

**ANGLIA RUSKIN UNIVERSITY
FACULTY OF BUSINESS AND LAW**

**EXPLORING THE EFFECT OF GENERATIONAL DIFFERENCES ON TRAINING
AND DEVELOPMENT WITHIN THE JORDANIAN TELECOMMUNICATION
SECTOR**

RANY ABU EITAH

**A thesis in partial fulfilment of the
requirements of Anglia Ruskin University
for the degree of Doctor of Philosophy**

January 2022

Acknowledgements

I would like to thank my supervisors, Dr Stephanie Russell, Dr Alison Hirst and Dr Marina Boz, for their guidance, support and belief in me. I would not have managed without their continued support.

I would like to send a special thanks to Prof. Simon Down for his encouragement and motivation. He had a great impact on my academic life. It has been a privilege to have his guidance and support throughout my PhD journey.

I am grateful to Anglia Ruskin University for giving me the opportunity to complete my research degree. I am honoured to be part of such a prestigious institution.

I would like to thank the human resource departments, management and staff in the telecommunication companies (Zain Jo, Orange and Umniah) for allowing me to conduct my project and making my study possible.

In addition, thanks to all the PhD students I met at the Faculty of Business and Law for their moral support and for sharing their experience with me.

Most of all, love and gratitude to my family, my father, my mother, my aunties Dr Siham, Dr Jawhara, Khitam, my brothers Rakan and Sari, my wife Noor and my two lovely sons Mustafa and Kareem for their never-ending support during my journey

ANGLIA RUSKIN UNIVERSITY

ABSTRACT

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The attention given to generational diversity in the workplace continues to grow among organisations, human resource practitioners and researchers. In today's workplace, three to four different generations are working simultaneously. Following definitions by Lancaster and Stillman (2002); Crampton and Hodge (2006); Howe and Strauss (2009); Hernaus and Pološki Vokic (2014), generations are usually referred to as Baby Boomers, Generation X and Y or Millennials. Each generation is defined by its shared culture, social location and historical development of human society as they experience the same events and data. These generations have formed their own unique set of learning and training behaviours, attitudes and styles. There has been little research on the implications of a multigenerational workforce for training and development. This study aims to examine the effect of generational differences, from trainees' and trainers' perspectives, on the preferences and perceived effectiveness of computer and classroom-based training in the telecommunication sector of Jordan. A combined qualitative and quantitative methodological approach was used to identify trainees' and trainers' responses to training in a multigenerational workplace. Six hundred and sixty trainees completed the survey and fifteen managers and trainers were interviewed at the three telecommunication companies in Amman, Jordan. Evidence is presented, which showed that Baby Boomers were different from Generation X and Y in their training preference and perceived effectiveness of computer-based training. The study also identified limited evidence of differences between the three-generations in their preference and perceived effectiveness of classroom-based training. Analysis of the mediation model which examines the mechanism involved in observed relationship between generational membership and training and development factors revealed that technology, including four components; perceived usefulness, perceived ease of use, behavioural intention to use and actual system use, mediated the relationship between generational membership and training preference and perceived effectiveness. The results also showed that communication non-accommodation component, which involves communicative behaviours adjusted for the participants in an interaction, mediated the relationship between generational cohorts and training preference. However, the mediation and moderation role of working relationships factor were negative. The findings also showed that managers and trainers used a variety of approaches to overcome the generational gap in technology use and communication style. This study should, therefore, be of value to practitioners wishing to design training programmes based on the preferences of different generations. Most importantly, the nature of generational differences and the impact of age should thus be taken into account when designing training and development programmes in a multigenerational workplace.

Keywords: generational differences, Baby Boomer, Generation X, Generation Y/Millennial, training and development, technology, communication, working relationships, multigenerational workforce, the Jordanian telecommunication sector, Middle Eastern economy, exploratory, descriptive, case study, cross-sectional.

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Abbreviations

T&D - Training and Development

HR - Human Resource

HRM - Human Resource Management

HRD - Human Resource Department

TAM - Technology Acceptance Model

CAT - Communication Accommodation Theory

LMX - Leader Member Exchange

CRBT- Classroom-Based Training

CBT- Computer-Based Training

JTS - Jordanian Telecommunication Sector

PFA - Principal Factor Analysis

PAF - Principal Axis Factoring

KMO - Kaiser-Meyer-Olki

1. Chapter One: Introduction

1.1 Introduction to the problem

In today's workplace, individuals of different generations are progressively mixing at work (Urlick et al., 2016; Suomäki, Kianto, and Vanhala, 2019). As a result, three to four generations are converging at the workplace simultaneously (Lyons, Schweitzer and Ng, 2015). Baby Boomers (1946 and 1964), Generation X (1965-1980) and Y or Millennials (1981-2001) are different from one another in many ways (Howe and Strauss, 2009). Learning preference (Urlick, 2017), technological ability (Sox et al., 2016), communication style (Venter, 2017) and leadership ambitions (Urlick et al., 2016) are some areas in which these differences are observable. However, the impact of generational differences on training and development (T&D) programmes in the workplace is understudied, particularly for Middle Eastern economies. Given that learning preferences may differ across a multigenerational workforce, it is imperative to explore how T&D policies can be modified, designed and delivered to suit the preferences and needs of different generation trainees.

Each generation has formed a set of beliefs and attitudes different from one another (Al-Asfour and Lettau, 2014) with varying levels of technological capacity and learning preferences (Urlick, 2017). By way of illustration, Seipert and Baghurst (2014) found that Baby Boomers value face-to-face interaction; they are content with traditional "old-style" lectures and printed resources. Generation X looks to the trainer to be a subject-matter expert; they value teamwork learning but choose independent learning as a preference. Millennials, however, look for instantly applicable and practical training; they excel when using digital interactive technologies (Venter, 2017). Saks and Burke-Smalley (2014) suggest that human resource (HR) managers and trainers must focus on evaluating trainees' needs, designing, delivering and assessing programmes when delivering training.

T&D practices have a direct influence on workforce performance, which contribute to organisational goals and fulfil prescribed work role expectations (Bratton and Gold, 2017). Armstrong and Taylor (2014) define T&D as those activities designed to improve a worker's effectiveness in performing a task. Workplace training methods have gradually changed from a less-individualised focus (e.g., on-the-job training) to more formal programmes such as traditional classroom-style and technology-based training (Sprinkle and Urlick, 2018). A study

by the US Association for Talent Development (ATD) examined learning trends of 340 organisations found that 70 percent of training programmes were focused on formal instructor classroom-led training, and 28 percent were technology-based (ATD, 2014). Classroom-based, formalised training can be crucial to the transfer of knowledge, offering new employees training in key task-oriented skills (Urlick, 2017). However, several practical considerations should be made regarding training design and delivery. For example, the methods of delivering programmes (e.g., classroom vs. computer-based) could affect the transfer of training, and the characteristics of the design could affect the decisions that trainers draw regarding programme effectiveness (Vanhove et al., 2016). Therefore, the current study sets out to explore how different generations respond to training in terms of their preferences for, and perceived effectiveness of, computer versus classroom-based training.

To fully understand the problem and the context of the current study, I will first briefly discuss the Jordanian labour market and workforce population statistics in terms of the three-generations currently working in the workplace and their impact on the economy.

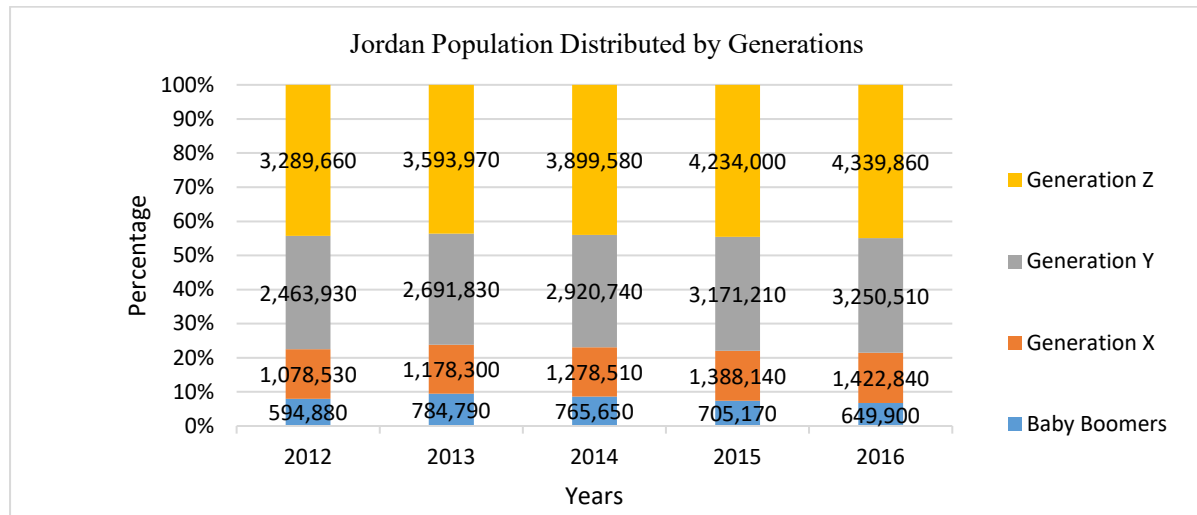
1.2 Background and rationale of the study

Jordan is one of the Middle Eastern Arab economies which has witnessed political, cultural and socio-economic challenges, which made the younger generation adapt to new cultures within different environments and organisations (Harkat, Driouchi and Achehboune, 2016). Jordan is facing a rapid population growth resulting in a labour surplus, with an increasing number of new entrants to the labour market that cannot be absorbed by the domestic economy. According to Hassan (2011), this growth in Jordan's youth generation is predicted to increase in the future. It is also expected that working-age people will upsurge from four and a half million in 2020 to six million in 2030. The increase in the youth population can be beneficial for the demographic and important resource for the economy if more people of working age are energised and enough jobs can be created for them. Similarly, isolation if opportunities are not forthcoming.

Although data specifically on the Jordanian labour force distributed by generations is not available, an examination of the country's population indicated that in 2016 Baby Boomers comprised 6 percent of the population compared to Generation X and Y, which were 16 and 33 percent respectively, while Generation Z (born after 2002) constitute 45 percent of the total (Figure 1). When extrapolated to the workforce population, the retirement of Generation X in

Jordan would have a more significant impact than the retirement of Baby Boomers in terms of employee replacement numbers, knowledge transfer, and retention. This might affect the process of designing and delivering training programmes in Jordanian organisations.

Figure 1. Jordan Population Distributed by Generations (Jordan Department of Statistics 2018).



Jordan is likely to experience a delayed generational change phenomenon where the impact of Jordanian Generation X retiring would be approximately equivalent to the UK Baby Boomers (18 percent) leaving the workplace (Statista, 2018). Therefore, the current study examines the extent to which there are differences between the younger and older generations in training preferences and perceived effectiveness within the context of Jordan. Also, this study aims to identify unique problems related to age, generation, and training in the workplace faced by the corporate sector in the Jordanian economy.

1.3 Problem statement

Organisations and human resource (HR) specialists face a challenge in learning and training preferences of each generation and ability to meet their needs (Eisner, 2005; Becker, Fleming and Keijsers, 2012). By way of illustration, D'Amato and Herzfeldt (2008) argue that organisations face several challenges in the field of personnel learning and development. They face difficulties in providing an attractive setting for the young generation while maintaining the valuable expertise capability of senior employees. In support of this view, Woodward, Vongswasdi and More, (2015, p.1) state that "The challenge for organisations is to retain valuable senior employees while recruiting bright young talents, this hinges upon

understanding different rewards requirements, development and training needs, and the motivations of different generational cohorts.”.

