee's positive reaction improves learning. They added that with positive reaction from the trainee, higher level of learning and learning transfer to the actual task is reflected. On the other hand, an adverse reaction reflects low degree of interest in training activities, low level of learning in turn, lower degree of learning transfer. From another perspective, Wang and Wang (2006) gauged participation reaction through long and short term. They suggested a more pragmatic manner of reaction evaluation through obtaining the feedback for the learner on his interest in, attention to and motivation towards learning (Wang &Wang, 2006, cited by Bhatti & Kaur, 2010). In other words, positive trainee reaction reflects satisfaction of learning needs and the rest of the levels of evaluation such as learning, transfer and outcome would reveal a more significant output. According to Bhatti and Kaur (2010), transfer can result in enhanced performance in the organizational and individual level.

2.3 Purpose of Program Evaluation

Evaluation of the program highlights the achievement of objectives for the purpose of decision making (Stufflebeam, Foley, Gephart, Guba, Hammond and Merriman, 1972) or to see, hear, observe and document what is seen, heard, observed or achieved though the action taken (Noor Azmi, 2003). In the program's context, various evaluation aspects was developed to gauge the impact as noted by Billets (1989) who stated that a detection program or a program evaluation refers to a framework that collects and analyzes data on

the entire events linked to the program implementation in an attempt to enhance management.

Moreover, evaluation in the program's context comprises of the curriculum content and achievement of goals. From a philosophical perspective, focus is on the individual behavior achievement whereas from the humanist perspective, focus is on individual achievement in a planned circumstance (Ghazali, 2010).

2.4 Importance of Training Evaluation

Rae (2004) asserted that despite the fact that majority of organizations are not vigilant of training contribution to the organizational performance, researchers still fail in determining such validation and evaluation's feasibility. According to Huang (2001), this is because evaluation of training stresses frequently on the training quantity instead of quality. In various training and development areas, management faces difficulty, particularly in management level training or human relations training, where the outcomes are not reflected quantitatively (Rae, 2004). Additionally, often times the quality level standards are lacking compounded by the use of superficial scales to quantify it. This in turn, results in the issue of validity and reliability of the measures of training evaluation (Ling, 2007). Torrington and Hall (2000) summed up the issue by concluding that despite the nebulous and unsatisfactory evaluation of training, organizations are still required to show the value contributed by training to the organization.

It has however been noted by Philips (2003) that most human resource development (HRD) specialists are still doubtful of evaluating training effectiveness and this was attributed by Huang (2001) to the lack of measurement tool that is consistent and effective. He added that there are not likely to have significant relationship among training evaluation and training effectiveness although companies that conduct evaluation of their training are usually determine higher degree of effectiveness from them. Although there seems to be a contradictory argument, the difficulties and challenges that companies face in evaluating training have been stressed on.

Training evaluation is significant in many ways which are primarily based on the improvement of trainees' performance, individual behaviors, attitudes and learning achievement. It is also important as the organization may adjust its performance and increase production through it. Nevertheless, for changes to take place in the trainee's behavior, time is of the essence (Endres & Kleiner, 2007) although its significance is no doubt, critical to the outcome of training evaluation. Endres and Kleiner (2007) emphasizes on interviews and observations as tools used in trainee's behavioral change evaluation to achieve organizational goals. In addition, behavioral change is an evident effect of training evaluation. Moreover, evaluation of training is significant for the achievement of organizational learning as it contributes to reaching the objectives of the program and the readiness of the trainee to transfer training. Learning achievement is an aspect requiring assessment to understand the trainee's level of training for a certain period with learning achievement as an added experience.

Learning experience helps the trainee to acquire skills and knowledge and facilitates the realization of attitudes and beliefs change (Seyler *et al*., 1998). It improves the measurement of the trainee's learned knowledge and his/her preparation. In a program evaluation, Morrisey and Wellstead (1980) required the participants to list their personal and professional objectives after the seminar was concluded. This feedback improves the management of the program and certifies that the program contributes value in the organization and achieves the management's objectives for organizational objectives.

2.5 Training Effectiveness

Frequent training does not necessarily translate to effective training. The effectiveness of training can only be determined through evaluation. Researcher reveals that 'effect' and 'effectiveness' each reflect a different meaning and conceptual implications. According to the National Institute of Public Administration (2000), research making use of the term 'effect' requires an experimental study as it measures and compares two separate concepts.

As for effectiveness, Lunenburg and Ornstein, (2012) described it as the impact that results in change stemming from objectives achievement for decision making. Furthermore, White, Mayne and Everton, (1990) described effectiveness as quality reference – an expended effort of mind to modify experience while Chang (1996), defines it as an element with criteria that is measurable from the achievement and quality aspects. Similarly, Ling (2007) described effectiveness as to the degree that students are able to

achieve program objectives reflected from the grade obtained and the productions that is consistent with planning.

In Jordan, a study by Magableh, Kharabsheh and Al-Zubi (2011) depicted that training effectiveness among managers of small and medium organization have been greatly influence by the characteristic of the trainees such as age, experience, education, perceptions, awareness and skills. In Saudi Arabia, analysis of the results of studies compiled by Elnaga and Imran (2013) concluded that managers does not appreciate and understand the significance of training and how its influence on employee performance in a good way, rather they think that it is uneconomical for the company. Thus, training effectiveness is problem attributed to low performing employees. The findings also revealed that poor performance is the result of lack of knowledge and proper skills, which could be improved by training.

Moreover, Ahmad and Bakar (2003), reached at the conclusion that greater employee commitment is obtained if training successfully attain their learning outcomes and improves the performance on individual as well as organizational level. More so, investigation on training evaluation from different institutions in Saudi Arabia revealed that skills, knowledge and other technical know-how received by the employee during training did not have any significant improvement on company performance (Mansour 2013). It then implies that the findings of the present could only bring changes to the entire education sector of Saudi Arabia if the higher institutions are directed to implement it.

A study conducted by Shiryan, She and Stewart (2012) also revealed the employee training effectiveness is a problem widely reported in Saudi Arabia's SMEs, especially among numerous small firms. Shiryan *et al*. (2012), further explain that the managers who did not have the chance to get sufficient management training to master the mandatory skills and rather prefer to follow conventional management approach. They concluded that managers working in such firms need to upgrade their skills in team leadership, finance, marketing and administration, even though very limited research has been conducted on the issue.

The main criterion of training effectiveness is learning transfer which results in improved employee and organizational performance. Accordingly, Baldwin and Ford's (1988) study attempted to investigate the training design, trainee and work environment's effects upon the transfer condition as a manner of advancing the system of learning transfer. Despite the other outcomes role in the effectiveness of training, including trainee reaction and learning level, training transfer is what facilitates organization goal achievement. Other authors with the inclusion of Gist, Stevens and Bavetta, (1991), Tracey, (2001), and Libermann and Hoffmann (2008) also reported factors impacting training outcomes. In the present study, training transfer is utilized to indicate training effectiveness.

Moreover, the influence of the above factors upon training transfer does not occur in isolation as evidenced by literature studies. Consequently, researchers have proposed various evaluation models for training outcomes measurement. Kirkpatrick's model is

among the widely acknowledged model (Al-Eisa, Furayyan and Alhemoud, 2009). The model's four levels are explained in the Table 2.1.

Table 2.1
Kirkpatrick's Training Evaluation Model - The Four Levels Of Learning Evaluation

Level	**Evaluation type (what is measured)**	**Evaluation description and characteristics**	**Examples of evaluation tools and methods**	**Relevance and practicability**
1	Reaction	Reaction evaluation is the way the delegates felt about the training or learning experience.	'Happy sheets', feedback forms. Verbal reaction, post-training surveys or questionnaires.	Quick and very easy to obtain. Not expensive to gather or to analyze.
2	Learning	Learning evaluation is the measurement of the increase in knowledge - before and after.	Typically assessments or tests start and end of the training. Interview or observation can also be used.	Relatively simple to set up; clear-cut for quantifiable skills. Less easy for complex learning.
3	Behavior	Behavior evaluation is the extent of applied learning back on the job - implementation.	Observation and interview over time are required to assess change, relevance of change, and sustainability of change.	Measurement of behavior change typically requires cooperation and skill of line-managers.
4	Results	Results evaluation is the effect on the business or environment by the trainee.	Measures are already in place via normal management systems and reporting - the challenge is to relate to the trainee.	Individually not difficult; unlike whole organization. Process must allocate clear accountabilities.

Kirkpatrick's model was extended by Alliger, Tannenbaum, Bennett, Traver and Shotland, (1997) and the latter categorized the reaction outcomes into two reactions namely utility reaction and affective reaction. An extension evaluation model by

Kirkpatrick particularly the after-training phase and the evaluation of training effectiveness is divided into four stages by Chiaburu and Marinova (2005); post-training declarative knowledge, training transfer, training generalization and training maintenance strategy.

It is however notable that literature concerning training effectiveness, both in light of training and learning, has failed to provide a consensus on a theory supporting it. According to Brown and McCracken (2009), of the various training content, only a small portion is transferred by the trainee to the actual workplace. Compounding the investigation further is the fact that the determination of many factors that influence training, researchers have still not come up with a theory of training transfer. Ford (2009) stressed on the mere 20% learned skills transferred by trainees to the work setting. Bhatti and Kaur (2010) concluded that the establishment of standard training transfer theory is still a challenge despite the various highlighted factors. Meanwhile, Kauffeld, Lehmann and Willenbrock, (2010) contended that in practice as well as in research, transfer is overlooked.

Significant advantages may be reaped by an organization if only employees are capable of transferring training to work settings (Grossman & Salas, 2010). Prior literature identified factors related to training transfer with learning style among the uncommon factors. Research reveal that self-efficacy (Chiaburu & Marinova, 2005; Saks, 2002; Ford and Schmidt, 1998; Kirwan & Birchall, 2006; Latham & Frayne, 1989; Saks, 1995; Mathieu, Tannenbaum, Scott and Salas, 1992; Tannenbaum, Mathieu, Salas and Cannon-Bowers, 1991; Velada, Caetano, Michel, Lyons and Kavanagh, 2007), support

from supervisor (Karuppaiya, 1996) both affect training transfer while employee background has not been explored in terms of experience and age.

According to Arthur, Bennett, Edens and Bell, (2003), the effectiveness of training in terms of employees' reaction is not an indicative of learning criteria, behavioural criteria and results criteria identified by Kirkpatrick. Alliger, Tannenbaum, Bennett, Traver and Shotland, (1997) in their study showed that mere reaction measure have a limited influence as indicator of training effectiveness. The result further indicates the lack of strong connection or relationship between employees' reaction during training and the other levels of training evaluation. Although, reaction to training measure has been the widely used criteria adopted by many organization (Alliger et a,l 1997), but the fact remain that training effectiveness goes beyond mere reaction. Their willingness and intention that can actually trigger employee to transfer skills acquired during training to actual work.

In the findings of Morgan and Casper (2000), trainee reactions were favored. This however is based on the condition that the participants' reaction forms must be well developed. This finding did not provide enough evidence on how the reaction form should be develop. Relying on Morgan and Casper results only might provide a superficial effectiveness of training because the actual effectiveness training is still not known. Therefore, is very germane to further explore other model and variables that can as well measure of training effectiveness. Training transfer, as well as the intention to transfer the training is very important. Better still, self-efficacy, learning style and supervisors' support are pertinent variables to training effectiveness (Rowold, 2007).

Other authors have argued that training effectiveness could be measured using organizational commitment. The argument was based on the behavioral dimension in which employee investment of time, friendship and pension from the cardinal point. That is, all the investment of employee will result in essential profit, which employee would be willing to forfeit. This will in the long run make training to more effectively since the trainees are aware of what is at stake. This view of training effectiveness contradicts Curtis and Wright, (2001) who identified employee commitment to organization as an attachment to work itself. Looking at these two conflicting viewpoints, training effectiveness seems to be viewed by both sides as an external or extrinsic measure. However, if training effectiveness in premised on these assumptions, it will be highly difficult to measure or determine as there will complexities in terms of what is expected after training loyalty towards one job or organization. The present study, took an opposing view. Training effectiveness is not a predetermine concept, rather, it is an outcome of training which reflect in employee transfer of the acquired skills in to job.

Organizational outcomes and performance rest on Manager who steer the affairs of organizations (Burns, 1978; Bass, 1985; Fuller, Patterson, Hester and Stringer, 1996; Bono and Judge, 2003). Due to rapid and unavoidable changes global economy precipitated by ever-advanced technology, it is imperative to consider training for both managers and employees. Training as a process through which knowledge, skills, and competencies are acquired is among the important HR tasks in organizations.

Each year globally a huge amount is consumed on arrangement of training programs. So, it has become really important to evaluate and assess the effectiveness of

the training programs in order to justify the budget (Bedingham, 1997). Unfortunately, most of these trainings are not that effective due to some factors that are responsible. Paradise (2007) revealed that a report from the American Society for Training and Development (ASTD) indicates that more than $126 billion are spent on an annual basis on employee training and development by the American organizations. In some sectors researches have been done and their results indicated that the transfer of training to the workplace is not high and that many of the skills learned in training are never applied; therefore, training loses efficacy (Pineda, Moreno and Belvis, 2007).

Saks and Belcourt (2006) observed that training professionals from 150 organizations reported that 62, 44, and 34 per cent of employees implement training material on the job right away, six months, and one year after training respectively. Average of the values makes it to 47 per cent (p. 629). The fact that only 50 per cent of the new learned skills are transferred to the workplace means that training becomes somehow less meaningful. Studies show around 15 per cent of what is learnt by the employee in a classroom actually translates into improved job performance. Current research is poised to evaluate training effectiveness because the importance of training in the organizations cannot be overemphasized.

Considering this, Buckley (2007) are of the opinion that training is of benefit to both individuals and organizations. Herero, Moreno and Xavier, (2011) observed that organizations regarded training as beneficial and in this case, models through which training will be transferred should be put in place in order to enhance training effectiveness.

2.6 Training and its Benefits

Training implies the development of the knowledge and skills of an individual and/or team in the organizations through systematic means in order to enhance organizational effectiveness (Goldstein & Ford 2002). While exploring training in connection with Alam and Muzahid (2006) observed that training, in the Islamic viewpoint, has to do with the betterment of spiritual and human virtues.

Shariati, (1979) puts it in the following way:

> Islam, surely describes condition of a human lies between two extremes, perfection which demands continuous efforts to get closer to God by following His orders and lowliness which is revealed the origin of mankind is clay. In fact, the human is in a constant state of flux either toward the spirit of God, which is marked by perfection and infinite exaltation or are pulled down to the abode of stagnation, immobility and lowliness.

The inner tension that link perfection and lowliness, training and development is an important aspect in Islam as it provides room for the intellectual, ethical, spiritual, physical (Hashim, 2010) and emotional (Husain & Ashraf, 1979) development and growth of the human being. It focuses on enhancing employees' knowledge and skills holistically apart from the rank or scale they fall in their organizations.

Training is of benefits in a number of ways. Aguinis (2009) opined that that training activities have an influence on individuals and teams in different forms like

attitudes, motivation, and empowerment. Technical and non-technical training transfer is believed to solve organizational and management problems (Bedingham, 1997).

Performance in the organizations can be geared up by training, this notion is held by a number of researchers among whom are Hill and Lent (2006), Satterfield and Hughes (2007), Kraiger (2002), Arthur *et al*. (2003). in their studies made it clear that training showed an overall positive effect on job-related behaviors or performance. The study on impact of training on job-related performance carried out by Arthur *et al*. (2003) is a meta-analysis and therefore carries weight and is authentic Aguinis *et al*. (2008). Evidently, behavior-modeling training to improve computer skills and resounding success was made in the two experiments carried out by the researchers.

2.7 Training Effectiveness: Theoretical and Conceptual Framework

Training is instrumental to high productivity, motivated workforce, higher workforce flexibility, high quality product, cost-saving material and capital costs; this has been the findings of the research carried out on 15 countries by the Organization for Economic Cooperation and Development. However, about $5.6 billion to $16.8 billion is wasted yearly on ineffective training programs and the scenario call for Return on Investment (ROI) (Stetar, 2003).

Dolezalek (2009) mentioned that firms spend billions, especially the United Sates' companies spent more than $50 billion every year on formal training but little is achieved. Velda and Caetano (2007) posited that this is due to lack of retention of information learnt from the training or lack of motivation to transfer information on the

part of employees. Money, time and other resources spent on training do not, in most cases, return to organizations. Studies have put it that normally, almost 40 percent of training content is transferred immediately after the training, 25 percent is retained after six months and later it is reduced to only 15 percent after a year (Baldwin & Ford, 1988; Wexley & Latham, 2002). In a bid to avert such occurrences, some employers get the chance to attend training to learn additional skills and maintain latest job-related competencies (Velada &Caetano, 2007) that result into behavioral change (Weiss, 1998) and also allows them to transfer their gained knowledge relevant to their workwith the intention of making job performance better with the time (Noe and Schmitt, 2006). Studies have shown that there has been a focus by researchers and practitioners on the transfer of training process. Conceptual frameworks were created in order to decipher this complicated task (Baldwin & Ford, 1988; Holton, 1996, 2005; Kavanagh, 1998; Tracey *et al*., 1995). Baldwin and Ford (1988) and Holton (1996, 2005) presented a framework with three main determinants of training transfer: Training design or enabling factors; individual factors or trainee characteristics; and work environment or transfer climate.

2.8 Evaluation of Training Effectiveness

During 1950s, sales managers and sales trainers realized that training assessment is very important but on the other hand they could not figure out the steps and procedures to be followed in order to do training assessment. In order to overcome this problem lacuna, Kirkpatrick (1959a; 1959b; 1960a; 19560b) developed a model that suggests four training evaluation steps: Reaction; Learning; Behavior; and Results. These four evaluation steps go from the least to the most complex to achieve (Honeycutt & Stevenson, 1989).

As the Kirkpatrick's model has been developed, many useful training evaluation models have been presented. A few among myriad articles relevant to sales training describes the method of empirical evaluation of a sales training program (e.g. Honeycutt & Ford, 2001). Existing research believes more work should be done in order to empirically evaluate sales training effectiveness at the higher assessment levels. As a result, this study empirically reviews Kirkpatrick's third (behavior) and fourth (results) stages of training using self- and supervisor-evaluations.

Interactive evaluative level sales training evaluation is an organized collection of information which is needed to verify the effectiveness of sales training activities and the outcomes of those actions. The first two training levels – reaction and knowledge – both have been criticized (Summy, 2007). The reaction ratings that evaluate trainee satisfaction or perceptions relevant to training programs depends on instructor personality or skewed by learning environments that are not in the instructor's control. Reaction or "happiness sheets" have been considered completely worthless (Broadwell, 1989). In the same way, for knowledge or level two, trainees can learn sales principles and techniques, but be unable or unwilling to employ them on the job. For instance, buyer-seller simulations employed to teach sales skills are often taught in a sterile classroom setting. Accordingly, it is advised to utilize higher-level measures (Summy, 2007) to observe trainee outcomes that verifies if the trainees are practically implementing the skills and knowledge learnt in training (Kirkpatrick, 1960a). Level 3 measures individual job behavior after receiving training and level 4 assesses individual and organizational results as an outcome of salesperson knowledge being applied on-the-job. A study describes (Tyler, 2002), that the reaction level can be determined by the companies usually (78

percent), followed by learning (32 percent), behavior change (9 percent), and results (ROI or financial value) (7 percent).

2.8.1 Measuring Behavior

Studying job behavior relevant to sales training is a relatively tough and slow assessment than measuring reaction and learning levels (Kirkpatrick, 1960a). Reaction and knowledge can be "evaluated" simultaneously during or after the training program. Third level or behavior demands: sufficient time for change(s) to occur; advanced experimental design and analytics be employed; receiving 100 percent response rates or employing a random sample; surveying and/or interviewing the trainees, their immediate supervisors, their subordinates, their friends, and/or customers who regularly interact with the salesperson; repeating the evaluation (s) when necessary; and comparing cost and benefits (Kirkpatrick, 1994).

Some empirical studies (e.g., Leach & Liu, 2003; Jobber, Hooley and Shipley 1993; Ingram *et al*., 1992) suggest that managers think that qualitative measures present insight into training effectiveness for levels three and four. Feasibly, managers accepts as qualitative-oriented variables supply better information as positive behavior is the key to success for a salesperson (Morris, LaForge and Allen 1994). Such as when organizations control affiliation selling in the form of CRM pipeline analysis, behavioral variables (sales call/proposals) are believed to be leading to outcome measures like sales revenue (Tanner, Honeycutt and Erffmeyer 2009).

2.8.2 Measuring Results

Measuring individual and organizational results available to sales training is highly difficult evaluation level to reach (Summy, 2007; Honeycutt, 1996). Suggested objective measures of training program effectiveness include sales per trainee or sales revenue to quota per trainee (Phillips, 1991). Nonetheless, these measures are considered unpredictable when sales territory changes, extraneous factors affect sales figures, or collected data are irregular or seasonal. Moreover, performance assessment that is based on a single output measure may not be enough for assessing the learning process (Rich, Bommer, McKenzie, Podsakoff and Johnson 1999), that to some extent describe the reason managers trust qualitative measures to assess the training's impact (Kumpikaite, 2007). So far, three successful operational evaluations of sales training results have been carried out. Meyer and Raich (1983) first included an experimental design that matched 14 retail stores into seven groups, on the basis of market type and locality. The average sales commission was utilized as the evaluation criterion and employees who received training earned a statistically higher commission rate and remained in their positions longer.

Donald Kirkpatrick arranged the measurement of training effectiveness (value, worth, and merit) into four levels. These levels are given below starting from the easiest to measure (level 1) to the most difficult (level 4). Generally, levels are further subdivided to measure a training course or program that will inform if the evidence of its effectiveness is complete.

Level 1 – Measurement of trainees' reactions to the training (feedback).

Level 2 – Measurement of learning gains, the knowledge and skills acquired.

Level 3 – Measurement of trainees' behavior, the use of their new knowledge and skills on the job.

Level 4 – Measurement of business results, the organization's return on the training investment.

Level 1 is dedicated to the collection of information with the help of questionnaires handed over after a course or program or sent to trainees a short time later. Level 2 is the steps where criterion-referenced tests are used to measure the knowledge and skills acquired. Level 3 determines if trainees are implementing the learned knowledge and skills (behavior) back on the job. Level 4 talks about the benefits (increased quality, productivity, sales, etc.) acquired from the new knowledge and skills have had on the organization's performance, and their worth in monetary value. At level 4, training manager`s interest is about the organization's payback (return) on their training investment.

Mostly, it is convenient to link training output to organizational improvements. It does not demand complete separation of training's benefits from other dependent variables. It involves evidence that verify training's valuable role. Thus, discussion about training manager can absolutely separate training's influence on organizational improvements and isolate the impact of other factors are not pertinent.

2.8.3 Benefits

By choosing the outcomes (benefits) to be measured and linking training to those outcomes while holding, to the extent possible, other factors constant, level 4 measurements are comparatively easy. All training managers have to follow the outcomes for which baseline measures were collected before the training, and they have a good estimation of the payoff. Essentially, embark on this study will increase the quality of management staff in various universities in KSA as well as their competencies in handling management task independently. By so doing, the workforce will minimize operation costs. Other outcomes extends to increasing the stability of the workforce; work environment, harmony, job satisfaction, and attitude; less need for supervision; making selection pools for promotion; supervisory skill development; and improved customer relations.

Once training managers know the way to calculate the cost and measure the effectiveness of training, the benefits from a financial perspective are important to discuss if the training effort producing are greater than the spent cost. This is the only things matter to higher management.

There are some methods used to verify cost effectiveness. Some of them are complex and difficult to use, while others are more suitable for justifying an investment in a new machine for a manufacturing plant, and so forth. The four methods for justifying a training investment discussed earlier were chosen because of their practicality, easy to use, and general understanding of higher management.

2.9 Perceived Behavioral Control

Perceived behavioral control is the understanding of constraints and/or opportunities that are associated with the particular behavior (Ajzen, 1991). The perceived behavioral control (PBC) is refered to perceived ease or obstacles in performing the behavior and believed to discuss difficulties and issues like self-efficacy. Self-efficacy, a predictor is the major difference between the theory of reasoned action and the theory of planned behavior (Ajzen, 1991). One of the main challenges of employee after training is how to over-come the negative belief about training being only an ideal situation which is difficult to transfer whole or part to the real work settings.

It is usually assumed that the constructive attitude shows positive perceptions (self-efficacy) from trainees about the need for performance after training, is a norm or behavior which is can really bring about training effectiveness (Billari & Philipov, 2005). Perceived behavioral control, thus, tends to create certainties with trainees' self-efficacy and confidence, and the magnitude of the PBC-intention relation is relied on the kind of behavior and the nature of the situation. In the current research, perceived behavioral control is manifested by self-efficacy and learning style.

2.9.1 Self-efficacy

Self-efficacy is the idea that stems the capability to complete a given task. From the concept of social learning theory, learning task takes place when a learner observes a credible and becomes knowledgeable (Bandura, 1986). Based on this, it becomes clear at self-efficacy derives trainees capability to perform tasks. In situations when individuals

take part in training and development, self-efficacy determines the impact of the outcome in achieving the expected goal. Explaining from a similar understanding, individual attitudes and belief about training effectiveness and the development of activities can be summed up as critical determinants of training effectiveness that potential, predicts the progress or improvement an organization can actualize in participating in a training program. Most variability in training outcome reported in the previous studies is attributed to trainee's personal characteristics. Therefore, training transfer should be initiated only at certain recognized level trainees are able and inclined to utilize and enforce the newly learned knowledge and skills on actual job tasks. In addition, the trainees' ability could serve as a motivation to in developing and learning new skills that are critically needed to enhance workplace task. In this context, motivation can be referred to as the desire to use new knowledge and acquired skill to enhance job requirement. Knowledge that is considered to influence the trainee's enthusiasm for training participation constitutes mastering knowledge that complements their competencies.

Prior researches reported that self-efficacy adds to learning, motivation and is linked to training and motivation in a positive way (Colquitt, LePine and Noe, 2000; Tracey *et al*., 2001). In other words, a highly confident trainee with the capability to apply the training content has a great potential to implement the acquired knowledge and skills following training completion. Switzer, Nagy and Mullins (2005) studied the relationship between training reputation, self-efficacy and managerial support before training, motivation and perceived training transfer using 93 managers employed at a large nationwide insurance firm. The study found that managerial support and self-

efficacy were not as essential training reputation is on perceived transfer of training. Alternatively, self-efficacy and managerial support can just control pre-training motivation.

The relationship between self-efficacy and other variables, including transfer motivation and training transfer has been addressed by researchers while self-efficacy has been confirmed to maximize the degree of training transfer (Chiaburu & Marinova, 2005; Saks, 2002; Ford *et al*., 1998; Kirwan & Birchall, 2006; Latham & Frayne, 1989; Saks, 1995; Mathieu *et al*., 1992; Tannenbaum *et al*., 1991; Velada, Caetano, Michel, Lyons and Kavanagh, 2007).

Several researchers (e.g. Bhatti & Kaur, 2010; Kauffeld & Lahmann, 2010) identified factors affecting training transfer effectiveness and a close examination of these factors show that they have their basis on individual, working place situation, environmental or contextual design which means that generally they are based on social learning theory (Bandura, 1986). Social learning theory is among the theories explaining the way people learn that was presented by Michel, Mahoney, Meichenbaum, Staats, and Bandura (cited in Davis & Luthans, 1980).

Specifically, the person and the environment function together depend on each other through a reciprocal relationship. People generate the environmental conditions affecting their behavior reciprocally. Experiences produced by behavior also describe what a person becomes and what he/she is able to do, and in turn, this influences the resulting behavior. Simply stated, social learning theory postulates that most people learn how to behave through their observation of others and then mimicking the behaviors

which they think are effective. Additionally, the theory acknowledges that supported or rewarded behaviors are more likely to be mimicked by observers (Noe, 1999). Effectiveness in training generates a critical skills enhancement and facilitates trainees' career development through the reinforcement of supervisor. Self-efficacy is among that factors linked to raining effectiveness, which assists the employees' transfer of knowledge and skills obtained in training to the work settings. Self-efficacy is viewed as an individual factor that influences the training results (Colquitt *et al*., 2000).

Self-efficacy enables workers to learn from one another through training from an instruction through in-service (Bandura, 1986). Holton (1996) described self-efficacy as the general belief of the individual that he/she is capable to change his/her performance whenever he/she desires. Accordingly, an individual receiving training, may change himself by transferring knowledge with the help of a supervisor and by modifying the situational condition of the work conditions (Ford *et al*., 1998; and Velada *et al*., 2007).

2.9.2 Learning Style

Learning style encompasses knowledge acquired prior to training (Rossi *et al*., 2010). Learning style can be considered as a component of training abilities, since it depends on their ability and experience to handle specific tasks. Learning style therefore can be used to solve managerial problems following a step-to-step approach which is straightforward. The need for the incorporation of a "learning style" becomes increasingly important in the KSA following increasing emphasis by the government to integrate learning styles in an attempt to improve the learning environment. To conveniently transform learning pattern and effectiveness to the present generation

requires that learning style is well understood. Muhammad *et al*. (2009), reported that transformation of workplace to increase competitiveness of most important sectors in both business and learning institutions across the KSA by provides options to training effectiveness . To facilitate effective training and transfer of knowledge in the KSA, the integration of learning style is of high priority owing the benefits it provides especially in the present day where conventional learning systems is gradually being isolated in various institutes of higher learning. In an attempt to enhance the learning style of various organizations in the KSA especially the education sector, KSA has widened internet network to improve the learning style capability of various organizations at all settings (Rossi *et al*., 2010). Therefore the present study provides a better understanding and insight not only on the factors that influences learning effectiveness but also on the skills needed to improve the competitiveness of various sectors in the KSA through problem learning lifestyle.

The integration of learning style is important, especially in the present day Saudi Arabia's government is infusing billions of riyals into academic training programs and services in an attempt to transform the economy and population to become fully integrated into the global economy (Chokri & Talal, 2013). The need to enhance learning style increasingly becomes important as the KSA are committed to providing the skills, knowledge and learning opportunities to research and solve problems at various sectors in organizations. Yet, in trying to adopt various management skills to improve learning style capability, study found that the majority of youths are not equipped with the critical 'thought skills'. This becomes evident in a more recent study by Chokri and Talal (2013) that focuses on "The improvement of lifelong learning in Saudi Arabian University from

individual learning to social constructivist e-learning environment based new educational technologies.

This is because Prior training influences the training outcome and hence training effectiveness (Smith, Jentsch, Payne and Salas, 1996). The learning style has been extensively analyzed as a determinant of training effectiveness. Several studies stated that past experiences of learning style may be valuable in contributing to the achievement of learning. Among them, Baron (2001) revealed learning style significantly impact training effectiveness when reinforced by supervisor's support. In addition, according to Bandura (2009), it is notable that learning style provides the trainee with confidence to utilize learning strategies in training programs. Moreover, Campbell (1989) showed that learning style can even influence the individual's intention to take part in training and development. However, among the information available to supervisors, details concerning individual's real skills, inclination to train, and productivity and further training expectations are often overlooked.

Accordingly, learning style can be considered screening devices for distinguishing with unique abilities. Hence, those with advantaged learning style reveal a higher learning capability owing to the increasing emphasis that urges workers to embark on training transfer (Gambetta, 1987), provide orientation and help in providing a greater insight into the labor market perspectives.

Learning style depends on the level of education or the skills in their influence upon training effectiveness. As such, the majority of training programs uses a learning style in the context of educational level and skill of a trainee and the manner in which

knowledge can be disseminated or transferred to the workplace setting. Additionally, learning style is also utilized as screening tools for the selection of trainee in training by the supervisor in order to achieve training transfer. Baron (2001) supported the above by stating that individual capabilities are considered as characteristics when selecting trainee for training programs. For increased performance, learning style may be used as a discriminating characteristic for training owing to the various levels of experience and for the purpose of training effectiveness and transfer. Learning style is also necessary for evaluation and consideration if the trainee is believed not sufficiently qualified (Baron, 2001). Baron (2001) also cited Eraut (2007) suggesting a consistency in the discrimination of trainee which could otherwise lead to false expectations or error discrimination (Baron, 2001). Therefore, trainee with high educational to leverage their workplace to keep their jobs, those with medium educational level attempt at avoiding status decline, while those of only low educational level only have minimal incentives (Baron, 2001).

Learning style may therefore influence training in a sense that male and female employees, young and old employees – all are expected to differ in their training ability. Baron (2001) added that there may be no difference in ability among different working place. However, many researchers asserted that learning style was often considered in organizational training and therefore, different abilities have to be sorted out among trainees (Blanchard & Thacker, 2007).

2.10 Subjective Norms

Subjective norms are an individual's belief of what people around him think or expect of him. This to a large extent is the reason why people accept training on the use of technology (Davis, 1980). Put differently, subjective norm is a type of peer cum environmental forces that compel individual to adapt to change after training. If a person participates or plans to participate in any behavior is mainly depends on the people around them (Ajzen, 1991).

These people may take in their friends or a peer group, family, co-workers, co-researchers/supervisors. Subjective norms, which are settled by normative beliefs—i.e. the perception that one individual has concerning the approval, or disapproval, of a certain behavior relevant to others. Subjective norm, also directs to the perceived social demands to carry out the behavior or not, and in the context of training effectiveness, the pressure that possibly mount on trainee is on how they should transfer the newly acquired skills. This pressure is usually from the immediate supervisors.

For operational field reasons, this study conceptualized subjective norms using supervisors support as indicator. This will be done by asking the respondent about how important can be the opinions of influential person such as immediate supervisor have on his/her performance after training.

2.10.1 Supervisor Support

Supervisor support is another dimension considered in light of training effectiveness. Employees at work may take part in training and development programs, but workplace

characteristics, including management or supervisor's support is what has been examined when it comes to training effectiveness. New skills development from training participation and development may lead to changes (positive/negative or both) in the tasks that an employee performs thereafter. Employees are different when it comes to required support from the workplace during and even after the training programs and this is where the supervisor's supports matters. Supervisors have a vital role in reinforcing employee participation in training and skill development and training transfer. A working practical knowledge of training processes and content developed by the supervisors is required for an effective training program. The manager in training is often incapable of providing the level of support in all training programs but every participant should be completely accountable for their activities quality and effectiveness in the process of training. Supervisors may also have a say in training standards developed by the regulatory and accreditation bodies for employees for the goals to be achieved.

According to Baron (2001), supervisors are the members of the working team that are frequently considered as first contact persons in every issue related to training. Frequently, older employees as well as those with minimal level of education act under 'bounded rationality' and fail to observe all the complexity provided to them for training decisions. Towards the end, these trainees opt for the frame having the highest subjective utility and thus, for a training decision, it makes a difference if the participant is supported by the supervisor as this would facilitate motivation and confidence of the trainee's competence.

Training effectiveness is reported to be significantly linked with immediate superior support (Tennant, Boonkrong and Roberts, 2002) indicating that immediate superior has a key role in determining the effectiveness or lack thereof of the training programs. Ling (2007) supported this contention by stating that immediate superior's feedback and support assists the participant to organize and employ the learned skills. In the context of Malaysia, correlation studies conducted for training effectiveness showed that lack of support from immediate superior hindered the training effectiveness of organizations (Karuppaiya, 1996). It has also been revealed that supervisor's support in training directly impacts pre-training motivation (Facteau, *et al*., 1995; Mathieu *et al*., 1992; Tannenbaum, Cannon-Bowers, Salas and Mathieu, 1993). Prior researches by Rouillier and Goldstein (1991) and Ford *et al*. (1992) revealed transfer environment to be improved through strong approval from the supervisor as employees greatly tends to believe in opportunities to acquire competencies with this support. Similarly, Tennant *et al*. (2002) revealed that support from immediate supervisory significantly correlated with effectiveness of training indicating an immediate supervisor's key role in determining the effectiveness or lack thereof of the training programs. Supervisors may provide their support through feedback, encouragement and assistance; for instance, training transfer may fail if the supervisor fails to show his support for the transfer of if the trainee is under-motivated to do so.

Supervisors who are supportive contribute to training motivation and the perception of the employee's utility of training (Cohen, 1990). When provided a choice of whether to attend training or not and the employee chooses to attend, both motivation and learning for the said training is maximized (Baldwin *et al*., 1991). Similarly, Ford *et*

al. (1992) claimed that supervisors having positive perceptions of an employee and who provide their support, facilitate a significant increase in the said employee's self-efficacy and performance. In other words, positive supervisor attitudes predict the tasks type the employee has the opportunity to tackle (Ford *et al*., 1992).

Moreover, the supervisor who motivates employees enhances the latter's attitude and beliefs concerning training. According to a research conducted by Facteau *et al*. (1995) on management training, training, attitudes, individual attitude, organizational commitment and supervisor support were found to be positively linked with training motivation. They concluded that training motivation supported by superiors positively relates to trainee's perceived training transfer.

In conclusion, training effectiveness and variables like self-efficacy, supervisor's support and Learning styles are associated with each other and the link has been established in prior literature and as such, training and development both have a key role in designing effective training and evaluation. An effective training and development should be clarified in such a way that formal commitment and sufficient learning strategies are laid down. In this way, trainees will be able to respond to contents in the training program in a meaningful manner and hence enhance training effectiveness.

2.11 Training Transfer in Saudi Arabia

The Kingdom of Saudi Arabia is the largest country in the Middle East in terms of land area, constituting an area of 2,250,000 km2 (SAMIRAD, 2010). Saudi Arabia possesses

about 25 percent of the world's petroleum reserves and the world's largest exporter of petroleum as of 2008 (OPEC, 2008). Thus, the economy relies much on the production and exportation of oil and gas, efforts have been made by the government to minimize the dependence on oil and to promote the development and diversification of the economy (SAMIRAD, 2010). To achieve this requires efficient administrative services. Regarding this, the government seems more committed in the development and transformation of the educational sector to improve learning and provide better quality of graduates and employment opportunity. This will eventually play a positive role in the Kingdom's economy by transforming acquired knowledge and skills to improve management services at various sectors especially in the universities.

There has been pretty good chances to make the management framework better to improve worker effectiveness and efficiency. Reviewing and adjusting the training policy in Saudi Arabia necessitate for the integration of an implementation plan to train workers on how to convert knowledge and skills towards improving the organization's practices. Al-Kandari and David (2012) asserted that the enhancement of management services requires centralized regulatory frameworks to support activities and the management information structure that integrate goals and safety while reducing inconsistencies and gaps in organizations. Although the Saudi government has moved towards centralizing the control activities, restructuring institutions to establish the Saudi as an independent management body to coordinate and implement all activities, there is a need to transfer training skills into real life (Al-Kandari & David, 2012).

The benefits and challenges of reforming and streamlining administrative activities as well as enhancement of the opportunities of centralization cannot fully demonstrate significant progress until the skill and knowledge acquired through various training programs sponsored by the government of Saudi Arabia are transferred to practical realization of the national economic growth. Therefore a continuous effort is needed to explore the mediating effect of training transfer effectiveness in Saudi Arabia as has been noted by Al-Kandari and David (2012) and Hisham, Mansour, Mohamed, Alian, Amjad, Fahad, Aziz, Michael and David (2013).

In Saudi Arabia, analysis of the results of studies compiled by Elnaga and Imran (2013) concluded that managers do not accept the significance of training transfer and its effect on employee performance and believed that training increases the company cost. Thus, training effectiveness has been seen as a problem that attributed to low performing employees because workers were unable to transfer their skills to meet the organizations need. The findings also revealed that the poor performance of workers is the result of lack of knowledge or skill that could be improved by training especially those skills involving in knowledge transfer. The study concluded that training has shown no effect on improving the organization's performance.

2.11.1 Training Transfer in the Middle East Countries

The countries from Iran in the east and countries in North Africa up to Morocco in the west are considered a part of the Middle East. Islam is the top practicing religion of the Middle East. This region is possession of about 65 percent of the world’s known oil reserves. Abed (2003) identifies factors that constrain economic growth of the Middle

East and mentioned that lack of integration into the global economy and has resulted in the growing rate of unemployment (Looney, 2003). In addition, the study added that the kind of government system established in the region likely to be contributing to the slow economic growth of the region as most administration services slowly respond to the use of modern infrastructure. Currently, most countries in the region are stressing on the development of human resources (HR) through training transfer. In contrast, the non-oil producing countries of the region believe on an efficient human resource for sustained economic growth (Yousef, 2004).

The retardation in the developments of human resource management (HRM) has serious implications in the economic development of nations (Debrah, McGovern and Budhwar, 2000). Human resources development in different sectors in Oman, Iran, United Arab Emirates, Saudi Arabia, Jordan, Israel, Egypt, Bahrain and the countries of the Gulf Cooperation Council (GCC) showed that immediate attention is needed to improve the way administrative services are conducted (Ghotbi, 2011).

Compared to other countries, Middle East region has limited number of research relevant to HRM development. An exploration of existing literature emphasis that HRM in Saudi Arabia (Mellahi & Wood, 2004; Al-Salman & Robertson, 1982), employment policy of Kuwait (Al-Enzi, 2002); HRD in Oman (Budhwar, Al-Yahmadi and Debrah, 2002), HRM in Algeria (Branine, 2004), challenges for employment in the Arab region (Shaban, Asaad and Al-Qudsi, 1995), market forces and the Middle East interest in HRM development and management has been affected by policy issues (Murphy, 2002).

A number of times issues arise from training transfer of management practices from the West to the region are addressed (Anwar, 2003; Saleh & Kleiner, 2005). The studies suggest that the emerging technology used in the region should incorporate the advances in technology as in other developing countries (Debrah & Budhwar, 2004). These reflected the influences associated with cultural norms in participation in decision making. It is noteworthy that the resemblance in attitudes towards work and management practices across Middle Eastern countries could have resulted in similarity across the countries in management strategies.

A study has shown that countries such as Algeria, Egypt, Jordan, Tunisia, Turkey and Iran are the shift from centrally commanded economies directed by government initiatives to drive the economy (Ghotbi, 2011). In order to realize the context-specific nature of HRM development, it is important to emphasize on factors that determine the effectiveness of HRM policies and practices in the Middle East. This type of evaluation will also play a part in the development of HRM theories and related policies and practices (Budhwar & Mellahi, 2006). An effort in this direction depicted the present study that focuses on investigating the mediating effect of training transfer effectiveness that aimed at improving services provided by human resource management department at various sectors especially in the educational system.

In Jordan, a study conducted by Magableh, Kharabsheh and Al-Zubi (2011) revealed that training effectiveness among administrative managers of small and medium organization have been greatly influenced by the trainees demographic profile such as age, experience, education, perceptions, awareness and skills. Moreover, Ahmad and

Bakar (2003) in a study reached on the conclusion that high levels of employee commitment can be attained if training, achieves learning outcomes and upgrade the performance, an individual and organizational level as well. More so, investigation on training evaluation from different institutions in Saudi Arabia, revealed that skills, knowledge and other technical know-how received by the employee during training did not have any significant improvement on company performance (Mansour 2013). The findings further indicated that, apart from training transfer, other factors like compensations, work environment and stress have an effect on workers performance.

In addition, a study conducted by Shiryan, Shee and Stewart (2012) also revealed the employee training effectiveness is an issue in Saudi Arabia‟s SMEs, as other Arab countries, especially among many of smaller firms. Shiryan *et al*. (2012), further explain that managers who were not provided with sufficient management training to learn the required skills and who follow conventional management practices. They concluded that the managers in these firms need significant improvement of their skills in team leadership, finance, marketing and administration, though not enough work has been done on the issue.

2.12 Training Transfer

In a meta-analysis study, Baldwin and Ford (1988) did a literature review of training transfer and arrived at a training transfer model that provides an extensive explanation of the trainee characteristics' importance, and factors of both training design and work environment. Current researches dedicated to training transfer are advocates of Baldwin and Ford's transfer model. The model expounds on the pivotal variables that affect

training transfer, namely, training input factors depicting materials used for training, training outputs depicting performance after training and transfer condition's depicting condition at which training were conducted. According to Baldwin and Ford (1988), the transfer conditions comprise of generalization of material obtained from training in job context, and maintenance of learning material throughout a period.

Nevertheless, this transfer model by Baldwin and Ford has been critiqued by Machin (2002) who claimed that the successful training transfer is not determined by a single factor. This contention was backed by Noe (2002) who included issues of self-management strategies to the model. Noe's (2002) improvement to the above model is consistent with Thayer and Teachout's (1995) training transfer model which emphasizes on trainee characteristics as significant variables in the transfer.

Thayer and Teachout's (1995) training transfer model is among the most widely acknowledged models as it emphasizes many features of the training process that influences the outcomes of training transfer. Specially, Thayer and Teachout (1995) stressed on elements that take place during the training that are critical determinants of training transfer and that enhance training activities. Additionally, the model encapsulates some additional variables for trainee such as ability, self-efficacy, prior knowledge and skill, reactions and understanding. The model's primary advantage lies in its identification of trainee's characteristics influences upon training transfer. This justifies that individual characteristics such as Learning styles, supervisor's support of trainee's self-efficacy play a key role in training transfer more than any other variables. Theyer and Teachout's (1995) model stress on the significance of individual characteristics along

with work environment. Variables constituting trainee's characteristics are further explored in the next section.

2.13 Intention to Transfer Training

A debate has ensued in light of the reason of training transfer's emergence as a course of application as opposed to an outcome of the application (Kim, 2006). A five-stage process model was proposed by Foxon (1995) with the help of which training transfer can occur. These five stages are transfer intention, transfer initiation, partial transfer, transfer maintenance and failure with each stage conceptualized as precursor for the next one. The present study is developed to add to prior research by examining the unique and combined impacts of transfer intention, namely self-efficacy, Learning styles and supervisor support upon training effectiveness in Saudi Arabian educational institutions.

The issue of training transfer was first highlighted by Baldwin and Ford (1988) as cited by Burke and Hutchins, (2007) and they stressed on the need to come up with a way that lessens the gap between learning and workplace performance. The determination of an accurate amount to which training can be transferred by the trainee following the training program differs among different researchers; for instance, over two decades ago, Georgenson's (1982) claimed that 10% of training outcomes leads to behavioral change while Saks (2002) stated that about 40% of trainees do not succeed in immediately transferring their knowledge after the completion of the program, seminar or workshop and a mere 50% of training investments lead to improvements in both individual and organizational level (Burke & Hutchins, 2007). On this basis, it is evident that

organizational investments in their employees' acquisition of skills like training continue to reveal adverse results.

This is why training transfer is a central issue for all organizations. Among the issues highlighted by the present study is the employee's/trainee's intention to implement. Transfer intention can be described as the commitment to employ skills obtained during training to the work settings (Reynolds, 1993). With low trainee intention, the possibility of skill application after training is likely to be highly minimized (Foxon, 1993). Hence, transfer intention is a key trainee characteristic in training transfer. According to Gollwitzer (1993), as cited by Burke and Hutchins, (2007), there exist two types of intention that influences goal achievement and they are goal intentions and implementation intentions. He continued to describe goal, intention as the desired end-state when if combined with the level of commitment, may lead to specific end state achievement. On the other hand, implementation intentions are the specification of situational cues or conditions that precipitate goal-directed actions. It is a promise to behave in a specific manner every time the conditions are suitable and it is characteristic to the individual and the environment aspects that are critical to goal achievement (Burke & Hutchins, 2007). Implementation intentions are described by Saks (1995) as the transfer of training through improved procedures like goal setting, self-efficacy/self-management, and prevention of relapse that are effective promoters of the transfer process.

Various studies investigated the impact of different individual characteristics and organizational factors upon training transfer by implementing intention and these

characteristics include self-efficacy, support from supervisors/peers, practicing training skills, and searching for opportunities to relay the training learned skills (Machin & Fogarty, 2004).

The present study is an effort to examine the impact of factors (self-efficacy, Learning styles, and supervisor support) classified as individual-level and work-related factors by Al-Eisa *et al*. (2009), upon transfer intention. Al-Eisa *et al*. (2009) revealed the above factors to be pre-requisites for training transfer. The study scope concentrates on these three factors on the basis of their common use in literature as the primary antecedents of training transfer (Al-Eisa *et al*., 2009). For the prediction of behavior with the help of intention, the researcher adopts the theory of planned behavior (TPB) (see Chapter Three) presented by Ajzen (1991) as a theoretical framework encapsulating the relationship between self-efficacy, Learning styles and support from supervisors, and transfer intention. According to Davis, Mark, Curtis, Mary, Tschetter and Jeffery, (2003), with the TPB's stress on self-efficacy and perceived social expectations, it has produced insightful nature of different domains (cited by Al-Eisa *et al*., 2009).

A critical factor in training effectiveness is the encouragement one gets from executive management, which decides on the success or failure of a training program (Navaretti, 2010). With the constant interest of executive management, regular employee training may be more effective than irregular courses, given the competitive and complex nature of the changing global market. The research scholars of management whose area of interest is transfer of training gave similar meaning and interpretation to transfer of

training as described by its definition regarding its actual meaning. This study targets only the positive aspect training transfer.

Baldwin and Ford (1988) define it as a positive transfer of training is the degree to which the skills, knowledge and attitudes learned during training framework by trainees is effectively and efficiently implemented in the job. In Holton (1996) point of view argues training transfer has the extent to which employees affect the knowledge, attitude, behaviors and skills gained through training. For Brinkerhoff and Montesino (1995), training transfer should be the result of training on the ensuing performance of an operational job. Burke and Hutchins (2007) determine that it is believed to have an enhanced employee performance when well-defined training processes is carried out.

In Broad and Newstrom (2001) views, transfer of training is the ability of continuing and effective application of the knowledge and skills gained by trainees through training to their tasks whether to areas which are either related to their job or not.Xiao (1996) (cited in Simosi, 2012) describe transfer of training as the application and subsequent maintenance of the skills, knowledge and attitudes acquired from training over some certain period of time. From these definitions explicable expressed above, it can be deduced that the main ulterior motive behind training employees is to immediately improve their performance and transfer of their acquired knowledge and related skills to their workplace (Richey, 1992; Schmidt & Bjork, 1992 cited in Powell, 2009). The employee acquires knowledge through the means training and then transfers this gained knowledge into an upsurge in job-related skill or act (Saks 1995).

2.13.1 Factors Inhibiting Transfer

The factor inhabiting training transfer confines to providing a detailed description of factors that increases transfer failure in an organization. This knowledge is vital as it reveals potential factors capable of affecting training transfer in the education sector. Although this is outside the scope of the present study yet; it provides a supportive information to understand the circumstances befitting training transfer. In the context of the present study, transfer of training has not yet been estimated in Saudi Arabia, however; the estimation of the percentage of actual training transferred is not yet estimated with degree of certainty. Most prior research indicated that transfer failure is low and has consistently increased over the years (Noe, 2008; Roberts & Mcdonald, 1995; Gaudine & Saks, 2004; Broad & Newstrom, 2001). According to the findings of a study by Marx (1986), most training programs incur over 90% transfer failure. A study by Burke (2001) concluded management education training program organized for managers attended by British, Indian and American managers showed that about 50% and above depicted insignificant efforts to transfer the learned training to their job environment. In another research carried out by Huczynski and Lewis (1980), an attempt was made to implement a newly learnt skills to specific job and only 35% of the trainees were able to transfer part of the acquired skills. Only a smaller percentage is actually incorporating recently acquired skills. On the other hand, the transfer of knowledge was low, but transfer maintenance was extremely low.

Explanation of training transfer using inhibiting factors appears to provide a better illustration used by various management practitioners in different organization to

explain the low level of training transfer. The factors that significantly hinder intention to transfer could also have an impact on the degree of transfer. According to Foxon (1993), content analysis of more than 30 articles recognized about 128 inhibiting factors which were categories as organizational climate factors, training design factors, individual learner characteristics and training delivery factors and are discussed below.

Organizational climate factors: it was found that 42% of the recognized factors hindering training transfer confines to organizational climate. The most attributed factor hindering or inhibiting transfer is the supervisor's failure to reinforce and encourage application of the acquired training on giving job while other factors such as lack of opportunities to implement the newly acquired training skills and lack of appropriate resources and technology for application.

Training design factors: only 22% of the factors were attributed to hindering training design. It can be traced from the point when course content was excessively theoretical and not practicable, has an effect on the organizational values or is not in line with the requirement of the job.

Individual learner characteristics: 21% of learner characteristics attributed to inhibiting factors. This can majorly be traced to the motivation of the learner towards application of the training which is at low level, while other hindering factors are difficult in mastering the skills of the learners, and learner perceives the irrelevancy of the late learned skills to the requirement of the job.

Training delivery factors: 13% were attributed to factors related to training delivery. This could be traced to learning style and inappropriate learning methods.

Based on the above factors, previous researchers have attributed major inhibiting factors in training transfer process to lack of motivation. Through a clear understanding of the operation of these known inhibitors in relation to the process of training transfer strategies (Foxon, 1993). In the present study, various training inhabiting factors only provided knowledge based information that describes tendencies of training transfer failure based on previous research findings. This contributes towards providing a clear understanding the failure prone situations.

2.13.2 Transfer Model

Baldwin and Ford (1988) used their model to describe the major factors impacting transfer of training. They are described in the form of six linkages and later divided into three categories, namely: training input factors, training outputs and conditions of transfer. They concluded that protection of the learned material over a period of time and generalizations of material learned in training in the job context are both transfer conditions. The model is depicted in Figure 3.

Baldwin and Ford Model

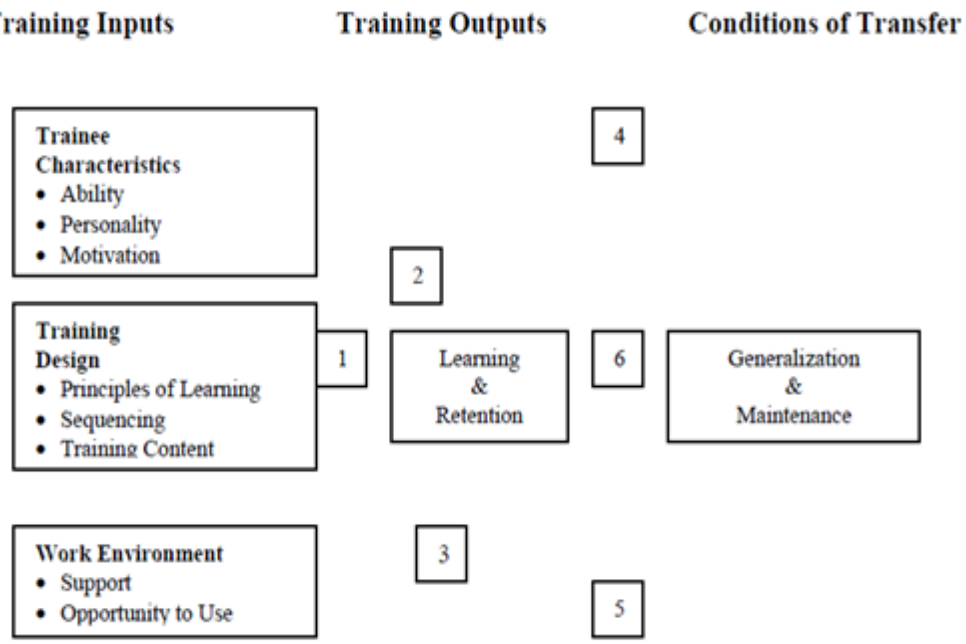

Figure 2.1
Baldwin and Ford Model
Source: Transfer Initiation and Maintenance of Training: Employees' Perception of the Relative Influences of Transfer Intentions, General Self-efficacy (GSE) and Supervisor Support by Powell (2009).

From the model, we can observe that there exist direct linkage between generalization and maintenance, which is the conditions to transfer and learning and retention which is training output. This shows that there is a direct influence of the training design output on learning and retention, while indirect influence on transfer which is a generalization and maintenance. On the other hand, there exist direct relationships between trainee characteristics and the work environment with learning and retention, couple with generalization and maintenance. This model proposes that the alignment of these factors depends on transfer of training. This means that the direct influence of learning and retention on generalization is associated with the effect of training inputs on learning and retention (Yamnill & Mclean, 2001).

Holton's Factors Affecting Transfer of Training

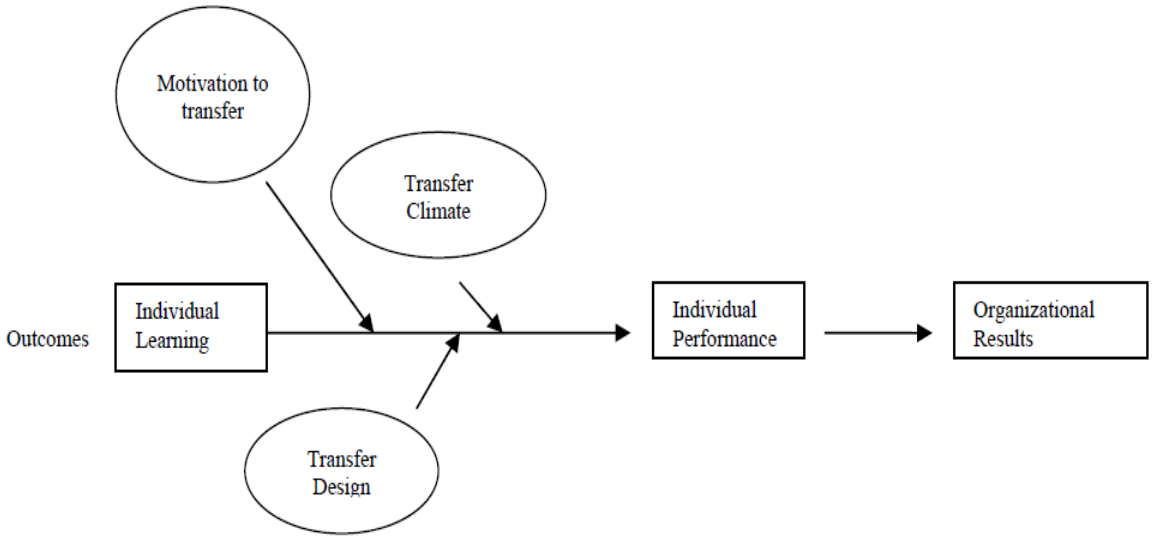

Figure 2.2
Holton's Factors Affecting Transfer of Training
Source: Transfer Initiation and Maintenance of Training: Employees' Perception of the Relative Influences of Transfer Intentions, General Self-efficacy (GSE) and Supervisor Support by Powell (2009).

It can be observed from the Holton (1996) framework as indicated in Figure.2.2 that the three major results of training which are individual learning, individual performance and organizational results are impacted by the combination of motivation to transfer, transfer climate and transfer design factors. This also shows that the motivation of trainee to learn, the reaction of trainee to the climate of training and as well as the ability and experience of trainee influenced the outcome of individual learning, while the transfer motivation of trainee, transfer climate as well as transfer design influenced organizational results.

In conclusion, determinants of organizational results are training expected utility or return on the investment of resources and time, constrain cost by external events or productivity amplifier and the link between the strategic goals of the company and training. One of the major benefits of Holton's model is that it provides specification for the types of intervening factors that impact each of the results and also shows the directions of underlying effects.

In other words, these transfer model depicted above is used to highlights the existing disconnection between the training and the job environment which is the domain for transferring the training. Many environmental factors undermine the motivation of trainee's transfer intention almost immediately they are out of the training environment.

2.14 Self-efficacy and Intention to Transfer Training

Machin and Fogarty (2003) revealed that intention of training, implementation along with a transfer is significantly affected by self-efficacy and enhancing activities of transfer. They draw a conclusion that transfer implementation intention has been understudied in prior literature and called for further examination to clarify the promotion and enhancement of training transfer success through training effectiveness. Self-efficacy describes as the belief of the individual that he/she is capable of meeting the training requirements and mastering the contents of the training program (Gist *et al*., 1991; Stevens, Bavetta and Gist, 1993). Self-efficacy is positively associated with training performance on the grounds that self-efficacy plays a motivational role and eventually affects the level of effort employed by the performer (Mathieu & Martineau, 1997; Mathieu *et al*., 1993).

In addition, Mathieu *et al*. (1993) revealed that self-efficacy positively relates to training reactions and performance. Similarly, Mullins, Fisher, Howell, Schmitt and Kozlowski (1998) hypothesized that transfer training intention is a mediator between self-efficacy and training transfer indicating that the employee may be confident to implement the skills obtained from training, but if they do not have the intention to do so, the skills will be less likely to be transferred. Along the same line, employees having low self-efficacy will be less likely to try to transfer the acquired knowledge to their jobs (Al-Eisa *et al*., 2009). Therefore, for effective training, employees should be highly confident of their capabilities to transfer after the completion of the program and they should have intention to implement the skills to reinforce this confidence. Also, Tziner, Fisher, Senior and Weisberg (2007) revealed transfer implementation intentions to be related with self-efficacy and other individual transfer enhancing activities. They added that perceived capability following training/learning does not guarantee trainee's specific intentions of learning skills application. They concluded that the level of trainee's self-efficacy is a significant predictor of transfer training intentions. In other words, self-efficacy is a significant predictor of transfer intentions prior to and following the training (Tziner *et al*., 2007).

Furthermore, Machin and Fogarty (2003) proposed that employees' transfer intentions be confirmed against their actual behavior after the completion of training. Also highlighted in training literature are studied by Mathieu *et al*. (1993) where self-efficacy was revealed to be dependent with intention of training transfer and training performance. Self-efficacy was also revealed to indirectly relate to training transfer through trainee's implementation intention (Mullins *et al*., 1998).

2.15 Supervisor Support and Intention to Transfer Training

As discussed in an earlier section, supervisor's support is a crucial variable that impacts training implementation intention and training transfer (e.g. Ford *et al*., 1992; Huczynski & Lewis, 1980). According to Ford *et al*. (1992), supervisor's support contributes to the employees' willingness to transfer obtained skills following the training completion. Literature reveals various situational, contextual and trainee variables that influence the complex transfer process (Laker, 1990). Intention to transfer training is one of these many intervening materials. The literature reveals that supervisor's support significantly impacts training transfer, but on a closer examination, intend to implement is significant in reinforcing training transfer and supervisor support connection. The findings revealed that trainees perceiving greater levels of support from supervisors for training and a higher level of implementation intention are both valued advantages of learning new knowledge and skills (Al-Eisa *et al*., 2009). Intention to transfer training was reported to moderate the supervisor support-training transfer relationship by Colquitt *et al*. (2000); a finding supported by Facteau *et al*. (1995) who reported also reported a strong relation between supervisor support and intention to transfer training.

However, there are inconclusive findings as to the direct influence of supervisors support on training transfer. Chiaburu and Marinova (2005) found that supervisor support was neither related to skill nor training transfer justifying the fact that transfer intention poses an actual issue. Hence, the present study focuses on the direct link of supervisor's support with transfer training, while considering training transfer as a mediating variable. It is therefore hypothesized that supervisor's support (independent variable) significantly

affects transfer training with the effect varying on the basis of the trainee's intention level to transfer skills (mediating variable). In other words, this study examines the direct relation that links supervisor's support and training transfer with the intention to implement training as a mediator in the relationship hypothesizing that it interacts with supervisor's support and causes the effect upon training transfer.

As previously discussed, several researchers (Foxon, 1995; Colquitt *et al*., 2000; Al-Eisa, *et al*., 2009) dedicated to training transfer and training outcome revealed supervisor support to strongly predict transfer outcomes. In other words, exerting influence on and support from colleagues will increase employee's transfer intention and actual training transfer (Richey, 1992). Thus, supervisor support can be described as perceived support from trainee's immediate supervisor following the completion of training (Duffy & Wong, 2000). Supervisor support was contended to relate to general job performance following training of skill acquisition by Bhanthumnavin (2003). He described it as the positive work interaction between the subordinate and his supervisor; a support that is linked with the intention of the former to learn and transfer. Also, Burke and Hurley, (1992) termed supervisor's support as the level to which employees view their immediate manager as helping them in the performance of their jobs and being concerned and respectful towards employees. Supervisor's support in light of respect and job assistance will in turn, affect the intention of employees to transfer and thus, transfer outcome (Facteau *et al*., 1995).

2.16 Learning Style and Intention to Transfer Training

Keeping track of the dynamics of learning style upon returning from training involves more than transferring of acquired skills to the actual job. Various learning styles have been shown to be significant to the training transfer (Baron, 2001). Once the trainees return from training, it is expected that their commitment to transfer the skills learned from training to the job at hand at a different pace based on the learning style, experience and age of the trainee. Employees that are older and more experienced have more inclination to hold their job status following training in comparison to trainees that are young less experienced (Baron, 2001). Thus, opportunities to utilize the acquired knowledge and skill and to employ them successfully to the job depend on the employee's intention to implement acquired skills.

Blume, Ford, Baldwin and Huang (2010) quantitative study findings revealed that trainee characteristics like the experience and age and aspects of work environment significantly affects training transfer as motivation or intention to transfer as intervention. In addition, Tziner *et al*. (2007) showed that the use of transfer strategies like motivation or the stimulation of the trainee's intention to transfer training, experience and learning style are all considered as significant prerequisites of successful training transfer. This finding was mirrored by Baldwin and Ford's (1988) findings where direct as well as indirect effects of trainee demographic characteristics such as age and experience were found to significantly affect training transfer.

Ford (1992) defined the importance of trainee's experience in transfer by surmising that the level to which a trainee is offered activity or achieves work

experiences that are related to the tasks for which the trainee is trained in, is directly linked to intention and training effectiveness. Prior literature such as Shariff and Makhadmah (2012) and Tracey *et al*. (1995) emphasized that factors like job characteristics and the learning style of the trainee are significant for training transfer. Moreover, Tracey *et al*. (1995) described that the learning style of the trainee relates to the behavior application obtained from a certain training course while Elangovan and Karakowsky (1999) revealed that training transfer is related directly to style of learning and intention to transfer skill following the training completion.

Along the same line, Sheriff and Al-Makhadmah (2012) revealed that demographic variables such as age, experience, learning style and number of attended training programs, indirectly impact training effectiveness in the context of the business sector. The study attempted to determine whether learning style has an actual impact on the factors influencing training effectiveness. The findings also showed that the prior experience of employees indirectly impacts training effectiveness. According to them, the trainee's experience could be a determinant of the intention to obtain the training skills and new experiences that assist work performance. They also found that the trainees of various learning style levels comprehend the significance of coping with the company develops especially in certain skills and knowledge relevant to the job as this may trigger skills acquisition and eventual transfer. Researchers like Chang (1996) debated against the experience influence upon the trainee's attitude o acquiring training but others including Petty and Zulauf, (2007) claimed that learning style affects training implementation intention and transfer.

Furthermore, the employee's learning style is another learning style factor that directly and indirectly impacts training effectiveness. Trainees with learning styles that are consistent with a certain training technique are more likely to show superior performance (Simon, 2000). In his findings, Simon (2000) stated that the learning styles of employees has a key role in training effectiveness and in his analysis, he indicated that the assumptions in light of learning style are mostly upheld by the employee during and following the completion of training. He also stated that trainees' instruction is significantly influenced by learning which eventually trigger trainee's intention to transfer skills to the workplace setting. He further claimed that the learning style is an important aspect in training and education that could influence the intention to implement and training effectiveness.

Therefore, it can be stated that in order to motivate the intention of the trainees to transfer their learned knowledge to their jobs, the program materials should be developed having the trainee's learning style and relevant material in mind. According to Simon (2000), learning styles have a key role in the understanding of trainees' abilities and in predicting the training programs' effectiveness. This is the reason why management of organizations is concerned about understanding the managerial staff's learning style, particularly high ranking staff to enable them to contribute to the effective application of training budges. Trainee's learning style identification can be a first step to designing a training program that is consistent with the individual's style. Learning style, maturity level, and interest are critical learner characteristics for the successful outcome of training in any type of learning environment (Yilmaz-Soylu & Akkoyunlu, 2002). More importantly, the learning level achieved through learning style of trainees is one of the

most critical factors indicating the training a success. To make sure that training is effective, characteristics, abilities, transfer intention and learners' experiences have to be taken into account in the individual as well as group level when planning for training outcome (Kemp, Morrison and Ross, 1998).

2.17 Intention to Transfer Training and Training Effectiveness

Based on Thayer and Teachout's (1995) model, transfer of training indicates training effectiveness and this is related to training outcome, self-efficacy and style of learning. Other researchers (e.g. Machin & Fogarty, 2004; Tubbs & Ekeburg, 1991 cited by Powell, 2009) also contended that intention to transfer training is an antecedent of trainee's transfer initiation or transfer-related actions. Similarly, in their test of Thayer and Teachout's (1995) conceptual model, Machin and Fogarty (2003) revealed that the perceptions of trainees towards several intention stimulus activities is linked to training transfer which eventually brings about training effectiveness. They also revealed transfer implementation intentions to be linked to post-training (Machin & Fogarty, 2003).