To create training programmes and address employees’ different needs, organisations should comprehend the diverse learning method preferences among different generations. Wiedmer (2015, p.51) asserts that “it is very important to understand and implement practices that complement workers’ and learners’ generational preferences, differences, and similarities.” In the same vein, Lieber (2010) avers that intergenerational diversity carries different knowledge and experience to the workplace. Still, the varying preference of each cohort should be met to create a high-performing organisation. Sprinkle and Urick (2018) suggest that organisations should focus on learning and development programmes that are suitable for different generations and improve intergenerational communications holistically. Overall, these cases support the view that understanding generational differences, their effect on work motivation, performance and outcomes are significant for the success of staffing, retention, reward packages and T&D initiatives (Westerman and Yamamura, 2007; Glass, 2007).

1.4 Research aim and questions

This research aims to examine the effect of generational differences from trainees’ and trainers’ perspective on the design and delivery of T&D programmes in the Jordanian telecommunication sector. Thus, the aim of the current research is distilled into four research questions:

1. To what extent do trainees respond differently to training based on age/generation?
2. To what extent do technology, communication and working relationships operate as mediators in the relationship between trainee’s age/generation and their response to training?
3. To what degree do trainers train differently in anticipation of generational differences?
4. How do trainers manage the gap between generational cohorts in terms of technology, communication and working relationships in training?

1.5 Gaps in knowledge

Recently, a considerable literature has developed around the theme of generational differences at the workplace (e.g., Lyons and Kuron, 2014; Campbell, Twenge and Campbell 2017; Parry

and Urwin, 2017; North, 2019). Much of the current literature has examined generational differences in a range of work-related factors such as work ethic (Zabel et al., 2017); work value (Gursoy, Chi and Karadag, 2013); career pattern (Lyons et al., 2015); personality (Twenge, Gentile and Campbell, 2015); communication style (Myers and Sadaghiani, 2010); commitment and retention (D'Amato and Herzfeldt, 2008). Also, it has measured job-related outcomes, for example, turnover intention (Twenge, 2010); organisational commitment (Ng and Feldman, 2010); job satisfaction (Lu and Gursoy, 2013) and workplace attitude (Cucina et al., 2018). However, few published studies have examined the perception of different generations in T&D. This view is supported by Berge and Berge (2019, p.46), who write, “specifically, regarding training and development, there is little or no empirical research regarding generational differences. More broadly, even though generational stereotypes are widely held, they are not supported by empirical research”. In the same vein, Urick (2017 p.53) states that “very few studies have closely examined potential differences in preferences for training and development between generational cohorts.”.

Moreover, most of the existing literature on differences between generations in a training setting has been done for the Western corporate environment. For example, Urick's (2017) study has explored US generational differences in training-related factors, such as technology use in training. However, there have been no empirical published studies in the Middle Eastern economy, which have examined generational differences in training preferences and perceived effectiveness of classroom and computer-based training. As culture differences may affect how organisations implement training programmes in their workplaces, it is not easy to imply or transfer Western policies to the Middle Eastern organisations. Given these gaps in the literature, the current research aims to further our understanding of the three generations' training preferences and perceived effectiveness and how they are different from one another in the Jordanian context.

1.6 Contribution to knowledge

Studying generational differences holds several challenges for researchers and practitioners, such as “relying on weak research evidence and generational stereotypes” (Lyons et al., 2015, p.347). However, it brings the possibility to contribute beneficial knowledge about the changeable character of professions and work (Lyons and Kuron, 2014). The current study employs a generational perspective to the study of training design and delivery by comparing

preference and perceived effectiveness of computer and classroom-based training of Baby Boomers, Generation X and Y.

Previous studies have examined generational differences in technology use (Graen and Schiemann, 2013), communication style (McCann and Giles, 2006) and working relationships (Amoroso and Hunsinger, 2009) variables separately. However, to the best of my knowledge, the current study is the first attempt which examines trainee perceptions of technology, communication and working relationships variable combined (as mediating factors) which clarify the mechanism through which training preference and perceived effectiveness of the three generations could be affected by such factors. This study also responds to Sprinkle and Urick's (2018, p.108) call for more generational research and continuation in examining the effect associated with each cohort, as this might challenge the approach to HR practices in general and T&D in specific. In the same vein, Lyons and Kuron (2014, p.139) state, "further theoretical and qualitative work is needed to flesh out mediators and moderators in the relationship between generation and work-related variables...We also call for qualitative research, greater consideration of context and more methodological rigor."

The current study also contributes to the career literature by examining trainers' perspective of the methods used to train different generations in anticipation of generational differences. Also, this research provides a clearer picture of the methods and strategies used to manage the gap between different generations in terms of technology, communication and working relationships. Previous studies have investigated qualitative generational differences in training preference (Urlick, 2017), and quantitative generational differences in technology use and learning characteristics (Lai and Hong, 2015), which will be discussed in more details in the next chapter (Chapter two, literature review). However, the current study applies mixed-method examination of training preference and perceived effectiveness across all three generations of workers inhabiting today's workforce which addresses Lyons and Kuron's (2014) recommendation that future generational study should use various and mixed methods along with a better understanding of generations from a qualitative standpoint.

Lastly, this study presents a conceptual framework (see chapter 2, section 2.10), which explains the mechanism through which generational differences result in types of interpersonal behaviours which could affect the design, delivery and approach implemented by trainers to manage the differences in attitude and behaviour in training initiatives. Understanding these

mechanisms is a necessary step in managing and training a multigenerational workplace. Thus, a greater understanding of training development would be useful to workers, managers, and organisations, as it helps situate advanced training within the broader evolution of training over time.

1.7 Structure of the thesis

The current study is organised into five chapters. Chapter 2 “literature review” falls into two parts. First, it discusses the concept of generation (Mannheim 1952; Campbell et al., 2015) and evidence of generational differences in the workplace. Second, I discuss T&D practices in the Jordanian context. The purpose of the chapter is to provide a foundation of knowledge on generational differences in T&D practices and other factors, such as technology, communication, and working relationships.

The first part of the chapter starts with an overview of T&D, its definition and the importance of designing practices based on the preferences and needs of those who will be trained. I discuss two types of training: classroom and computer/online-based training, their advantages and disadvantages. These two types of training were used to measure trainees’ perspective of preference and perceived effectiveness of different generational cohorts. Next, I discuss age diversity in the workplace, generational shift and its impact on organisations in a global context. Also, I refer to the literature regarding the importance of recognising generational behaviours, attitudes and preferences and adjusting the workplace accordingly. I present some key definitions of generational notion and the theory of generation (Mannheim, 1952; Campbell et al., 2015) as a theoretical foundation of this research. I discuss generational year boundaries and review the literature in this regard. I critically review several current studies supporting and opposing the concept of generation. Next, I outline challenges of the notion of generation also challenges of reviewing evidence of generational differences.

Additionally, I review the most relevant studies to the current research of generational differences in training. I also review studies regarding generational differences in technology and further to that introduced the concept of technology acceptance model (TAM) (Davis, 1989), which I use to examine trainees’ perception of the mediating effect of technology factor on the relationship between generational differences and T&D preference and perceived effectiveness. Also, TAM has been selected as a part of the current study’s framework as it

clarifies how people of different generations adopt and use new technologies. In addition, I review areas of the literature relevant to generational differences in communication. In light of this, I introduce communication accommodation theory (CAT) (Giles, Taylor and Bourhis, 1973; McCann and Giles, 2006) which was utilised as a second mediator which examine trainees' perception of different generations communicate methods and whether these differences could affect how trainers design and deliver training. Studies regarding generational differences in working relationships were reviewed. Also, leader-member exchange (LMX) (Dansereau Jr, Graen and Haga, 1975) theory was presented to examine the working relationships as a mediator and moderator factor, which is explained further in the analysis section of the current study (Chapter 4).

In the second part of the chapter, I look into relevant studies regarding human resource management (HRM) in Jordan, signifying the cultural challenges and issues in this context. I also discuss relevant literature on T&D and other HR practices such as recruitment and selection in Jordan. Finally, I present the conceptual framework as the foundation for the current research which reflects a knowledgeable framework for the aim of providing a theoretical explanation of what I intend to examine and enabling the reader to be clear what the study seeks to achieve, and how this will be achieved. The presented conceptual framework highlights the interrelation between different factors and subfactors of this research, highlighting the impact of generational differences on T&D.

Chapter 3 "Research methods" presents the epistemological assumption supporting my research. I present an explanation of the deductive reasoning which I have adopted in this thesis. I explain the rationale behind choosing mixed methods research and then present the research design. Also, I provide a detailed discussion of positivism, interpretivism and pragmatism paradigms. Next, I discuss why I have chosen a case study design in the Jordanian context. In addition, I elaborate on the research strategies that I have used for the interview and survey along with the instruments and interview questions used. Finally, I outline the validity, reliability, ethical considerations, and issues for the collected data and knowledge produced.

Chapter 4 "Analysis and results" presents the analysis and results emerged from the collected data. This chapter is divided into two parts. The first part focuses on the quantitative analysis of the survey questionnaire. I present the results of the pilot study in terms of its reliability (Cronbach's Alpha) to measure the internal consistency of the survey items. Next, I present

exploratory factor analysis to determine the number of constructs extracted from each variable. Following this, I turn to quantitative data analysis, including descriptive statistics and demographics of the sample. Results of mean scores, Spearman correlation and bootstrap analysis were presented, which aim to answer the first and second research questions. In the second part of the chapter, a qualitative analysis of interviews was presented. In the quest to answer the third and fourth study questions, I discuss four main themes in detail, including generational differences in training preferences, perceived effectiveness, technology, communication, and working relationships. I analyse how training methods and delivery could be affected by the different preferences of generations. I show how trainers respond to generational differences in training. I conclude the chapter by exploring the type of skills trainers need to deal with an age diverse workforce.

Finally, Chapter 5, “Discussion and conclusion.” In this chapter, I provide a discussion of the results and findings that emerged from the analysed data. I also present recommendations and opportunities for future research. Finally, I outline the limitations of the current research and how the current study contributes to the body of knowledge.

2. Chapter Two: Literature Review

2.1 Introduction to the chapter

The current study explores generational differences from trainers' and trainees' perspectives of the design and delivery of Training and Development (T&D) programmes in the Jordanian Telecommunication Sector (JTS). This chapter falls into two parts. First, I discuss theory and evidence relating to generational differences. Second, I discuss the specific empirical setting of human resource (HR) practices in general and T&D in specific in the Jordanian context.

The current chapter starts with an overview of T&D, its definition and the importance of designing practices based on the preferences and needs of those who will be trained. Also, I discuss how T&D practices have transformed into the global organisational context. Further, I elaborate on two types of training; classroom and computer/online-based training, their advantages and disadvantages through the lens of generational phenomenon to explore how HR managers can best utilise these mediums so organisation can continue to deliver training programmes effectively. Thus, highlighting the benefits of designing training methods which could complement an age-diverse workforce needs and preferences.

The current study examines trainees' and trainers' perception of generational differences in preference and perceived effectiveness of computer and classroom-based training in the Jordanian context, but only a limited amount of research has been conducted in the Middle Eastern context and none of these studies were conducted in Jordan. As a result, the scope of the literature review was expanded to include studies conducted in the Western context in general and the US in specific. I refer to the literature regarding the importance of recognising generational behaviours, attitudes and preferences and adjusting the workplace accordingly. Subsequently, I present key definitions of generational notion (e.g., Mannheim 1952; Zemke, 2001; Woodward, Vongswasdi and More, 2015) as they are better suited to the discussion and conclusion in this research (Chapter 5). I also explain the theory of generation (Campbell, Twenge and Campbell, 2017; Mannheim, 1952) as a theoretical foundation of this research. I discuss generations' birth year boundaries and how these cut-offs vary between different studies (e.g., Campbell et al., 2015; Zemke, Raines and Filipczak, 2013; Howe and Strauss, 2007; Lancaster and Stillman, 2002). Also, I review the literature in this regard. I critically review several current studies (e.g., North, 2019; Parry and Urwin, 2017; Campbell, Twenge and

Campbell, 2017; Costanza and Finkelstein, 2015) supporting and opposing the concept of generation to offer a foundational understanding of the theory itself. Next, I discuss age diversity, generational shift in the workplace and its impact on organisations in a global context to comprehend the effect of such phenomenon.

Generational theory, as any social theory, has limitations and challenges. Here, I present some of the challenges of the concept and studying generational differences. Next, I review the most relevant studies to the current research of generational differences in training. I also present some studies regarding generational differences in technology and further to that introduce the concept of technology acceptance model (TAM) (Davis, 1989), which I use to examine the effect of technology as a mediating factor on the relationships between generational differences and T&D preference and perceived effectiveness. In addition, I review the areas of the literature relevant to generational differences in communication, in light of this, I introduce communication accommodation theory (CAT) (Giles, Taylor and Bourhis, 1973; McCann and Giles, 2006) which was utilised as a second mediator. Studies regarding generational differences in working relationships were reviewed. Also, the leader-member exchange theory (LMX) (Dansereau Jr, Graen and Haga, 1975) was presented to examine the effect of working relationships as a moderating factor, which is explained further in the analysis section of the current study (Chapter 4).

Since one of the current research objectives is to evaluate the impact of generational differences on T&D programmes within the Jordanian context, I look into relevant literature regarding human resource management (HRM) in Jordan, signifying the cultural challenges and issues. I also discuss relevant literature on training T&D, recruitment and selection in Jordan. Finally, I present and discuss the conceptual framework and its components, which guided the study.

2.2 Overview of training and development (T&D)

T&D practices are central elements of a successful organisation in that it supports workers to be competent in several job-specific tasks (Lowell and Morris, 2019). According to Armstrong and Taylor (2014), T&D are an organised growth of knowledge, skills and capabilities to accomplish employees' work-related duties. Developing and conducting professional T&D intervention involves recognising work needs, choosing the content to be taught, and analysing the intended trainees' preferences and needs (McCarthy, 2016). Lowell and Morris (2019)

argue that for organisations to remain competitive in today's business world, HR managers and trainers should provide effective training by recognising their employees' characteristics and preferences. However, training method preferences can differ between groups of individuals (Urlick, 2017). An example of this is a study carried out by Riding and Rayner (2013) in which they assert, preferences for training can differ based on the way individuals handle information and advocate the need to adjust training design to suit the diverse preferences and characteristics.

The long tradition of T&D within the applied science goes back to the beginning of 1900 and over many years, there have been dramatic changes in both the science and practice of training, it is only the past three decades that have seen the rapid development and transformation of T&D in organisations (Bell et al., 2017). As technology has changed which allowed training to occur on-demand and almost anywhere and at any time (Noe, Clarke and Klein, 2014). Training delivery methods have also changed, with a greater reliance on technology (Wolfson, Cavanagh and Kraiger, 2014). However, if we focus on the training methods used to transfer knowledge and skills, common choices of experience could be involved, such as instructor-led classroom and online-based training. In any case, online-based training itself contains a variety of different forms of activity, such as distance learning and virtual classrooms (Urlick, 2017).

For the current study, I focus on two types of training mediums: classroom and computer-based training. The current research investigates how specific training preferences of different generations can be addressed through the adaption of these two distinct training designs. Still, an age-diverse labour force may not only differ with respect to training preference but similarly could vary on how they perceived effectiveness, as several components such as the design, content and delivery of programmes could affect trainees' overall perception.

2.3 Training and development methods, computer/online vs. classroom-based training.

According to Robbins and Judge (2018), computer-based training or e-training is probably the fastest growing training medium in organisations. Aguti, Walters and Wills, (2014) define computer/online-based training as a technique of instructions that involves learning experience delivered by electronic technology. This training process includes computer-based, web-based learning and virtual classrooms. Computer-based training provides the organisation with a training solution for all employees, which is convenient, effective, flexible and less expensive

than traditional classroom training, which fulfils diverse training needs (Callan, Johnston and Poulsen, 2015). The advantage of online training is that it provides a significant improvement in employee knowledge retention; also, it reduces training time compared to the other delivery methods (Watson et al. 2013). While designing effective online and technology-driven training, companies should integrate varieties of learning styles, the background of the trainee and trainer such as age, interest, environment, and educational level are essential factors to successfully deliver knowledge to trainees in a computer-based training module (Elkins and Pinder 2015).

Abrar and Mukminin (2016) assert that classroom engagements are essential for learning in all age group individuals. However, this traditional medium raises challenges for workplace practitioners, as it is characterised by space-time limitation; trainees and trainers must be in the same place and time so that knowledge can be successfully transferred (Oiry, 2009). Even though organisations are gradually relying more on online learning methods, it could not completely replace classroom training. Traditional classroom-based training allows the trainer to teach in a quiet, safe, and clean environment, also it provides human touch and face to face direct conversation with the employees and this, in turn, has a significant role in understanding and gaining knowledge (Dismukes and Smith, 2017).

Considering all of this evidence, it seems that both computer/online and classroom-based training have an effect on gaining and retaining employee's knowledge and skills. However, due to the technological advancements and new technical development in the field of training, the demand for computer/online training is significantly increasing across all levels of the organisation (Ballesteros, De Saa, and Dominguez, 2012). Bedwell and Salas, (2010, p.241) assert that "computer-based training is one potential delivery mechanism, not the solution to all training needs". Therefore, exploring the different training approaches has become more necessary than ever, which could complement employees' different needs and preferences.

Classroom and computer-based interventions have been widely examined in the educational literature; their effect on learning effectiveness (Neuhauser, 2002); motivation (Xie, Debacker, and Ferguson, 2006) and learning outcomes (Callister, and Love, 2016). However, none of the studies reviewed appears to have examined generational differences in training or even compared the two interventions and their effect on different generations of trainees' preferences and perceived effectiveness. Therefore, the aim of the current research was to address this gap

and examine whether these methods could be dividing factors between workers of different ages and generations and which of these methods are perceived as more effective than the other.

2.4 Generation defined and notion

Karl Mannheim (1952) is one of the first scholars to define the term generation, a group of individuals born and raised in a similar social and historical environment. Zemke (2001) and Raines (2003) recognise generation as people who experience life events together. For Srinivasan, (2012) generation refers to a recognisable group that shares birth year and major life events that happened in critical stages of their lives. Woodward, Vongswasdi and More (2015, p.9) based on their review of contemporary academic studies on the topic, define generations as “cohorts of individuals who have grown up in the same historical and social context, whose shared formative experiences instil in them beliefs, values, and general dispositions that differ from those of others born and raised in different contexts and time periods”. While many definitions of the term ‘generation’ have been suggested, there appears to be some agreement that generation refers to individuals who share the same culture, location, and history. The current study, however, uses the definition of Karl Mannheim’s as he is considered to be one of the first scholars to introduce the concept of generation and his definition is still widely used and cited by scholars to date (see Eisenstadt, 2017, p.56; Cucina et al., 2018, p.248).

2.4.1 The notion of generation

The foundational notion of generation is based on generation's social structures as a "mechanism of social change" (Pilcher, 1994. P,482), and age is not an essential factor of generations from a social perspective. Finch (1986) explained the use of age in a theoretically informative and empirically valid way as an unexplored area within sociology. The age-based stance is more involved with the effects of generation on people attitudes and behaviours, as it fulfils the aim of classifying particular generational groups (Kelan, 2014). Karl Mannheim (1952), "the father of modern generational theory" (Lyons et al., 2015, p.349) can be credited for introducing the notion of 'cohort' into contemporary social science along with concepts related to mechanisms of cohort replacement processes as a method for interpreting social transition (Ryder, 1985). Lyons and Kuron (2014) argued that Mannheim's theory of generations (1952) is unique in considering the biological mechanism of ageing (i.e., life cycle) and the influences of social and historical context (i.e., cohort's birth) simultaneously, as a

multi-dimensional, non-separable and non-contrasting "gestalt" effect, as an essential convergence of biology and history (see Gilleard, 2004; Pilcher, 1994).

The age-based categorisation of generations commonly referred to as 'cohort perspective' was popularised by Strauss and Howe (1991, p.60) who defined a generation as "a cohort-group whose length approximates the span of a phase of life and whose boundaries are fixed by peer personality". According to Strauss and Howe (1991), generational cohorts each have a life span of twenty years and are separated by birth years, this period as approximately accurate for framing cultural transitions between different cohorts. Also, it is most likely economic, reflecting cycles of growth and decline (Thompson, 2007). Similarly, Campbell, Twenge and Campbell (2017) assert that generations are generally defined as being relatively fixed between 17 to 20 years in span. Part of that is biological, which is the time it takes for people to mature and reproduce.

Mannheim (1952) argues that living in the same period only becomes significant for a generation if they share historical and common experiences. Mannheim signifies this as stratification of experience, which leaves its mark on people. This accumulation of experiences is unique to a generation as they share certain events in history at a point in their lives. Strauss and Howe (1991) expanded on Mannheim's work, apart from the fact that historical events could mould a generation, they examined the notion that generations could also mould history. In their book *The Fourth Turning* (2009), Strauss and Howe also discuss social generations' location and the definition of generational year boundaries. They argued that history sets a unique print on different cohorts based on their age-determined social part. Consequently, the span of a generation in birth years would estimate the span in time of life. For example, "American generations should average about twenty-one years. Necessary, these lengths can vary somewhat for each generation, depending on the vagaries of history and the precise timing of Great events" (Strauss and Howe, 2009, p.65).

Applying these boundaries to birth years are reliant on locating an underlying generational identity. Each generation has a persona. It is a noticeably human-and factor-creation, with behaviours and family life, gender characters, politics, faith, trends, and the future. There is no fixed method for classifying the persona of a generation. However, considering three criteria would help identify each generation's identity; first, a generation's specific position in history;

second, its shared values and behaviours; last, its perceived affiliation to a specific generation (Strauss and Howe, 2009).

At critical times of history, individuals of each generation appear to occupy a single period of life. At any given time, history ultimately impacts the oldest and youngest cohorts in a generation in various respects. For example, The Vietnam War put even more pressure on Baby Boomers born in 1945 than those born in 1955. Other occurrences, such as the WWII, Kennedy's assassination, and the Challenger explosion, shaped individuals in various ways as they get older by remembering precisely what they were doing at that time (Strauss and Howe, 1991). Similarly, demographic shifts caused by immigration trends are some of the many main events that have influenced the mindset of the entire generation (Avolio, Waldman, and Yammarino, 1991).

The prevalent practice in defining generations in modern management scholarly works is based on standardised age-based cohorts (Joshi, Dencker and Franz, 2011); by specifying birth dates boundaries, and testing if each cohort displays difference in attitudes and values. Academics (e.g., Twenge et al., 2010; Deal et al., 2013; Krahn and Galambos, 2014) studying generational differences in work-related factors have almost solely followed the cohort perspective approach, focusing on average birth cohorts' variations (Foster, 2013). Other scholars (e.g., Parry and Urwin, 2017; Marshall and Wells, 2013) have criticised the groundlessness, lack of consistency and uncertainty of birth-year boundaries, which defines generational groups. However, Pilcher (1994, cited in Lyons and Kuron, 2014, p.142) points out that "the precise boundaries chosen to demarcate the generations are not crucially important, as generational trends should reveal themselves even despite the "fuzziness" of the boundaries between generations." Despite the controversy, research evidence shows that the majority of generational studies operationalise the following birth years: Baby Boomers were born between 1945 and 1964, Generation X between 1961 and 1980 and Millennials between 1981 and 2000 (Marcus, and Leiter, 2017). Yet, when defining generational cohorts, it is essential to note that each generation's birth year and year boundaries may differ based on the source.