Despite the later findings of Machin and Fogarty which revealed that perceived learning success is not a guarantee of intention to transfer, the level of post-training efficacy of trainees were found to strongly predict transfer implementation intention which eventually predicts effectiveness of training. Machin and Fogarty (2003) claimed that transfer intention is a trainee variable that plays the key role in the process of transfer and actual transfer. In other words, employee transfer intention can be confirmed against his/her actual transfer following training completion. Nevertheless, empirical evidence supporting transfer intention-training effectiveness relationship is still required.

In a similar study, Foxon (1993) stated that trainee's transfer intention is related to the likelihood that he/she performs positively after training and during the transfer process which may as well be considered as likelihood for effective training. This phase is critical as it indicates that to a large extent, trainees show an attitude shift from cognition to action in the transition which indicates their commitment to go through the transfer process. Accordingly, Clemenz (2001) hypothesized that transfer intention forms a linkage between reaction and levels of transfer contained in Kirkpatrick's evaluation model.

Self-efficacy, Learning styles and supervisor support are factors that assist in training transfer and training effectiveness as evidenced in literature. These factors appear to be mediated by transfer intention. Hence, a trainee having a high level of self-efficacy, an adaptable style of learning and experience, is expected to transfer skills obtained post-training. In other words, employees who intend to transfer skills obtained from training are more likely to employ what they have gained, in terms of skills and knowledge, in the workplace setting. Additionally, the intention to implement is also an indication of the strength of factors determined to influence effectiveness of training. While some researchers including Chiaburu and Marinova (2005), Saks (2002); Baron (2001) and Tennant *et al*.(2002) contended a direct relationship between factors (self-efficacy, Learning styles, superior's support and training effectiveness and intention to transfer, others (Tziner *et al*., 2007; Elangovan & Karkowsky, 1999) claimed that intention to transfer mediates between the factors and actual transfer.

2.18 Literature Gap

A review of literature reveals empirical findings on actual transfer of training to the actual work setting are still few. This was addressed by Foxon (1995) when she stated that a mere 50% of managers and senior administrators from many countries agreed to make an effort to facilitate knowledge transfer, particularly conceptual skills from training programs they have attended. An earlier study by Haskell (1998) revealed that around 25% of trainees employ their acquired knowledge on the job and 35% apply newly acquired skills indicating low transfer of training skills. To compound the matter further, Baldwin and Ford (1988) claimed that only 10 percent of resources invested in training are paid off at the actual job. Among the reasons highlighted for this inverse relationship is according to Foxon (1993), attributed to employee's transfer intentions, which supersede other dominating factors pre- and post-training.

Additionally, in contrast with procedural or psychomotor skills which require direct implementation on the job, evidence of training transfer in concepts and cognitive skills is rare. In other words, there is a lack of empirical studies that specifically discusses the level of knowledge transfer of conceptual skills which are provided to senior or high ranking officers in the organization. In Nijman's (2004) words, "In particular, when considering training programs aimed at conceptual and cognitive knowledge and skills - such as learning style skills – assessing transfer appears problematic"(p.13) and Foxon's, "There is a better track record with raining in procedures and motor skills" (p.130). Other authors like Gielen and Van der Klink (1995) and Macaulay (2000) concluded that literature relevant to training transfer were limited and independent. This issue was also

raised by Ford *et al*. (1992 as cited by Nijman, 2004), in their study. They stated that transfer of complex skills like cognitive/conceptual skills including troubleshooting, learning style, and interpersonal relation may be minimal compared to procedural or directly applied skills.

Similarly, Wognum (1999) asserted this by providing evidence that training in automation gain higher positive perceptions of training effective in light of learning style as opposed to social skills or conceptual training. More importantly, only few studies are dedicated to examining the role of trainee's intention in transferring skills and knowledge obtained from training to work settings.

2.19 Chapter Summary

To sum up, the present chapter provided an overview of the factors affecting training effectiveness begins with briefly elaborating training transfer as an indicator of training effectiveness. Other variables, including self-efficacy, learning style, and supervisor's support was discussed.

The chapter presented a review of literature concerning training transfer, key transfer variables and a theoretical background of the manner to which trainee characteristics influence training transfer. From the literature reviewed, it is assumed that trainee's intentions, supervisor's support and employees' confidence of their newly obtained skill positively impact training transfer. Thayer and Teachout's (1995) proposed transfer model stresses on the importance of characteristics of trainee, and factors of training work environment. Through this model, the present study attempts to investigate

the effect of self-efficacy, supervisor's support, learning style and employee's intention to transfer, upon effectiveness of training/transfer of training.

CHAPTER THREE

THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

3.1 Introduction

This chapter provides details of the theoretical framework and hypothesis development, used to analysis the level of Training Effectiveness of six universities in Saudi Arabia, by developing and test ten hypothesis consists to variables that effected the level of Training Effectiveness in Saudi universities, these variables are: Learning Style (LS), Self-Efficacy (SE), Supervisor Support (SS), and Training Effectiveness (TE) and the mediation effect of Intention to Transfer Training (ITT). The hypotheses developed according to the previous studies.

3.2 Theoretical Framework

The increasing focus on training by public and private organizations stem from the need to utilize training and development activities to solve staffing problems, to change costly process, to update employees' skills and to tackle strategic challenges and achieve competitive advantage (Day, Harrison and Halpin, 2009). Thus, employees are considered responsible for the development of their latent competencies and to transfer the skills obtained to their job on an ongoing basis (Antonacopoulou, 2002). The need for constant changes in higher ranking employee's job performance post-training and the consequent improvement in general performance of the organization has led to examine the factors explaining self-directed behavior in an attempt to facilitate transfer of training skills to the job setting, and the factors predicting effectiveness of training. Some of these

factors that are discussed in the present paper are employee self-efficacy, learning style, supervisor's support, intention to transfer training and training effectiveness.

To begin with, Stevens and Gist (1997) attributed several aspects to self-efficacy where employees believe that they can meet training requirements successfully and master the contents of the training program. Similarly, Mathieu and Martineau (1997) claimed that self-efficacy is positively associated with training performance because it plays a motivating role and eventually impacts the efforts employed to the performance of tasks. The self-confidence attitude is presented in the TPB theory whereby human attitude veer between individual actions and the resulting outcome.

Another pertinent factor influencing training effectiveness is learning style. Trainees who have been exposed to problems and have the desire to seek training to solve them are more likely to achieve superior performance (Simon, 2000). Employee's behavior following training may reflect the resulting effect of their background and as background is more of behavior; it therefore presents what Ajzen(1991) calls the human behavioral variables.

Additionally, supervisor's support as revealed by Ford *et al*. (1992) is a critical factor impacting training implementation intention and actual transfer. According to literature reviewed, supervisor's support could lead to a complex transfer process. Moreover, Laker (1990) found that supervisor's support positively affects training transfer and Facteau *et al*. (1995) revealed a significant relation of supervisor with intention to transfer training.

3.2.1 Underpinning Theory and Theoretical Foundation

This research work is underpinning by the theory of planned behavior (TPB) and social learning theory**.**

1- Theory of Planned Behavior (TPB)

The TPB theory expounds on the relationship among variables of human behavior and action and evaluates the whole individual behavioral processes (Ajzen, 1991). The model postulates that human action is driven by three types of beliefs; beliefs concerning the possible results of the behavior and the outcomes evaluation (behavioral beliefs) beliefs concerning the normative expectations of others and motivation to adhere to them (normative beliefs - in this case supervisor support); and beliefs concerning the existence of factors that facilitate or delay performance of the behavior and the perceived factor power (control beliefs). In cases when one has enough control over the behavior, they are believed to conduct their intentions whenever they get the chance.

According to Ajzen, (1991), TPB intention is a direct antecedent of actual behavior. The level to which a person is inclined to perform behaviors hinges on the resources availability and the control the individual has over the behavior. The perceived behavioral control of an individual in the context of a decision-making situation (in this study the self-efficacy) affects his/her behavioral intentions. The TPB model may be commonly utilized and a well-supported theoretical framework, but its operations of employee behavior in light of training transfer and effectiveness are still largely

unexplored. Hence, the present study aims to explore the issues requiring consideration, such as the relationship between the effectiveness of training, through the TPB model.

Variables that form the component of the TPB theory have already been tested in numerous researches. Subjective norms have been argued by Armitage and Conner (2001) to be the less influential component in the TPB. Armitage and Conner (2001) come to this conclusion after rigorously reviewed 184 studies that the average contribution of attitude in predicting behavioral intentions was moderate and on the other hand the average subjective norm-intention correlation was relatively low (34). This explains that the subjective norm relationship with intention correlation is relatively weaker than the other relation such as perceived behavioral control and other external variables with intention. However, Armitage and Conner (2001) caution about the use and interpretation of their finding, because the study uses only one item measurement of the component. Thus, they proposed that subjective norm would have shown a strong enough association with the intention when properly measured with multiple-item scales. This further justified the rationale behind the inclusion of subjective norm variables in the present study that is a supervisor or managerial support. In addition, application of TPB theory in training effectiveness is uncommon. Wilson's (1980) research on unethical behaviors of business students also depicts a weak prediction of subjective norms on intention in carrying out that behavior.

Better still, it is assumed that the more appropriate the attitude and subjective norm attached to behavior are, greater the perceived behavioral control and greater should be an individual's intention to execute the behavior like training transfer.

Researcher like Smith *et al*. (2008) has found a relative limited effect of perceived control on intention or behavior of individuals. This also supports the reason for including perceived behavioural control (self-efficacy) to be part of the model.

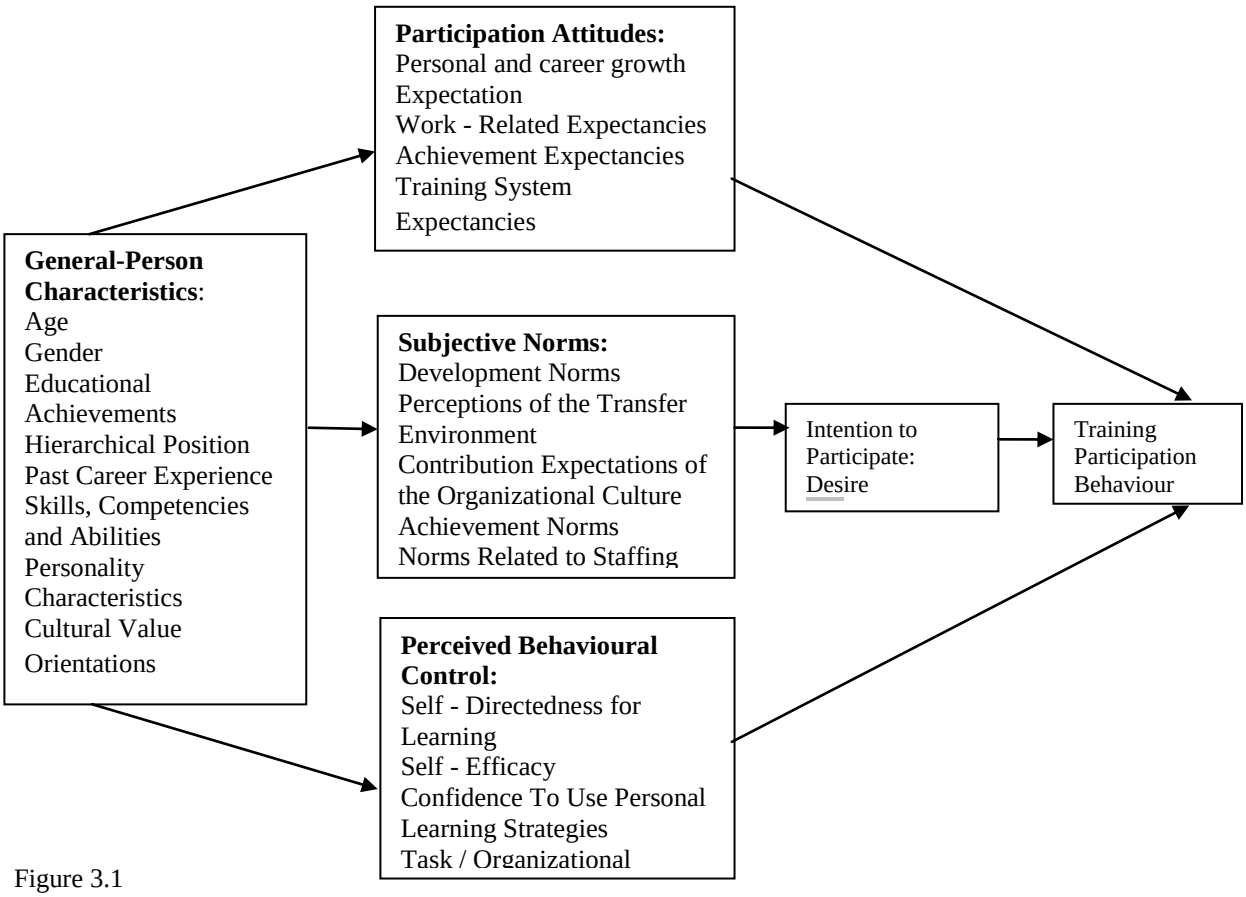

Figure 3.1
Training participation model using Ajzen TPB model *Adopted from Ronan Carbery and Thomas N. Garavan (2011)*

Figure 3.1 shows the training participation model using Ajzen TPB model by Carbery and Garavan (2011). They postulated that training participation behavior is proposed by intention to take part in training. Intentions to participate are in turn predicted by variables such as employees' attitudes towards training, the perceived social pressures to participate in training exercise (subjective norms) as well as perceived behavioral control.

Perceived behavioral control is defined by Carbery and Garavan (2011) to include self-efficacy belief, self-directed and organizational constraint. Subjective norms were generally referred to as perceptions with referents to individual desire to perform or not perform a behavior. Subjective norms were explained by a variable such as organizational culture, achievement norms related to employee recruitment. Furthermore, intentions were defined as the employees' desire, a sense of responsibility and self-prediction. All these variables according to Carbery and Garavan (2011) contributed to employee participation behaviors in a particular training.

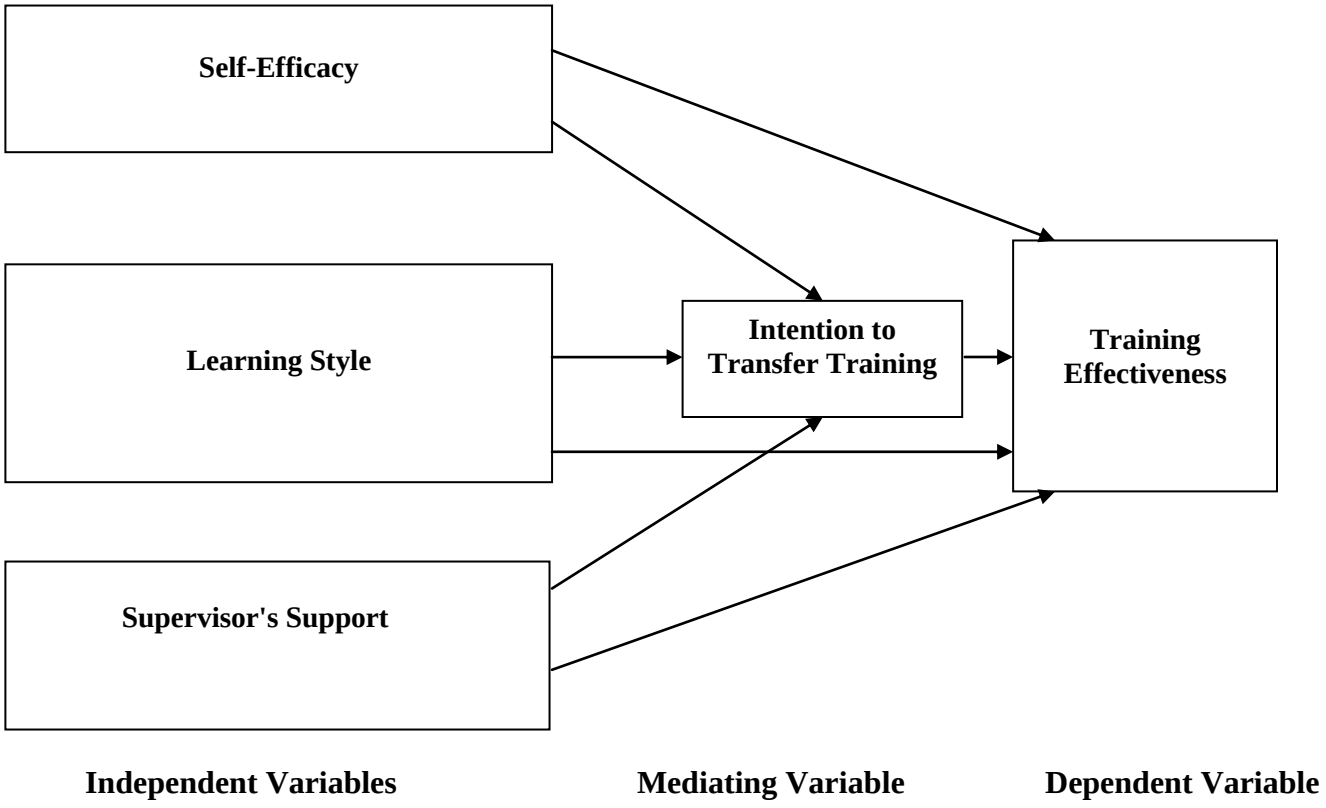

Figure .3.2 Modified training participation model using Ajzen TPB model *adapted from Ronan Carbery and Thomas N. Garavan (2011)*

Figure 3.2 shows the theoretical framework of the present study adapted from Carbery and Garavan (2011). The framework is relevant to the present study as it depicts the

relationship among the variables that are being investigated. The model is highly sufficiently and adequate to guide the underpinning assumptions of the present study, because the model was used to find out the effectiveness of a training program. Nonetheless, the model has been slightly modified to soothe the context of the present study by re-conceptualizing some of the latent factors. The independent variables are self -efficacy, learning style, and supervisor support. Self-efficacy and learning style represent perceived behavioral whereas supervisor's support represents subjective norms. These three key factors are predicted to have direct as well as indirect influences on training transfer. These above mentioned three key variables formed the foundation of the theory of planned behavior.

2- Social Learning Theory

Social learning theory postulated by Bandura, (2007) was conceptualized and used as "Social learning theory of learning style" to explain behavioral intention, supervisors support and learning style in Saudi Arabia in the present study. The development of the social learning theory can be traced from Vygotsky's (1962) social learning theory that emphasized on the importance of knowledge sharing and social capital gained. Eun (2008) concluded that Vygotsky's theory depicted a "sociocultural theory of development by stating that individual mental functions arise from specific social interactions and retains a social character in the most private spheres of human self-consciousness" (p. 135). Vygotsky's (1962) theory maintained that acquiring knowledge and skills requires social interaction with a targeted purpose often controlled by the user's behavioral intention. This implies that the social interaction provided by supervisor support could

aid in transmitting and impacting knowledge to the student. The social nature of learning lends itself to being used as an "enabler" for learning style in Saudi Arabia.

Based on Vygotsky's (1962) social learning theory impact on training effectiveness in a virtual learning environment, Swanson and Holton (2005) reported that supervisor support revealed that students socially interact during learning (p. 14). It then implies that the interaction afforded by learning environment could be used to enhance learning style in Saudi Arabia. Vygotsky's learning theory states that individuals interacting with other constituted a key component in the development of knowledge sharing and information dissemination. Hew (2011) found that students spend enormous time daily to improve in their knowledge. The worry as discussed by Madge, Meek, Wellens and Hooley (2009) is that students may not use learning opportunities effectively without adequate supervisor support. Referring to Vygotsky's (1962) social learning theory, training transfer facilitates knowledge sharing that bridge the theoretical gap between using learning tools and implementing processes. Thorough examination of knowledge sharing in the form of training transfer is needed in order to adequately explain training effectiveness especially in the educational sector in KSA.

The bridge between Vygotsky's social learning theory and learning style was postulated by Bandura's (1986) and relies on an economic exchange theory which posited that training transfer takes place after there is a greater benefit to users in sharing the knowledge (Hsu *et al*., 2009). Therefore, learning style can be affected by the behavioral intention of managerial staff /supervisor because, it allows for further sharing of knowledge and transfer effectiveness of experiences that are meaningful to enhance

learning style. Swanson and Holton (2005) pointed that learning is social in nature. Vygotsky (1962) maintained that all learning and knowledge transfer processes are social in nature. In a 1962 translated work, Vygotsky stated that higher mental function can be external and social. This form of the social learning theory is applicable to training effectiveness because it can serve as a social engagement platform to improve learning style, especially in the KSA educational sector, where government has been pumping enormous fund to properly equip managerial staff for future task. The openness of supervisors to support managerial staff learning style, however; fulfills an open social aspect of Vygotsky's social learning theory.

Bandura's (1986) social learning theory was built upon Vygotsky's (1962) theory. Bandura believed that learning is accomplished through social modeling and noted learning would be tedious if learners should rely on their own effort in acquiring knowledge. Bandura's theory depicted that social learning requires:

1. Paying proper attention to learning.
2. Maintaining learning behavior.
3. Demonstration of the learning behavior.
4. Motivation for a successful learning.

Completing all the four steps leads to successful learning. Social learning theory by Bandura centered on psychology and the modification of behavior. Learning behaviors and social learning as described by Bandura applies to the training effectiveness via development of learning style through training transfer. Training transfer in this way reveals the behavioral intention of learners and provides necessary feedback that

encourages the reproduction of behavior which is important for supervisor's support as noted in Bandura's theory and was explained as behavioral changes. Fox and Riconscente (2008) asserted that Vygotsky's theory centered on language-based interactions as the medium by which behavioral intention is controlled. The focus on language and its importance, for knowledge sharing makes social learning theory suitable for this study.

The ability to think deeply and apply a more complex thought pattern to their studies is important in improving learning style. Baxter and King (2004) noted that ways of knowledge enhancement are socially constructed through natural inquiry and represents reasoning patterns.

The Social Learning Theory propounded by Bandura took for granted that people learn by interacting with others through observation, imitation and modelling. This theory provides a connection between theories of behaviorist and cognitive learning. The social learning theory depicted that an individual learns and are simulated by the society.

Bandura (2007) stated that Social Learning Theory is valuable in demonstrating on how individuals learn new things by observing others. People learn through observing others' behavior, attitudes, and outcomes of those behaviors. The behavior of the people is learned from observing other people (Bandura, 2007). This theory explains the behavior of the human beings and the interaction between cognitive, behavioral, and environmental influences and can be further used to provide a broader view on training effectiveness. Observational learning helps children to learn behaviors by watching others behavior and then imitating them. Therefore, social learning theory highlighted on the learning that takes place within a social context and can be used to enhance learning

style**.** Modelling Process as used by Bandura depicts all observed behaviors necessary for behavioral changes. Figure 3.3 is a diagrammatic representation of the social learning theory of "learning style", showing the variables that explain its attributes in the present study.

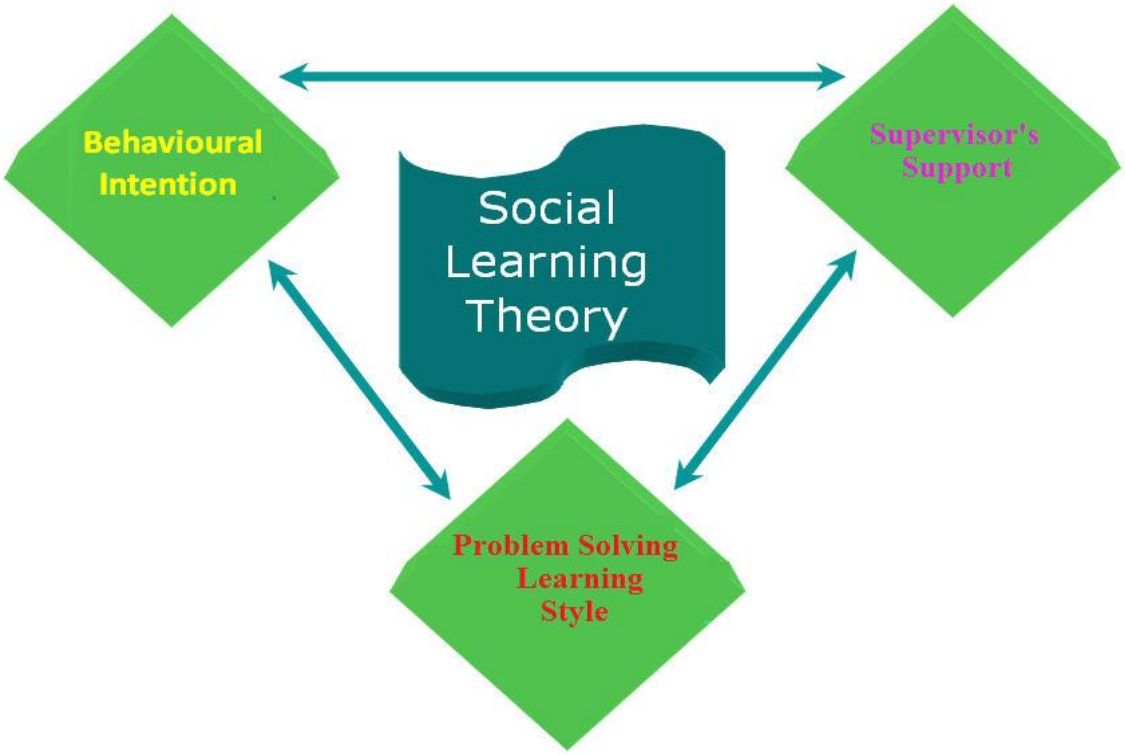

Figure 3.3
Social learning theory of "learning style" adopted from Bandura, (2007)

3.3 Hypotheses Development

Along the same lines, to make sure that training is effective, trainee's attitudes, interests, values and expectations should be kept in mind. Noe (1986) presented this model regarding motivational influences upon training effectiveness to examine the moderate relationship between learning and behavioral change. He stressed that trainee's attitudes, interests, values and expectations may impact training effectiveness.

Additionally, Holton (1996) extended Noe's model of training effectiveness and referred to it as HRD evaluation research and measurement model. This model conceptualizes a holistic approach to estimating if the training programs are effective. It primarily relates to the skill learned by trainees with individual performance and application in the workplace setting. As such, while supervisors motivate and support employees in their training transfer, the former may be lenient and are more favorable towards their 'in-group' at the expense of other groups. Prior research revealed that individuals tend to relate positive attributes with people of the same age or education quite easily than out-of-group members, and to relate negative attributes with quite easily with those out-of-group individuals.

On the basis of the above discussion, screening effects differ between in-group and out-group individuals while positive screening effects are reinforced in the context of in-group members, potential discrimination may arise in the context of out-group members (Baron, 2001). However, for the accomplishment of training effectiveness and superior organizational performance, supervisor support is necessary. Organizations and employees can reach their goals if training effectively transferred to the workplace setting (Bhatti & Kaur, 2010). It is therefore hypothesized that;

H_1: Intention to Transfer Training directly influences Training Effectiveness.

H_2: Learning Style directly influences Intention to Transfer Training.

H_4: Self-Efficacy directly influences Intention to Transfer Training.

H_6: Supervisor Support directly influences Intention to Transfer Training.

Personal experiences prior to training affect the outcomes through their influence on training effectiveness (Smith-Jentsch *et al*., 1996). Learning Styles was found significantly influencing training effectiveness (Gambetta, 1987; Baron, 2001). Previous experience builds strong confidence to use learning strategies in training programs (Bandura, 2009). Learning Styles resist on levels of education/or skill in training effectiveness. Based on the above arguments, this study hypothesized that:

H_3. Learning Style directly influences training effectiveness.

Studies concerning employees' training transfer through self-efficacy found a strong link to the training effectiveness (Gist et al., 1991; Quionones, 1995). Meanwhile, Chiaburu and Marinova (2005); Gaudine and Saks (2004); Ford et al. (1998); Kirwan and Birchall (2006) contended that self-efficacy facilitates worker's training transfer, following the completion of training, to the working environment, with the trainee's transfer intention having a key role in this relationship (Velada et al., 2007). Along with self-efficacy, the experiences produced by behavior intention of employees are partial determinants of what a person becomes and what he/she can do and thus, subsequently affecting his/her behavior (Davis & Luthans, 1980). This behavior may later add to the learning style which may eventually impact training transfer. Through the discussion on self-efficacy and training in literature, the following hypothesis is postulated;

H_5: Self-efficacy directly influences training effectiveness.

Tennnant *et al*. (2002) stated that immediate superior support provided to employee following the completion of training significantly impacts training

effectiveness. This contention is supported by Ling (2007) who claimed that immediate superior's feedback and support help trainees to gather and employ the skills learned in training. Other researchers like Davis and Davis (1997), Karuppaiya (1996), also stated that cooperation and assistance from immediate supervisor will improve transfer and effectiveness of training. Support from supervisor towards training directly impacts pre-training motivation (Facteau *et al*., 1995; Mathieu *et al*., 1992; Tannenbaum *et al*., 1994). The following hypothesis are drawn from the above discussion;

H_7: Supervisors' support for employees' direct influences training effectiveness.

3.3.1 The Mediating Effect of Intention to Transfer Training

The mediating variable is the variable that mediates the effect of an independent variable to its dependent variable. If the direct effect from variable Such as learning style, self-efficacy and supervisor support to variable Y, such as, training effectiveness does not exist, instead the effect of existing indirectly variable through another variable M, such as intention to transfer training then in this case M is a mediating variable (Hair, Black, Babin and Anderson 2010).

According to a study by Hawley and Barnard (2005), most previous research on training transfer examined various contextual factors such as influence on employee learning effectiveness. Previous studies, however; is in the same direction tends to enhance the performance of employees by looking into developmental training options to equip employees with adequate knowledge to effectively function in their respective working environment. Confining to the context of the present study, training transfer can

be used to explain the process of using knowledge and skill acquired through training to improve job performance (Bates & Khasawneh, 2005). In explaining the relationship of the research variables, studies have shown that relationship existed between intention to transfer training (Chokri & Talal, 2013; Brown, 2002) learning style (Rossi *et al*., 2010; Rossi, 2009) and self-efficacy (Sherer & Maddux (1982) influence training effectiveness. Therefore the underlying hypothesized statements of the present study are as follows;

H_8: Intention to transfer the training mediates the relationship between the supervisor support and training effectiveness.

H_9: Intention to transfer the training mediates the relationship between the learning style and training effectiveness.

H_{10}: Intention to transfer the training mediates the relationship between the Self-efficacy and training effectiveness.

3.4 Conclusion

This chapter presented and discuses the theoretical framework underpinning this study and the hypothesis generated from the research objectives and research questions respectively. And shows how the theory of planned behavior (TBP) and social learning theory (SLT) related to the presented study in order to present contribution of the study to the existing literatures and conclusive findings.

CHAPTER FOUR

METHODOLOGY AND RESEARCH DESIGN

4.1 Introduction

The present chapter supplies an overview of the research methodology utilized in the study. Moreover, it presents a description of the operational definitions and the procedures conducted in detail. The survey questionnaire research design is developed to evaluate training effectiveness and its influencing factors as discussed in the previous chapters. In addition to this, the chapter explains the study population, appropriate sampling and the sampling technique employed. It also discusses the relevant data information instrument and finally, the data analysis method and the statistical techniques that were utilized are explained.

4.2 Research Design

Survey research can generally be termed as way to collect data by asking questions and noting down people's opinion (Whitley, 1996). The term survey is attributed to a research method where data is gathered by asking questions to obtain responses from a specific group of people called respondents (Ary *et al*., 2002). Survey research is normative research and with controlled errors, it is possible to generalize results to a target population (Miller and Deutsch, 2003).

The present study adopted a quantitative research design approach based on a survey questionnaire in examining the influence of learning style, supervisor's support

and self-efficacy on training effectiveness and the mediating effect of intention to transfer training in relation with learning style, supervisor's support and self-efficacy on training effectiveness. The units of analysis selected are the upper cadre managerial staff in Public Universities in Saudi Arabia. The aims of the research are twofold in terms of measuring training effectiveness. First, to identify the importance of conceptual and decision making training and its effect upon employee's transfer and second, to study the direct effect of self-efficacy, supervisor's support and learning style on intention to transfer training and training effectiveness and the indirect effect of self-efficacy, supervisor's support and learning style on training effectiveness through intention to transfer training. The present section presents a detailed explanation of the study design, research instruments and hypotheses, sample criteria, research population, and data collection procedures. In addition, multiple regression analysis is used for data analysis.

4.2.1 Nature of the Study

Quantitative research design, in nature, can be divided into predictive and explanatory. The former designs aim at identifying variables for the prediction of a specific outcome, describing and forecasting a trend or phenomenon, discovering whether or not there is a tendency to certain responses among individuals. On the other hand, the latter design aims at identifying a predictor variable to expect the outcome of cause-and-effect as the criterion variable (Creswell, 2005). The quantitative survey questions in the current study are predictive in nature, but the predictive use in the study takes more of an explanatory and non-experimental form of quantitative research (Johnson & Christensen, 2004). This study makes use of descriptive analysis followed by regression analysis to determine and

describe the workers' characteristics towards transferring of soft skills acquired during training to find the effectiveness of training on the actual job. Numerical indices like averages, percentages, and spread measures can be calculated, and variables summarized and examined one by one of the inferential statistics (PLS).

4.2.2 Population and Sample

The study population comprises of a higher cadre of managerial staff (Dean, Deputy-Dean, Head of Department, Deputy- Head of Department, Director and Deputy-Director). Six universities are included in this study, they are; University of Ummul Al-Qura in Mecca, Islamic University of Madinah, King Saud University in Riyadh, University of Al-Jouf in Al-Jouf, University of Najran in Najran, and University of Dammam in Dammam. Information provided by these people from various institutions will improve training transfer in Saudi Arabia because real information on the decision and implementation of administration policies will be obtained and will be used for improved management services especially in the area training transfer.

Table 4.1 and Table 4.2 show the total population distribution of the respondent in the selected universities (according to qualification and occupation). These universities were chosen purposefully, because they have been consistent in providing training for their managerial staff. The role of managerial staff in the university is very critical as they are the decision makers at different university units. Their decisions can make or break the achievement of the goals of faculties, departments or centers. As such, the Saudi government has invested huge amount of money on providing the training on conceptual skills, particularly problem-solving and decision making yet, little impact of

these investments on the overall performance of the institutions (Al-Otaibi, 2008). So, the need to conduct a study on this set of individual become imminent.

4.2.3 Sample Size

Researchers have proposed the least number of subjects required for different types of research. Fraenkel and Wallen (2008) explain for descriptive studies, a sample should be at least 100 and for correlational studies, it should be 50 in order to establish the existence of a relationship. Similarly, Pallant (2005) recommended a minimum of 15 respondents per variable in a study where regression analysis is utilized as an analytical tool.

Rea and Parker (1992), on the other hand, recommended sample sizes of 382 and 383 as necessary in representing populations numbering 50,000-100,000 respectively. For populations of 100,000 people, 1,058 respondents are required for 3% accuracy and 383 respondents are required for a 5% accurate at alpha = 0.05. According to Creswell (2005), the larger the sample size, the higher will be the confidence level, the smaller will be the error variance, the better will be representation of results, the more homogenous will be the sample, and the richer will be the information. Krecjie and Morgan (1970) describe, for a population of 6,327 as in the present study, a sample size of 364 is adequate. According to the table, a sample size of 361-364 should be obtained from a population ranging from 6000-7000 and as the population of the study is 6327, the researcher selected 364 as the sample size.

Several factors concerning the universities make them suitable for the present research; according to Al-Qahtani (2011) the factors include the geographic distributions, availability of a large number of high ranking managerial staff and their diversities. An appropriate sample size is thus selected from these universities. The breakdown of the population of the six selected universities from which a total of 364 samples is selected based on Krecjie and Morgan (1970) sample size (see Appendix, 3).

Table 4.1
Population Distribution of the Respondent in selected Universities (According to Qualification)

NO	Public Universities	Doctorate	Master	High Diploma	Bachelor	Population	Percentateg from total population	Sample
1	Umm Al Qura University	3	40	9	384	436	6.9%	25
2	Islamic University	23	28	8	251	310	4.9%	18
3	King Saud University	123	224	49	2070	2466	38.9%	142
4	Al Jouf University	1	8	0	192	201	3.3%	12
5	Najran University	4	7	0	158	169	2.7%	10
6	University of Dammam	510	86	9	2140	2745	43.3%	157
	Total	664	393	75	5195	6327	---	364

Source: Ministry of Higher Education of Saudi Arabia (2013)

Table 4.2

Population Distribution of the Respondent in selected Universities (According to Occupation)

NO	Public Universities	Gender	Dean	Deputy Dean	Head of Department	Deputy Head of Department	Director	Deputy Director	Staff	Total	Percentateg from total population	Sample
1	Umm AlQura University	Male	22	25	30	26	50	29	109	436	6.9%	25
		Female	7	16	22	20	6	2	72			
2	Islamic University	Male	19	20	18	17	36	17	78	310	4.9%	18
		Female	4	9	16	12	4	1	59			
3	King Saud University	Male	90	114	131	114	208	195	936	2466	38.9%	142
		Female	13	31	56	51	11	3	513			
4	Al Jouf University	Male	17	10	13	12	20	15	67	201	3.3%	12
		Female	0	9	8	6	0	0	24			
5	Najran University	Male	16	9	9	7	20	12	35	169	2.7%	10
		female	1	8	11	7	1	0	33			
6	University of Dammam	Male	86	110	118	123	187	187	1062	2745	43.3%	157
		female	12	44	74	66	7	2	667			
	Total	**Male**	**250**	**288**	**319**	**299**	**521**	**455**	**2287**	**6327**	**---**	**364**
		female	**37**	**117**	**188**	**162**	**29**	**8**	**1368**			

Source: Ministry of Higher Education of Saudi Arabia (2013)

4.3 Sampling Procedures

The present study employed a purposive sample method to select the sample because of the difficulties faced in using random sampling method. Employees who participated in soft skill training or those who were sponsored to attend by the universities are selected as respondents to the questionnaire. Additionally, the participants responding to the questionnaire are requested to reply to questions concerning soft skill acquisition, supervisor support, self-efficacy and learning style, ability to transfer training and applying training on the job effectively.

According to some researchers (Sekaran, 2003; Bryman, 2004; & Alomar, 2004), purposive samples are produced when the sample selection is conducted by the researcher through his/her own judgment. The selected samples are made based on their easy access

or their importance. Moreover, the study sample is selected from the trainees returning back to their work stations following their completion of soft-skills training in the past.

4.4 Measurement and Instrumentation

The questionnaire contains two sections. The first section included demographic information regarding qualification, age, gender, experience, position, university specification and basic management course. The second section included items on training effectiveness, training transfer intentions, learning style, self-efficacy and supervisors' support. All variables were measured using 5-point Likert-type scale of "strongly disagree=1", "disagree=2", "neutral=3", "agree=4" and "strongly agree=5".

Actually, Likert scale measure has been one of the most commonly used scales to examine the behaviors or performance, (Al-Marri et al., 2007). Thus, multiple-item Likert scale was considered to be an appropriate interval scale to measure the behavior of variables included in this study. Specifically, to achieve the objectives of this study, a five-point Likert scale ranging from “1” (strongly disagree) to “5” (strongly agree) for satisfaction.

Similarly, the scale ranging from“1” (far below the average) to “5” (far above the average) used to measure the behavior of variables. The choice of a five-point Likert scale was supported, according to Al-Marri et al. (2007), by the fact that it is commonly used in the previous studies. Additionally, Likert scale is easy for respondents to answer and report their perceptions regarding attitudes, behaviors and assessments.

Regarding to the measurements of this study all the measurements adapted from the relevant previous studies. In case of Training effectiveness the measurements was derived from the relevant studies in the literature. However, the deployed measures used in this study were adapted from the measures used by Machin and Fogarty (2003). In addition, Supervisor's support measurements used in this study was adapted from the measures used by Holton, Bates, & Ruona (2000). Moreover, learning style measurements derived from the relevant studies. However, the deployed measure used for this variable was adapted from the measures used by Honey and Mumford (1982). Furthermore, Intention to transfer training measurements adapted from the relevant studies used by Machin and Fogarty (2003). Finally, Self-efficacy measurements were derived from the measures used by Sherer and Maddux (1982). Both the independent and dependent variables considered in this study are listed in Table 4.3 and their sources from which they adapted.

Table 4.3
Measures Used in the Study

Variable	Source of the scale	Conceptual Definition of Variables	Sample Item
Training effectiveness	Machin and Fogarty (2003)	The effecting and continuing application by trainees to their jobs the knowledge and skills gained in training, both on the job and off the job.	I grade myself how successfully I can apply the skills that I have learned.
Supervisor's support	Holton, Bates, & Ruona (2000).	The supervisor's attitude towards the employees which indirectly means norms existing in the work environment.	My supervisor meets with me to guide to apply training on the job.
learning style	Honey and Mumford (1982)	learning style is conceived as the approach of managerial staff of acquiring and processing information to achieve the goal of the university..	I prefer to adopt step by step approach for problem solving
Intention to transfer training	Machin and Fogarty (2003)	Transfer of training is the effect that knowledge acquired in a specific area of skills and conveys it to the work settings.	I am perfect to keep use of my trained skills on the job.
Self-efficacy	Sherer and Maddux (1982)	Self-efficacy is performance of specific skills and stresses on the individual's belief about his or her performance ability.	When I plan, I am sure I can make them work.

4.5 Data Collection and Analysis

Data collection and analysis is based on the objectives of the study. The managerial staffs (Dean, Deputy-Dean, Head of Department, Deputy- Head of Department, Director and Deputy- Director) were presented with the questionnaire (Appendix 1) together with an

enclosing letter describing the study and soliciting voluntary participation. The participants were asked to return the survey questionnaires in two weeks' time through a pre-addressed envelope enclosed in the research packet. Every envelope is labeled to help in the follow-up of non-returned surveys and every returned survey coded for the purpose of identification and record. The code number is only accessible to the researcher. Once the surveys are received back, the names of the respondents are erased from the list and the envelopes are destroyed. Moreover, for those subjects who do not return the survey questionnaires, follow-up procedures are conducted where the researcher revisit the universities to remind the return of the questionnaires within a given period of time.

Regarding the language of the questionnaire, the original version of the questionnaire was in English. Since the target respondents of this study was the managerial staffs in Saudi Arabia, to go through this target the questionnaire was translated to the Arabic language. This was done following the recommendations of Brislin (1970, 1986). In order to do that, the questionnaire was doubled to measure its validity and reliability. More accurately, the questionnaire has been translated into Arabic by two bilinguals. Lastly, the two English versions of the questionnaires were carefully compared to detect variation and modifications made accordingly to ensure the conceptual equivalence of both the original English versions.

4.6 Pilot Study

Following the generation of questions related to every important construct, it becomes necessary to conduct a pilot study. David stated that questionnaire items are the interaction basis between the respondents and the researcher while Yates (2004) claimed

that the pilot phase allows the questionnaire's refining and readying for the survey feasibility and the provision of valuable experiences that direct other study aspects. Similarly, Maxwell (1996) explained that pilot study serves the same functions as prior research, but is more focused on the researcher's direct concerns.

The pilot study is advantageous in many ways; it reduces errors in and misunderstanding in the questions, it conserves time and increases researcher's confidence in the instrument, it enables the researcher to evaluate the researcher instruments, and it assists proving the concept and determining problems. It is more advantageous than distributing the questionnaire whereby inefficient preparation exists. Teijlingen and Hundley (2001) added that the pilot study may provide an advanced warning concerning the failure of the project research, the failure of following the research protocols and the inappropriateness and complication of the proposed methods or instruments.

According to Teijlingen and Hundley (2001) pilot study is done for the following reasons;

To develop and test the adequacy of research instruments;

To assess whether or not the research protocol is realistic and workable;

To establish the effectiveness or lack thereof of the sampling frame and technique;

To identify logistical issues which may appear through the use of the proposed methods and;

To estimate the variability in the data that helps to determine the sample size.

The survey questionnaire is therefore was piloted with the help of senior administrators in one of the sample universities. To carry out the pilot study the initial questionnaire should go through several stages of revisions to make it clear and to correct any mistakes. In addition to that, it is a critical step to carry out the pilot test by using data that collected from the same pool to use for testing the validity and reliability of the measurements (Sproull, 2004). Regarding this study, four academic faculties from King Saud University in Saudi Arabia related to this research have been asked to revise the questionnaire. Furthermore, they were allowed to give their views on the questions and ask if the questions are easily understandable to decrease the possibility of misunderstanding. As a result, some of the questions were reformulated to eradicate the confusion as well as to make the quality of the data better. For the pilot study, 120 employees from four academic faculties of King Saud University in Saudi Arabia responded to the questionnaire. The reliability and validity test of the research instrument were carried out on the basis of gathering data.

4.7 Measuring the Validity and Reliability of the Measurements

4.7.1 Validity Analysis

The instrument validity of an instrument is what it is intended to measure. In order to enhance the potential for high validity, the instrument is established for literature review concerning training in soft, skill, training effectiveness, learning style, self-efficacy and supervisor's support. In fact, validity and reliability are considered as the two important

ways to assess social science measures. Validity, according to Dooley (1984) is more important as when a measure has high validity, it should also have high reliability.

With low validity, it may be misleading despite its reliability. Validity has two types, namely the internal validity and external validity; the former refers to the level to which the study reflects or assess the particular concept being measured while the latter transfer to the level to which the study outcomes can be generalized. There are several types of internal validity including face validity, content validity, construct validity, predictive validity and concurrent validity. For the validation of study instrument, both face and content validity procedures are employed. In order to test face validity, the questionnaire was given to four employees in King Saud from Business Administration Department.

To test content validity, four experts comprising of supervisory committee were given the questionnaire to go over the items and statements in the questionnaire against every dimension of the instrument. The literature of research methodology, particularly in the behavioral science, revealed that content and construct validity are the most commonly used validity measures (Leary, 2004; Nunnally & Bernstein, 1994).

To measure the construct validity, factor analysis has been performed using the principle component method and Varimax rotation. By using factor analysis, the items explaining the same construct could be identified. In the Pilot study the sample size was small (n=120), the factor analysis on each construct was examined separately.

The first step was to check the applicability and appropriateness of factorability of factor analysis through checking the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of sphericity. According to Kaiser (1974), the KMO is the index used to compare the magnitude of the observed correlation coefficient to that of the partial correlation coefficient. The smaller the sum of the partial correlation between all pairs of variables, the closer will be KMO to one (1.0) and hence the more appropriate factor analysis will be. Moreover, Kaiser (1974) described the KMO measure based on their closeness to one as Marvelous if it is around 0.90; Meritorious if it is around 0.80; Middling if it is around 0.70; Mediocre if it is around 0.60; Miserable if it is around 0.50; and unacceptable if it is below 0.50. The pilot study results showed that, as presented in Table 4.4, the KMO measure ranged between 0.784 to 0.902 of KMO and hence the appropriateness of factor analysis.

Table 4.4
Factor Analysis of the Final Instrument (Pilot Study)

Construct	Items	Factor Loadings	KMO	Bartlet's Test Significance	Eigen Value	Variance Explained %
Training Effectiveness	TE2	0.846	0.775	0.000	3.491	58%
	TE3	0.798				
	TE5	0.781				
	TE1	0.771				
	TE6	0.728				
	TE4	0.637				
Supervisor's Support	SS4	0.892	0.875	0.000	3.535	71%
	SS3	0.876				
	SS2	0.866				
	SS1	0.856				
	SS5	0.700				
Learning Style	LS2	0.862	0.902	0.000	4.710	59%
	LS7	0.804				
	LS3	0.791				
	LS6	0.788				
	LS5	0.771				
	LS8	0.738				
	LS4	0.710				
	LS1	0.656				
Intention to Transfer Training	ITT3	0.940	0.748	0.000	2.592	43%
	ITT4	0.829				
	ITT2	0.804				
	ITT5	0.648				
	ITT1	0.639				
	ITT6	0.531				
Self-Efficacy	SE2	0.890	0.856	0.000	3.506	70%
	SE3	0.881				
	SE4	0.825				
	SE1	0.825				
	SE5	0.760				

*Item are as ordered in the questionnaire set

As shown in Table 4.4 some items have been reported to have low factor loading, which is less than 0.7 namely (TE4, 0.637, LS1, 0.656, ITT5, 0.648, ITT1, 0.639, ITT3, 0.531). However, the factor loading for all other constructs have values greater than 0.7.

4.7.2 Reliability Analysis

Reliability is defined as the assessment of the level of stability between many of the measurements of a construct (Hair *et al*., 2010). Consequently, to evaluate the consistency of items used to measure a construct, the reliability analysis of the instrument was conducted. The reliability of the instrument means that the measure will generate the similar outcomes if used over and over again. Sekaran (2003) identified the four methods that were used generally by researchers to make sure their measuring instruments were reliable. These methods include: test- retest methods, alternative form methods, split half method and the most commonly used is Cronbach's alpha coefficient method. This study applied the test of Cronbach's alpha coefficient method to examine the reliability of instruments. Cronbach's alpha method to test for measure reliability is able to have its own strengths. Due to its practicality, the Cronbach's alpha method has been the prevailing reliability testing method used, particularly, from the famous researchers in social science.

The Cronbach's alpha method is used to evaluate the reliability of the measurements. The Cronbach's alpha coefficient signifies the stability of the items that used to measure the same construct. In other words, a high Cronbach's alpha coefficient refers to the items of the construct confirm high consistency and split high tendency to measure the meant construct. To determine the suitability and standard cut point of the

level of Cronbach's alpha coefficient, Nunnally (1978) recommended some minimum standards for Cronbach's alpha. Cortina (1993) optional standard for Cronbach's alphas more than 0.9 is excellent, 0.8-0.9 good, 0.7-0.8 Acceptable, 0.6-0.7 Questionable, 0.5-0.6 poor and less than 0.5 is unacceptable.

To check the reliability of the intended measures, this study performed the Cronbach's alpha analysis. The reliability analysis has been performed for each construct separately. However, to increase the reliability coefficient of a construct, some items have been suggested to be deleted by the system. To decide which the items for deletion are item-construct analysis can help to determine the ones with the least contribution to be removed.

Table 4.5
Reliability Analysis of Pilot Study

Constructs	**No. of Items**	**Initial Cronbach's Alpha**	**Items Deleted**	**Cronbach's Alpha**
Training Effectiveness	6	0.856	Nill	0.856
Supervisor's Support	5	0.892	Nill	0.892
Learning Style	8	0.898	Nill	0.898
Intention to Transfer Training	6	0.732	Nill	0.732
Self-Efficacy	5	0.889	Nill	0.889

*Number of items sequenced in the questionnaire

As presented in Table 4.5, it can be observed that the Cronbach's alpha coefficients for all the constructs under study were at the acceptable level of internal

consistency. Clearly, most of the tabulated values of the coefficient alpha exceeded the agreed upon lower level of alpha (that is 0.7) (Nunnally &Beinstein, 1994). Actually, it was argued by Hair *et al*., (2010) and Cortina, (1993) that 0.6 is the minimum acceptable level of Cronbach's alpha for any construct to possess an acceptable reliability. It can also be noticed that there were no items deleted to improve the internal consistency of the constructs. In general, all the items included in the study have proven to show a good level of internal consistency when measuring their respective intended measures.

4.8 Data Analysis Procedures

This study attempted to examine the influence of learning style, self-efficacy, and supervisor support on the intention to transfer training and the training effectiveness in the context of Saudi higher education institutions. In examining the hypothesized model the partial least squares structural equations modeling PLS SEM approach was followed. In doing so, two steps were followed. First the validity and reliability of the instrument were checked. Second, the hypothesized relationships were examined and reported.

4.9 Structural Equation Modeling (SEM) (PLS Path Modeling)

The statistical software partial least squares structural equation modeling (PLS-SEM) approach latest version employed to ensure the correlation between the Training Effectiveness and Intention to Transfer Training with the independent variables, Intention to Transfer Training, Learning Style, Self-Efficacy, also to examined the mediation effect of Intention to Transfer Training on the relationship between Learning Style, Self-Efficacy, Supervisor's Support and Training Effectiveness . By comprehensive manner, both simple and advanced statistical tools and method were used and appropriate for

analyzing the relationship among the variables and the model. According to Hair *et al*., (2010), partial least squares (PLS) have become a popular technique as an alternative to SEM technique such as LISREL, AMOS and other programs.

4.10 Chapter Summary

The present chapter presents a sketch of the research methods and the methods used for data collection. It provides a description of the study samples and the statistical analyses utilized for data analysis. The study strength lies in the fact that it sheds light on the training programs' effectiveness in the public sector and in addition to this it identifies factors that can improve training transfer among Saudi public universities managerial staff.

CHAPTER FIVE

DATA ANALYSIS AND RESULTS

5.1 Introduction

This chapter focuses on the analysis of output based on research objectives in Chapter One and presents the empirical results to test the research hypotheses developed in Chapter Two. It consists of sixteen main sections. Following the introduction, the response rate and non-response bias assessment were explained in section two and section three. The fourth section reported the data screening outputs. Here, procedures used to purify the data such as missing data treatment. The next section provides a summary of the respondents' distribution according to the demographic variables. The study describes the main dimensions of this study using the descriptive statistics in section six.

Section seven focused on the justification of choosing the Partial Least Squares (PLS-SEM) approach. The Partial Least Squares-SEM path modeling was presented in section eight. Section nine reported the results of the two-step process in conducting the PLS-SEM, whilst section ten explained examination of outer measurement model as a prerequisite for the examination of inner structural model assessment and hypotheses testing. Specifically, this study established the goodness of the outer model related to the constructs of this study namely Learning Style (LS), Self-Efficacy (SE), Supervisor's Support (SS), Training Effectiveness (TE) and Intention to Transfer Training (ITT). Following section ten is the assessment of first order and second order constructs.

Having done this, the process was to examine the quality of the structural model once the construct validity was established. The goodness of fit on the overall model assessment was performed in section thirteen. Then, the structural model (inner model) and testing procedures, assessment were described in section fifteen. The results of mediating effect of the Intention to Transfer Training (ITT) were performed in section fourteen. Finally, a short chapter summary concludes this chapter and results of hypothesis testing are summarized in section sixteen.

5.2 Response Rate

Hamilton (2009) reported that the response rate refers to the number of survey respondents divided into the number of respondents in the sample size. As briefed in previous chapter (Section 4.3), the data used in this study were collected from managerial staff from six public universities in KSA. Data collection was started on August 2013 and completed by November 2013. Moreover, Dilman (1978) argued that the effective administration of the survey significantly influences the level of satisfactory responses of the data generated. Therefore, this study employed the self-administered questionnaire to collect the data. Thus, the quantitative research approach was very much helpful in translating the information collected using the survey questionnaire or measurement instruments into significant results that were useful for the research development (Cooper & Schindler, 2006). As indicated earlier, the questionnaire of the study consisted of 30 questions (using 5-points Likert scale) and followed the self-administration approach by individuals in most of the cities where the public universities located to ensure a high response rate. Also this method enabled the respondents to clarify their doubts and

enabled the data collectors to refer back to the respondents to rectify all the missing data. Six public Universities in total participated in this study. Having respondents from all public universities was significant to assure that the sample has represented the population. The field survey was conducted through distributing the questionnaires to four hundred and seven (407) managerial staff officer in the participating universities. Of the 407 questionnaires distributed, 339 were returned. The total number of usable questionnaires was considered sufficient to conduct SEM analysis (Hair et al., 2010; Kline, 2011), which is used in this study. Thus, 339 which represent 83 percent of the number of distributed questionnaires were taken for further analysis in this study. Table 5.1 illustrates the distribution and a response rate of respondents by each university..

Table 5.1
Respondent by Each University

Type of University	Distributed	Returned usable	Percent (100%)
University of Umm Al-Qura in Mecca.	35	26	74%
Islamic University of Madinah	13	12	92%
King Saud University in Riyadh	159	132	83%
University of Najran in Najran	11	10	91%
University of Al-Jouf in Al-Jouf	12	11	92%
University of Dammam in Dammam	177	148	84%
Total	**407**	**339**	**83%**

5.3 Non-Response Bias Assessment

The non-response bias pertains to the prejudice that occurs when respondents' responses to the survey are different from those who did not respond due to diverse demographic

factors such as gender, age, educational level (Sax, Gilmartin & Bryant, 2003). The non-response bias conducted to ensure the similarity on some of the main criteria among the participants and the total population. Consequently, the respondents who respond late had similar criteria to non-respondents (Armstrong & Overton, 1982). As proposed by Armstrong and Overton (1982), the responding basic data were separated into two periods of time; early response (returns received within two weeks after distribution), and late response (those returns received after two weeks of distribution).

In this study, (32) respondents were classified as late response. The late respondents' response was compared to the responses of the early response (307) on all dimensions of the variables under study, namely Learning Style (LS) , Self-Efficacy (SE),Supervisor Support (SS), Training Effectiveness (TE) and Intention to Transfere Training (ITT). As suggested by Pallant, this study employed the independent sample t-test analysis to test whether a non-response bias exists between the early and late response. Table 5.2 and Table 5.3 provide the results of the independent sample t-test.

Table 5.2
Group Statistics of Independent Sample t-test (n=339)

Construct	Early/Late responses	N	Mean	Std. Deviation	Std. Error
Training Effectiveness	Early Responses	307	3.357	0.578	0.033
	Late Responses	32	3.339	0.447	0.079
Supervisor's Support	Early Responses	307	3.754	0.972	0.055
	Late Responses	32	3.213	0.579	0.102
Learning Style	Early Responses	307	3.297	0.906	0.052
	Late Responses	32	2.523	0.488	0.086
Intention to Transfer Training	Early Responses	307	3.702	0.793	0.045
	Late Responses	32	3.620	0.605	0.107
Self-Efficacy	Early Responses	307	3.539	1.057	0.060
	Late Responses	32	2.431	0.686	0.121

Table 5.2 signifies that there were only small differences of the mean score between the two groups (early and late response) of each dimension. Therefore, it can be indicated that the respondents from these two groups were equally similar in terms of their perception on the variables under investigation.

Table 5.3
Independent Sample t-test Results for Non-Response Bias (n=339)

Construct	Early/Late responses	Levene's Test of Equality of Variances		Test of Equality of the Means		
		F Value	Sig	T Value	DF	Sig
Training Effectiveness	Early Responses	1.420	0.234	0.172	337	0.863
	Late Responses			0.212	43	0.833
Supervisor's Support	Early Responses	11.865	0.001	3.094	337	0.002
	Late Responses			4.654	51	0.000
Learning Style	Early Responses	35.434	0.002	4.755	337	0.001
	Late Responses			7.691	57	0.000
Intention to Transfer Training	Early Responses	3.011	0.084	0.569	337	0.570
	Late Responses			0.708	43	0.483
Self-Efficacy	Early Responses	19.909	0.003	5.796	337	0.004
	Late Responses			8.181	48	0.004

To examine the non-response bias two steps were followed. First, the equality of the variances across the early and late groups was examined using Levene's test. The results in Table 5.3 presents that the equality of the across the two groups cannot be rejected at the 0.001 level of significance. Having confirmed the equality of the variances across the two groups using the Levene's test, T test was used to observe the equality of the means. The results in Table 5.3 indicated that the early and late respondents were found to have an equal perception with regards to the five constructs in the model (Armstrong & Overton, 1977).

5.4 Profile of Respondents

Profile of respondents is important information to provide explanations of the research findings. This section consists the respondent's profile of qualification, age, gender, working experience, job title and course. Referring to Table 5.4, more than half (54.9%) of the respondents were male. In terms of academic qualification, the majority (75.8%) had PhDs. Respondents varied greatly in their age, working experience and job title. More than half (53.1%) of the respondents aged between 40-49 years, and had working experience 6-10 years (32.7%), 1-5 years (28.3%), 11-15 years, 16-20 years and more than 20 years made up the rest. The job title covers the range of managerial areas typically represented in public universities. The majority of respondents were the Dean (29.5%), followed by Deputy Dean (28.3%), Deputy head of the Department, Director Deputy Director and Head of Department made up the rest.

The basic management course/s attended upon appointed to the current job position range from leadership, strategic planning, decision making, problem solving, effective communication, interpersonal skills, critical thinking, change management, TQM, and crisis management course.

The detailed profile of respondents is demonstrated in Table 5.4.

Table 5.4
Profile of Respondents

Respondent's Profile	Category	Frequency	Percent (100%)
Qualification			
	Bachelor's degree	21	6.2
	Higher Diploma	23	6.8
	Master's degree	38	11.2
	PhD	257	75.8
Total		339	100
Age			
	20-29 years	9	2.7
	30-39 years	74	21.8
	40-49 years	180	53.1
	50-59 years	76	22.4
Total		339	100
Gender			
	Male	186	54.9
	Female	153	45.1
Total		339	100
Working Experience			
	1-5 years	96	28.3
	6-10 years	111	32.7
	11-15 years	62	18.3
	16-20 years	53	15.6
	more than 20 years	15	4.4
		2	0.6
Total		339	100

Table 5.4 (Continued)

Respondent's Profile	Category	Frequency	Percent (100%)
Job Title			
	Dean	100	29.5
	Deputy Dean	96	28.3
	Head of Department	28	8.3
	Deputy Head of Department	45	13.3
	Director	36	10.6
	Deputy Director	34	10
Total		339	100
University			
	University of Umm Al-Qura in Mecca.	26	7.7
	Islamic University of Madinah	12	3.5
	King Saud University in Riyadh	132	38.9
	University of Najran in Najran	10	2.9
	University of Al-Jouf in Al-Jouf	11	3.2
	University of Dammam in Dammam	148	43.7
Total		339	100
Courses			
	Leadership	87	25.7
	Strategic planning	59	17.4
	Decision making	61	18
	Problem solving	48	14.2
	Effective Communication	8	2.4
	Interpersonal skills	3	0.9
	Critical Thinking	19	5.6
	Change management	17	5
	Total Quality Management	23	6.8
	Crisis Management	14	4.1
Total		339	100

5.5 Descriptive Analysis

Sekaran (2010) maintained that the descriptive statistics of the dimensions through mean, standard deviation, and variance can give the researcher a detailed idea of how the respondents in the study have responded to the questions in the questionnaire. Consequently, a descriptive analysis was conducted to describe and summarize the main characteristics of a data set from the respondents' perspective on every variable namely Learning Style (LS), Self-Efficacy (SE), Supervisor's Support (SS), Training Effectiveness (TE) and Intention to Transfer Training (ITT).

Table 5.5 shows the findings of descriptive statistics of the variables. All variables have the mean above the average ranged from 3.224 to 3.703 and the standard deviation ranged from 0.566 to 1.077. The minimum and maximum responses on the variables are also presented in Table 5.5. As a result, it was found that on the basis of respondents' opinions the namely Learning Style (LS), Self-Efficacy (SE),Supervisor Support (SS), Training Effectiveness (TE) and Intention to Transfer Training (ITT) are above the acceptance level of implementation. In other words, all dimensions are above satisfactory level.

Table 5.5
Descriptive Statistics of the Dimensions

Construct	N	Minimum	Maximum	Mean	Std. Deviation
Training Effectiveness	339	1	5	3.355	0.566
Supervisor's Support	339	1	5	3.703	0.955
Learning Style	339	1	5	3.224	0.904
Intention to Transfer Training	339	1	5	3.694	0.776
Self-Efficacy	339	1	5	3.434	1.077

**Five-points scale: 1=strongly disagree; 5=strongly agree*

5.6 Justification of Applying Partial Least Squares- SEM

As discussed in Chapter Four, Section 4.9, structural equation modeling (SEM) is used to test the hypothesis statement formulated from the theoretical framework of this study. SEM analysis is considered appropriate because it provides the ability to perform path described as a second generation multivariate technique (Fornell, 1987). The SEM provides more flexibility for the interplay of approaches and usually implemented using covariance-based, based on AMOS software and variance-based Partial Least Squares, as applies to the present work. Alternatively, the appropriate approach depends on the research objectives and also the nature of the data.

Analysis of the data in this study started with AMOS as a covariance-based SEM approach and tries to find the population parameters by determining the covariance matrix that closely matches the actual covariance matrix represented by the data (Hair *et al*., 2010). It requires a sample size of large enough (Hair *et al*., 2010), and multivariate normally data distributed as a maximum likelihood estimation method on which the

AMOS analysis is built (Byrne, 2010). The maximum likelihood estimator is considered relatively robust to violate normality (Bollen, 1989; Diamantopolous, 2000).

At the first step of multivariate analysis, AMOS software version 18.0 was used to operate the data in order to examine the univariate and multivariate normality. Table 5.6 presents the absolute value of the critical ratio for the skewness and kurtosis statistics for many items were less than the cutoff values of within 3.0 (skewness) and within 10.0 (kurtosis) as suggested by Kline (2011). Tabachnick and Fidell (2007) also proposed that the skewness values are within 2.0 and the kurtosis values are within 7.0 indicated that the data were not normally distributed.

In addition, this study determined significant multivariate non-normality using a Mardia's test. The normalized Mardia's coefficient shown in Table 5.6 indicated a value of 299.405 as the critical ratio of which is 62.904, clearly above the cutoff point of 5.00 as suggested by Bentler (2005). Consequently, data associated with a value of Mardia's normalized multivariate kurtosis greater than 5.0 could produce inaccurate results when used with Maximum Likelihood Estimation (MLE) (Bentler, 2005).

Although the use of SEM analysis acknowledges normality assumption, neither is information on the extent of the non-normality provided. Thus, this study applied the PLS approach for its distribution free statistical modeling technique over the covariance approach to handle the non-normal data and test for the hypothesized relationships.

Factor analysis applied in this study statistically describe the variability among observed, correlated variables in terms of a potentially lower number of unobserved

variables called factors. Using factor analysis such as PLS based on SEM software, hypothesized dimensions were obtained for this study making it easier to clearly interpret the proposed relationship existing between the research variables.

Table 5.6
Univariate and Multivariate Normality Test

Variable	Min	max	skew	c.r.	Kurtosis	c.r.
SS4	1	5	-0.951	-7.151	0.335	1.26
SS3	1	5	-0.913	-6.864	0.012	0.044
SS2	1	5	-0.683	-5.131	-0.17	-0.638
SS1	1	5	-0.798	-5.995	-0.067	-0.252
SS5	1	5	-0.71	-5.336	-0.365	-1.37
ITT3	1	5	-0.777	-5.842	-0.055	-0.208
ITT4	1	5	-0.996	-7.489	0.241	0.905
ITT2	1	5	-0.738	-5.545	-0.293	-1.1
ITT5	1	5	-0.659	-4.952	-0.377	-1.415
ITT1	1	5	-0.875	-6.58	-0.078	-0.294
ITT6	1	5	-0.88	-6.611	0.094	0.353
LS2	1	5	-0.121	-0.906	-1.241	-4.665
LS7	1	5	-0.138	-1.035	-0.933	-3.508
LS3	1	5	-0.475	-3.567	-0.647	-2.433
LS6	1	5	-0.578	-4.343	-0.682	-2.564
LS5	1	5	-0.55	-4.133	-0.645	-2.423
LS8	1	5	-0.446	-3.35	-0.765	-2.874
LS4	1	5	-0.487	-3.657	-0.769	-2.89
LS1	1	5	-0.431	-3.24	-0.914	-3.435
SE2	1	5	-0.512	-3.85	-1.207	-4.537
SE3	1	5	-0.204	-1.537	-1.108	-4.165
SE4	1	5	-0.517	-3.884	-0.561	-2.109
SE1	1	5	-0.467	-3.512	-0.897	-3.37
SE5	1	5	-0.657	-4.941	-0.685	-2.573
TE6	1	5	-0.749	-5.627	1.022	3.842
TE5	1	5	0.087	0.658	0.394	1.481
TE4	1	5	-0.541	-4.066	1.179	4.432
TE3	1	5	0.01	0.074	1.513	5.687
TE2	1	5	-0.135	-1.015	0.295	1.109
TE1	1	5	-0.843	-6.335	1.551	5.828
Multivariate					299.405	62.904

5.7 PLS Structural Equation Modeling Approach

The Partial Least Squares (PLS) approach to Structural Equation Modeling, also known as PLS Path Modeling was developed by the seminal paper by Wold (1975) as cited by Vinzi, Trinchera and Amato (2010). Extensive reviews on the PLS approach, with further developments are given by Chin (1998, 2001), and Chin and Newsted (1999) for the new graphical interface (PLS-Graph) and for enhanced validation methods.