Mannheim's (1952) generational theory suggests that generations take form within a specific social and historical location, making it inappropriate to overlap the generational configuration of one particular society onto another. Some researchers have sought to elucidate the unique generational arrays across different contexts (e.g., Deal et al., 2012; Kuusela, 2018). However,

it remains the trend to adopt the prevalent US generational cohorts' classification. While some researchers note that generational differences differ across cultures (Murphy et al., 2004), little examination on the extent to which culture influences life experiences and differences of different generations. Lyons and Kuron (2014) argue that US generational classification might not be applicable to some, or most contexts and each context possibly will have its unique generational distribution. In Jordan, however, no known empirical research has attempted to distinguish between generations' birth dates. Therefore, the generational age-based distribution in Jordan is based on Arab region history and culture, also influenced by global historical events similar to the US classification. In the next section, I present the following generational distribution for this research:

Baby Boomers - born between 1944 and 1961, after WWII, experienced the independence of Jordan (1946) and political assassination (e.g., King Abdullah's assassination 1951). This period has witnessed a booming population due to natural growth and migration. Television becomes dominant media in this era.

Generation X - born between 1962 and 1981, periods of physical insecurity and uncertainty, witnessed the second wave of Palestinians migrating to Jordan (1967). Camp David peace treaty (1979) established a framework for peace in the middle east by formalising Arab recognition of Israel's state.

Generation Y - born between 1982 to 2001 into similar reality, experiencing and progressions as the "Generation Y" counterparts from the USA such as the exposure to social media content and similar technological advancements for example (Internet, instant messaging, wireless technology) also experienced a shift from a socialistic to the capitalistic economy, privatisation of the public sector and termination of the mandatory army conscription 1991.

Lyons and Kuron (2014) point out that there is huge variation between researchers in the arrays of generations that are compared, and scholars compare as few as two and as many as eight generations, with descriptions varying from extremely general (i.e., "younger generation vs. older generation") to extremely specific (i.e., "early-, middle-and late-X'ers"). Other academics have studied long-term tendencies without reference to particular groups (e.g., Wray-Lake, et al., 2011). However, generational labels (e.g., Generation X) in the current study were based on self-reported birth dates, and the use of these labels was done for ease of presentation.

Edmunds and Turner (2005) contended against national differences in generations in their idea that universally distressing events might enable the expansion of global generations, rather than locally restricted groupings of generations. Edmunds and Turner (2005, cited in Lyons and Kuron 2014) state, the defining influences of the present era (i.e., communications, technology and globalisation) are progressively global in reach, raising the chance of an emergent “global generation”. They argue that events, for example, the 9/11 attacks on the World Trade Centre in the United States of America, were viewed in a similar way in other countries around the world, due to the widespread presence of TV and the internet, and this led to the development of a global generation. Edmunds and Turner's concept has not yet been tested, while the effect of globalisation is well recognised. It might seem that major world events would probably affect nations alike.

In a newspaper article describing the Jordanian Millennials undertaken by one of the main thinkers in Jordan, Anani (2018) states that "The millennials have their own language. If one receives a message from them, it would look like a hieroglyphic message, or like a Rosetta Stone. It is full of symbols, gestures, pictures and happy-go-lucky words". These communication languages used by the Millennials are consistent with stereotypes commonly used in Western countries, which could support Edmunds and Turner's idea of the global generation. However, while globalisation continues to rise and the spread of "global" events has become more common, generations in different national contexts might be similar in their characteristics. Therefore, it could be argued that the generational cohort (e.g., Millennials) could share the same characteristics, behaviours and attitudes to the other Millennials in other contexts. Not in the way that the current findings could be generalised but rather in adopting the same classification of generational cohorts used across the literature (i.e., Campbell et al., 2015; Zemke, Raines and Filipczak, 2013; Howe and Strauss, 2007; Lancaster and Stillman, 2002).

Another substantial aspect of Mannheim's conceptualisation of generation is the significance of shared memories and experiences components in defining a generation (Dencker, Joshi and Martocchio, 2008; Edmunds and Turner, 2005). Schuman and Scott (1989) posit that individuals born within a particular period, share profound and common experiences that help them form 'collective memory'. This shared memory of the events that people's witness through their formative years sequentially affects their future behaviours and attitudes; thus,

develop common attitudinal and behavioural responses to these particular historical scenes. Moreover, these common experiences form a bond between individuals of the same cohort and differentiates one cohort unit from another (Kelan, 2014). The events are a critical part of the generations' collective memory and the social-cultural and historical effects experienced in a shared context have a marked influence on the development of values, personality traits and attitudes among people who experience them (Lyons and Kuron, 2014; Kampf et al., 2017). For example, individuals (e.g., Baby Boomers) born after the second world war were shaped by the demographic boom and the rising economy (Campbell, Twenge and Campbell, 2017). This "age location in history" results in a shared belief and attitude and the era in which people are born will most probably dictate the culture they will experience (Twenge, 2006). Through their determinative years, these collective experiences give each generation its unique character (Lancaster and Stillman, 2002; Lyons and Kuron, 2014).

Campbell Twenge and Campbell (2017) argue that the influence of cultural constructs linked to historical events on generations could lead to a gradual change in boundaries between different generations, rather than a sharp cut-off's dates, as culture affects individuals at different points through their life and most likely during their emerging adulthood. Moreover, geographically, culture is not usually applied evenly, cultural shifts take place in various parts of the country at different periods; for example, the US's fashion trends usually start on the coastline and then travel across the states. Despite this, it is possible that generational differences would arise earlier in some areas than others, in certain countries. Intergenerational age variations are also likely in terms of cultural impact. In other words, not everyone responds and adapts to culture in the same way yet at the same time. For instance, during the 2000s and 2010s, support for same-gender marriage transformed rather quickly, but the change happened over ten to fifteen years (McCarthy, 2015). Some people accepted the idea early in that time, whereas others took much more time, gradually increasing the average response to the culture transformation. In view of all that has been mentioned so far, there is no evidence of a gradual change of the generational boundaries in Jordan. Therefore, the Jordanian cohorts' boundaries, which were presented earlier, reflect the global and local historical events and social effects of the Jordanian culture.

2.4.2 Evidence of generational differences in the literature

The issue of defining generational notion of cohort has received considerable critical attention since the early 21st century (North, 2019). Some researchers have questioned the notion of

generation. For example, Costanza and Finkelstein (2015) criticised the notion of generationally grounded differences; they argue that there was insignificant experiential evidence supporting generational differences and no clear justification of why generational differences would happen, they even claim that using generational cohorts as a way to segment the labour force is stereotyping. These claims have been contested by several scholars (e.g., Lyons et al., 2015; Campbell et al., 2015). “The term stereotype is sometimes used to suggest an ill-informed and negative description of a group not based on data. In this sense of the word, work on generations is not stereotyping”. (Campbell et al., 2015, p.328). This view is supported by Lyons et al. (2015, p.351), who write that “stereotypes are key to understanding perceptions and identity in organisations.” The main focus of generational studies is to obtain an exact knowledge of social groups, and this knowledge could hold positive or negative characters. Therefore, the present study examines trainees’ and trainers’ perspectives of generational differences in training behaviours and whether it could be attributed to generational stereotypes (e.g., Baby Boomers are ‘digital immigrants’ (Prensky 2001, p.1), or whether the popular generational stereotypes are not always consistent with training behaviours.

Giancola (2006 p.32) debated the idea of a “generation gap” by means of “more myth than reality.” However, his claim has been strongly contested in recent years by a number of writers (Campbell et al., 2015; Lyon and Urick, 2015). Weeks and Schaffert (2019) argue that generations are fuzzy social dimensions, like race, gender, and ethnicity and just because the theory is still developing, that does not mean it is meaningless. A recent study by North (2019, p.419) writes, “Generations are a powerful age-based category that many popular outlets popularise, but scholars generally disagree over what generational categories reliably predict.” Parry and Urwin (2011) have also questioned why research are valuable to our understanding of defining generational cohorts; they have also cited some empirical studies which have not found any differences between generations (e.g., Costanza et al., 2012). In contrast to Parry and Urwin (2011), Lyons and Kuron (2014) reviewed the literature up to the year 2014 and found differences between generations based on personality, work values, career patterns and leadership preferences. Other studies have also demonstrated generational differences in relation to their needs and preferences at the workplace such as the need for work-life balance (Twenge and Kasser, 2013), need for better support from superiors (Ng, Schweitzer, and Lyons, 2010) individualism (Twenge and Campbell, 2012), narcissism (Twenge and Foster, 2010) self-involvement (Twenge and Campbell, 2009), intention to quit and employee job satisfaction (Lu and Gursoy, 2013). The existent state of these findings suggests that

generational perceptions are essential for understanding an age-diverse labour-force, not in the way that differences always exist but rather in enduring perceptions of these differences (Rudolph and Zacher, 2017). Arsenault (2004, p. 134) states that “generational differences are a legitimate diversity issue that organisations need to recognise and understand”. Although evidence regarding generational differences in their attitudes and behaviours at the workplace is consistently mixed, such differences are too strong to be ignored.

Before reviewing the literature regarding generational differences in training, it will be necessary to discuss the generational shift in the global context and its implication on how organisations could design and deliver T&D programmes in a multigenerational workplace.

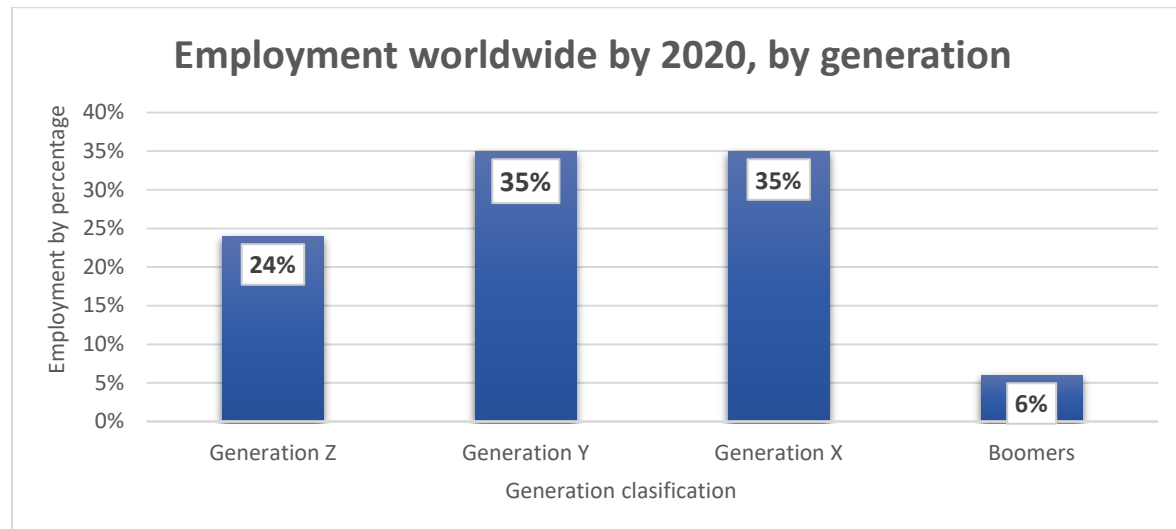
2.5 Generational shift in today’s workforce

In today’s global economy, demographic changes have led to a workforce characterised by a growing age diversity and an increasing number of people electing to postpone their retirement (Kulik, Ryan, Harper, and George, 2014; Hofäcker, Hess and Naumann, 2015). A study conducted by Population Reference Bureau (PRB) (2018), covered workers aged over 60 years old in the United States of America, showed an increasing number of employees working past the age of 65. The study also showed that the labour force participation percentage had risen from 18 percent in 1964 to 28 percent in 2017 (Scommegna, 2018). This societal shift implies challenges for organisations in general and HRM in specific (Drabe, Hauff, and Richter, 2015). Organisations need to ensure that workers’ knowledge and skills stay up to date across all age groups. Therefore, for organisations to improve their performance, knowledge retention strategies need to be higher on the priority list of knowledge or human resource professionals. (Zacher, Kooij, and Beier, 2018). Consequently, T&D programmes are progressively attended by workers from different age groups.

Many organisations have members of three to four generations working for them (Calk and Patrick, 2017; Stark and Poppler, 2018). Generation Y or Millennials were born between the years 1981 and 2001, Generations X individuals born between 1963 and 1980 and with a few Baby Boomers left in the workforce, were born during the years 1945 through 1962 (Lancaster and Stillman, 2002; Howe and Strauss, 2007). According to the statistics, by the year 2020 Baby Boomers will form 6 percent of the global workforce compared to Generation X and Y, which will represent equally 35 percent each, while Generation Z (individuals who were born

after the year 2001) will constitute 24 percent of the total (Figure 2) (Statista, 2018). However, due to the lack of information on Generation Z in previous literature, the three generations Baby Boomers, Generation X and Y will form the bulk of the literature review.

Figure 2. Global workforce by 2020 by generation. Source: The Statistics Portal 2018 (Statista, 2018).



Research evidence suggests that a failure in recognising generational differences and adjusting the workplace will have a negative effect on workers' productivity and performance (Westerman and Yamamura, 2007). In support of this view, Kapadia (2015) asserts that without planned strategies to build understanding, intergenerational differences may cause discouragement, conflict, and low morale among employees. HR managers and specialists encounter challenges regarding the learning preferences of each generation at the workplace and meet their needs (Becker, Fleming and Keijsers, 2012). Wiedmer (2015, p.51) states, "It is very important to understand and implement practices that complement workers' and learners' generational preferences, differences, and similarities." Given that training preferences may vary between workers from a different generation, it is imperative to explore how T&D practices could be designed and delivered to accommodate those who will be trained.

Having defined and explained the notion of generation, discussed generational labels and context and clarified the global generational shift's effect on multi-generational organisations. I will now move on to review the existing literature regarding generational differences in training.

2.6 Generational differences in training

The empirical literature shows there is a notable gap documenting significant divergences between generational cohorts, especially regarding their response and preference to T&D within the workplace. Urick (2017 p.53) stated, “very few studies have closely examined potential differences in preferences for T&D between generational cohorts.” This view is supported by Berge and Berge (2019, p.46), who write, “Specifically, regarding training and development, there is little or no empirical research regarding generational differences. More broadly, even though generational stereotypes are widely held, they are not supported by empirical research”. Additionally, Amayah and Gedro, (2014, p.37) state, “Although stereotypes about generational characteristics abound, there is little research that formally synthesises across thematic the array of studies that have been conducted in a way that can inform a comprehensive set of considerations for policies, practices, and training and development.”. Given these gaps in knowledge, there is a need for this research to further our understanding of training preferences of the young generation and how they are different from older generational cohorts. Moreover, since there is a scarcity of empirical studies regarding significant generational differences in their response to T&D in the Middle Eastern economies, it is uncertain whether differences do exist and, if so, what significance they have.

Urick’s (2017) study is of great significance as it marks one of the first attempts to assess the broader impact of generational differences on training preference. The researcher investigated how training experts can respond to differences in training preferences between generational cohorts. By surveying the existing literature and using a qualitative grounded theory method, he asserts that training preferences may differ between employees from different generations. The results of Urick’s study showed two major findings. First, “the younger generation were much more likely to be perceived, by members of other generations, as being comfortable with training initiatives” (Urick, 2017 p.56). The second finding is “that older generation tended to be less keen on formal instructor-led training approaches, being much more comfortable with on-the-job training mentorship” (p.57). However, Urick’s study results must be interpreted with caution as it lacks clarity in defining generations and is, therefore, not representative of all generations. Moreover, it is possible that these findings are valid only for the Western context and may not be generalisable. As Lyons and Kuron (2014 p.150) previously suggested, future development of this area of investigation on the influence of generational differences in T&D will need a greater consideration of context.

In a comprehensive review of training the Millennial generation, Farrell and Hurt (2014) found that on-the-job training, for example, could appeal to the dynamic learning style of the younger workers, allowing them to engage in the environment in which they will be working in. Farrell and Hurt (2014) also reported that by ignoring Millennial's features and tendencies, organisations would be at risk of failure to successfully transfer knowledge to trainees. Understanding trainees' needs, whether in the training content or design, is critical for completing training objectives successfully (Blanchard and Thacker, 2010). Overall, Farrell and Hurt (2014) highlight the need for a better understanding of how different generations learn, which can help trainers and HR managers in creating effective training programmes that suit generations' needs. Farrell and Hurt's (2014) study provides a useful analysis of Millennials' training preferences. However, the study remains narrow in focus as it examines only one generation (the Millennials); thus, it did not include other generations.

In a study examining work values of Baby Boomers and Generation X among other factors such as training methods preference of school principals in the United States, Seipert and Baghurst (2014) reported that the older generation prefers trainer-centred settings as an alternative to decentralised or outsourced training. Also, they are more used to step-by-step learning, which indicates that multi-tasking learning methods are not ideal for them. The study also found that Baby Boomer school principals' favour face-to-face interaction more than Generation X principals. Likewise, Venter (2017) asserts that Baby Boomers are very competitive. However, they face difficulties to continue excelling in the workplace because of their lack of technology knowledge, as a consequence, they have technological training needs, which set them apart from Generation X and Millennials. However, as the older generation (Baby Boomers) begin to retire, the Millennials would be the next generation to emerge in the workplace to replace them. Thus, proper training is required to address the negative effect of the retirement of Baby Boomers and to carry out succession planning and to meet the needs of the different generations that follow (Cummings-White and Diala, 2013). Nevertheless, to successfully transfer knowledge between members of different generations, HR and senior management should design and perform a successful succession planning through training programmes that suit the needs and preferences of each generation.

A recent study by Bernardes, Guzzo, and Madera (2019) examined whether organisational attraction as a function is subjected by the type of training programmes of online-based or on-the-job for Millennial workers. The study found that participants had higher organisational

attraction when training was described as on-the-job training rather than online-based training. Thus, contradicting the general stereotypes and expectations of Millennials. Similarly, Farrell and Hurt (2014) have also acknowledged that non-technology-based training would sometimes entice the Millennials' qualities of multi-tasking, need for attention and continuous instant feedback pursuing. However, the influence of technology on their life cannot be disregarded; those of the Millennials who are labelled as “digital natives” Prensky (2001, p. 1) are generally early adopters to new technological gadgets.

As discussed earlier, the Millennials described as “digital natives” (Prensky, 2011, p.1) who have been exposed to technology and social media such as Facebook and Twitter from their early adulthood and would never imagine living in a world without the internet (Campbell et al., 2015 p.326). “Millennials are the first generation to grow up with the internet” (Maier et al., 2015, p.388). Their early adoption of technology made them fail to separate physical technology from what the user can do (Feiertag and Berge, 2008). Farrell and Hurt (2014) argue that many lecture-style/traditional training programmes fail to reflect the dynamic learning style of Generation Y. As Millennials desire continual, immediate feedback and extensive attention, HR managers should consider these preferences when designing and delivering training programmes. Therefore, training managers need to recognise that some workers prefer technology-enabled training and others need hands-on training given the different preferences that exist in organisations. Consequently, a range of methods should be accessible to workers of different ages and generations.

Myers, Sykes and Myers (2008) argue that Millennials prefer learning by discovery that makes the use of role-playing, internet and simulation essential tools when training Millennials. In the same vein, Jerome et al., (2014) argue that Millennials prefer learning through visual methods such as videos, sounds and pictures to reading through the text. Furthermore, they are accustomed to absorbing information in bits (Cekada, 2012). For example, Waldron (2016) believes that Millennials should be given breaks to enable them to do different things they consider fun, which enables them to reflect on what they have learned through the earlier sessions. That is in line with the use of reflection as a mean of learning during their school days. Similarly, some scholars (e.g., Tews, Michel, and Stafford, 2013) suggested that workplace fun is an essential management policy and has to be used to positively upsurge workers' job satisfaction level and productivity, as well having the added advantage of decreasing extensive training pressure.

With regard to Generation X's workplace learning behaviour, Bova and Kroth (2001, p.62) write "the most effective training activities with generation Xers are those that give them an opportunity to sample and learn by doing... Employers will have to focus on outcomes, that is, what the learners will be able to do and not what they will know". Therefore, organisations need to rethink and redesign their training programmes considerably to meet the requirements of the Generation X Managers should not only tell workers what their training plan is; they must clarify why they have to learn as an alternative of merely focusing on the practice itself (Lowell and Morris, 2019).

Saratovsky and Feldmann (2013) suggested four methods that would enable Millennials to bring more of themselves into their work or to be more engaged. First, organisations should offer access to leadership positions and offer them enough support to develop their leadership roles. The second method is being transparent and allowing them to have access to high-level-information. The third is to create engaging social platforms allowing online and offline discussion. Last but not least, is developing an environment in which they can implement strategies to create solutions such as action learning, which is defined as "a practical group learning and problem-solving process where the emphasis is on self-development and learning by doing" (Pauleen and Corbitt, 2003, p.714).

Having discussed generational differences in training, the next section of this chapter addresses more specific dimensions regarding generational differences in technology, communication and working relationships.

2.7 Generational differences in technology

Venter (2017) asserts that while Baby Boomers and Millennials all have access to similar technologies, their usage of technology and behaviour towards it is very different. According to Kim (2018), the Baby Boomer generation uses technology to increase convenience and get much-needed information. In contrast to Millennials, as they use technology to create connections and friendships; they view technology as a tool that can help them achieve self-expression and recognition, they often feel it is easier and quicker to accomplish duties when using their technological skills. Generation X, however, uses technology to increase their efficiency and convenience. Shah, McLeod and Yoon (2001) assert that reliance on the internet

for information had a positive impact on Generation X work involvement. One example of their adaptation to workplace technologies is that Generation X individuals prefer email and text messages over face-to-face communications and are characterised by high rates of internet adoption (Hill, 2017).

Walmsley (2011) also agreed that Baby Boomers' digital immigrant' (Prensky, 2001 p.1) view the internet and computers as technologies that negatively affect business and productivity, their attitude towards technology is reminiscent of a generation that grew up in an analogue world that used telephones to communicate and used television as the main marketing tool. In view of that, they print out emails and documents to be edited; also, they will call people into their offices to show them an interesting website instead of sending them the URL (Venter, 2017). They are also less attached to technology, such as mobile devices and personal computers. The Baby Boomer generation faces some difficulties using new technologies (Amayah and Gedro, 2014) and may not adapt to technology as fast as Generation X and Y. For organisations, technology is strategically essential to increase organisational effectiveness and productivity, and this strategy is applied to all generations within the organisation, even on Baby Boomers.

Reisenwitz and Iyer (2009) note that Generation X does not dislike the online environment or the internet and frequently uses technologies to improve their knowledge base as they are the first generation to use emails for business communication. However, they have embraced other forms of communication and have gradually learned to use social media for communication, especially with social circles (Ben-Hur and Ringwood, 2017). Millennials, however, are comfortable with new technologies (Bauman and Shcherbina, 2018). They consider email to be an archaic means of communication. Hence, they prefer text messaging and instant messaging to going through the formalities of making telephone calls (Chawla, Dokadia, and Rai, 2017; Venter, 2017). As a multitasking generation, Millennials prefer using technologies that allow them to do many things at a time and converse with multiple people at a time. To them, the telephone limits the number of people they can communicate with (Zemke, Raines, and Filipczak, 2013). The preceding generations view their attachment to their technological devices as time-consuming and lead to reduced productivity.

Even though some studies have referred to Millennials as 'digital native' or 'tech-savvy' (e.g., Prensky, 2001; Brown and Czerniewicz, 2010), stereotyping of young people as "digital

natives” has been increasingly criticised as lacking theoretical clarity and empirical support (Lai and Hong, 2015). Conceptually, labelling an entire generation as having the same or similar characteristics based on technology use is tricky, as gender, social, and cultural factors could have a more substantial influence on people’s behaviour (Jones et al., 2010). According to Jones (2012 p.30), younger generations in each cohort are a mixture of individuals with different interests, intentions, skills, and never a single generation with shared characteristics.