5.7.1 PLS Path Modeling

The PLS SEM, is also recognized as PLS Path Modeling (PLS-PM), has been selected as a component-based estimation procedures which is different from the classical covariance-based LISREL-type approach (Vinzi Trinchera & Amati, 2010). The PLS-PM approach is a commonly used approach in the estimation of causal relationships in the field of path models taking latent constructs that are measured indirectly by many indicators. Several scholars (*e.g.* Chin, 1998; Tenenhaus, Vinzi, Chatelin & Lauro, 2005; Wold, 1982) were well described the methodological issues and methods for outcome evaluation and provided further development of this methodology.

The fundamental idea of PLS-PM is that complexity in a system can be studied by causality relationship among latent concepts, called Latent Variables (LV), each measured by several observed indicators usually defined as Manifest Variables (MV) (Vinzi *et al*., 2010). Furthermore, as followed in this study, the PLS-PM classified into measurement model and structural model. Generally, in PLS-PM, the measurement model is denoted as the outer model and the structural model is mentioned to as the inner

model. The inner model handles the relation of unobserved with latent variables while the outer one describes the relation among a latent variable and its manifest variable.

5.7.2 PLS Path Modeling Algorithm

In the beginning, PLS algorithm introduced by Wold (1985) seeks to find the best weight estimates for each component of indicators representing to every theoretical construct.

In the similar vein, the PLS algorithm generates loadings between reflective constructs and their indicators and weights between formative constructs and their indicators (Chin, 2010). Like regression, PLS develops a component or composite variable that demonstrate of the theoretical construct and emphasizes on maximizing the variance of the dependent variables that is described by the independent variables (Chin, 1998).

In this regards, the present study applied the basic PLS algorithm as proposed by Lohmoller (1998) and Tenenhaus *et al.* (2005) that contains of three stages. In the first stage, the purpose is to determine the estimates (scores) for the latent variables (LV) in the model. This stage involves a four-step iterative process that is repetitive until the achievement of convergence. The steps involve are the external approximation of the latent variable scores; inner weights estimation; latent variable scores internal approximation, and outer weights estimation. In the second stage, these latent variable scores are used to estimate the paths lies among the latent variables (structural model), as well as the estimates relating the latent variable to its indicators (measurement model). Finally in the third stage, the means and location parameters (*e.g.* regression constants) for the indicators and the latent variables are estimated.

5.7.3 Methodological Features

The widespread use of PLS path modeling in the literature concerning causal modeling often focus the methodological features (*e.g.* Falk & Miller, 1992; Fornell & Bookstein, 1982; Hair, Sarstedt, Lohmoller, 1998; Ringle, 2012; Joreskog & Wold, 1982). Given that PLS-SEM has attracted increased interest in the literature in the last two decades, it needs a more detailed explanation of the rationale leading to the selection of this method. Specifically, the four methodological features most frequently used reasons for using PLS-SEM are non-normal data, small sample size, reflective and formative measures, and model complexity (Hair *et al.*, 2010).

5.7.3.1 Non-normal Data

The most commonly used estimation method in SEM is maximum likelihood method (ML). Greene (1997) advocated that the ML estimators are attracting because of their properties of consistency, normality, efficiency and invariance. However, an examination by Breckler (1990) of seventy two journal articles that used SEM determined that only nineteen percent acknowledged the normal assumptions. Interestingly, fewer than ten percent explicitly considered whether these assumptions had been violated. To summarize the robustness of ML, Chou and Bentler (1995) highly asserted that when the data are multivariate normally distributed and when the sample size is large enough, the ML method is certainly preferred because of computational simplicity, accuracy and correctness of statistical results. But, when data are non-normal, the situation changes completely (Chou & Bentler, 1995).

Furthermore, with regression and covariance-based SEM, multivariate normality is required, but this is not applicable for PLS-PM (Hair *et al*., 2012). Fornell and Bookstein (1982) suggested that for those with strong familiarity with regression as a statistical technique, it can be easier to interpret the statistics and findings when using PLS-PM. Bagozzi (1994) also proposed that the PLS-PM can be employed in highly skewed distributions.

5.7.3.2 Sample Size

A main benefit of PLS-SEM over covariance-based SEM is that it works well specifically in smaller sample sizes (Chin & Newsted, 1999; Reinartz *et al*., 2009). In other hand, covariance-based SEM is a large-sample technique, where any sample size less than 100 may lead to untenable results (Kline, 2001). Because the PLS-PM algorithm is based on linear regression, the sample size requirements are not as large as those of covariance-based SEM (Lee *et al*., 2011).

However, the aspect of PLS-SEM to handle the small sample size is the widespread application of the "ten times rule of thumb" as asserted by Barclay *et al*. (1995) and Hair *et al*. (2012). This rule recommends a minimum sample size of ten times the scale's number of indicator with the highest number of formative indicators or ten times the highest number of structural paths concentrated on a specific construct located in the inner path model (Barclay *et al*., 1995; Hair *et al*., 2012).

While this rule of thumb may allow for a broad estimate of minimum sample size requirements for the use of PLS-SEM, it needs to be pointed out that it does not consider

effect size, reliability, the total number of indicators, and other issues likely affecting the statistical power of the PLS-SEM method (Hair *et al*., 2011). In other words, it is important for the researcher to keep the distributional characteristics of the data, potential missing data, the psychometric properties of the variables examined, and the relationships magnitude prior to deciding on a suitable sample size to utilize or to guarantee that an appropriate sample size concerning the phenomenon of interest is available (Marcoulides & Saunders, 2006).

5.7.3.3 Reflective and Formative Measures

Depending on the observed construct, a measurement model can either include reflective or formative indicators exclusively, or involve of both indicators (Fornell & Bookstein, 1982). Formative indicators are also known as cause or induced indicators, while reflective indicators are also known as effect indicators (Hair *et al*., 2012). Bollen and Lennox (1991), and Diamantopoulos (2000) maintained that reflective constructs have indicators that are expected to reflect the variation in the underlying construct, formative constructs are modeled with indicators that form or determine the construct, typically as a linear combination of the indicators.

Furthermore, Chin and Newsted (1999) mentioned that the advantage of utilize of PLS compared to the covariance based methods is the relation among a construct and its indicators can be exemplified as either formative or reflective. In the similar vein, Diamantopoulos and Winklhofer (2001) also supported that as opposed to singularly stressing on the common reflective mode, the PLS path modeling algorithm enables the unconfined calculation of cause-and-effect relationship models employing both reflective

and formative measurement models. Figure 5.1 illustrated the comparison of reflective and formative measurement models.

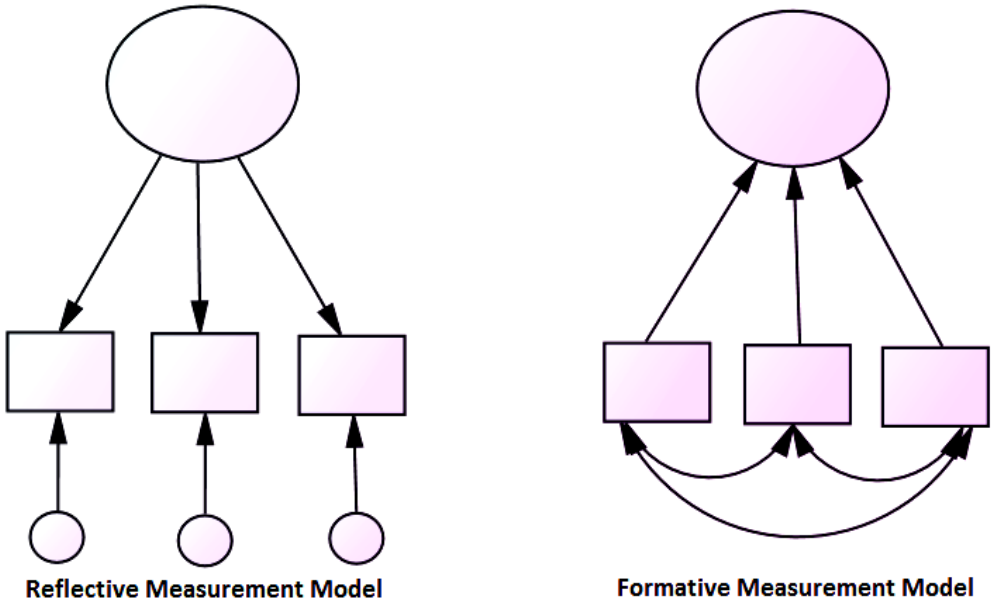

Figure 5.1
Comparison of reflective and formative measurement model

5.7.3.4 Model Complexity

Anderson and Gerbing (1988) stated that certain covariance-based SEM discrepancy functions (*e.g.* GFI and AGFI), decline and they may become unsuitable for more complex models. Additionally, Boomsa and Hoogland (2001) conducted an experimental variation of model complexity by modifying the estimated parameters and the number of freedom levels and they revealed that the more parameters to be estimated, the more will be the occurrence of non-convergence and ineffective solutions. In short, the larger the number of estimation requirements, the more will be the information required.

In other hands, PLS has the capacity to deal with very complex models with a high number of constructs, indicators, and relationships (Barclay *et al*. 1995; Fornell, Lorange & Roos, 1990; Garthwaite 1994). Wold (1985) emphasized that the PLS path models can turn very complex as they comprise of varying latent and manifest variables, but they never lead to issues of estimation. The PLS algorithm enables a significant increase in model complexity and a significant reduction between the distance of subject matter analysis and statistical methods within domains that are characterized by continuous access to data that is reliable (Hair *et al*., 2011). Thus, PLS is prominent among larger models when the importance moves from individual variables and parameters to groups of variables and total parameters (Wold, 1985).

As a small conclusion in this section, PLS-SEM preferred as alternative method over CB-SEM in these situations (non-normal data, reflective and formative measures, model complexity), since it allows researchers to create and estimate such models without imposing additional limiting constraints.

5.7.4 Comparison between PLS-VBSEM and CBSEM

Chin (1998) asserted that SEM has been reported as a second generation of multivariate analysis, with substantial advantages over first-generation techniques such as principal components analysis, factor analysis, discriminant analysis, or multiple regression because of the greater flexibility that a researcher has for the interplay between theory and data. The two types of SEM differ in term of their objectives, approach, assumption, implication, parameter estimation, complexity, and sample size on which they are based, and the nature of the fit statistics they produce.

Table 5.7
Comparing VBSEM and CBSEM of SEM

Criterion	**VBSEM (PLS)**	**CBSEM**
Objective	Prediction oriented	Parameter oriented
Approach	Variance	Covariance
Assumption	Nonparametric	Parametric
Implication	Optimal for prediction	Optimal for parameter estimation
Parameter estimates	Explicitly estimated	Indeterminate
Model complexity	Large complexity	Small to moderate complexity
Sample size	Minimum of 20-100	200-800

Source: Chin and Newsted (1999).

Table 5.7 shows that PLS and CBSEM have been designed to achieve different objectives. The CBSEM was proposed as a confirmatory model and it is distinct from the PLS path modeling as the latter is prediction oriented. SEM also differs in term of variance and covariance based approach. However, CBSEM along with PLS-VBSEM should be considered as methods that complement each other (Lohmoller, 1998). The aim of the covariance-based SEM is to decrease the fit-function between the sample covariance matrix and the implied covariance one. As for the PLS path modeling, the estimates of parameters are acquired to reduce the residual variance of dependent variables, both manifest and latent. Nonetheless, conditions may exist when PLS path modeling may outperform the covariance-based SEM in its assessment of hierarchical construct models.

Furthermore, Cassell (2011) managed to present the robust deviation from normality of PLS-VBSEM with the exception of highly skewed distributions with the help of a Monte Carol simulation. CBSEM attempts to estimate the parameters of the

model (*e.g.* loadings and path values) in order to minimize the difference between the sample CBSEM and those predicted by the theoretical model. Hence, the parameter estimation process tries to reproduce the covariance matrix of the observed measures' (Chin & Newsted 1999) overall goodness-of-fit measures to see how well the hypothesized model fits the data (Barclay *et al*., 1995).

Moreover, PLS-VBSEM is able to estimate highly complex models having various latent and manifest variables. The PLS-VBSEM is more suited to complex models such as those with hierarchical constructs (with a complete disaggregation method), mediating and moderating impacts (Chin *et al*., 2003). In the similar vein, CBSEM emphasizes the overall model fit; that is, this approach is oriented towards testing a strong theory. Therefore, CBSEM is best suited for confirmatory research (Gefen *et al*. 2000). Lastly, PLS-VBSEM bypass issues of small sample size and it can hence be employed in certain situations where other methods are ineffective (as discussed in Sub-Section 5.8.3.2).

Again, as asserted by Lohmoller (1998), PLS-VBSEM should be considered as more than a less strict replacement of CBSEM but as an approach that complements CBSEM .

5.8 PLS Path Modeling Examination

While a number of papers have been written covering with suitable reporting of CBSEM analyses (Hoyle 2000; McDonald and Moon-Ho 2002; Steiger, 2001), this is little so for PLS-VBSEM (Chin, 2010).

Furthermore, it would seem that scholars can simply follow the same process employed by CBSEM scholars. However, unreflectively following the similar ways may also overemphasize or possibly incorporate aspects that are individual to that particular methodology (Chin, 2010). One of the main criteria is the PLS-CBSEM does not employ the condition of global goodness-of-fit (GOF). With that respect, Chin (1998) suggested criterion for the examination of PLS-CBSEM structures. This criterion consists of a two-step process that are, the outer model examination, and the inner model examination.

The process started with model assessment that focuses on the measurement models. A systematic examination of PLS estimates reveals the measurement reliability and validity according to certain characteristic that are associated with formative and reflective outer model. Having done that, the next is to evaluate the inner path model estimates when the calculated latent variable scores present prove of adequate reliability and validity.

For instance, Lee, Peter, Fayard and Robinson (2011) advocated that SEM is a merger of two powerful approaches, that are factor analysis and path analysis, allowing researchers to simultaneously examine the measurement model (traditionally accomplished with factor analysis) and the structural model (traditionally accomplished with path analysis).

5.9 Measurement Model (Outer Model) Examination

The first step in Partial Least Squares Structural Equation Modeling (PLS-VBSEM) analysis is to analyze the measurement model (or outer model) to determine how well the

indicators (specific questions) load on the theoretically defined constructs. By examining the outer model ensures that the survey items are measuring the constructs they were designed to measure, thus ensuring that the survey instrument is valid and reliable.

The measurement or outer model specifies the relationship between observable constructs and the underlying construct. In this context, the search for an investigation of suitable indicators is an important step with regard to the operationalization of such a construct (Churchill 1979). In other words, it needs for the construct validity examination. In short, the construct validity creates certain degrees of measurement instruments represent the theoretical variables that they are designed to measure (Hair *et al*., 2010). The construct validity can be established through the content validity, convergent validity and discriminant validity (Hair *et al*., 2010).

5.9.1 Content Validity

According to Bohrnstedt (1970), the content validity exposes to what extent a measurement model variables belong to the domain of the construct. In similar vein, Hair *et al*. (2010) also maintained that the content validity of the measures refer to the degree to which the items generated to measure a construct can appropriately measure the concept they were designed to measure.

Furthermore, the principal component analysis is an appropriate method for examining the indicators' underlying factor structure (Bohrnstedt, 1970; Vinzi *et al*., 2010). Specifically, all the items (questions) designed to measure a construct should load higher on their respective construct than their loadings on other constructs. This was

insured by the comprehensive review of the literature to generate the items that already have been established and tested in previous studies.

Derived on the analysis conducted in factor analysis, items were correctly assigned to their constructs. The results in Table 5.8 indicated the content validity of the measures used as performed in two modes as proposed by Chow and Chan (2008). First, the items show high loading on thier respective constructs when compared to other constructs. Second, the items loadings were significantly loading on their respective constructs confirming the content validity of the measures used in the study as depicted in Table 5.8. The result also lends support to the formulation of the research model for examining the relationship between Learning Style (LS), Self-Efficacy (SE),Supervisor Support (SS), and Training Effectiveness (TE) and the mediation effect of Intention to Transfer Training (ITT) in Saudi Arabia public higher educational institutions (*see* Figure 2.... in Chapter Two).

Table 5.8
Cross Loadings of the Items

Variables	Items	Intention to Transfer Training	Learning Style	Self-Efficacy	Supervisor Support	Training Effectiveness
Intention to Transfer Training	**ITT1**	**0.698**	0.443	0.427	0.415	0.207
	ITT2	**0.712**	0.513	0.483	0.392	0.234
	ITT3	**0.734**	0.500	0.466	0.394	0.118
	ITT4	**0.727**	0.516	0.502	0.319	0.235
	ITT5	**0.701**	0.442	0.393	0.329	0.197
Learning Style	**LS1**	0.455	**0.659**	0.539	0.308	0.185
	LS2	0.520	**0.862**	0.699	0.418	0.243
	LS3	0.531	**0.790**	0.654	0.462	0.146
	LS4	0.331	**0.668**	0.573	0.251	0.072
	LS5	0.575	**0.807**	0.681	0.395	0.190
	LS6	0.512	**0.734**	0.570	0.444	0.198
	LS7	0.548	**0.762**	0.593	0.462	0.162
	LS8	0.574	**0.763**	0.613	0.476	0.152
Self-Efficacy	**SE1**	0.535	0.679	**0.844**	0.379	0.138
	SE2	0.552	0.724	**0.899**	0.408	0.187
	SE3	0.561	0.682	**0.855**	0.484	0.111
	SE4	0.525	0.688	**0.847**	0.362	0.034
	SE5	0.529	0.666	**0.787**	0.413	0.101
Supervisor's Support	**SS1**	0.434	0.406	0.310	**0.830**	0.153
	SS2	0.441	0.500	0.471	**0.901**	0.174
	SS3	0.451	0.468	0.442	**0.880**	0.189
	SS4	0.441	0.489	0.421	**0.878**	0.119
	SS5	0.427	0.423	0.406	**0.744**	0.127
Training Effectiveness	**TE1**	0.198	0.186	0.146	0.096	**0.777**
	TE2	0.263	0.235	0.172	0.152	**0.861**
	TE3	0.240	0.235	0.208	0.179	**0.825**
	TE4	0.218	0.135	0.065	0.176	**0.716**
	TE5	0.159	0.125	0.047	0.058	**0.729**
	TE6	0.193	0.125	-0.007	0.145	**0.702**

*Item ITT6 deleted since it has loading of 0.548

Table 5.9 shows all the item loadings (question correlations) for each of the constructs in the Learning Style (LS), Self-Efficacy (SE), Supervisor's Support (SS), and Training Effectiveness (TE) and the mediation effect of Intention to Transfer Training (ITT).

As a general rule of thumb, the item loading is interpreted as poor when it is less than 0.30, fair between 0.31-0.50, moderate between 0.51-0.60, moderately strong between 0.61-0.80, and very strong between 0.81-1.0 (Chan, 2003). Based on this suggestion, as the recommended minimum value here is 0.30, the item loading of the mutual relationship between items should be over 0.30 (Robinson, 1991; Streiner & Norman, 1998). Hence, all the loadings produced by PLS are greater than 0.30 as recommended by the abovementioned scholars (*see* Table 5.9).

Furthermore, each indicator estimated coefficient on it posited construct dimensions is significant at the 0.01 level of significance indicating that the validity through that factor analysis is assumed. This study believed that these results are relevant to confirm the content validity of measurement model.

Table 5.9
Factor Loadings Significance

Variables	Items	Item Loadings	STDERR	T Value	P Value
Intention to Transfer Training	**ITT1**	**0.698**	0.035	20.019	0.000
	ITT2	**0.712**	0.030	23.849	0.000
	ITT3	**0.734**	0.033	22.558	0.000
	ITT4	**0.727**	0.029	24.664	0.000
	ITT5	**0.701**	0.033	21.102	0.000
Learning Style	**LS1**	**0.659**	0.038	17.262	0.000
	LS2	**0.862**	0.017	51.775	0.000
	LS3	**0.790**	0.022	36.285	0.000
	LS4	**0.668**	0.037	17.897	0.000
	LS5	**0.807**	0.020	39.514	0.000
	LS6	**0.734**	0.030	24.796	0.000
	LS7	**0.762**	0.027	28.414	0.000
	LS8	**0.763**	0.026	29.256	0.000
Self-Efficacy	**SE1**	**0.844**	0.018	45.934	0.000
	SE2	**0.899**	0.012	74.773	0.000
	SE3	**0.855**	0.012	68.503	0.000
	SE4	**0.847**	0.017	50.444	0.000
	SE5	**0.787**	0.021	37.123	0.000
Supervisor's Support	**SS1**	**0.830**	0.022	37.027	0.000
	SS2	**0.901**	0.015	60.501	0.000
	SS3	**0.880**	0.015	57.265	0.000
	SS4	**0.878**	0.014	61.686	0.000
	SS5	**0.744**	0.037	19.932	0.000
Training Effectiveness	**TE1**	**0.777**	0.032	24.446	0.000
	TE2	**0.861**	0.024	35.617	0.000
	TE3	**0.825**	0.033	25.091	0.000
	TE4	**0.716**	0.060	12.007	0.000
	TE5	**0.729**	0.054	13.440	0.000
	TE6	**0.702**	0.063	11.057	0.000

*Item ITT6 deleted since it has loading of 0.548

5.9.2 Convergent Validity

Hair *et al*. (2010) proposed that the convergent validity can be established by three main aspects namely, factor loadings, composite reliability (CR) and the average variance extracted (AVE).

The first aspect to achieve the convergent validity is if the items' loadings were examined and all the items have loadings more than 0.50 which is the acceptable level suggested in the multivariate analysis literature (Anderson & Gerbing, 1988; Fornell & Larcker, 1981; Hair *et al*., 2010). Table 5.10 indicates that all the factors' loading were significant at the 0.01 level of significance.

The second aspect is the composite reliability (CR). It indicates the degree to which a set of items consistently indicate the latent construct (Hair *et al*., 2010). As shown in Table 5.10, the composite reliability values ranged from 0.839 to 0.928 which exceeds the recommended value of 0.70 (Fornell & Larcker, 1981; Hair *et al*., 2010).

The last aspect to establish the convergent validity is examination of the values of the average variance extracted (AVE). Several scholars (*e.g.* Barclay *et al*., 1995; Fornell & Larcker, 1981; Hair *et al*., 2010) suggested that the AVE value more than 0.50. In this study, all the constructs achieved the values more than 0.50 that performing a good level of construct validity of the measures used (Barclay *et al*., 1995; Fornell & Larcker, 1981; Hair *et al*., 2010).

Table 5.10
Convergent Validity Analysis

Construct	Items	Item Loadings	Convergent Validity		
			Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Intention to Transfer Training	**ITT1**	0.698	0.761	0.839	0.511
	ITT2	0.712			
	ITT3	0.734			
	ITT4	0.727			
	ITT5	0.701			
Learning Style	**LS1**	0.659	0.893	0.915	0.575
	LS2	0.862			
	LS3	0.790			
	LS4	0.668			
	LS5	0.807			
	LS6	0.734			
	LS7	0.762			
	LS8	0.763			
Self-Efficacy	**SE1**	0.844	0.901	0.927	0.718
	SE2	0.899			
	SE3	0.855			
	SE4	0.847			
	SE5	0.787			
Supervisor Support	**SS1**	0.830	0.901	0.928	0.720
	SS2	0.901			
	SS3	0.880			
	SS4	0.878			
	SS5	0.744			
Training Effectiveness	**TE1**	0.777	0.862	0.897	0.594
	TE2	0.861			
	TE3	0.825			
	TE4	0.716			
	TE5	0.729			
	TE6	0.702			

*Item ITT6 deleted since it has loading of 0.548

5.9.3 Discriminant Validity

It is necessary to establish the discriminant validity to verify the construct validity of the outer model. In Fornell and Larcker (1981) views, this study examined the square root of the average variance extracted with the correlations among constructs. Ideally, the square root of the average variance extracted should be greater than 0.50 meaning that 50% or more variance is shared among the indicators of the respected construct.

This step also provides the ground to check if each construct is extremely related to its own measures than other constructs. Chin (2010) maintained that presenting average variance extracted with squared correlations have two advantages. That is, it supplies a more insightful description as it signifies the percentage overlap between constructs and construct to indicators, and it is tends to be easier to differentiate.

The results in Table 5.11 showed that the diagonal elements were higher than the other element of the row and column in which they are located, this confirms the discriminant validity of the outer model. As a result, there is a significant evidence of the discriminant validity among the construct under investigation. Thus, having established the construct validity of the outer model, it is assumed that the obtained results pertaining to the hypothesis testing should be valid and reliable.

Table 5.11
Discriminant Validity Analysis(Correlation)

Construct	Mean	Standard Deviation	1	2	3	4	5
1) Intention to Transfer Training	3.730	0.822	**0.715**				
2) Learning Style	3.232	0.907	0.678	**0.758**			
3) Self-Efficacy	3.432	1.068	0.639	0.812	**0.847**		
4) Supervisor Support	3.708	0.956	0.518	0.540	0.484	**0.849**	
5) Training Effectiveness	3.353	0.568	0.279	0.227	0.137	0.181	**0.771**

In summary, the construct validity had been developed before the postulated hypotheses were tested. This is important because valid constructs leads to conclusions that generalize the results of the study. So, three types of validity, including content, convergent and discriminant validity were carried out.

5.10 Structural Model (Inner Model) and Testing Procedures Assessment

After assessing the validity and reliability (GoF) of the outer model has been confirmed, the next step was to examine the standardized path coefficients in order to test the hypothesized relationships among the constructs. The hypothesized model was tested by using the Smart PLS 2.0 in order to run the PLS Algorithm. The path coefficients were then presented as illustrated in the Figure 5.2 (*p*-value) and Figure 5.3 (*t*-value).

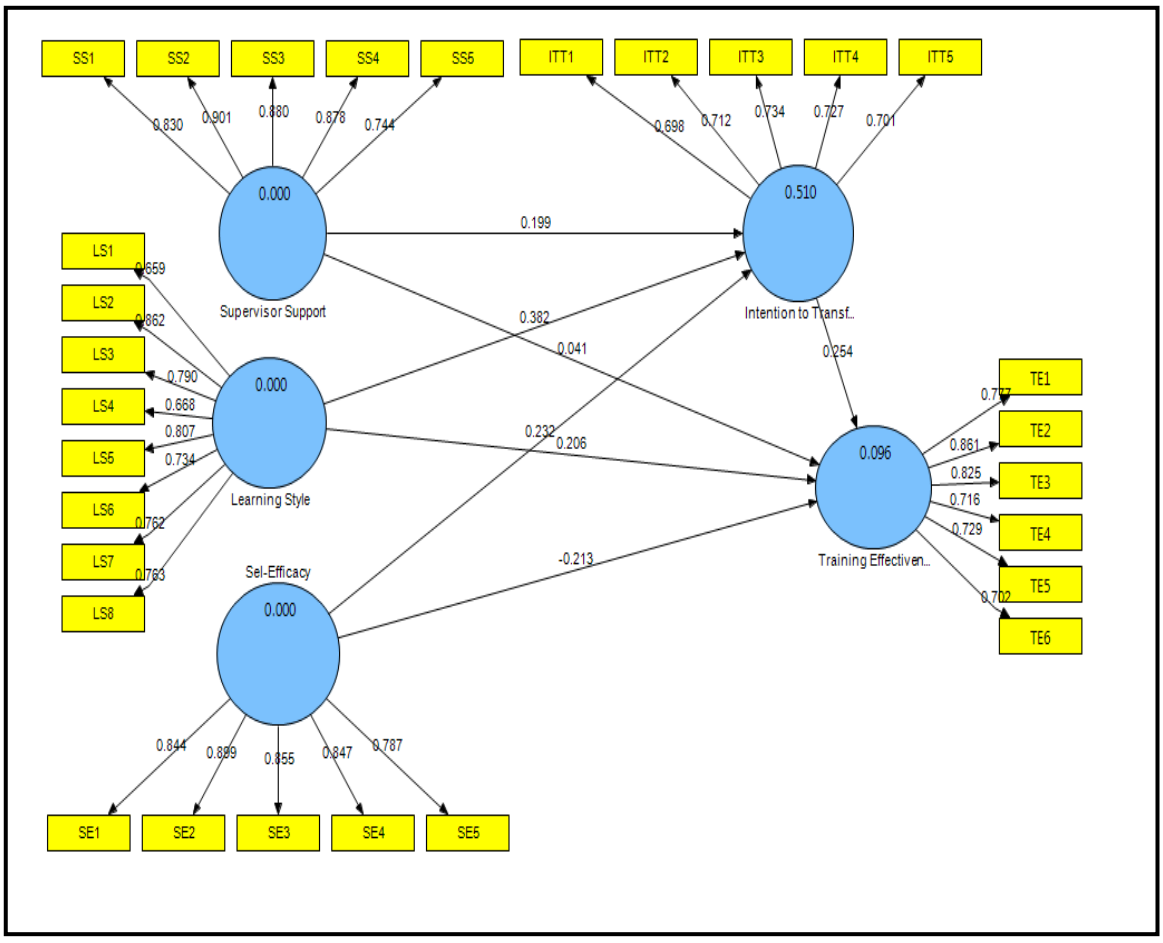

Figure 5.2
Path Model Results (p-value)

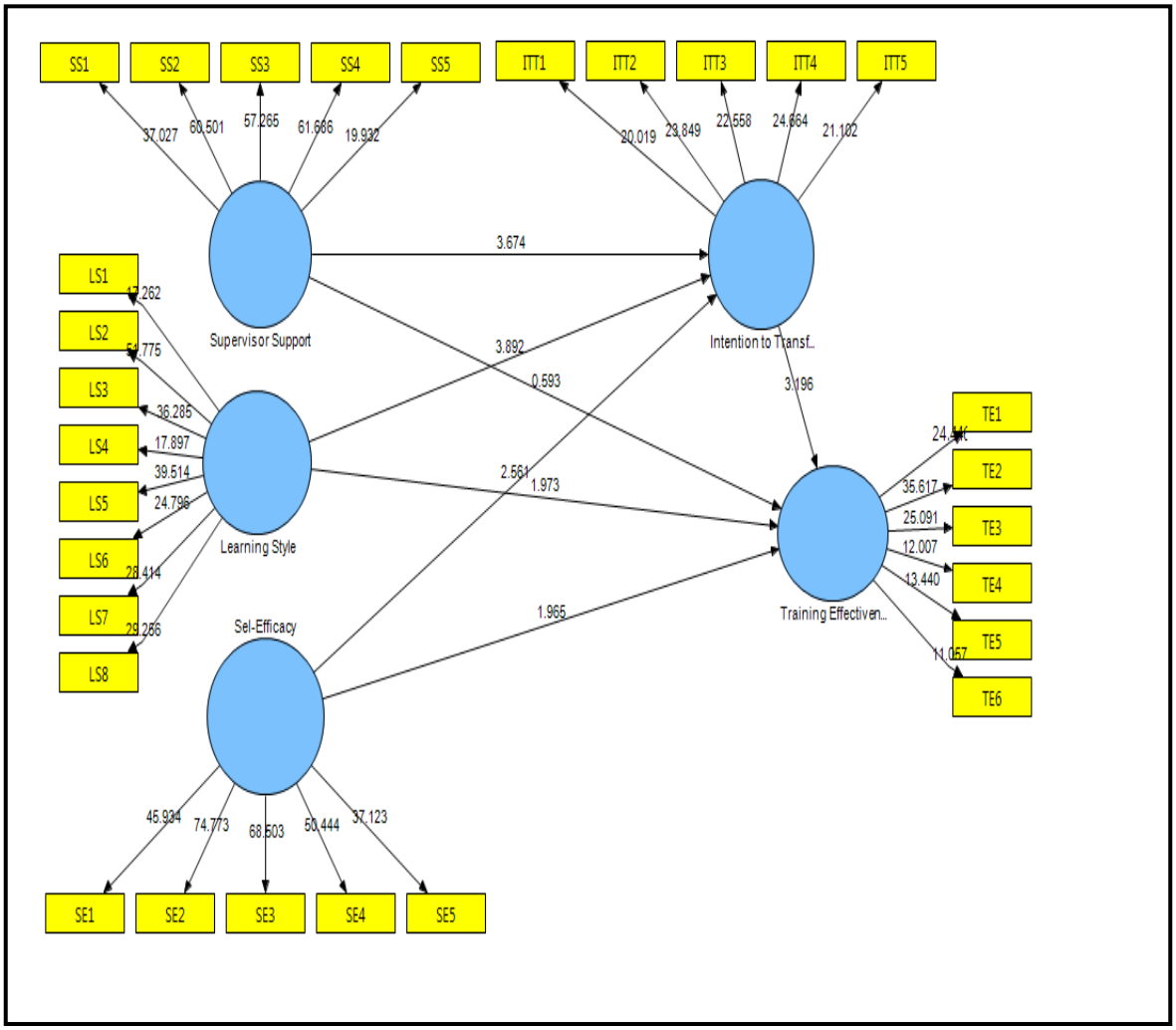

Figure 5.3
Path Model Significance Results (t-value)

Barclay *et al*. (1995) stated that the traditional t-tests are not calculated in PLS-SEM as part of the PLS algorithm to calculate the statistical significance of the loadings and of the path coefficients because the underlying data is not expected to be multivariate normal. Alternatively, nonparametric re-sampling procedures such as jackknifing or bootstrapping are used to verify the accuracy of the estimates and to run significance tests of the findings (Chin, 1998; Tenenhaus *et al*., 2005). Thus, this study used the bootstrapping techniques embedded with SmartPLS 2.0 in order to conclude whether the

path coefficients are statistically significant or not. It is also highly proposed by Preacher and Hayes (2004), and Efron and Tibshirani (1993), bootstrapping is increasingly being utilized to get around this issue.

In this regards, the *t*-values accompanying each path coefficient was generated using the bootstrapping technique and subsequently the P values were generated as reported in Table 5.12. The finding presented that the Intention to Transfer Training has a positive significant impact on the Training Effectiveness at the 0.01 level of significance (β= 0.254, t=3.196, p<0.01), and Learning Style has a positive significant impact on the Intention to Transfer Training (β= 0.382, t=3.891, p<0.01). These results supported the hypothesized relationships as involved in H_1 and H_2.

Furthermore, it was found that Learning Style has a positive significant impact on the Training Effectiveness (β= 0.206, t=1.973, p<0.01), Self-Efficacy has a positive significant impact on the Intention to Transfer Training (β= 0.232, t=2.561, p<0.01), Supervisor's Support has a positive significant impact on the Intention to Transfer Training (β= 0.199, t=3.674, p<0.01). In contrast to our hypothesis, Self-Efficacy has a significant negative impact on the Training Effectiveness (β= -0.213, t=1.965, p<0.01). In addition, Supervisor's Support has a positive but not significant impact on the Training Effectiveness (β= 0.041, t=0.592, p>0.01). Therefore, the results of the study support the hypotheses H_1, H_2, H_3, H_4, H_6 but not hypotheses H_5 and H_7.

Further discussions regarding these findings are provided in the discussion chapter.

Table 5.12
The Results of the Inner Structural Model

Hyp No	Hypothesized Path	Path Coefficient	Standard Error	T Value	P Value	Decision
H_1	Intention to Transfer Training -> Training Effectiveness	0.254**	0.080	3.196	0.001	Supported
H_2	Learning Style -> Intention to Transfer Training	0.382***	0.098	3.892	0.000	Supported
H_3	Learning Style -> Training Effectiveness	0.206*	0.104	1.973	0.024	Supported
H_4	Self-Efficacy -> Intention to Transfer Training	0.232**	0.091	2.561	0.005	Supported
H_5	Self-Efficacy -> Training Effectiveness	(-)0.213*	0.108	1.965	0.025	Not Supported
H_6	Supervisor Support -> Intention to Transfer Training	0.199***	0.054	3.674	0.000	Supported
H_7	Supervisor Support -> Training Effectiveness	0.041	0.069	0.592	0.277	Not Supported

***:p<0.001;**:p<0.01;*:p<0.05; One tailed Hypothesis

5.11 Model Predictive Relevance

Unlike CB-SEM, PLS-SEM does not optimize a unique global scalar function and the consequent lack of global goodness-of-fit measures (Hair, 2012). It was argued by Hair (2010) that when using PLS-SEM, researcher should rely on measures indicating the model's predictive capabilities to judge the model's quality.

The cross-validated redundancy measure (Q^2), a common sample re-use or resampling technique (Geisser, 1974; Stone, 1974), allows for assessing a model's predictive validity (Fornell & Cha, 1994; Hair *et al*., 2012). In this regards, redundant communality was found to be larger than zero for all the endogenous variables, the model

is considered to have predictive validity, if not, the predictive relevance of the model cannot be concluded (Fornell & Cha, 1994). Thus, Wold (1982) recommended that Q2 represents a synthesis of cross-validation and function fitting and is better assessment criterion for PLS-SEM applications.

Furthermore, several scholars (*e.g.* Chin, 1998; Fornell & Cha, 1994; Geisser, 1975; Stone, 1974) proposed that assessment can be performed by employing the blindfolding procedure embedded in Smart-PLS 2.0 package. Blindfolding procedure is designed to eliminate some of the data and to handle them as missing values to estimate the parameters. Next, the estimated parameters are then used to reconstruct the raw data that are assumed previously missing. As a result, the blindfolding procedure produces general cross-validating metrics Q^2 (Chin, 1998; Fornell & Cha, 1994).

Moreover, there are different forms of Q^2 that can be obtained based on the form of desired prediction (Chin, 2010). A cross-validated communality Q^2 is achieved when the data points are predicted using the underlying latent variable scores. Whereas, if the prediction of the data points is obtained by the LVs that predict the block in question, then a cross-validated redundancy Q^2 is the output (Chin, 1998; Wold, 1982).

Table 5.13
Predictive Quality Indicators of the Model

Variables	R Square	Cross-Validated Communality	Cross-Validated Redundancy
Intention to Transfer the Training	0.510	0.510	0.252
Training Effectiveness	0.096	0.594	0.054

The results related to the prediction quality of the model in this study (*see* Table 5.13) shown that the cross-validated redundancy for the Intention to Transfer the Training (ITT) and Training Effectiveness (TE) were 0.252 and 0.054 respectively. As proposed by Fornell and Cha (1994), these values are enough predictive validity of the model (based on the criteria that more than zero).

5.12 Goodness of Fit of the Overall Model

Having done with the predictive quality model, the next step is to recognize that the term of goodness of fit (GoF) that has different meanings between CBSEM and PLS-VBSEM. Hair *et al*. (2012) claimed that a GoF statistic for CB-SEM are derived from the discrepancy among the empirical and the model-implied (theoretical) covariance matrix, whereas PLS-VBSEM focuses on the discrepancy among the observed (in the case of manifest variables) or approximated (in the case of latent variables) values of the dependent variables and the values predicted by the model in question.

Hair *et al*., (2012) maintained that a global criterion of GoF has been suggested by Tenenhaus *et al*. (2005). Unlike CBSEM, PLS-VBSEM has only one measure of GoF.

Tenenhaus *et al*. (2005) maintained that a GoF for PLS path modeling is the geometric mean of the average communality and average R^2 for the endogenous constructs. Hence, the GoF measure accounts for the variance extracted by both outer and inner models. In line with Tenenhaus *et al*. (2005), in order to support the validity of the PLS model, GoF value was estimated according to the guidelines as proposed by Wetzels *et al*. (2009) as in the following formula:

$$Gof = \sqrt{(\overline{R^2} \times \overline{AVE})}$$

Table 5.14
Goodness of Fit

Constructs	**R Square**	**AVE**
Intention to Transfer Training	0.510	0.511
Learning Style		0.575
Self-Efficacy		0.718
Supervisor Support		0.720
Training Effectiveness	0.096	0.594
	0.303	0.623
GoF		**0.435**

By following the earlier mentioned formula in this section, the GoF value for this study was 0.435. The results indicated that the model GoF measure is large indicating an

adequate of global PLS model validity. This result was made based on the values of GoF (small=0.1, medium=0.25, large=0.36) as proposed by Wetzels *et al*. (2009).

5.13 Mediating Effect of Intention to Transfer Training

Comparing SEM with regression, SMS has the ability to test mediating variables as part of a comprehensive model (MacKinnon, 2008). It is noteworthy that the test of inner model estimates, in terms of values and significance, is not limited to direct relation. Whereas, researchers can study total affects i.e. by considering direct and indirect effects together. Interpretation of total effects is particularly useful in studies with the objective of examining the differential impact of different driver constructs on a criterion construct via several mediating variables (Albers, 2010).

This study also targeted to examine the mediating effect of Intention to Transfer Training on the relation among the independent variables of the Learning Style, Self-Efficacy and Supervisor's Support, with the dependent variable of Training Effectiveness. In doing that, the SmartPLS 2.0 was employed to examine the interaction effect of Intention to Transfer Training. As performed in Table 5.15, the mediating effect of Intention to Transfer Training on the relation among the Learning Style, Self-Efficacy and Supervisor Support, with the dependent variable of Training Effectiveness, was examined using the PLS algorithm.

The results revealed that the intention to transfer the training was found to be a significant partial mediator on the relationship between the learning support and training effectiveness at level of (β= 0.097, t=3.283, $p<0.01$). However, Intention to transfer the

training was not found to be a mediator between the supervisor support and self-efficacy from one side and the training effectiveness from the other (β= 0.051, t=2.259, $p<0.05$) and (β= 0.059, t=1.411, $p>0.05$) respectively. This is so since the original direct effect were not significant. From another angle, the results suggested that the supervisor support and self-efficacy can indirectly affect the training effectiveness through the intention to transfer training. This result is shown in Table 5.15 supporting the hypotheses of the study H_9 but not H_8 and H_{10}.

Table 5.15

The Results of the Mediating Variable

Hyp. No	Hypothesis	A		B		a*b		C		c'		Decision
		Path Coefficient	T. Value	Path Coefficient	T. Value	Path Coefficient	T. Value	Path Coefficient	T. Value	Path Coefficient	T. Value	Bootstrapping Method
H_8	Intention to transfer the training mediates the relationship between the supervisor support and training effectiveness	0.199***	3.674	0.254**	3.196	0.051*	2.259	0.083	1.306	0.0407	0.593	No Mediation effect but there is an Indirect Effect
H_9	Intention to transfer the training mediates the relationship between the learning style and training effectiveness	0.382*	1.97319	0.254**	3.19639	0.097**	3.283	0.268***	2.689	0.206***	1.973	Partial Mediation
H_{10}	Intention to transfer the training mediates the relationship between the Self-efficacy and training effectiveness	0.232**	2.56145	0.254**	3.19639	0.059	1.411	-0.087	0.886	(-)0.213*	1.965	No Mediation effect and there is no an Indirect Effect

*p<0.05; **p<0.01;***p<0.001

5.14 Chapter Summary

This research employs Partial Least Squares Structural Equation Modeling (PLS SEM) as the major analysis technique since the assumption of multivariate normality of the data was not fulfilled. Since PLS SEM is a relatively new analysis technique in construction, an elaborate treatment of the mechanics of the PLS SEM analysis technique was given in this chapter.

Prior to testing the model of the study, rigorous procedures to establish the validity and reliability of the outer model were followed as it is the standard of SEM data analysis reporting. Once the measurement model has been proven to be valid and reliable, the next step was to test the hypothesized relationships. Before examining the hypothesized relationships, the predictive power of the model was investigated and reported and the goodness of the overall model was confirmed. After that, the structural model was examined and the results were reported in details. As shown in Table 5.16, the hypotheses $H_{1,}$ H2, H_3, H_4 and H_6 were statistically supported by the findings of the study, whereas the other hypotheses H_5 and H_7 were not. Finally, the results regarding the mediation effects of Intention to Transfer Training are summarized in the following.

Table 5.16
Summary of the Findings

Hypothesis	Hypothesized Path	Decision
H_1	Intention to Transfer Training -> Training Effectiveness	Supported
H_2	Learning Style -> Intention to Transfer Training	Supported
H_3	Learning Style -> Training Effectiveness	Supported
H_4	Self-Efficacy -> Intention to Transfer Training	Supported
H_5	Self-Efficacy -> Training Effectiveness	Not Supported
H_6	Supervisor Support -> Intention to Transfer Training	Supported
H_7	Supervisor Support -> Training Effectiveness	Not Supported
H_8	Intention to transfer the training mediates the relationship between the supervisor support and training effectiveness	No Mediation effect but there is an Indirect Effect
H_9	Intention to transfer the training mediates the relationship between the Learning style and training effectiveness	Partial Mediation
H_{10}	Intention to transfer the training mediates the relationship between the Self-efficacy and training effectiveness	No Mediation effect and there is no an Indirect Effect

CHAPTER SIX

DISCUSSION, CONCLUSION AND RECOMMENDATION

6.1 Introduction

This chapter summarizes the study, elaborates the findings and highlights the contributions of the study to the existing knowledge. It also sheds light on the investigation of the variables of the present study, namely; supervisor support, self-efficacy, and learning styles on training effectiveness among managerial staff of Saudi Arabian universities. The chapter also presents a discussion pertaining to analysis of the issues regarding training effectiveness and its relation to Saudi Arabian universities' managerial staff such as issues attributed to supervisor's support, learning style and self-efficacy. This chapter, further, entails the limitations of the study and suggests future research avenues based on the encountered limitations. Finally, this chapter brings down the curtain tracing the concluding remarks of study.

6.2 Overview of the Study

Beyond every reasonable doubt, it appears that education and training significantly contribute to human development. The process of training essentially contributes towards achieving excellence in all facets of life. Although the role of training for the improvement of employee's skills and knowledge has long been acknowledged, management staffs in Saudi Arabia were exposed to training to acquire technical and instructional knowledge, skills and attitudes to carry out their tasks at their respective workplaces. Nevertheless, despite the huge amount of investment appropriated for

training programs yearly by the Saudi Arabia government, studies in the field of human resource management showed great interest in the evaluation of training programs in an attempt to justify the benefits of the significant investments on training workers (Aldolaimi, 2006; Al-Otaibi, 2008; Al-Qahtani, 2011; Collins & Kim, 2010; Huang, 2001; Cheng, 2001).

The evaluation of training becomes increasingly important to the government because it clarifies the effectiveness of the training program and its achievement in equipping workers towards achieving competencies. It holds true for all individuals and applies to all settings in terms of time and place. Aldolaimi (2006) noted that Saudi Arabia government has been emphasizing and supporting training especially the human resource and developing human potential of its employees as a valuable developmental project. He further added that in the development and enhancement of the employees' knowledge and skills, the Kingdom has invested and provided generous donations towards the country's education and training sector.

In Saudi Arabia, human capital development is the core of the proposed development plan and of the achievement of the goals relating to this capital's development. Over a span of many years, the Saudi government has stressed on human resource development (HRD). Pioneering reports from Syneder (1963) showed that in the period spanning from 1952-1953, Saudi Arabia has shown a dynamic increase in the number of educational institutions and school registrations indicating greater government commitment to human resource development.

More recently, the Saudi government has prioritized training and education programs (MoHE, 2013). In particular, the National Commission for Accreditation and Assessment (2012) highlighted the standards for quality assurance and accreditation of higher education institutions in the Kingdom. According to the Commission, training programs catering to teaching skills is a must within the institution to be provided to new and present teaching staff with the inclusion of part time teachers and non-teaching staff.

The present efforts exerted on the development of management workers confines on training with the aim to generate an educated workforce in different economic sectors in order to carry out the economic and industrial development program more effectively. The Saudi Minister of Finance, Ibrahim Al-Assaf described the economy of the Kingdom as in its most optimum in 2011 as it has been in 2 decades. He added that the Kingdom's 2012 new budget has allocated 24% for human development, including education and training (Ghoussoub, 2012).

The Saudi government is convinced that enhancing human skills will assist in making sustainable economic growth, creating additional job opportunities through a knowledge based economy, and building on vocational, educational and technical support foundations. As a consequence, the Kingdom expects the return of the huge investments on human development in terms of competencies, quality and highly productive employees. The objective of training is considered to have failed if the workers are not able to transfer their acquired knowledge, skill and attitude to the workplace.

Training methods and evaluation have undergone changes in the past decades. Training effectiveness is often categorized into knowledge, attitudes and skills whereby

knowledge is a key outcome domain and the effect on skill development or change in behavior is perceived to be the main outcome of training evaluation and its effectiveness (Collins & Kim, 2010). Moreover, in order to clarify the understanding of the process of training transfer, other major, but inconspicuous variables in the transfer process have to be determined and analyzed (Cheng & Hampson, 2008).

In addition, regardless of the requirement to link training, training evaluation and training effectiveness, it is notable that some institutions doubt as to the way training evaluation could reinforce the transfer of employees training in the workplace. A case in point focuses on Saudi Arabia's and extensively attempted to develop employees' skill by providing training programs (Aldolaimi, 2006).

According to Carr (2002), this method overlooks the question of whether or not the behavioral changes gained through training are transferred to daily organizational work tasks. Training program effectiveness can be described as comprising of acquisition and transfer of training (Tracey, 2001) with the latter indicating training effectiveness (Baldwin & Ford, 1988) which is reflected in behavioral changes in the workplace. Training is not as valuable if it is not transformed into effectiveness by the transference of behavioral changes (Goldstein & Ford, 2002; Kirkpatrick, 2007).

Training effectiveness gauges the level to which training, achieves what it is intended for. One of the critical objectives of the training is to enhance job effectiveness. In order to properly assess training effectiveness, variables enhancing or inhibiting the achievement of goals should be understood. Several models of training effectiveness were utilized to determine these factors and their effect on the training goal (Mathieu *et*

al., 1993). These models reveal the significance of both individual and environmental variables in the transference of training. In the meantime, organized training program may not be effective if variables (individual and environmental) offset processes of learning and transfer.

Moreover, individual characteristic like self-efficacy has been addressed as a predictor of training effectiveness. Self-efficacy describes basic construct underlying training effectiveness (Tannenbaum *et al*., 1993). In other words, the level of the employee's self-efficacy can predict effectiveness of learning transfer and this may explain why it has been included and advocated by studies as a crucial variable in the determination of the overall training effectiveness (Huang, 2001; Paglis & Erich, 2010). Self-efficacy is generally defined as the people's perception of their capacity for organization and execution of cause of action needed to achieve a designated type of performance.

It is important to note that evaluation of programs should also focus on the outcome of training and not just in the process. Thus, determining the effectiveness of the training program is imperative to the success of any organization. Moreover, the understanding of real transfer and the issues related to it are still ambiguous. Factors relative to personal character such as self-efficacy have also been highlighted to undermine a successful training program (Paglis, 2010). The approaches that have been employed failed to provide an extensive estimation of training, cost-effectiveness as major considerations have been overlooked.

The above justifies the researcher's interest in investigating the issues pertaining to supervisor support (working environment), self-efficacy and learning style. Therefore, the present study has examined the impact of self-efficacy, supervisor's support and learning style upon training effectiveness. Besides, the trainee's intention to transfer training has been examined as a mediator of the above relationship. The present study is conducted in the context of Saudi Arabian university managerial staff.

Based on the problem statement of this study and the comprehensive review of the relevant literature reported in Chapter 1 and Chapter 2, the present study aimed to achieve the following objectives:

1. To examine the extent to which the intention to transfer training influences the training effectiveness in Saudi Arabian Universities' managerial staff.
2. To examine the extent to which the learning style influences the intention to transfer training in Saudi Arabian Universities' managerial staff.
3. To examine the extent to which the learning style influences the training effectiveness in Saudi Arabian Universities' managerial staff.
4. To examine the extent to which self-efficacy influences the intention to transfer training in Saudi Arabian Universities' managerial staff.
5. To examine the extent to which self-efficacy influences the training effectiveness in Saudi Arabian Universities' managerial staff.
6. To examine the extent to which supervisor support influences the intention to transfer training in Saudi Arabian Universities' managerial staff.

7. To examine the extent to which supervisor support influences the training effectiveness in Saudi Arabian Universities' managerial staff.
8. To investigate whether intention to transfer training mediates the relationship between supervisor support and training effectiveness in Saudi Arabian Universities' managerial staff.
9. To investigate whether intention to transfer training mediates the relationship between learning style and training effectiveness in Saudi Arabian Universities' managerial staff.
10. To investigate whether intention to transfer training mediates the relationship between self-efficacy and training effectiveness in Saudi Arabian Universities' managerial staff.

To achieve the aforementioned objectives of this study, a comprehensive review of previous literature studies was conducted and reported throughout this study with more specific focus in Chapter 2. The review of related literatures revealed that most of the studies on training effectiveness with reference to managerial staff in universities have been conducted in Western and Eastern country context, while countries in the Middle East have conducted a limited study in this area. The researchers go on to say that the findings of training effectiveness studies have not been validated in a cross-cultural setting.

However, prior studies have concentrated on the determining whether or not a relationship exists between several individual and organizational factors and training effectiveness (Cheng, 2001; Karuppaiya, 1996; Roberson & Huang, 2001; Tracey & Tews, 1995; Warr & Bunce, 1995). Despite the fact that some researchers such as

Brown and McCracken, (2009), Hunt and Hunt (2004), and Van Eerde (2003) made use of experimental designs in their evaluation of training effectiveness, according to Frese *et al*. (2003), an experimental design having only a single control group may be insufficient to determine if the behavior change is attributed directly to training and to obtain the Hawthorn effect of repetitive testing.

Frese *et al*. (2003) therefore recommended that more control groups are used to minimize or decrease the Hawthorn effect attributed to experimental designs. The above recommendation shows that experimental designs have their own issues when used to evaluate training effectiveness and hence the present study attempts to minimize these issues through the employment of an adapted questionnaire from prior literature to be used in the current survey research. More importantly, very scarce research has been conducted in Saudi Arabia with reference to training effectiveness despite of the rising level of interest of the Saudi government in human resource development. The Saudi Arabian government is convinced that enhancing human resource skills will lead to the much required human capital resources in a sustainable economic growth and to the creation of job opportunities to accommodate the increasing young generation and to realize a knowledge based economy.

Accordingly, the government spends a high proportion of the annual budget expenditure on human resource development. It is evident that such huge investment of the country's earnings is expected to generate returns in the form of high quality, productive and competent workforce. Unfortunately, the human capital competence and quality of the current workforce, particularly in the public sector's tertiary institution

falls short of justifying this significant investment for its development.

Additionally, majority of Saudi institutions and organizations have yet to explore several available evaluation options for the training program outcome. According to Hung (2001), an institution that evaluates its training program tends to find a high level of effectiveness of the program. Similarly, Aldolaini (2006) stated that the sole means of training outcome evaluation in public institutions in Saudi Arabia is through interviews and observation of participants. This led to the researcher's assumption in the present study that the low level of effectiveness of training in KSA organizations stems from poor level of evaluation of staff training programs.

The transference of knowledge and skill acquired from training to actual job situations is crucial in order to consider the training program as effective, efficient and able to meet the expected objectives of the investment. However, studies dedicated to examining the actual level to which an individual worker transfers knowledge, skill and attitude obtained during training to the actual work situations are still few. The little evidence available reveals that training outcome transfer falls short of expectations particularly in light of the huge investment spent for human resources development (Brinkerhoff & Gill, 1994).

Therefore, the present study aims to answer some of these ambiguities by examining the influence of supervisor's support, self-efficacy and learning style upon training effectiveness among Saudi Universities' managerial staff.

Keeping in consideration, the objectives of the study and the discussion in

Chapter 1, Chapter 2 presented the literature review to identify the relevant variables to be employed for this study; the framework has been presented in Chapter 3. As it has been argued in Chapter 2, this framework is theoretically grounded in Training Transfer Model proposed by Thayer and Teachout (1995). Moreover, the underlying theories that guide this study are Theory of Planned Behavior (TPB) postulated by Ajzen (1991) and Theory of Social Learning proposed by Bandura (2007) conceptualized in the present study as "Social Learning Theory of Learning Style".

To collect the primary data, the present study employed structured questionnaires distributed to authorized administrative officers in six public universities in Saudi Arabia. After data screening, proposed hypotheses were tested using structural model assessment for examining goodness of fit of the proposed model; and mediation analysis using Partial Least Squares (PLS-SEM) approach. The findings of the analysis were reported in Chapter 4 and are further discussed in the following sub-sections. This study concludes with theoretical contributions, policy implications, limitations of the study and suggestions for future research.

6.3 Discussion

The following sub-sections discuss the findings of the study in the same order as the objectives of the study.

6.3.1 Influence of Intention to Transfer Training on Training Effectiveness

The results indicated that the intention to transfer training has a positive significant impact on the training effectiveness. These results are consistent with the findings of the

previous studies which revealed that the effectiveness of training is largely influenced by intention to transfer trains. Foxon (1993) stated that the training transfer intention is related to the likelihood that he/she performs positively after training and during the transfer process which may as well be considered as a likelihood for effective training. This phase is critical as it indicates that to a large extent, trainees show an attitude shift from cognition to action in the transition which indicates their commitment to go through the transfer process. Accordingly, Clemenz (2001) hypothesized that transfer intention forms a linkage between reaction and levels of transfer contained in Kirkpatrick's evaluation model (1996).

Other researchers (e.g. Machin & Fogarty, 2004; Tubbs & Ekeburg, 1991 cited by Powell, 2009) also contended that intention to transfer training is an antecedent of trainee's transfer initiation or transfer-related actions. Similarly, in their test of Thayer and Teachout's (1995) conceptual model, Machin and Fogarty (2003) revealed that the perceptions of trainees towards several intention stimulus activities is linked to training transfer which eventually brings about training effectiveness. They also revealed transfer implementation intentions to be linked to post-training (Machin & Fogarty, 2003).

6.3.2 Influence of Learning Style on Intention to Transfer Training

The results pertaining to the relationship between learning style and intention to transfer training exhibit that learning style has a positive significant impact on the intention to transfer training. These results are in line with the findings of the previous studies which revealed that learning style highly influences intention to transfer training. Prior literature such as Shariff and Al-Makhadmah (2012), Tracey *et al*. (1995) emphasized that factors

like job characteristics and the learning style of the trainee are significant for training transfer. Moreover, Tracey *et al*. (1995) revealed that the learning style of the trainee relates to the behavior application obtained from a certain training course, while Elangovan and Karakowsky (1999) revealed that training transfer is related directly to style of learning and intention to transfer skill following the training completion.

In addition, Simon (2000) argued that trainees' instruction is significantly influenced by learning style which eventually triggers trainee's intention to transfer skills to the workplace setting. He further claimed that the learning style is a factor in training and education that could influence the intention to transfer training efficiently and effectively.

6.3.3 Influence of Learning Style on Training Effectiveness

The results of the study exhibited that learning style has a positive significant impact on the training effectiveness. These results extend an added support to the findings of the previous studies which revealed that learning style play a noteworthy role in determining training effectiveness.

Prior research reveals that the employee's learning style is an instrumental learning style factor that directly and indirectly impacts training effectiveness. Trainees with learning styles that are consistent with a certain training technique are more likely to show superior performance (Simon, 2000). In his findings, Simon (2000) stated that the learning styles of employees has a key role in training effectiveness and in his analysis,

he indicated that the assumptions in light of learning style are mostly upheld by employee during and following the completion of training.

Moreover, it can be stated that in order to motivate the intention of the trainees to transfer their learned knowledge to their jobs, the program materials should be developed having the trainee's learning style and relevant material in mind. According to Simon (2000), learning styles have a key role in the understanding of trainees' abilities and in predicting the training programs' effectiveness. This is the reason why management of organizations is concerned about understanding the managerial staff's learning style, particularly high ranking staff to enable them to contribute to the effective application of training budges. Trainee's learning style identification can be a first step to designing a training program that is consistent with the individual's style. Learning style, maturity level, and interest are critical learner characteristics for the successful outcome of training in any type of learning environment (Yilmaz-Soylu & Akkoyunlu, 2002). More importantly, the learning level achieved through learning styles of trainees is one of the most critical factors indicating the training effectiveness.

6.3.4 Influence of Self Efficacy on Intention to Transfer Training

The results concerning the relationship between self-efficacy and intention to transfer training indicate that self-efficacy has a positive significant impact on the intention to transfer training. These results are consistent with the findings of the prior studies which indicated that Self Efficacy is an important determinant of Intention to Transfer Training.

Prior researches reported that self-efficacy adds to learning, motivation and is linked to training, motivation in a positive way (Colquitt *et al*., 2000; Tracey *et al*., 2001). In other words, a highly confident trainee on his/her capability to apply the training content has a great potential to apply the learned knowledge and skills following training completion. Machin and Fogarty (2003) revealed that intention of training implementation along with transfer is significantly affected by self-efficacy and enhancing activities of transfer. They concluded that transfer implementation intention has been understudied in prior literature and called for further examination to clarify the promotion and enhancement of training transfer success through training effectiveness. The relationship between self-efficacy and other variables including transfer motivation and training transfer has been addressed by researchers and self-efficacy has been confirmed to maximize the degree of training transfer (Chiaburu & Marinova, 2005; Saks, 2002; Ford *et al*., 1998; Kirwan & Birchall, 2006; Latham & Frayne, 1989; Saks, 1995; Mathieu *et al*., 1992; Tannenbaum *et al*., 1991; Velada *et al*., 2007).

To support the aforementioned relationship further, the previous research reveals that employees having low self-efficacy will be less likely to try to transfer the learned material to their jobs (Al-Eisa *et al*., 2009). Therefore, for effective training, employees should be highly confident of their capabilities to transfer after the completion of the program and they should have intention to implement the skills to reinforce this confidence. Also, Tziner *et al*. (2007) revealed that transfer implementation intentions need to be related to self-efficacy. They added that perceived capability following training/learning does not guarantee trainee's specific intentions of adopting learning style. However, they concluded that the level of trainee's self-efficacy is a significant

predictor of transfer training intentions. In other words, self-efficacy is a significant predictor of transfer intentions prior to and following the training (Tziner *et al*., 2007).

Furthermore, training literature is also enriched by the research conducted by Mathieu *et al*. (1993) where self-efficacy was revealed to be related with intention of training transfer and training performance. Self-efficacy was also revealed to indirectly relate to training transfer through trainee's implementation intention (Mullins *et al*., 1998).

6.3.5 Influence of Self Efficacy on Training Effectiveness

The results of the study explored that Self-Efficacy has a negative impact on the Training Effectiveness. This finding contradicts and contrasts with the previous studies that indicate a positive linkage between self-efficacy and training effectiveness. Self-efficacy is positively related to training performance on the grounds that self-efficacy plays a motivational role and eventually affects the level of effort employed by the performer (Mathieu & Martineau, 1997; Mathieu *et al*., 1993). Bandura (1986, 2007) claimed that self-efficacy drives trainees to be convinced of their ability to perform tasks following the training. If individuals are determined to take part in training and development, this adds to the meaning of both achievement and outcome expectations. Similarly, individual attitudes and belief concerning training and development activities are critical determinants and are potential predictors of training effectiveness (Carbery & Garavan, 2011).

In addition, Mathieu *et al*. (1993) revealed that self-efficacy, positive relates to training reactions and performance. Several researchers (e.g. Bhatti & Kaur, 2010; Kauffeld & Lahmann, 2010) identified factors affecting training transfer effectiveness and a close examination of these factors show that they have their basis on individual, working place situation, environmental or contextual design which means that generally they are based on social learning theory (Bandura, 1986).

Specifically, the person and the environment function together and determine each other through a reciprocal relationship. People generate the environmental conditions affecting their behavior reciprocally. Experiences produced by behavior also determine what a person becomes and what he/she is able to do, and in turn, this influences the resulting behavior. Simply stated, social learning theory postulates that most people learn how to behave through their observation of others and then mimicking the behaviors which they think are effective. Additionally, the theory acknowledges that supported or rewarded behaviors are more likely to be mimicked by observers (Noe, 1999). Effectiveness in training generates a critical skills enhancement and facilitates trainees' career development through the reinforcement of supervisor. Self-efficacy is among that factors linked to raining effectiveness assists the employees' transfer of knowledge and skills obtained in training to the work settings. Self-efficacy is viewed as an individual factor that influences the training results (Colquitt *et al*., 2000).

However, despite the positive linkage between self-efficacy and training effectiveness, this study exhibits the negative relationship between the aforementioned variables. A plausible explanation lies in the role of contextual factors. Generally, the

individuals in Middle East believe that they are self-sufficient in performing the tasks at hand. So, those with high self-efficacy levels do not pay required level of attention to training programs, thus; the training results may not be as desired. On, the other hand, individuals with low levels of self-efficacy believe in the value of training to overcome their perceived shortcomings. Therefore, they make better use of training programs.

6.3.6 Influence of Supervisor's Support on Intention to Transfer Training

The results of the study exhibited that supervisor support has a positive significant impact on the intention to transfer training. This finding is consistent with the previous studies that indicate a positive linkage between supervisor support and intention to transfer training. Supervisor's support is a crucial variable that impacts training, implementation intention and training transfer (e.g. Ford *et al*., 1992; Huczynski & Lewis, 1980). According to Ford *et al*. (1992), supervisor's support contributes to the employees' willingness to transfer obtained skills following the training completed. Literature reveals various situational, contextual and trainee variables that influence the complex transfer process (Laker, 1990).

The findings of previous studies revealed that trainees perceiving greater levels of support from supervisors for training and a higher level of implementation intention acquire valued advantages of learning new knowledge and skills (Al-Eisa *et al*., 2009).

In addition, past researchers (e.g., Foxon, 1995; Colquitt *et al*., 2000) dedicated to training transfer and training outcome revealed supervisor support as a strong predictor of transfer outcomes. Supervisor support was contended to relate to general job performance following training of skill acquisition by Bhanthumnavin (2003). In other words, exerting

influence on and support from colleagues will increase employee's transfer intention and actual training transfer (Richey, 1992). Moreover, Intention to transfer training was reported to moderate the supervisor support-training transfer relationship by Colquitt *et al*. (2000); a finding supported by Facteau *et al*. (1995) who reported also reported a strong relation between supervisor support and intention to transfer training.

Thus, the findings of the study confirm the importance of supervisor support in order to motivate the trainees to transfer their knowledge acquired during training while performing their everyday tasks. Supervisors may provide their support through feedback, encouragement and assistance; for instance, training transfer may fail if the supervisor fails to show his support for the transfer or if the trainee is under-motivated to do so. Hence, the role of supervisor is instrumental and catalytic in furthering training transfer by the employees.

6.3.7 Influence of Supervisor's Support on Training Effectiveness

The results of the study revealed that supervisor's support has no impact on the training effectiveness. This finding contradicts and contrasts with the findings of majority of previous studies that indicate a positive linkage between supervisor's support and training effectiveness. According to majority of prior studies, training effectiveness is reported to be significantly linked with immediate superior support (Tennant *et al*., 2002) indicating that immediate superior has a key role in determining the effectiveness or lack thereof of the training programs. Ling (2007) supported this contention by stating that immediate superior's feedback and support assists the participant to organize and employ the learned skills. In the context of Malaysia, correlation studies conducted for training

effectiveness showed that lack of support from immediate superior hindered the training effectiveness of organizations (Karuppaiya, 1996). It has also been revealed that supervisor's support in training directly impacts pre-training motivation (Facteau, *et al*., 1995; Mathieu *et al*., 1992; Tannenbaum *et al*., 1993).

Prior studies by Rouillier and Goldstein (1991) and Ford *et al*. (1992) revealed transfer environment to be improved through strong support from the supervisor as employees are more likely to believe in opportunities to acquire competencies with this support. Similarly, Tennant *et al*. (2002) revealed that support from immediate supervisory significantly correlated with effectiveness of training indicating an immediate supervisor's key role in determining the effectiveness or lack thereof of ttraining programs. Supportive supervisors enormously contribute to training motivation and the perception of the employee's utility of training (Cohen, 1990). When provided a choice of whether to attend training or not and the employee chooses to attend, both motivation and learning for the said training is maximized (Baldwin *et al*., 1991).

Thus, by revealing the negative relationship between supervisor support and training effectiveness, the findings of the present study contradict with the findings of aforementioned previous studies. However, this finding of study gains support and is consistent with the findings of the study by Chiaburu and Marinova (2005) who found that supervisor support was neither related to skill employment nor training effectiveness. Therefore, it can be argued that training effectiveness depends more on willingness and capability of the trainee to acquire new skills and knowledge and optimally utilize them while performing the assigned tasks.