A recent study by Kim (2018) investigating Millennial’s use of technology at the workplace found that, even though Millennial workers are most likely to engage with technology, they wasted more than twice as much time as Baby Boomers at the office. According to Conner (2013), Millennials spent around 2 hours on non-work-related technology while Boomers spent only 40 minutes. Similarly, Ericsson, (2013) in a study of nearly 2,000 Millennial workers, found that the majority of Generation Y stated they were dealing with personal matters during working hours; it is nearly impossible to leave their personal lives behind them; always checking their Facebook account; sending and receiving messages to/from friends and family on their gadgets throughout the day. Given the widespread use of technology for personal use at work by Millennials, it is not surprising that employers hesitate to hire members of this generation.

In summary, generational differences in technology use appear to be a common perception expressed by many employees of all ages. Managers can use the trends identified here (for example, young employees are comfortable with technology-enabled training) as a starting point for the formulation of training activities. Nevertheless, managers should not be enthusiastic about the assumption that all young employees prefer technology. Managers and training professionals can assume that some employees want technology-supported training, and some want practical training given the different inherent preferences that exist within organisations, so a range of training approaches should be available to employees. Therefore, this research is needed to develop a deeper understanding of the interrelationship between generations and their technology preferences in training settings.

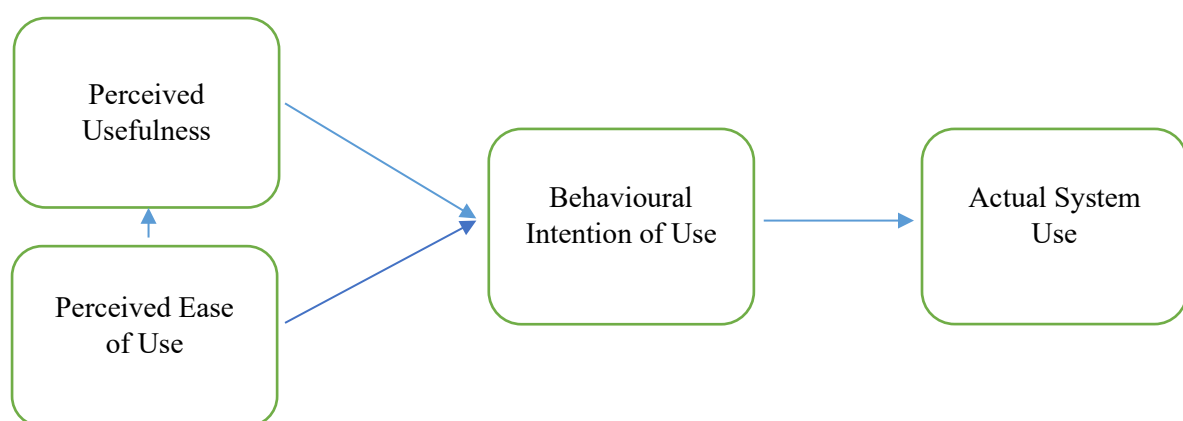
The above discussion raises the question of the extent to which technology could be a dividing factor between different generations. Most studies have focused on differences or similarities in the level of analysis and reporting on different outputs. In this study, I examine technology as a mediating factor that can influence generational differences and training. In the next

section, I present the technology acceptance model (TAM) to explore the effect of technology on the relationship between generational differences representing age groupings and T&D preference and perceived effectiveness.

2.8 Technology acceptance model (TAM)

TAM asserts that, when people are presented with new technologies, several factors determine how the users will utilise them (Taherdoost, 2018). Based on the theory of reasoned action (TRA), the TAM (Figure 3) avers that people's motivation to use new technologies is determined by four factors: perceived usefulness; perceptions about the ease of use; and the utilities that users are meant to derive from the technologies and the actual use of technology (Surendran, 2012). Suki and Suki (2011) argue that perceived usefulness and perceived ease of use affect attitudes towards new technology. Perceived usefulness refers to the subjective prospects that applications will improve job performance within organisational contexts, commonly referred to as performance expectancy (Bradley, 2012). The perceived ease of use is based on the conviction that using the technology would not require a specific skill set and would not require effort. The two beliefs then shape attitudes on whether they ought to use the technologies (Chuttur, 2009). The TAM also considers behavioural intentions to be essential to predicting the motivation and eagerness to perform several technology-related tasks (Aypay et al., 2012).

Figure 3. Technology Acceptance Model (Davis et al., 1989; Venkatesh et al., 2003).



The current study, however, employs the technology acceptance model TAM, which examines age-related differences in perceptions and intention in technology use and the extent to which these differences could affect the design and delivery of training programmes. This model has

been selected as a part of the current study's conceptual framework as it elucidates and predicts how an individual decides to adopt new technology (Chung et al. 2010). According to Granic and Marangunic (2015), constant technological progress and improvements create a dilemma for employees - should they accept or reject the changes? This also creates a dilemma for employers, should they force new technology on their employees? While many theories and models have been designed to improve understanding of the effective utilisation of technology, the TAM stands out and is the most widely used (Aypay et al., 2012).

Some studies, however, have investigated the authenticity of the model. According to Jiang, Lai and Chen (2010), while individual behaviours towards technology acceptance are essential, they are insufficient without considering the personal environment and social factors. Aypay et al. (2012) also found that a relationship exists between information acquisition and the TAM. Despite its popularity and use, TAM has several philosophical holes as well as a number of limitations which have been indicated by several scholars. For example, Chuttur (2009), doubts exist about the theoretical precision and applicability of the model. As a result, many scholars believe that research on the model is already saturated. Additionally, one of the most noticeable limitations of the model is its insistence on self-reported use, limiting its precision (Surendran, 2012). However, TAM has become very popular by leading scholars (see for example Lee et al., 2003; Hoof et al., 2005) as it fulfils the theoretical qualities of being simple, supported by data, and being relevant to predict recognition and usage of new technology in different disciplines. Therefore, future research can be geared towards developing new models based on the strengths exhibited by the TAM (Bradley, 2012).

Moreover, most of the studies that validated its efficacy and promoted its use were not done in organisational environments, but rather in academic ones. Organisational dynamics such as the practices and strategies used to promote organisational learning are a vital factor in the acceptance of new technology, but the model seems to ignore these dynamics (Aypay et al., 2012). That implies that the model cannot cater to all the factors that affect people's attitudes towards new technologies and their likelihood of accepting them (Jiang, Lai, and Chen, 2010). The model has also been criticised for its rigidity and inability to adapt to the constant changes in the IT environment, thus leading to theoretical confusion and chaos.

With respect to generational differences and their technology acceptance and use at the workplace, Blackler et al. (2009) found that older generations, such as Baby Boomers, are increasingly exposed to a wide variety of technologies. Their adoption of technology is still

modest compared to the Millennials generation. Chen and Chan (2011) argue that, even though older generations use technology easier than before, a digital gap still exists. All these findings have been done for the western context. The current study, however, attempts to explore if there are any differences among the three generational cohorts regarding perceived easiness, usefulness and attitude toward using new technology within the developing economies.

Some TAM studies have included age as a mediating factor (i.e., Sun and Zhang, 2006), which was found to have a significant impact on the future intention of technology adoption. For example, in a study on internet adoption by the older employees representing Baby Boomers, Niehaves and Plattfaut (2014) found that internet adoption is significantly less by older employees than other younger groups. However, Chung et al. 's (2010) study contradicts the assumption that age would help improve the explanatory power of the TAM when it is included as a mediating factor. Therefore, there is a need for this study to further our understanding of differences between generations in technology adoption and whether age could be a factor that influences how employees accept technology in the workplace.

As outlined above, there is considerable evidence showing the difference in technology use among different generational cohorts. Some evidence is based on empirical studies, while others are not. However, the current study attempts to explore if the technological divide exists or not among younger and older generations in the Jordanian context. Also, this research aims to explore whether technology could be a mediating effect on the relationship between generational differences and training.

2.9 Generational differences in communication

Communicative interactions in the organisation serve to create and sustain work relationships among the team and organisational members, and between those employees and key organisational figures (Myers, 2010; Sias, 2009). Mainly, communication that discloses shared values and reflects collective commitments to organisational goals enables co-workers to forge and maintain productive relationships in organisations (Myers and Sadaghiani, 2010). Information sharing and communication were found to affect individual and organisational performance directly and indirectly (Marlow et al., 2018, p.145). The emphasis that workplace communication, whether conventional face-to-face or virtual, is useful for training, progression, and life continuation of the organisation and should not be ignored (Tourish and

Hargie, 2009). Therefore, communication between management and employees should be a key to improving organisations' strategic planning to maximise the potential of open communication in their organisation (Neves and Eisenberger, 2012).

Several individual differences influence relationships and interactions in organisations in communication, which are related to co-worker's productivity (Jablin and Krone, 1994). Edmondson (2009, p.30) states, "conflicting situations are bound to occur in the workplace... we can take an active approach by being aware of others' communication styles and adapting our styles to find balance". However, understanding the different communication styles used in the workplace may not be a way to alleviate conflict rather a means to effectively address or avoid any conflict that may occur. A study by Bolton et al. (2013) noted a type of behaviour by Generation Y is that they are more connected and continuously communicating with others and they prefer digital communications as it is convenient.

Similarly, Myers and Sadaghiani (2010) assert that Millennials' exposure to technology in their early lives has had a significant influence on the way they communicate, even at the workplace. According to Kim (2018 p. 263), "their early and increased exposure to technology also influences their distinctive learning style. Millennials believe that they can gather all necessary information with just a few clicks on a 24/7/365 basis". The generation's informal utilisation of technology has altered their communication style. For example, Lapoint and Liprie-Spence (2017) argue that the advent of social networking sites has completely changed how Millennials communicate within their social circles and colleagues as social networking sites allow people to form exclusive groups through which they can collectively communicate. According to Thayer and Ray (2006), Generation Y uses online communication tools, connecting with friends and participating in online forums more than their predecessors. Moreover, one in three Millennials chooses social media freedom over wages in accepting an employment contract (Kratz, 2013). Therefore, they would find it more convenient when their bosses post the information over the social media groups instead of fixing memos on notice boards at the workplace (Ben-Hur and Ringwood, 2017).

Gardner and Eng (2005) exemplify this in a university student survey, they found that 73 percent of the respondents (representing Generation Y) were more likely to carry out research and seek information using the internet than going to the library. Moreover, the result shows that Millennials demand access to information on a 24/7 basis. However, in the case of

Millennial workers, they have to know that increased access to information comes with increased responsibilities (Gürsoy, Maier and Chi, 2008; Myers and Sadaghiani, 2010). For example, Stewart et al. (2017) suggested that senior management has to recognise that providing Generation Y with increased access to a higher level of information can lead to overall organisational benefits. With the increased realisation of the strategic intention and development of the organisation, Generation Y could be more engaged in supporting the organisational task. As far as Generation X is concerned, they have also adapted to new communication tools (Myers and Sadaghiani, 2010), because of their experiences, the email is their preferred way of communication. However, this generation places some value on more traditional forms of communication (Lester et al., 2012).

Baby Boomer employees are low-tech and high-touch people (Sayers, 2007); they prefer to discuss issues face-to-face with their colleagues, superiors, or juniors (Young et al., 2013). Non-verbal cues and body language are fundamental aspects of this generation (Zemke, Raines and Filipczak, 2013). They rarely use Wikis, blogs, instant messaging, texting and social networking sites in informal situations. However, if required, they communicate over the phone. “Baby Boomers believe phone calls are the most reliable form of communication” (Turnbull, 2010, p.9). Moreover, they are ready and willing to be called at any time concerning workplace issues (Angeline, 2011). Therefore, the current research examines what types of communication mediums do Baby Boomers prefer to use. If these preferences of the communication methods differ from other generations, hence one of the objectives of this research is to explore differences among the three cohorts regarding technology use, communication style and working relationships in training settings from trainees’ and trainers’ perspectives.