6.3.8 Mediating effect of Intention to Transfer Training on the relationship between Supervisor Support and Training Effectiveness

It is demonstrated by the results that intention to transfer the training was found not to mediate the effect of the supervisor support on the training effectiveness even though the indirect effect is significance. This finding differs from the findings of the studies conducted by (e.g., Tziner *et al*., 2007; Elangovan & Karkowsky, 1999) who claimed that intention to transfer mediates between the factors (self-efficacy, superior support, Learning styles) and actual transfer of training or in other words training implementation and effectiveness. Hence, the findings of the study did not establish the mediating role of intention to transfer training as an outcome of supervisor support and as a determinant of training effectiveness in the context of managerial staff in universities in Saudi Arabia. However, this finding confirms that the supervisor support can indirectly affect the training effectiveness through the intention to transfer the training.

6.3.9 Mediating effect of Intention to Transfer Training on the relationship between Learning Style and Training Effectiveness

The results illustrated that Intention to transfer the training was found to have a significant partial mediation effect on the relationship between the learning style and training effectiveness. Hence, the findings of the study highlight the significance of intention to transfer training as an outcome of learning style and as a determinant of training effectiveness in the context of managerial staff in universities in Saudi Arabia. Therefore, it can be argued with confidence that in order to achieve desired results from training programs, the trainees must have adequate learning style which would enhance their knowledge and boost their motivation and intention to transfer training efficiently and effectively.

6.3.10 Mediating effect of Intention to Transfer Training on the relationship between Self efficacy and Training Effectiveness

The results of the study revealed that intention to transfer the training was found to have no mediation effect on the relationship between the Self-efficacy and training effectiveness and there is no an indirect effect of self-efficacy on the training effectiveness through the intention to transfer training is significant. This finding somewhat contradicts and contrasts with the studies conducted by (Tziner *et al*., 2007; Elangovan & Karkowsky, 1999, Mullins *et al*., 1998) who claimed that intention to transfer mediates between the self-efficacy and actual transfer of training or in other words training implementation and effectiveness. Hence, the findings of the study indicate that there is no significant mediation effect of intention to transfer training on the relationship between self-efficacy and training effectiveness in the context of managerial staff in universities in Saudi Arabia.

6.4 Implications of the Study

This study extends the understanding of training transfer and effectiveness studies on the managerial staff of higher education institutions, particularly in the Middle East and in the overall education industry in general. As education sector is increasingly becoming global, it is imperative to access the need as well as evaluation of training programs offered in higher education industry. This study is an early attempt to analyze the factors that determine the intentions to transfer training and ultimately lead to training effectiveness of managerial staff in universities in Saudi Arabia. As discussed earlier, this region is a booming market with a high growth of student population and significant economic power that will continue to develop drastically in the upcoming years. This

scenario demanded the examination of the variables under study in order to have an insight regarding training and development of well trained and competent managerial staff that can play its crucial part in management of operations in the universities in a well-planned manner. The following sections will discuss the implications of this study in terms of practical and theoretical standpoint.

6.4.1 Managerial and Practical Implications

The findings of the study highlighted several managerial implications. As we have pointed out in the earlier section of this chapter, there is a dire need to comprehend what individual factors of the trainees contribute in developing greater intentions to transfer knowledge and skills acquired through training in order to optimally achieve the desired results of training programs. In addition, it is highly important that the gap between individual factors of trainees and training effectiveness must be plugged. Therefore, this study used intention to transfer training as a mediator variable.

In the past, academic institutions have overlooked the need to focus on training effectiveness with regards to their managerial staff generally in Middle East and particularly in Saudi Arabia. But more recently, with the increasing interest and governmental spending on human resource development, it is imperative to examine the determinants of training effectiveness. The study found that learning style significantly impacts training effectiveness through intention to transfer training. Moreover, the individual factors related to trainees such as self-efficacy and learning style and environmental factors such as supervisor support are examined in the study should be

regarded as a guideline or benchmark for augmenting training effectiveness by administrators of academic institutions..

This in turn will result in positive performance of the educational sector as well as the entire government establishment in bringing about development in the country. Training practitioners can also benefit from this study findings along with educational consultants. More importantly, actions taken in light of the study findings may lead to the improvement of the present state of training evaluation's effectiveness. The present study may lead to the improvement of training through the extension of training activities towards the practical application in the environment of work settings of the trainees.

Finally, the findings on the linkages between individual factors related to trainees, intention to transfer training and training effectiveness should strengthen the strategies of administrators of higher education institutions. The results demonstrate that training effectiveness is an outcome of learning style and intention to transfer training. It implies that for enhancing the effectiveness of training, it is pertinent that the learning style of potential trainees must be nurtured. Only those trainees would exploit maximum benefit of training and consequently develop the intentions to transfer training who would possess greater learning styles. Similarly, it was revealed by the results that self-efficacy and supervisor support significantly impact intentions to transfer training. It can be inferred the seniors or superiors of the managerial staff must support and encourage their juniors and subordinates in order to motivate them to extract maximum benefits out of training program and later implement the skills and knowledge gained through training for achieving higher levels of job performance.

6.4.2 Theoretical Implications

This study makes one of the pioneer attempts to investigate the significance and importance of individual factors relating to trainees towards intention to transfer training and consequently training effectiveness. Though these concepts may have been applied in the training literatures, the relations between these concepts remain vague. This study therefore answers the call of previous scholars who highlighted the scarcity of empirical work done in this area - which links individual factors of intention to transfer training and training effectiveness.

It is evident from the prior sections and discussions in this chapter that most of the studies in literature were carried out in the West and that research works dedicated to training and effectiveness in the Middle-East are few and what exists reflects the poor performance of human workforce. Hence, the present study's main contribution is the unraveling and examination of the issues of variables relating to training effectiveness in the context of Saudi Arabia. Additionally, this study's findings may contribute not only to information in KSA alone but also to the rest of the regions' higher education institutions by proposing that how the training programs may be enhanced while at the same time highlighting the impact of training upon employee's performance and productivity.

Extending this contribution to training effectiveness literature, this study is focused on universities' staff and thus it calls for an opportunity to replicate this study in other regional or global academic institutions in order to examine how the conceptual

training skills of staff are acquired and transferred in the higher institutions of learning in any country.

The most notable contribution of the study is the mediating effect of intention to transfer training in the relationship between self-efficacy, supervisor support, learning style and training effectiveness. To the best of our knowledge there is acute shortage of empirical research if any, that has examined this effect in higher education industry in general and Middle East especially Saudi Arabian higher education institutions in particular. Thus, this study adds to the body of knowledge regarding the sequential link that incorporates self-efficacy, supervisor support, learning style, intention to transfer training and training effectiveness. Moreover, by examining the aforementioned mediation effect, this study further extends the underlying theories of this study that comprise of Theory of Planned Behavior (TPB) postulated by Ajzen (1991) and Theory of Social Learning proposed by Bandura (1986).

Finally, many prior studies investigate a western cultural context where training transfer and training effectiveness has been examined using western subjects to develop and test Training Transfer Model (Thayer & Teachout, 1995). This study fills the gap regarding much needed studies in this part of the continent to validate the findings of previous studies and disperse the myths associated with trainees in this part of the world.

6.5 Limitations of the Study

As other researches, this study also has a few limitations. Like all research, this study has a few deficiencies; thus, the above conclusions and contributions should be generalized with caution. Firstly, the study is limited only to managerial staff of the

universities; it does not take in to consideration the investigation of individual factors and their impact on training effectiveness with regards to academic staff.

Secondly, though the sample of this study represents the pattern of the general population, future studies should take in to consideration the other regions of the country and investigate the variables of study on a larger sample. Thirdly, the scope of the study is limited to academic institutions; the results might differ in case of other service industries. Finally, our study uses the self-reporting techniques, which may be somewhat (socially) biased as in the case of social class. Hence, triangulation methods such as secondary data and other qualitative methods would be an ideal approach.

6.6 Future Research Directions

The research is exploratory in nature. Hence, it creates various prospects for future studies to further broaden the horizon of the study. First, future studies should focus on exploring further individual factors that can leverage the intentions to transfer training and consequently increase the likelihood of training effectiveness. Second, future studies could also concentrate on examining training in the context of academic staff and see if there are any differences in training needs of academic staff and managerial staff. Third, the present study is cross sectional in nature because of time and cost constraints. In future, longitudinal studies can be conducted in order to have a deeper insight and understanding of behaviour of trainees in the public universities' context over a long period of time. Finally, this study should be replicated in other parts of the world and across other service industries to validate the findings and implement the research theoretical model.

6.7 Concluding Remarks

This study extends the continuing number of researches carried out on the training transfer and training effectiveness of managerial staff specifically in the academic context. Although research on training transfer and effectiveness sprang a few decades ago, the subject remains an important area of research inquiry in human resource development and continues to draw attention from new researchers. This study differs, as we looked at training transfer and effectiveness in the context of managerial staff in academic institutions. Although various scholars have acknowledged the possible linkages between individual factors such as self-efficacy and learning style and environmental factors such as supervisor support and intention to transfer training and training effectiveness. There is limited empirical evidence with anecdotal evidence that has examined the mediating role of intention to transfer training in the relationship between aforementioned factors and training effectiveness. In this study, we have opened the Pandora box in determining the significance of these factors towards intention to transfer training leading to training effectiveness of managerial staff in academic institutions.

This study contributed to the training effectiveness literature by utilizing the intention to transfer training gap to measure the extent of leverage or strength on the relationship between individual factors such as self-efficacy and learning style and environmental factors such as supervisor support and training effectiveness. The findings of the study provide some clarifications to the much debatable issue of whether it is worthy to measure intentions to transfer training in determining training effectiveness or

do these factors really matter when evaluating the effectiveness of training. The results of the findings pave the way for more future studies to be conducted in this area.

REFERENCE

Abbitt, J. T., & Klett, M. D. (2007). Identifying influences on attitudes and self-efficacy beliefs towards technology integration among pre-service educators. *Electronic journal for the integration of technology in education,6,* 28-42.

Abed, G.T. (2003). Unfulfilled Promise, Finance and Development. *A quarterly magazine of (IMF) 40* (1), Retrieved from www.imf.org/external/pubs/ft/fandd/2003/03/abed.htm (accessed 18 May 2005).

Adlier, A. (2012). Turkish and English Language Teacher Candidates 'perceived Computer Self-Efficacy and Attitudes toward Computer. TOJET, 11(1).

Aguinis, H. (2009). *Performance management.* (2nd edn.). Upper Saddle River, NJ: Pearson Prentice Hall.

Aguinis, H., Sturman, M.C., & Pierce C.A. (2008). Comparison of three meta-analytic procedures for estimating moderating effects of categorical variables. *Organizational Resources Methods, 11*, 9–34

Ahmad, Z.K. & Bakar, R.A. (2003). The association between training and organisational commitment among the white-collar workers in Malaysia. *International Journal of Training and Development, 7 (3),* 166-185.

Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes,* 50, 179–211.

Alam, K.U.A. & Muzahid, M.A.U. (2006). Informal Islamic education and its role in human resource development in society: A *theoretical evaluation, IIUC Studies, 3,* 83-92.

Al-Ammar, S. A. (1986). The influence of individual and organizational characteristics on training motivation and effectiveness. Unpublished doctoral dissertation, State University of New York.

Albakhaity, A. S. (2001). Identify the role and effects of the internet in private organization in Kingdom [sic] of Saudi Arabia, [electronic resource].PlanB (M. S.), University of Wisconsin, Stout.

Albers, S., (2010). PLS and success factor studies in marketing, In: Esposito Vinzi, V., Chin, W.W., Henseler, J.,Wang, H. (Eds.), Handbook of Partial Least Squares:Concepts,Methods andApplications (Springer Handbooks of Computational Statistics Springer, Heidelberg, Dordrecht, London, New York.

Aldolaimi, A H. (2006). Investigating the effectiveness of training in the public sector in Saudi Arabia: case studies of the Ministry of Education and the Institute of Public Administration. Unpublished doctoral thesis, Durham University.

Al-Eisa, A.S., Furayyan, M.A., & Alhemoud, A.H. (2009). An empirical examination of the effects of self-efficacy, supervisor support and motivation to learn on transfer intention. *Management decision, 47(8),* 1221-1244.

Al-Enzi, A. (2002). Kuwait's employment policy: Its formulation, implications, and challenges. *International journal of public administration, 25(7),* 885–900.

Al-Kandari, D. & David, J. J. (2012). The food control system in Saudi Arabia – Centralizing food control activities. *Food Control, 28*, 33-46.

Alliger, G. M. & Janak, R. A. (1989). Kirkpatrick's levels of training criteria: Thirty years later. Personnel Psychology, 42(2), 331-342.

Alliger, G.M., Tannenbaum, S.I., Bennett, W. Jr, Traver, H., & Shotland, A. (1997). A meta-analysis of the relations among training criteria. *Personnel Psychology,* 50, 341-58.

Alomar, B. (2004). *Statistical data analysis for scientific research using SPSS*. Saudi Arabia: Institute of Health Studies.

Al-Otaibi, M.M. (2008). The need for training of supervisors in oganization in Saudi Arabia. Unpublished doctoral thesis. University of Al-Imam Muhammad bin Saud. K.S.A.

Al-Qahtani M. M. (2011). Evaluation of training in public institutions in Saudi Arabia. Unpublished doctoral thesis. University of Al-Imam Muhammad bin Saud. K.S.A.

Al-Saleh, Y. N. (2004). Graduate Students' information Needs From Electronic Information Resources in Saudi Arabia. Florida State University.

Al-Salman, Y., & Robertson, D.E. (1982). Management practices in Saudi Arabia: A cross-cultural study. *Northeast Louisiana Business Review*, Spring/Summer, 19–26.

Anderson, J.C., & Gerbing, D.W. (1988), Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin, 103(3),* 411-423.

Antonacopoulou, E. (2002). *Revisiting the what, how and why of administrative learning: Some new evidence.* SKOPE Research Paper, Skope: 1 - 44.

Anwar, S.A. (2003). Globalisation of Corporate America and its implications for management styles in an Arabian cultural context. *International Journal of Management, 20(1),* 43–52.

Armstrong, J., & Overton, T. (1982). Estimating nonresponse bias in mail surveys. *Journal of marketing research, 14,* 396-402.

Arthur, W.J., Bennett, W.J., Edens P., & Bell, S.T. (2003). Effectiveness of training in organizations: A meta analysis of design and evaluation features. *Journal of applied psychology 88,* 234–45.

Ary, D., Jacobs, L.C., & Razavieh. A. (2002). *Introduction to research in education* (6th edn.). Belmont, CA: Wadsworth.

Aziz, (2001). Reconfigurable meshes model for the edge detection problem. Proc. Malaysian Science and Technology Congress, November 8-10. Penang.

Bagozzi, R. P. (1994). *Principles of marketing research:* Blackwell Cambridge, Oxford Mass.

Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel psychology, 41 (1),* 63–105.

Baldwin, T.T., Magjuka, R. J., & Loher, B. T. (1991). The perils of participation: Effects of choice of training on trainee motivation and learning. *Personnel Psychology*, 44 (1), 51-65.

Bandura (2009). Toward a psychology of human agency perspectives. *Psychological science, 2*, 164-180.

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory,* Englewood Cliffs, N.J.: Prentice-Hall.

Bandura. (2007). Toward a psychology of human agency perspectives. *Psychological science, 2*, 164-180.

Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares (PLS) approach to causal modeling: personal computer adoption and use as an illustration. *Technology studies, 2(2),* 285-309.

Barclay, D.W. & Smith, J.B., (1995). The effects of organizational differences and trust on the effectiveness of selling partner relationships. *The journal of marketing,* 3-21.

Barnes, J, Cote. J., Cudeck, R., & Malthouse, E. (2001). Factors analysis assumptions of normality before conducting factors analysis. *Journal of consume psychological. 10 (1, 2)* 79-81.

Baron, J. N. (2001). Labor pains: Organizational change and employee turnover in young, high-tech firms. *The American Journal of Sociology,* 106, 960–1012.

Bass, B. (1985). *Leadership and performance beyond expectation.* Free Press, New York, NY.

Baxter Magolda, M. B., & King, P. M. (Eds.). (2004). *Learning partnerships:* Theory & models of practice to educate for self-authorship. Sterling, VA: Stylus.

Bedingham, K. (1997). Proving the Effect of Training. Industrial and commercial

Bentler, P.M. (2005). EQS for Windows (version 6.1). Encino, CA: Multivariate Software.

Bentler, P.M., Chou, C.P., (1987). Practical issues in structural modeling. *Sociological methods and research 16 (1),* 78–117.

Bhanthumnavin, D. (2003). Perceived social support from supervisor and group members' psychological and situational characteristics as predictors of subordinate performance in Thai work units. *Human resource development quarterly, 14(1),* 79-97.

Bhatti, M.A., & Kaur, S. (2010). Factors effecting transfer of training: a fresh review, paper presented at the 12th International Business Information Management Conference (IBIMA), Kuala Lumpur.

Billari, F.C., Philipov, D. (2005). Education and the transition to motherhood: a comparative analysis of Western Europe. European Demographic Working Papers 3, VID.

Billets. S, (1989). Tranfer and social practice. *Austrailia and New Zealand Journal of vocational Education Research, 6*, 1-25.

Blalock, A. Aganbegian, F. M. Borodkin, R. Boudon, & V. Capecchi (Eds.).*Quantitative sociology:* International perspectives on mathematical and statistical modeling. New York: Academic.

Blanchard, P. N., & Thacker, J. W. (2007). *Effective training: Systems, strategies, and practices* (3rd edn.). Upper Saddle River, NJ: Pearson Education

Blume, B.D., Ford, J.K., Baldwin, T.T & Huang, J.L. (2010). Transfer of Ttraining: A meta-analytic review. *Journal of Management, 36(4),* 1065-1105.

Bohrnstedt G.W. (1970). Reliability and validity assessment in attitude measurement. In: Summers GF (ed.), Attitude Measurement. Chicago, IL: Rand McNally, 80–99.

Bollen, K. A., & Lennox, R. (1991). Conventional Wisdom on Measurement: A Structural Equation Perspective. *Psychological bulletin, 110(2),* 305-314.

Bollen, K.A., & Bollen, K.A. (1989). Structural equations with latent variables.

Bono, J. & Judge, T. (2003). Self-concordance at work: toward understanding the motivational effects of transformational leaders. *Academy of Management Journal, 46(5),* 54-71.

Boomsma, A., & Hoogland, J.J. (2001). The robustness of LISREL modeling revisited. Structural equation models: Present and future. A Festschrift in honor of Karl Jöreskog, 139-168.

Bramley, P. (1996). *Evaluating training effectiveness*. Maidenhead: McGraw-Hill.

Branine, M. (2004). *Human resource management in Algeria.* In Budhwar, P. and Debrah, Y. (eds.). *Human Resource Management in Algeria*. London: Routledge.

Breckler, S.J. (1990). Applications of covariance structure modeling in psychology: Cause for concern. *Psychological bulletin, 107,* 260-273.

Brinkerhoff, R. O. & Montesino, M.U. (1995). Partnerships for training transfer: lessons from a corporate study. *Human resource development quarterly, 6 (3),* 263-274.

Brinkerhoff, R., & Gill, S. (1994). *The learning alliance*. San Francisco, CA: Jossey-Bass.

Broad, L.M. & Newstrom, W.J. (2001). *Transfer of training*. New York: Addison-Wesley.

Broadwell, M. (1989). Why trainees should not evaluate trainers. In Geber, B. (Ed.) *Evaluating Training,* (P.79-82), Lakewood Books, Minneapolis, MN.

Brown, S. (2002). Strategies that contribute to non-traditional/adult student development and persistence. *PACE journal of lifelong learning, 11,* 67-76.

Brown, T. C., & McCracken, M. (2009). Building a bridge of understanding: How barriers to training participation become barriers to training transfer. *Journal of European industrial training,* 33(6), 492-512.

Bryman, A. (2004). *Social Research Methods*. New York: Oxford University Press Inc.

Buckley, R. and Caple, J. (2007), The theory and practice of training, 4 thed., Kogan Page, London.

Budhwar, P. & Mellahi, K. (2006). Introduction: HRM in the Middle East context'. In Budhwar, P. and Mellahi, K. (eds.). *Managing Human Resources in the Middle East.* London: Routledge, 1–19.

Budhwar, P., Al-Yahmadi, S. & Debrah, Y. (2002). Human resource development in the Sultanate of Oman. *International Journal of Training and Development*, 6(3), 198–215.

Burke, L. A. (2001). *Training transfer:* Ensuring transfer gets used on the job. In L.A. Burke (Ed.). High-impact training solutions: Top issues troubling trainers. Westport, CT: Quorum.

Burke, L. A., & Hutchins, H.M. (2007). Training transfer: An integrative literature review. *Human Resource Development Review, 6(3),* 263-296.

Burke, M. J., Borucki, C. C., & Hurley, A. E. (1992). Reconceptualizing psychological climate in a retail service environment: a multiple stakeholder perspective. *Journal of Applied Psychology, 77(5),* 717-729.

Burns, J.M. (1978). *Leadership.* Harper and Row, New York, NY.

Byrne, B. (2010). *Structural Equation Modeling with AMOS (2nd edn):* Taylor & Francis Group.

Campbell, J. (1989). *The agenda for training theory and research.* In I. L. Goldstein (Ed.), *Training and development in organizations*. San Francisco: Jossey-Bass.

Carbery R & Garavan, T. N. (2011). *Conceptualising Participation in Formal Training and Development Activities:* A Planned Behaviour Approach. Springer Science & Business Media.

Carr, M., & Claxton, G. (2002). Tracking the development of learning dispositions. *Assessment in Education, 9,* 9-37.

Cassell, C. M. (2011). Evidence-based I-O psychology: what do we lose on the way? 23–26.

Chan, F., Leahy, M., Saunders, J., Tarvydas, V., Ferrin, M., & Lee, G. (2003). Training needs of rehabilitation counselors for contemporary practices. Rehabilitation Counseling Bulletin, 46, 82-91.

Chang, C. J., Hwang. N.C.R. (2003). Accounting education. Firm training and information technology: A research note. *Accounting Education, 12,* 441-456.

Chang. V.C. (1996). *School effectiveness and school based management: A mechanism for development.* London.

Cheng, E. (2001). Research note, A review of transfer of training studies in the past decade. *Personnel review, 30(1),* 102-118.

Cheng, E. W. L., & Hampson, I. (2008). Transfer of training: A review and new insights. *International* journal of management reviews, *10*, 327–41.

Chiaburu, D. S., & Marinova, S. V. (2005). What predicts skill transfer? An exploratory study of goal orientation, training self-efficacy and organizational supports. *International journal of training and development, 9(2)*, 110-123.

Chin, W.W. (1998). The partial least squares approach for structural equation modeling. Nonresponse bias in web and paper surveys. Research in higher education, 44(44).

Chin, W.W. (2001). PLS-graph user's guide. CT Bauer College of Business, University of Houston, USA.

Chin, W.W. (2010). How to write up and report PLS analyses, In: Esposito Vinzi, V., Chin, W.W., Henseler, J.,Wang, H. (Eds.), Handbook of Partial Least Squares: Concepts, Methods and Applications (Springer Handbooks of Computational Statistics II. Springer, Heidelberg, Dordrecht, London, NewYork, 655-690.

Chin, W.W. (2010). PLS-graph user's guide. CT Bauer College of Business, University of Houston, USA.

Chin, W.W., & Newsted, P.R. (1999). Structural equation modeling analysis with small samples using partial least squares. *Statistical strategies for small sample research, 2*, 307-342.

Chin, W.W., Marcolin, B.L., & Newsted, P.R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information systems research, 14(2),* 189-217.

Chokri,B., & Talal, H. K.(2013). The improvement of lifelong learning in Saudi Arabian university from individual learning to social constructivist e-learning environment based new educational technologies. *European scientific journal 9 (13),* 23-47.

Chou, C.-P., & Bentler, P. M. (1995). *Estimates and tests in structural equation modeling.* In R. H. Hoyle (Ed.), *Structural equation modeling:* Concepts, issues, and applications. Thousand Oaks, CA: Sage.

Chow, W.S., & Chan, L.S. (2008). Social network, social trust and shared goals in organizational knowledge sharing. *Information & management, 45(7),* 458-465.

Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. Journal of marketing research 16, 64-73.

Clements, C. J., & Josiam, B. M. (1995). Training: Quantifying the financial benefits. *International Journal of Contemporary Hospitality Management, 7 (1),* 10-15.

Clemenz, C.E. (2001). Measuring perceived quality of training in the hospitality industry. Unpublished PhD dissertation, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Cohen, J. (1990). What motivates trainee? *Training and development journal, 36,* 91-93.

Cohen, J. (2005). Theoretical considerations of peer tutoring. *Psychology in the schools*, 23, 175-186.

Cohen, M. &. Collins. (1976). Some correlates of organizational effectiveness. In I. &. J.J. Gibson, (eds.). *Reading in organization: Behavior, structure, process*. Dallas: TX Publication.

Collins, M. E., & Kim, S. H. (2010). Emperical studies of Child welfare training effectiveness: methods and outcomes. *Child adolescent social work journal, (27)* 41 – 62.

Colquitt, J., LePine, J., & Noe, R. (2000). Towards an integration theory of training motivation: a meta-analytic path analysis of 20 years of research. *Journal of applied psychology*, 85 (5), 678-707.

Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. Journal of Applied Psychology, 78, 98–104.

Creswell, J. (2005). *Educational Research: Planning, conducting and evaluating quantitative and qualitative research.* SAGE Publication.

Curtis, S., & Wright, D. (2001). Retaining employees—the fast track to commitment. Management Research News, 24(8), 59–64.

Davis, J.R., & Davis, A. B. (1997). *Effective training strategies: A comprehensive guide to maximizing learning in organizations*. San Francisco: Berrett-Koehler.

Davis, Mark A., Curtis, Mary B., & Tschetter, Jeffery D. (2003). Evaluating ccgnitive training outcomes: Validity and utility of structural knowledge assessment. *Journal of business and psychology, 18(2),* 191-206.

Davis, T.R., & Luthans, F. (1980). A social learning approach to organizational behavior. *Academy of management review, 5, (2),* 281-290.

Day, D. V., Harrison, M. M., & Halpin, S. M. (2009). *An integrative approach to leader development.* New York: Routledge.

Debrah, Y. & Budhwar, P. (2004). Conclusion: International competitive pressures and the challenges for HRM in developing countries. In Budhwar, P. and Debrah, Y. (eds.). *Human Resource Management in Developing Countries*. London: Routledge.

Debrah, Y.A., McGovern, I. & Budhwar, P. (2000). Complementarity or competition: The development of human resources in a growth triangle. *International journal of human resource management, 11(2): 314–35.*

Dessler, G. (2001). *Management: Leading People and Organization in the 21st Century*. Harlow: Prentice Hall.

Diamantopoulos, A. (2000). The error term in formative measurement models: interpretation and modeling implications. *Journal of modelling in management, 1(1),* 7-17.

Diamantopoulos, A., & Winklhofer, H.M. (2001). Index construction with formative indicators: An alternative to scale development. Journal of Marketing research, 269-277.

Dolezalek,H. (2009). Standardized testing in schools. Published by ABDO.

Dooley, D. (1984). *Social research methods*. New Jersey: Prentice Hall Inc.

Duffy, K. G., & Wong, F. Y. (2000). *Community Psychology* (2nd edn.). Boston: Allyn and Bacon.

Efron, B., & Tinbshirani, R.J. (1993). *An introduction to the bootstrap.* Boca Raton, FL: Chapman & Hall.

Elangovan, A., & Karakowsky, L. (1999). The Role of Trainee and Environmental Factors in Transfer of Training: An Exploratory Framework. *Leadership & organization development journal, 20(5),* 268-276.

Endres, G.J., & Kleiner, B.H. (2007). 'How to measure management training and developmenteffectiveness. *Journal of European Industrial Training, 14(9),*3–7.

Eraut, M. (2007). Learning from other people in the workplace. Oxford Review of Education, 33(4) 403-422. Armitage, C.J. & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British journal of social psychology, 40,* 471-99.

Eun, B. (2008). Making connections: Grounding professional development in the developmental theories of Vygotsky. The Teacher Educator, 43, 134-155.

Facteau, J.D., Dobbins, G.H., Russell, J.E.A., Ladd, R.T., & Kudisch, J.D. (1995). The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer. Journal of management, 21, 1-25.

Falk, R.F., & Miller, N.B. (1992). *A primer for soft modeling:* University of Akron Press.

Flecknoe, M. (2002). How can ICT Help us to improve education? *Innovations in Education & teaching international*, 39 (4), 271-280.

Ford, J. K., Quiñones, M. A., Sego, D. J., & Sorra, J. S. (1992). Factors Affecting the Opportunity to Perform Trained Tasks on the Job. *Personnel psychology*, *45* (3), 511-527.

Ford, J.K., & Schmidt A. M. (1998). Emergency response training: Strategies for enhancing real-world performance. *J. Hazard.Mater*, 75, 195–215.

Ford, J.K., & Weissnien, D. A, (1997). Transfer of training. Updated Review and Analysis. *Performance improvement Quarterly, 10 (12),* 22-41.

Ford, L. (2009). Improving training transfer. *Industrial and commercial training, 41(2),* 92-96.

Fornell, C. (1987). *A second generation of multivariate analysis:* Measurement and Evaluation. Praeger Publishers.

Fornell, C., & Bookstein, F.L. (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of marketing research,* 440-452.

Fornell, C., & Cha, J. (1994). Partial least squares. Advanced methods of marketing research, 407, 52-78.

Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research,* 39-50.

Fornell, C., Lorange, P., & Roos, J. (1990). The cooperative venture formation process: A latent variable structural modeling approach. *Management science, 36(10),* 1246-1255.

Fox, E., & Riconscente, M. M. (2008). Metacognition and self-regulation in James, Piaget, and Vygotsky. *Educational psychology review, 20 (4),* 373-389.

Foxon, M. (1995). Using action planning to facilitate transfer of training. Unpublished doctoral dissertation, The Florida State University, Tallahassee.

Foxon, M.J. (1993). A process approach to the transfer of training part 1: The impact of motivation and supervisor support on transfer maintenance, *The Australian Journal of educational technology, 9,* 130-43.

Fraenkel, J., & Wallen, N. (2008). *How to design and evaluate research in education* (7th edn.). New York: McGraw-Hill.

Frese, M., Brodbeck, F. C., Heinbokel, T., Mooser, C., Schleiffenbaum, E., & Thiemann, P. (2003). Errors in training computer skills: On the positive function of errors. *Human–Computer Interaction*, 6, 77–93.

Fuller, J., Patterson, C., Hester, K., & Stringer, D. (1996). A quantitative review of research on charismatic leadership. *Psychological reports, 78 (1),* 271-287.

Gambetta, D. (1987). *Were they pushed or did they jumped. Individual decision mechanisms in education.* Cambridge: University Press.

Garthwaite, P. H. (1994). An interpretation of partial least squares. Journal of the American StatisticalAssociation, 89(425), 122–127.

Gaudine, A. P., & Saks, A. M. (2004). A longitudinal quasi-experiment on the effects of posttraining transfer interventions. *Human resources development quarterly, 15,* 57-76.

Gefen, D., Straub, D. W. & Boudreau, M.C. (2000). Structural equational modeling and regression. *Communications of the association for information systems, 4 (7),* 1-79.

Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika, 61(1),* 101-107.

Georgenson, D. L. (1982). The problem of transfer calls for partnership. *Training and development journal, 36,* 75–8.

Ghazali, D. (2010). Program Evaluation in Higher Education**.** *International journal of research & review, 5,* 56-62.

Ghotbi, D. (2011). Standardardization and localization of HRM in Western MNCs in Iran. Mater Thesis University of Twente.

Ghoussoub, S., (2012). *The Largest Budget in the History of Saudi Arabia.* Al-Iktisad Wa al-A'mal Publication (Pan Arab)

Gielen, E. W. M., & Van der Klink, M. R. (1995). Supervisory support as a transfer enhancing activity: Synthesis of four research projects. In E. F. Holton, III (Ed.), *Academy of Human Resource Development 1995 Conference Proceedings.* St. Louis, MO: AHRD.

Gist, M. E., Stevens, C. K. & Bavetta, A. G. (1991). Effects of self-efficacy and post-training intervention on the acquisition and maintenance of complex interpersonal skills. *Personnel Psychology,* 44, 837–861.

Gist, M.E., & Mitchell, T.R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of management review, 17(2),* 183-211.

Goldstein, I. L. (1986). *Training in Organizations: Needs Assessment, Development, and Evaluation.* Monterey, CA: Brooks/ Cole Publishing Company.

Goldstein, I. L., & Ford J.K. (2002). *Training in Organizations.* (4th end)Belmont, CA: Wad Sworth.

Goldstein, I., & Ford. A (2002). *Training in organizations*: Need assesment, development and evaluation. Wadsworth.

Gollwitzer, P. M. (1993). Goal achievement: The role of intentions. In W. Stroebe and M. Hewstone (eds.), *European review of social psychology, 4,* 141–85, Chichester, England: Wiley.

Graham, J. (1999). Initial Teacher Education: TTA/OFSTED Quality Framework a) A Critique; b) The Costs Universities Council for the Education of Teachers, London: Occasional Paper No. 9, November 1997 (available at www.ucet.ac.uk.).

Greene, S. (1997). *Child development:* Old themes and new directions. In R. Fuller, P. McGinley & P. Walsh (end) A century of psychology: Progress, paradigms and prospects for the new millennium. London: Routledge.

Grossman, R., & Salas E. (2010). *The Transfer of Training: What Really Matters*. Blackwell Publishing Ltd.

Guthrie, J. P., & Schwoerer, C, E. (1994). Individual and contextual influences on self-assessed training needs. *Journal of Organizational Behavior*, 15, 405-422.

Hair, J., Money, A., Page, M., & Samouel, P.(2011), Research Methods for Business. USA: John Wiley and Sons.

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate Data Analysis*. (7^{th} edn.). Pearson Prentice Hall.

Hair, Joseph F., Marko Sarstedt, Christian, M. Ringle & Jeannette A. Mena (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the academy of marketing science, 40 (3),* 414-433.

Hamilton, J.R. (2009). Smart utilization of tertiary instructional modes. *Computers and education 54(4),* 1036-1053.

Hartley, J. (1998). *Learning and studying:* A research perspective. London: Routledge.

Hashim, J. (2010). "Human resource management practices on organizational commitment: *The Islamic perspective, personnel review, 39 (6),* 785-799.

Haskell, R. E. (1998). *Reengineering corporate training: Intellectual capital and transfer of learning.* Westport: CT: Quorum.