With time, Baby Boomers are gradually learning how to use computer-mediated forms of communication, following their children’s tendencies and changing their “old-fashioned” ways of communication (Turnbull, 2010). In the United States, the Pew Research Centre (2014) found that 59 percent of older adults (aged between 55-64 years old) use the internet for various purposes. Moreover, in a global context, this age group comprises 4.6 percent of all Facebook users (Pew Research centre, 2014), they are using Facebook mainly in sharing information about their activities and latest news (Patterson et al., 2017). Although Baby Boomers and Generation Y demonstrate different behaviours, they still share some similarities (Connaway et al., 2008). A recent report by the American Association of Retired Persons AARP (2018)

conducted in the United States of America, showed that 7 out of 10 aged between 50 to 69 years old, mainly Boomers, own smartphones due to the influence of Millennials (Anderson, 2018). Nevertheless, because of their technological limitations, they find it challenging to use the ultra-modern communication technologies such as instant messaging “IM” (Venter, 2017).

The difference in choice of means of communication between Baby Boomers and Millennials can lead to tension between the two generations (Abrams and von Frank, 2013). Most Boomers have an issue with how Millennials use technology to play, study and work, while Millennials view Baby Boomers as a technology-resistant generation that uses archaic means to communicate (Angeline, 2011). The scepticism towards each other’s choice of communication makes it difficult to make meaningful communication between the two generations (Myers and Sadaghiani, 2010; Young et al., 2013). This distinction in communication between generations can manifest in the workplace, which can lead to intergenerational conflict. Venter (2017, p.504) states that “The difference in communication media has the potential for conflict and misunderstanding between the generations causing a generational communication gap.”

According to Hartman and McCambridge (2011), Millennials regularly use informal technology-based means of communication and are adept at communicating through electronic means. However, they are still good at face-to-face conversations (Willemyns, Hosie and Lehaney, 2011). Millennials consider the size of the audience is very important and try to interact with as many people as possible over the social networks (Walmsley, 2011). Moreover, Generation Y members share much information online without compromising their physical safety because digital technologies allow them to communicate with people over long distances. Hence, this could assist the HR management in designing training programmes such as distance learning and online training that suit Millennials’ preferences and needs. Therefore, this study explores how different generations communicate in the workplace and training context and whether communication could affect their overall training outcomes.

In general, face to face communication remains the ideal approach for most generations. However, this way of communication is gradually disappearing in the workplace as it involves planning and is time-consuming. Moreover, lacking time and space have made people communicate using digital media to meet their needs and achieve their work tasks (Venter, 2017). Therefore, the current research examines whether intergenerational differences in communication found elsewhere exist and whether these differences could affect the design

and delivery of T&D programmes in the context of developing economies in general and Jordanian organisations in particular.

2.10 Communication accommodation theory (CAT)

Intergenerational communication has received considerable attention and played an essential role in the development of CAT. Identity, language, and contextual issues have been continuously at the base of the CAT (Gallois et al. 2005). This theory is considered as a general framework for analysing communication between groups. CAT highlights that intergroup encounters are “never exclusively or permanently intercultural” (Gallois et al. 2005, p.136). The CAT has been applied in many contexts, including health communication, law enforcement and, most significantly, intergenerational studies (Griffin, 2012). The theory is vital to the research on intergenerational differences. The different generations have different communication styles and even use distinct vocabulary and terminologies to communicate (Soliz and Giles, 2016). Therefore, it is imperative for the interlocutors from different generations to adjust their communication behaviour to others in order to aid lucid communication (Dings, 2012).

According to Turner and West (2010), the CAT is based on interpersonal relationships, in small groups or across cultures as individuals adjust their communication to others. The theory offers a broad framework that seeks to forecast and explain adjustments that people make to create, maintain, or diminish social distance during interactions (Babel, 2009). According to Salahuddin (2014), the effectiveness of T&D is geared in the direction of assisting workers of different generations to comprehend the different communication methods used by each of the generations within an organisation. As more organisations implement training programmes, it will be vital to evaluate the effectiveness of these training activities on improving organisational relationships among individuals of different generations. CAT seeks to explore the ways individuals alter their communications to suit others, as well as the motivation behind the adjustments and the attendant consequences (Willemyns, Hosie, and Lehaney, 2011).

The CAT is based on three primary constructs: convergence, divergence and over accommodation (Soliz and Giles, 2015). Divergence and convergence are together known as approximation strategies. People are motivated by various reasons to use approximation strategies. According to Giles and Soliz (2015), people use approximation strategies to show distinctiveness, achieve more lucid communication and attain social approval. Danescu-

Niculescu-Mizil et al. (2012) assert that the approximation strategy used is determined by the desire to reduce uncertainty. In convergence, participants choose to adapt their communication behaviours to suit the different groups or persons to alleviate social differences such as age (Griffin, 2012). Accordingly, a person would reciprocate or imitate the other party's mannerisms to accommodate him/her. Essentially, convergence is about fitting into the other person's behaviours, mannerisms and communication style (Turner and West, 2010). Over accommodating, however, is based on the notion that people who attempt to converge their communication may be offensive to the other people. These types of communication behaviours are the important ones. They mandate how things happen in the workplace in general and in the classroom in particular, trainers should consider these types of behaviour when delivering training to individuals from a different generation.

One of the most conspicuous criticisms of the theory is that it ignores the fact that communication is subjective (Danescu-Niculescu-Mizil et al., 2012). Some communicators can interpret the approximation strategy used in communication. As a result, one can use a convergent strategy, but the recipients interpret it as a different strategy (Turner and West, 2010). For instance, two interlocutors might think they are converging towards each other when they are diverging in a real sense. Consequently, scholars have revised one of the theory's propositions to state that people do not diverge from or convert to recipients' actual speech, but rather from or to their beliefs about the speech of the recipients (Soliz and Giles, 2016). Stereotypes are subjective, and it is this subjectivity that the theory fails to capture. Unfortunately, stereotypes have a significant effect on communication and perception of communication (Soliz and Giles, 2015).

Griffin (2012) considers issues of excessive convergence or over-accommodation to refer to instances in which convergence is unnecessary but still used. Conversely, there is the issue of under-accommodation, which means continuing in a person's usual communication styles, irrespective of the other person's communication style. For example, one well-known study that is often cited in research on intergenerational communication at the workplace is that of McCann and Giles (2006), who found a difference in perceived accommodation communication from younger respondents about their older colleagues. The study also found a significant difference in younger individuals showing more respectful avoidance communication with older colleagues. In contrast, divergence entails emphasising non-verbal and linguistic differences between the communicating parties to elucidate the existing cultural

differences in order to aid accommodation (Gonzales, Hancock, and Pennebaker, 2010). Divergence is particularly essential in situations where one of the parties expects cultural differences to be apparent and affect communications (Dings, 2012).

The current study examines whether trainers' communication methods could affect trainees' perceived effectiveness and preference for computer/online and classroom-based training. Moreover, under CAT, this study evaluates trainee's perceptions of their trainers, whether they accommodated their communication style to suit different generation styles of learning.

2.10.1 Perceptions and consciousness of divergence and convergence

Numerous studies have been conducted on whether people use divergence and convergence communication strategies voluntarily (Willemyns, Hosie, and Lehaney, 2011). More specifically, studies explore whether interlocutors' use of divergence/convergence strategies during conversations is a conscious undertaking. Babel (2009) observes that convergence is voluntary, but it becomes unconscious once it is done the first time. As people continue to interact with non-native peers, natives actively avoid intentional convergence and only engage in unintentional convergence (Soliz and Giles, 2016). Moreover, research has established that parties to a conversation can distinguish between voluntary and involuntary convergence. Perception and awareness are central to discussions about the objective and subjective nature of accommodation. In many instances, a speaker's motivation to converge might be misconstrued. According to Garrett (2011), the convergence or divergence of the communicator is less important than the perceptions of the recipient of a communication. In that vein, Willemyns, Hosie, and Lehaney (2011) admit that it would always be possible to determine the actual factors that motivate people to engage in accommodative behaviours. Garrett (2011) further asserts that the reasons behind accommodative behaviours are individual to every person. It is especially challenging to establish the perceptions of the people to whom the accommodative behaviours are targeted.

In general, the CAT assumes that individuals within different groups communicate differently based on their feelings towards other people's behaviour, which creates some social distance between different generations. Although many empirical and non-empirical studies have demonstrated differences in intergenerational communication, this study utilises the CAT to examine if younger and older generations communicate differently in an outer-group

perspective and whether these differences could affect the design and the delivery of T&D. Also, CAT has been used in the current study to examine the mediating effect of communication on the relationship between generational differences and training. In the next section, I discuss generational differences in working relationships in training settings.

2.11 Generational differences in working relationships.

Understanding and appreciating employees' backgrounds is essential in establishing an eminent management-employee relationship. Managers must adjust the workplace to build a dynamic and productive setting for all workers, irrespective of their age or generation (Kapoor and Solomon 2011) and deliver an efficient training programme to comprehend workers' generational profiles. According to Kowske, Rasch, and Wiley (2010), each generation has its unique characteristics, value, trait, and work attitude toward their managers and careers. Working knowledge of intergenerational differences provides senior management with some tools to start each relationship based on trust and understanding. Once the management and staff are in that "comfort zone" in which a person behaves in an anxiety-neutral way in reaching a stable performance state (White 2009, p.1), employees will have the opportunity and confidence to use the knowledge and expertise they have gained from their managers.

For example, Lovely (2010, p.10), in her study in an educational context, states that "superintendents must learn to push for change while also protecting the comfort zone that gives each generation a sense of pride and stability." The intention is to retain the workplace rhythm, so younger employees (Millennials) do not lose interest and that older employees are not overwhelmed. Lovely (2010) also suggests that even if training practice is old does not mean new ideas should be discarded. Given the highly diverse attitudes, values and behaviours of Baby Boomers, Generation X and Y workers, organisations today face the possibility for intergenerational conflict, employers should strengthen the emotional regulation capacity of their employees through conducting mental health training programmes; to create harmony and eliminate any clash between the three generations of workers (Zhu Yang and Bai, 2016). Therefore, this research set out to examine trainees' and trainers' perception of working relationships among generations and to what extent it could affect the design and the delivery of training in organisations.

In considering Generation Y, they are not merely an extension of Generation X, but they reflect some values held by Traditionalists such as morality and socialisation (Eisner, 2005). By way of illustration, Myers and Sadaghiani (2010) assert that Generation Y reports that working and interacting with other members of a team makes work more pleasurable, in part, a consequence of group-based learning and project groups throughout their years in school which reflects their engagement in training. In the same vein, Myers and Sadaghiani (2010) found that Generation Y employees often socialise in groups and are likely to be actively involved, fully committed and contribute their best efforts to the organisation when their work is performed in a collaborative workgroup or teams.

Other studies, however, found that Millennials shares many characteristics of Generation X, they are purported to value teamwork and collective action (Zemke, Raines, and Filipczak, 2000), be adaptable to change (Bourne, 2015) and be less process focused (Crampton and Hodge, 2006). According to Edge (2013), Baby Boomer generation exhibits more respect for figures of authority. Consequently, they are more comfortable than Generation X and Millennials to work under a hierarchical command structure. In contrast, both X and Y Generations tend to be comfortable around their superiors and are not intimidated or impressed by the lofty titles that the superiors carry. They interact with authority figures and ask questions whenever they need clarifications (Angeline, 2011).

Although there might be noticeable differences in workers' attitudes and behaviours among different generations, there are some remarkable similarities. For example, the Millennials and Generation X both hold a positive view of change (Bourne, 2015); Baby Boomers and Millennials favour similar instruction approaches in training, such as verbal training styles (Wagner, 2009). However, learning and development professionals and trainers pay attention only to the differences between generations when working with age-diverse trainees (Berge and Berge, 2019). Therefore, managers and trainers must recognise the distinct characteristics of each generation existing in their organisation (Madera et al., 2011), thus taking advantage of their differences and commonalities, especially when designing and delivering training programmes.