Hawley, J. D., & Barnard, J. K. (2005). Work environment characteristics and implications for training transfer: A case study of the nuclear power industry. *Human resource development international, 8(1),* 65-80.

Herero, B., Moreno, B., & Xavier, U. (2011). Evaluation of training effectiveness in the Spanish health sector. *Journal of Workplace Learning,* 23, *5,* 315-330.

Hesketh E.A., & Laidlaw, J.M. (2007). Selling education events to health care professionals. Twelve tips on the function and design of trigger leaflets. *Medical teachers, 19 (4),* 250-256.

Hew, K. F. (2011). Students' and teachers' use of Facebook. *Computers in human behavior, 27(2),* 662-676.

Hill, C.E., & Lent, R.W. (2006). A narrative and meta-analytic review of helping skills training: time to revive a dormant area of inquiry. *Psychological theory resource practices, 43,* 154–72.

Hisham, A., Mansour, A. M., Mohamed, A.H., Alian, A., Amjad, A., Fahad, S., Aziz, S., Michael, M. & David, W. B. (2013). Challenges to and the future of medication safety in Saudi Arabia: A qualitative study. *Saudi pharmaceutical journal,* 1-17.

Holton, E.F. (1996). The flawed four-level evaluation model. *Human resource development quarterly, 7 (1),* 5-21.

Holton, E.F. III (2005). The flawed four-level evaluation model. *Human resource development quarterly, 7(1),* 37-54.

Holton, E.F. III, Bates R.A., & Ruona, W. E. A. (2000). The development of a generalized learning transfer system inventory. Human Resource Development Quarterly, 11, 333-360.

Honey, P., & Mumford, A. (1982). The Manuals of Learning Styles. Maidenhead: Honey Press.

Honeycutt, E.D. Jr. (1996). Conducting a sales training audit. *Industrial marketing management, 25(2),* 105-13.

Honeycutt, E.D. Jr., & Stevenson, T. (1989). Evaluating sales training programs. *Industrial marketing management, 18(3),* 215-22.

Honeycutt, Jr., E. D. & Ford, J. B. (2001). Guidelines for Managing an International Sales Force. *Industrial marketing management,24(2),* 135-144.

Hoyle, R. H. (2000). Confirmatory factor analysis. In H. E. A. Tinsley & S. D. Brown (Eds.), Handbook of applied multivariate statistics and mathematical modeling. New York: Academic Press.

Hsu, P.S., Chang, T. J., & Wu, M.H. (2009). A new diagnostic mechanism of instruction: A dynamic, real-time and non-interference quantitative measurement technique for

adaptive e-learning. *International journal of distance education technologies, 7(3),* 85-96.

Huang, T.C. (2001). The relation of training practices and organizational performance in small and medium size enterprises. *Education and training, 43(8/9),* 437-444.

Huczynski, A. A., & Lewis, J. W. (1980). An empirical study into the learning transferprocess in management training. *Journal of management studies, 17(2),* 227-24.

Hundley, V. (2001). The importance of pilot studies. Social research update. Accessed on 25/4/2012, from http://www.soc.surrey.ac. uk/sru/SRU35. Html.

Hunt, C. S., & Hunt, B. (2004). Changing attitudes toward people with disabilities: Experimenting with an educational intervention. *Journal of Administrative Issues,* 16, 266-280.

Husain, S.S., & Ashraf, S.A. (1979). *Crisis in Muslim education.* Hodder and Stoughton, London.

Ingram, T., Schwepker, C. & Hutson, D. (1992). Why sales people fail. *Industrial marketing management, 21*, 225-230.

Ismail, I. R., Ghani, M.A., & Krishnan, R. (2011). Linking individual characteristics to motivation to learn. 2nd International conference on business and economic research (2nd icber 2011) proceeding.

Jacobs, R. L. (2003). *Structured On-the-Job Training: Unleashing employee expertise in the workplace*. San Francisco: Berrett-Koehler.

Jaeger, B., Freeman, S., & Whalen, R. (2007). AC 2007-1236 do the like what they learn, do they learn what they like and what do we about it. Washington, DC: American Society for Education Engineering.

Jobber, D., Hooley, G., & Shipley, D. (1993). Organizational size and sales force evaluation practices. *Journal of Personal Selling & Sales Management,* 13(2), 37-48.

Johnson, B., & Christensen, L. (2004). *Educational research: Quantitative, qualitative, and mixed approaches* (2nd edn.). Needham Heights, MA: Allyn & Bacon.

Jones, D.A. (2008). A Novel Approach to Business Ethics Training: Improving Moral Reasoning in Just a Few Weeks. *Journal of business ethics, 88,* 367–379.

Jöreskog, K.G., & Wold, H. (1982), The ML and PLS techniques for modeling with latent variables: historical and comparative aspects. Systems under indirect observation: Causality, structure, prediction, (1): 263-270.

Kaiser, H.F. (1974) An index of factorial simplicity. *Psychometrika, 39,* 31-36.

Karuppaiya, S. (1996). Work Values, Personality Traits and Career Success. Dissertation submitted in partial fulfilment of requirements for the degree of Doctor of Business Administration. Malaysia

Kauffeld, S., & Lehmann-Willenbrock, N. (2010). Sales training: effects of spaced practice and training transfer. *Journal of European industrial training, 34(1),* 23-37.

Kavanagh, M. J. (1998), 'Transfer of Training: A Multi-Stage Model Designed for Practical Use by Organizations', in C. Scholz and J. Zentes (eds), Strategisches Euro-Management (Stuttgart:Schaffer-Poeschel), 301–21.

Kemp, J. E., Morrison, G. R., & Ross, S. M. (1998). *Designing Effective Instruction*, (2nd Edn.). Upper Saddle River, NJ: Prentice Hall

Kim, H. (2006). Transfer of training as a sociopolitical process. *Human resource development quarterly,15*, 497-501.

Kirkpatrick, D. L. (1996). Evaluation of training, In R. L. Craig (Ed.), *Training and development handbook* (2nd Edn.), New York: McGraw-Hill.

Kirkpatrick, D.L. (1959a). Techniques for evaluating training programs. *Reaction American society for training and evelopment journal, 18,* 3-9.

Kirkpatrick, D.L. (1959b). Techniques for evaluating training programs: *learning. American society for training and development journal,* 18, 21-26.

Kirkpatrick, D.L. (1960a). Techniques for evaluating training programs: *behavior. American society for training and development journal, 14,* 13-18.

Kirkpatrick, D.L. (1960b). Techniques for evaluating training programs: behavior. *American society for training and development journal, 14*, 13-18.

Kirkpatrick, D.L. (1994). *Evaluating Training Programs:* The Four Levels, Berrett-Koehler. Publishers, San Francisco, CA.

Kirkpatrick, D.L. (1998). *The Hidden Power of Kirpatrick's Four Levels.* San Francisco: Berrette-Koelher

Kirkpatrick, D.L. (2007). *Evaluating Training Programs: The Four Levels*, San Francisco, CA, Berrett-Koehler.

Kirwan, C., & Birchall, D. (2006). Transfer of Learning from Management Development Programmes: Testing the Holton Model. *International journal of training and development, 10 (4),* 252-268.

Kline, R. B. (2011). Convergence of structural equation modeling and multilevel modeling. In M. Williams & W. P. Vogt (Eds.), *Handbook of methodological innovation* (pp. 562–589). Thousand Oaks, CA: Sage.

Kline, R.B. (2001). Principles and practice of structural equation modeling (3rd ed.). New York: The Guilford Press.

Kozlowski, S.W.J., Gully, S.M., Brown, K.G, Salas E, Smith, E.M, Nason E.R. (2001). Effects of training goals and goal orientation traits on multidimensional training outcomes and performance adaptability. *Organizational behavior human decision process. 85,* 1–31

Kraiger & Ford, (2007). development to improve individual, team and organizational effectiveness is regarded as one of the most widespread human. *Historical perspectives in industrial and organizational psychology, 21(7),* 281-309.

Kraiger, K. (2002). *Decision-based evaluation.* In Creating, Implementing, and Maintaining Effective Training and Development: State-of-the-Art Lessons for Practice, San Francisco, CA: Jossey-Bass.

Kraiger, K., Ford, J., & Salas, E. (1993). Application of cognitive, skillbased, and affectivetheories of learning outcomes to new methods of training evaluation. *Journal of applied psychology, 78(31),* 13-28.

Krejcie, R.V., & Morgan, D.W. (1970). Determining Sample Size for Research Activities. Educational and Psychological Measurement. *The NEA Research bulletin*, 38, 99.

Kumpikaite, V. (2007). Human resource training evaluation. *Engineering Economics*, 55(5), 29-36.

Laker, D. R. (1990). Dual dimensionality of training transfer. *Human resources development quarterly, 1(3),* 209-235.

Latham, G.P., & Frayne, C.A. (1989). Self-management training for increasing job attendance: A follow-up and a replication. *Journal of applied psychology, 74(3),* 411-416.

Leach, M. & Liu, A. (2003). Investigating interrelationships among sales training evaluation methods. *Journal of personal selling & sales management*, 325-337.

Leary, M. (2004). Get over yourself! *Psychology today, 37(4),* 62-65.

Lee, L., Petter, S., Fayard, D., & Robinson, S. (2011). On the use of partial least squares path modeling in accounting research. *International journal of Accounting information systems.12 (4),* 305-328

Lee, P., Gillespie, N., Mann, L., & Wearing, A. (2011). Leadership and trust: Their effect on knowledge sharing and team performance. *Management learning, 41(4),* 473-491.

Levy, O. (2005). The Influence of Top Management Team Attentional Patterns on Global.

Liebermann, S., & Hoffmann, S. (2008). The impact of practical relevance on training transfer: Evidence from a service quality training program for German bank clerks. *International journal of training and development,12 (2),*74-86.

Ling, L.K. (2007). Evaluating the effectiveness of aconceptual skill training: A Quasi-Experimental Approach. Unpublished doctorate thesis. Malaysia

Littin, R. (2002). Relationships between and among an urban elementary achool's grade three though fif students' learning styles cognitive styles reading achievement hemispheric preferences and gender (Doctoral dissertation). Available from ProQuest Dissertation and theses databases. (UMINo:3034485).

Lohmoller, J. B. (1998) Latent Variable Path Modeling with Partial Least Squares . Heidelberg: Physica-Verlag,

Looney, R. (2003). The Gulf Co-operation Council's Cautious Approach to Economic Integration. *Journal of economic cooperation, 24(2),* 137–60.

Lunenburg F, C., & Ornstein A, C. (2012). *Educational Administration: Concepts and Practices*. Wadsworth.

Macaulay, C. (2000). Transfer of learning. In V. E. Cree & C. Macaulay (Eds.), *Transfer of learning in professional and vocational education*. London: Routledge.

Machin, M. A. (2002). Planning, managing, and optimizing transfer of training. In: K. Kraiger (Ed.), *Creating, implementing, and managing effective training and development* (pp. 263-301). San Francisco: Jossey-Bass.

Machin, M. A., & Fogarty, G.J. (2003). Perceptions of Training-Related Factors and Personal Variables as Predictors of Transfer implementation intentions. *Journal of business and psychology, 18(1),* 51-71.

Machin, M.A., & Fogarty G.J. (2004). Assessing the antecedents of transfer intentions in a training context. *International journal of training and development, 8(3),* 222-236.

MacKinnon, D. P. (2008). Contracts in multiple mediator models. In Rose, J.S., Chassin, L., Presson, C.C., & Sherman, S.J. (Eds), multiple variate applications in substance use research. Mahwah, N.J:Erlbaum.

Madge, C., Meek, J., Wellens, J., & Hooley, T. (2009). Facebook, social integration and informal learning at university: It is more for socialising and talking to friends about work than for actually doing work. *Learning, media and technology, 34,* 141-155.

Mae, L., & Wilkinso Cox, M. (2006). The effects of it-based training on employees uptake of new technologies in the work-place. *Journal for professional organizations,* 3(2), 37-44.

Magableh, I.K., Kharabsheh, R. & Al-Zubi, K .A. (2011). Determinants and Impact of Training: The Case of SMEs in Jordan. *International journal of economics and finance, 3 (5),* 11-31.

Mansour, M. (2013). Evaluation of Training in Organizations: An empirical investigation from a developing country. *International journal of education and research, 1(6),* 1-12.

Marcoulides, G.A., & Saunders, C. (2006), Editor's comments: PLS: a silver bullet? Mis quarterly, 30(2): iii-ix.

Maroun, N., Samman, H., Moujaes, C.N. & Abouchakra, R. (2003). *How to Succeed at Education Reform: The case for Saudi Arabia and the Broader GCC Region*. MIT Press.

Marx, R. D. (1986). Improving management development through relapse prevention strategies. *Journal of management development, 5 (2),* 27-40.

Mathieu, J. E., & Martineau, J. W. (1997). Individual and situational influences in training motivation.In J. K. Ford (Ed.), *Improving training effectiveness in work organizations* (pp.193–221). Mahwah, NJ: Lawrence Erlbaum.

Mathieu, J. E., Martineau, J. W., & Tannenbaum, S. I. (1993). Individual and situational influences on the development of self-efficacy: Implications for training effectiveness. *Personnel psychology, 46(1),* 125-147.

Mathieu, J.E., Tannenbaum, Scott. I., & Salas, E. (1992). Influences of Individual and Situational Characteristics on Measures of Training Effectiveness. *Academy of management journal, 35(4),* 828-847.

Maxwell, J. A. (1996). *Quantitative research design. An interactive approach.* London: SAGE Publication, Inc.

McDonald, R. (1989). Organizational context and the use of accident investigation training. *Journal of safety research, 20(2),* 55-60.

McDonald, Roderick P., and Ringo Ho Moon-Ho (2002). Principles and Practice in Reporting Structural Equation Analyses. *Psychological methods, 7,* 64–82.

Mellahi, K. & Wood, G. (2004). 'Human Resource Management in Saudi Arabia'. In Budhwar, P. and Debrah, Y. (eds.). *Human Resource Management in Developing Countries.* London: Routledge, pp. 135–151.

Meyer, H. & Raich, M. (1983). An objective evaluation of a behavior modeling training program. *Personnel psychology, 36*, 755-761.

Miller, J., & Deutsch, J. (2003). *Food studies: Introduction to research methods*. British Library in Cataloguing in Publication Data.

Ministry of Economy and Planning, (2010). *Kingdom of Saudi Arabia.* Brief Report on the Ninth Development Plan (2010-2014).

Ministry of Higher Education of Saudi Arabia. Accessed 23rd march, 2013. www.mohe.gov.sa.

Mior Asariah Shaharuddin. (1991). Program pengesanan kursus dalam pendidikan. *Jurnal pendidikan guru, 7,* 28 - 48.

Morgan, G. (1988). *Images of Organization.* Newbury Park, CA: Sage Publications.

Morgan,R. B,& Casper,W,J. (2000). Examining the factor structure of participant reactions to training: A multidimensional approach. *Human resource development, 11(3),* 301-317.

Morris, M., LaForge, R., & Allen, J. (1994). Salesperson failure: Definition, determinants, and outcomes. *Journal of personal selling & sales management, 14 (1),* 1-15.

Morrisey, G.L. and Wellstead, W.R. (1980).Supervisory Training can be measured. *Training and development journal, 34(6),* 118-22.

Muhmmad, Al-Harahisha Aboud & Muqabilah Muhammad Qasim (2009). Effectiveness of training programs in the Department of Education in Irbid Local Government from trainees point of view. *Journal of reading and knowledge, 42,* 77-105.

Mullins, M.E., Fisher, S.L., Howell, A.W., Schmitt, N., & Kozlowski, S.W.J. (1998). Motivational and contextual influences on training effectiveness: A field study. *Training research journal, 4*, 11-26.

Murphy, T.E. (2002). Market forces and the Middle East's new interest in HRM. *Business horizons, 45 (5),* 63–71.

National Institute of Public Administration (INTAN). (2000). *Modul Metodologi Penyelidikan.* Kuala Lumpur: INTAN.Institute.

Navaretti, G. B. (2010). *Creation and transfer of knowledge: institutions and incentives*: Springer Verlag.

Nijmann, D. (2004). Supporting the transfer of training: effect of the supervisor'. Doctoral dissertation. Enschande: University of twente.

Noe, R. (2002). *Employee training and development.* Boston: McGraw-Hill/Irwin.

Noe, R. A. (1986). Trainees' attributes and attitudes: Neglected influences on training effectiveness. *Academy of management review, 11(4),* 736-749.

Noe, R. A. (2008) Employee Training and Development (4thed). New York: McGraw-Hill

Noe, R.A. (1999). *Employee training and development*. New York: McGraw-Hill.

Noe, R.A., & Schmitt, N. (2006). The influence of trainee attitudes on training effectiveness: Test of a model. *Personnel psychology, 39*, 497-523.

Noor Azmi Osman. (2003). *Knowledge level of the teachers regarding the surrounding environmental issues at one of the school in Perak State.* Unpublished master of education project paper. Faculty of education, University of Malaya.

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.

Nunnally, J. C., & Bernstein, I. H. (1994). Psychometric theory (3rd end.). New York: McGraw-Hill.

Osama S.T., Giulio M. G., & Isam Yahia A. F. (2012). Smart Development: The Quest for a Knowledge Economy in Saudi Arabia. *International studies*.

Paglis, C., & Erich, N (2010). Theorist of the Great Mother arion 13.3 winter 2006.

Pallant, J. (2005). *A step by step guide to data analysis using SPSS for windows* (3rd ed). Open University Press.

Paradise, A. (2007). *State of the industry:* ASTD's Annual Review of Trends in Workplace Learning and Performance. Alexandria, VA: ASTD.

Petty, Lim., & Zulauf. (2007). Training Transfer Between CD-ROM Based Instruction and Traditional Classroom Instruction. *Journal of technology studies, 33(1),* 9-23.

Philips, J. (2003). *Return on Investment in Training and Performance Improvement Programmes.* Burlington, Butterworth-Heinemann.

Phillips, J.J. (1991). *Handbook of Training Evaluation and Measurement Methods.* Gulf Publishing Company, Houston, TX.

Pineda, P.,U ´ car, X., Moreno, M.A., & Belvis, E. (2007). *Evaluacio´n de la calidad de la formacio´n continua en el sector de la educacio´n infantil: informe ejecutivo.* Barcelona.

Powell, J.L. (2009). Transfer Initiation and Maintenance of Training: Employees' Perception of the Relative Influences of Transfer Intentions, General Self-efficacy (GSE) and Supervisor Support. Unpublished PhD dissertation of the Virginia Polytechnic Institute and State University.

Praslova, L. (2010). Adaptation of Kirkpatrick's four level models of training criteria to assessment of learning outcomes and program evaluation in Higher Education. *Education Assessment Evaluation Account,* 22, 215 – 225.

Preacher, K., & Hayes, A. (2004). SPSS and SAS procedures for estimating indirect effects simple mediation models. *Behavior research methods, instrument and computers, 36(4),* 717-731.

Quinones, M. A. (1995). The relationship between work experience and job performance: A conceptual and meta analytic review. *Personnel psychology, 48,* 887–910.

Rae, L. (2004). Training programme evaluation, training and learning evaluation, feedback forms, action plans and follow-un. Retrieved 7/1/2012, from http: //www.businessballs.com/trainingprogramevaluation.Htm.

Rea, L. M., & Parker, R. A. (1992). *Designing and conducting survey research*. San Francisco: Jossey-Bass

Reinartz, T. (2009). A unifying view on instance selection. Data mining and knowledge discovery 6(2), 191-210.

Reynolds, A. (1993). *The Trainer's Dictionary: Hard Terms, Abbreviations, and Acronyms.* Amherst: HRD Press.

Rich, G.A., Bommer, W.H., McKenzie, S.B., Podsakoff, P.M. & Johnson, J.L. (1999). Methods in sales research: apples and apples or apples and oranges? A meta-analysis of objective and subjective measures of salesperson performance. *Journal of Personal Selling & Sales Management, 19(4),* 41-52

Richey, R. C. (1992). *Designing Instruction for the Adult Learner*. London: Kogan Page Limited.

Riding, R. J., & Cheema, I. (1991). Cognitive styles: An overview and integration. *Educational psychology*, *11,* 193-215

Robert L. M. & John H. J. (2004). *Human Resource Management* International student Edition (10th ed).South-Western, U.S.A.

Roberts, C. & McDonald, G. (1995). Training to fail. *Journal of management development, 14 (4),* 16-31.

Robertson, M. M., & Huang, Y. H. (2001). Effect of a workplace design and training intervention on individual performance, group effectiveness and collaboration: The role of environmental control w*ork, 27 (1),* 3–12.

Robinson, J.P., Shaver, P. R., & Wrightsman, L. S. (1991). *Measures of personality and social psychological attitudes.* San Diego. Academics Press.

Romiller, J.Z., & Goldestein, I. L. (1993). The Relationship Between Organizational Climate and Positive transfer of training. *Human resource development quarterly, 4,* 377-390.

Rosenfelf, R. H. (1999). *Managing Organizations: Text, Readings and Cases,* London: McGraw-Hill.

Rossi H, E., Sarte, P., Owens, R. (2010). Firm fragmentation and urban patterns. *International economic review, 50(1),* 143-186.

Rossi-Le, L. (2009). Learning styles and strategies in adult Immigrant ESL students. In J.M. Reid,Learning styles in the ESL/EFL classroom. Boston: Heinle&Heinle, 119-125.

Rouiller, J. Z., & Goldstein, I. L. (1993). The relationship between organizational transfer climateand positive transfer of training. *Human resources development quarterly, 4,* 377–390.

Rouillier, J. Z., & Goldstein, I. L. (1991). Determinants of the climate of transfer of training, Montreal. Paper presented at the meeting of the society of industrial and organizational psychologists.

Rouillier, J. Z., & Goldstein, I. L. (1993). Transfer climate and positive transfer of training. *Human resource development quarterly, 4*, 377–390.

Rowold, J. (2007). Individual influences on knowledge acquisition in a call centre. 11(1), 21−34.

Saks, A. & Belcourt, M. (2006). An investigation of training activities and transfer of training in organizations. *Human resource management, 45, (4),* 629-48.

Saks, A. M. (1995). Longitudinal field investigation of the moderating and mediating effects of self-efficacy on the relationship between training and new comer adjustment. *Journal of applied psychology, 80(2),* 211-225.

Saks, A. M. (2002). So what is a good transfer of training estimate? A reply to Fitzpatrick. *The Industrial-organizational psychologist, 39,* 29–30.

Saks, A.M., Haccoun, R., & Laxer, D. (2004). Transfer training: A comparison of self management and relapse prevention interventions. Administrative Sciences Association of Canada (ASAC) *Proceedings*, 17, 81-91.

Saleh, S. & Kleiner, B.H. (2005). Issues and Concerns Facing American Companies in the Middle East. *Management research news, 28(2/3),* 56–62.

SAMIRAD Saudi Arabia Market Information Resource and Directory. (2010). Profile of Saudi Arabia. Available at: http://www.saudinf.com/.

Satterfield, J.M, Hughes, E. (2007). Emotion skills training for medical students: A systematic review. *Medical education, 41(9),* 35–41

Sax, L. J., Gilmartin, S. K., & Bryant, A. N. (2003). Assessing response rates, 409-432.

Scheirer, M. (1987). Program theory and implementation theory: implication for evaluatiors. In L. Bickman, Using program theory in evaluation. San Francisco: Jossy-Bass.

Schmidt, J. B. & R. A. Bjork (1992). A proposed model of external consumer information search. *Journal of the academy of marketing science 24(3),* 246-256.

Sekaran, U. (2003). *Research methods for business a skill-building approach.* New York. John Wiley & Sons Inc.

Sekaran, U. (2010). *Research methods for business:* A skill building approach: John Wiley & Sons.

Seyler, D. L., Holton, E. F., III, Bates, R. A., Burnett, M. F., & Carvalho, M. B. (1998). Factors affecting motivation to transfer training. *International journal of training and development, 2,* 2-16.

Shaban, A.R., Asaad, R. and Al-Qudsi, S. (1995). The Challenges of Employment in the Arab Region. *International labour review, 134,* 65–82.

Shariati, A. (1979). *On the Sociology of Isla.,* Mizan Press, Berkeley, CA.

Shariff, N.M., & Al-Makhadmah, I.M. (2012). Work environment factors influencing in Achieving Training Effectiveness In Aqaba Special Econmic Zone Authority Aseza. *Academic research international, 2(3),* 598-609.

Sherer, M. & Maddux, J. (1982). The self-efficacy scale: *Construction and validation psychological reports, 51,* 663-671.

Shiryan, S., Shee, H., & Stewart, D. (2012). Employee training effectiveness in Saudi Arabian SME performance. *International journal of business and social science, 3 (14),* 35-49.

Simon S, J. (2000). The Relationship of Learning Style and Training Method to End-User Computer Satisfaction and Computer Use: A Structural Equation Model. *Information technology, learning, and performance journal, 18 (1),* 213-219.

Simosi, M. (2012). Disentangling organizational support construct: The role of different sources of support to newcomers' training transfer and organizational commitment. *Personal review, 41(3),* 301-320.

Smith, D. & Holliday, P. (1986). Learning style and academic achievement in fourth, fifth, and sixth (Report No: TM 860440). San Francisco, CA. (ERIC Document Reproduction No.ED 272527).

Smith, E.M, Ford, J.K., & Kozlowski, S.W.J. (2008). Building adaptive expertise: implications for training design. In Training for a Rapidly Changing Workplace: Applications of Psychological Research, (ed.). MA Quinones, A Ehrenstein, 89–118.Washington, DC: APA Books.

Smith-Jentsch, K. A.; Jentsch, F. G.; Payne, S. C.,& Salas, E. (1996). Can pre training experiences explain individual differences in learning? *Journal of applied psychology,* 81(1), 110-116.

Sproull, N. (2004): Handbook of Research Methods: A Guide for Practitioners and Students in the Social Sciences, Lanham.

Steiger, J. (2001). Driving fast in reverse. *Journal of American statistical association 96,* 331–338.

Stetar, B. (2003). Can we really measure training ROI? UT center for industrial services. DOE,annual training symposium, transformation for success.

Stevens, C. K., & Gist, M. E. (1997). Effects of self-efficacy and goal orientation training on negotiation skill maintenance: What are the mechanisms? *Personnel psychology,50,* 955–978.

Stevens, C.K., Bavetta, A.G. & Gist, M.E. (1993). Gender differences in the acquisition of salary negotiation skills: the role of goals, self-efficacy, and perceived control. *Journal of applied psychology, 78, (5),* 723-735.

Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. Journal of the Royal Statistical Society, Vol. 36, 111–133.

Streiner & Norman. (1998). An R package for structural equation modeling. *Journal of statistics software, 48 (2),* 1-36

Stufflebeam, D. L., Foley, W. J., Gephart, W. J., Guba, E. E., Hammond, R. L. & Merriman, H. O. (1972). *Educational evaluation and decision making*. Itasca, U.S.A

Summy, G. (2007). How to measure – or not measure – the effectiveness of sales training. *Velocity reprint, 9 (1),* 30-2

Swanson, R. A. & Holton, E. F., III (2005). *Foundations of human resource development*. San Francisco, CA: Berrett-Koehler.

Switzer K.C, Nagy, & Mullins M.E, (2005) The Influence of Training Reputation, Managerial Support, and Self-Efficacy on Pre-Training Motivation and Perceived Training Transfer. *Applied H.R.M. research,10(1),* 21-34.

Syneder, H. (1963). Community college education for Saudi Arabia. Unpublished Doctoral dissertation, 164-180.

Tabechnick, B.G. & Fidell, L.S. (2007). *Using multivariate statistics* 5th end. Sage publication.

Tannenbaum, S. I., & Dupuree-Bruno, L. M. (1994). The relationship between organizational and environmental factors and the use of innovative human resource practices. *Group and organization studies, 19(2),* 171-202.

Tannenbaum, S., Cannon-Bowers, J. A., Salas, E., & Mathieu, J. E. (1993). *Factors that influence training effectiveness: A Conceptual Model and Longitudinal Analysis*, Technical report 93-011 Navel Air Warfare Center Training Systems Division, Orlando, Florida.

Tannenbaum, S., Mathieu, J.E., Salas, E., & Cannon-Bowers, J. A. (1991). Meeting trainees' expectations: The Influence of training fulfilment on the development of commitment, self-efficacy, and motivation. *Journal of applied psychology, 76(6),* 759-769.

Tanner, J.F. Jr., Honeycutt, E.D. Jr & Erffmeyer, R.C. (2009). *Sales Management: Shaping Future Sales Leaders.* Pearson Prentice Hall, Upper Saddle River, NJ.

Tenenhaus, M., Vinzi, V.E., Chatelin, Y.M., & Lauro, C. (2005), PLS path modeling. *Computational statistics & data analysis, 48(1),* 159-205.

Tennant,C. Boonkrong, M., & Roberts, P. (2002). The design of a training programme measurement model. *Journal of European industrial training, 26(5),* 230-240.

Thayer, P. W. &Teachout, M. S. (1995). *A Climate For Transfer Model, Interim Technical Paper No. AL/HR-TP-1995-0335*, Brooks AFB, TX: Armstrong Laboratory, AFMC.

Torrington, D., & Hall, L. (2000). Chasing the rainbow: how seeking status through strategy misses the point for the personnel function. *Employee relations, 18(6),* 81-97.

Tracey, B. J., & Tews, M.J. (1995). Training effectiveness: Accounting for Individual characteristics and the work environment. *Cornell hotel & restaurant administration quarterly, 36(6),* 36-43.

Tracey, J. H. (2001). The influence of individual characteristics and the work environment on a varying levels of training outcomes. *Human resources development quarterly, 12,* 5-23.

Tracey, J.B., Tannenbaum, S.I., & Kavanagh, M.J. (1995). Applying trained skills on the job: the importance of the work environment. *Journal of applied psychology, 80(2), 239-252.*

Tubbs, M.E., & Ekeberg, S.E. (1991). The role of intentions in work motivation: Implications for goal-setting theory and research. *Academy of management review*, 16,180-99.

Tuckman, B. W. (1985). *Evaluating instructional programs.* Published by Allyn & Bacon.

Turrel, M. (1980). *Training analysis: A guide to recognizing training needs*. Pitman press.

Tyler, K. (2002). Evaluating evaluations: asking the right questions is only the first step in creating a good training evaluation. *Human resource magazine, 47(6),* 85-89.

Tyler, R. (1990). Reporting evaluation of learning outcomes. In H. J. Tziner, A., Fisher, M., Senior, T., & Weisberg, J. (2007). Effects of trainee characteristics on training effectiveness. *International journal of selection and assessment,*4, 182–199.

Tziner, A., Fisher, M., Senior, T., & Weisberg, J. (2007). Effects of trainee characteristics ontraining effectiveness. *International journal of selection & assessment, 15(2),* 167–174.

Van der Klink, M. R. & Streumer, J. N. (2002). Effectiveness of on the job training. *Journal of European industrial training, 26 (4),* 196 – 199

Van Eerde, W. (2003). Procrastination at work and time management training. *Journal of Psychology, 137*, 421–434.

Velada, R. & Caetano, A. (2007).The effects of training design, individual characteristics and work environment on transfer of training. *International Journal of Training and Development*, 11, 282–294.

Vinzi, E.V., Trinchera, L.and Amato,S. (2010). PLS Path Modeling: From Foundations to Recent Developments and Open Issues for Model Assessment and Improvement", http://www.springer.com.

Vosburgh, M. (1986). Implementation analysis: The case of accident compensation in New Zealand. *Evaluation and program planning*, 9, 47-59.

Vygotsky, L. S. (1962). Thought and language (E. Hanfmann & G. Vakar, Eds. and Trans.). Cambridge, MA: MIT Press. (Original work published 1934).

Walsh, R. (1989). The residential conservation service in Vermont: An evaluation of program implementation. *Evaluation program planning*, 12, 153-161.

Wang, G.G., & Wang, J. (2006). HRD evaluation: Emerging market barriers, and theory building. *Advances in Developing Human Resource*, 7(1),22-36.

Warr, P., & Bunce, D. (1995). Trainiee characteristics and the outcomes of open learning. *Personnel psychology*,*48*, 347-375.

Weiss, C. H. (2010). Evaluation: Methods for studying programs and policies (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Wetzels, M., Odekerken-Schroder, G., & Van Oppen, C. (2009), Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration. *Mis Quarterly, 33(1),* 177.

Wexley, K. N., & Latham, G. P. (2002). Developing and training human resources in organizations (3rd ed.). Upper Saddle River, NJ: Prentice Hall.

White, S., Mayne, P., & Everton, T. (1990). Effective Learning: into a new ERA. Kingsley, Michigan State University, U.S.A.

Whitley, B.E. (1996). *Principles of research in behavioral science.* Mountain View, CA: Mayfield Publishing Company.

Wilson, T.R., Olmstead J, & Trexler R, (1980). On-the-job training and social learning theory: A literature review. A special report prepared for the US Bureau of Mines by the Human Resources Research Organization under contractHO30828 (unpublished).

Wognum, A. A. M. (1999). Strategic alignment and the effectiveness of corporate training programmes. Unpublished doctoral dissertation. Enschede: University of Twente.

Wold H. (1975) Modelling in complex situations with soft information, in: Third World Congress of Econometric SocietyToronto, Canada.

Wold, H. (1975). Path models with latent variables: The NIPALS approach. In H. M.

Wold, H. (1982). Soft modelling: the basic design and some extensions. Systems under indirect observation, Part II, 36-37.

Wold, H. (1985), Systems analysis by partial least squares. Measuring the unmeasurable, 221-252.

Worthen, B. R., & Sanders, J. R. (1987). *Education evaluation. Alternative Approaches and Practical Guidelines.* New York: Longman.

Xiao, J. (1996). The relationship between organizational factors and the transfer of training in the electronics industry in Shenzhen, China. Human Resource Development Quarterly, 7 (1) 55-73.

Yamnill, S., & McLean, G. (2001). Theories supporting transfer of training. Human Resource Development Quarterly, 12(2), 195-208.

Yates, S. J. (2004). *Doing social science research.* London: SAGE Publication Ltd.

Yilmaz-Soylu, M., & Akkoyunlu, B. (2002). The Effect of Learning Styles on Achievement in Different Learning Environments. *The Turkish Online Journal of Educational Technology,* 8(4), 43-50.

Yousef, T.M. (2004). Growth and policy reform in the Middle East and North Africa since 1950. *Journal of economic perspectives, 18(3),* 91–114.