Millennials have been raised in an environment that encourages them to ask questions (Ben-Hur and Ringwood, 2017). To them, questioning their superiors from their points of view does not amount to a lack of respect. According to Gibson et al. (2009), Generation Y believes that

respect is not just given but earned and that it should go both ways, the tendency to readily ask questions regardless of the structure of the person being asked is considered disrespectful and procedural by Generation X and Baby Boomer generations, as a result, the older generations may have a low opinion of Millennials' workplace behaviour. A more recent case reported by Venter (2017) supports the hypothesis that the Baby Boomer generation may sometimes consider members of Millennials as shallow, playful and not committed to what is considered necessary in life. Overall, they regarded the younger generations as less trusting than them and they were less likely to remain with an organisation (Watt, 2010). Therefore, one of the current study objectives is to examine the extent to which managers or trainers modify and adjust training to avoid any intergenerational clash, especially if the trainer and the trainees were from different generational cohorts.

On the contrary, Farrell and Hurt (2014) argue that Millennials push for supportive, open and frequent communication and their unwillingness to hold structure and status in high regard makes Baby Boomer and X Generation managers feel disrespected (Graybill, 2014). Consequently, some Boomers even rail against Millennials' explicit and implicit requests for information and communication (Gürsoy, Maier, and Chi, 2008). According to the seniors, Millennials fail to understand that increased knowledge and communication come with increased responsibilities (Myers and Sadaghiani, 2010, p.229). While Millennials understand and appreciate the responsibility attached to communication, their seniors claim that Millennials are not ready for top-level responsibilities (Venter, 2017).

In a survey study conducted by Deloitte (2016) surveying 7,700 Millennial workers, reported that 64 percent of those working in senior-level management positions, such as, supervisors or above, depend on their values and morals to make decisions at work and reach their organisation's goals and objectives. (The 2016 Deloitte Millennial Survey: Winning over the next and generation of leaders). Generation Y seems to be 'keeping their nose to the grindstone,' prepared to apply their skills and focus on success in work. Still, they are focused on themselves rather than having more social and moral positioning (Weber, 2017). This may be a pragmatic reason for the negative perception of Baby Boomers and Generation X hold toward Millennial managers as not committed to what is considered as necessary in life (Venter 2017).

According to Angeline (2011), Generation X employees are quite individualistic and expect to be rewarded and appreciated when they achieve organisational goals. Also, they prefer having direct access to their bosses, seeking quick solutions whenever they have queries or problems (Grubb, 2016; Subramanian, 2017). Similarly, Millennial employees become more optimistic, enthusiastic and confident to learn when they notice that managers are appreciative and respectful of their contributions and opinions (Myers and Sadaghiani, 2010; Bresman, 2015). In their view, managers should not only listen to their proposals and ideas but also provide timely rewards and feedback (Jerome et al., 2014). This view is supported by Fishman (2016 P.252), who states, “Millennials are known for needing positive feedback and lots of it.”. Therefore, organisations and HR personnel should utilise training techniques that align with the millennial characteristics of desire for attention and feedback-seeking.

Farrell and Hurt (2014) aver that the working relationships, more precisely manager-employee relationship is affected by deeply held beliefs and perceptions of each generation about the other. According to Gürsoy, Maier, and Chi (2008), Baby Boomer managers have low regard for Generation X and Y employees. They consider the two generations calculating, unreliable and inconsistent people who do not deserve immediate reward and recognition. In return, Millennials and Generation X perceive Baby Boomer managers as inflexible and old-fashioned (Angeline, 2011). Boomer employees working under Generation X managers consider them to be an incapable and inexperienced lot that cannot manage or lead them. Most importantly, they perceive them as individualistic, uncaring and unfriendly managers who ignore their hard work (Twenge, 2010). These differences in perceptions can cause generational conflict and thus, affecting training opportunities. In support of this view, Truxillo and Burlacu (2015) argue that workers who were older than their supervisors received fewer opportunities for T&D.

Organisations need to deliver suitable training packages for Generation X managers regarding how to deal with workers from older generations (Gürsoy, Maier, and Chi, 2008). Despite the above, Benson and Brown (2011) found that Generation X employees also have an issue with how Boomer managers handle Millennials in the workplace. In their opinion, Boomer-led managers use many resources to mentor, coach and train their Millennial colleagues (Gancheva, 2013). They also believe that Millennials are overly appreciated, rewarded and pampered despite their limited skill sets and experience (Subramanian, 2017). However, they acknowledge that Millennials are technology experts and have the ability to learn fast.

Therefore, surprisingly, when in management, Generation X leaders also invest a lot in training the Millennials (Rood, 2010).

Myers and Sadaghiani (2010) aver that, unlike the preceding generations, Millennials view close relationships with their managers to be the pathway to negotiating their primary role and as a means of achieving job satisfaction. They are also taught to seek advantages and favours where they can, without any negative consequences (Bennett, Pitt and Price, 2012). As a result, they expect the relationship to be exemplified by positive, affirming and frequent communication (Brčić and Mihelič, 2015). However, many senior managers from the Baby Boomer and Generation X view the expectation of positive and affirming communication as burdensome. Therefore, it is imperative for Baby Boomers, and Generation X managers to be taught on the role those positive communications and affirmations play in the productivity and engagement of Millennial employees.

In general, the nature of working relationships and how the generations act is a way to observe how they behave differently. The different behaviours here are some examples by which the research can develop. These particular behaviours are the important ones as they mandate how things happen in the workplace and the overall results as well. While the differences in the reporting relationships may not be significant, they are strong enough to create an interest in perhaps developing new methods of working and training overall for all that are involved from the various generations. While each generation has a preferred method of training and processing information, managers can maximise their workers' growth and development by considering each generation's needs and preferences (Hannam and Yordi, 2011).

Having discussed generational differences in working relationships. In the next section, I present leader-member exchange theory (LMX) as a mediator variable that could affect the way different generations perceive their computer and classroom-based training effectiveness and preference.

2.12 Leader-member exchange (LMX) theory

The LMX provides a valuable foundation for this research. This theory elucidates and highlights the importance of specific leader behaviours and their effect on the quality of the relationship managers can form with their subordinates (Neubert, Wu, and Roberts, 2013). The purpose of this study was to explore the strategies experienced by managers and trainers

regarding T&D to respond effectively to generational differences in the workplace. According to LMX, leaders may treat various followers distinctly, which leads to the creation of two groups: the in-group and the other as an out-group (Krishnan, 2005). The in-group comprise a small group of followers that the leader trusts and develops a close personal relationship that is of a higher quality than the one s/he has with other followers (Lunenburg, 2010). In contrast, the leader maintains an official relationship with members of the out-group.

The different relationships that the leader shares with employees are stable and develop as a result of the leader's limited energy and time, as well as the inability to pay equal attention levels to all workers (Strukan and Nikolić, 2017). The LMX theory evaluates the quality of trust and the relationship between leaders and their followers. According to the theory, leadership refers to an interactive process between followers and their leaders (Krishnan, 2005). The theory posits that high-quality exchange between leaders and followers leads to higher job performance, better workplace attitudes, prominent participation, diminished turnover intentions, rapid career progression and increased employee support towards leaders (Lunenburg, 2010).

High-quality leader-member exchange is characterised by loyalty, mutual trust, official and unofficial rewards, respect and mutual support (Strukan and Nikolić, 2017). Conversely, low-quality LMX leads to a purely economic relationship that limits itself to the terms of contract (Lunenburg, 2010). Anderson et al., (2017) argue that, under LMX theory, leaders (managers) are probably going to face some difficulties in leading workers in the midst of generational changes. The behavioural traits of today's workers will make it hard for managers to gain rewarding from high-quality interrelations with their juniors. In specific, Generation Y is keen on individual activities more than their predecessors (Twenge and Foster, 2010) and therefore, the LMX will be undermined by the increased level of individuality. According to Twenge and Campbell (2008), individualistic workers are less likely to build social relationships, even if they expect their managers to reward them with more praise or even give them more attention.

Managers who are driven by LMX are less likely to build a relationship with employees who only are interested in themselves because these individuals are not eager to offer anything in return, thereby leading to low-quality LMX relationships that cause less favourable outcomes to the worker and organisation (Granovetter, 2005). However, high-quality relationships are most likely to occur when the subordinates are sociable and outgoing since the in-group

involves more collaboration (Nahrgang, Morgeson, and Ilies, 2009). Trainers of older generations may be tempted to deduce younger generation trainees need for continuous and instant feedback or even more information as a sign of disrespect (Myer and Sadaghiani, 2010). Moreover, when the younger generation shows their preference for the life-work balance, managers might misguidedly think their behaviour is some listlessness or laziness. Therefore, trainers' delivery of diversity training can assist them in overcoming these wrong assumptions that are most likely to occur in the workplace (Anderson et al., 2017). Under LMX, the current study reveals whether managers or/and trainers from different generations tend to build a high-quality relationship with their subordinates based solely on age/ generation.

So far, this chapter has discussed generational differences in training, technology, communication and working relationships. Also, it has presented TAM, CAT and LMX theories. The following section discusses HRM practices and cultural issues within the context of Jordan and its implication on employees and organisational outcomes. I also present a discussion on cultural issues that affect the design and delivery of training programmes in Jordan.

2.13 Human resource management in the Jordanian context

Before discussing and reviewing the literature regarding T&D practices, it was necessary to discuss HRM policies in Jordan and its issues and challenges as T&D are essential parts of HRM procedures that contribute to the organisational performance and thus affect employees' training perception and preference.

HRM practices are known as substantial functions in supporting organisational performance (Delery and Gupta, 2016). In the Middle Eastern economies and more specifically Jordan, HRM practices are impacted dramatically by cultural values reflected in the governmental and non-governmental bureaucratic policies that confine HR managers on designing HR functions, which in turn affects organisational performance (Budhwar and Mellahi, 2006). According to Budhwar and Mellahi (2006), there is a dearth of lucid evidence on the involvement of HR managers in either formulation of HR policies and practices or the making of strategic decisions. The situation is the same in both the private and public sectors of the Jordanian economy. Most Jordanian firms have HR divisions in their head offices, however, the role of the HR department does not go further than the administration of candidates, and their duties

are restricted to filing and paper works of employees from the recruitment phase to the retirement point (Budhwar and Mellahi, 2006).

In addition, the limited role means that the departments have little room to improve how their people are managed, and neither can they alter critical aspects to motivate employees. These results are reflected in the findings of Altarawneh and Al-Kilani (2010), who reveal that turnover intentions across workers in Jordanian organisations are very high. Intentions to quit are associated with employee dissatisfaction, poor HRM strategy and T&D practices. Moreover, even for multinational firms, such companies experience complications in importing Western HRM policies to the Middle Eastern countries due to many cultural obstacles (Edwards and Rees, 2006). Therefore, the current study highlights the effect of cultural issues which affect trainees' perception of training programmes in the Jordanian context and how trainers could overcome these difficulties to successfully transferee knowledge to their employees.

Analoui and Branine (2006) argue that despite the huge efforts that have been made by many public and private Jordanian companies to carry out T&D using different methods and means, the lack of financial, material resources and the absence of systematic training needs analysis have slowed down the way to make significant changes in training programmes. Obeidat (2014) suggests that to enhance HR practices in general and T&D practices in specific, managers and training specialists should always predict the training needs of their employees and inform them of the significant effect of training on their knowledge and skills, as exploring and assessing flexible systems and resources required to produce high-quality training programmes on demand is a main duty for the HR directors.

According to Budhwar and Mellahi (2006), "In Jordan, the unwritten rules of employee relation are tacit in people's relationships with each other in and outside the workplace" (P.155). The working environment in the Jordanian organisations is influenced by cultural values and norms, where it is believed that the employer must protect his employees and in return, workers must demonstrate their loyalty and obedience. This type of exchange interest is based on social and cultural values, as individuals are usually taught to show loyalty and respect to their superiors even if they disagree with them. The respect of seniority and age is very strong among Jordanian people and is observable inside and outside the workplace (Budhwar and Mellahi, 2006). Similarly, Aladwan, Bhanugopan, and Fish (2014) note that Jordan's cultural values

dramatically impact existing HRM practices and policies. These values are reflected in the government's bureaucratic procedures and policies. These observations are supported by Obeidat et al. (2016), who found that national cultural dimensions, specifically individualism, long term orientation, uncertainty avoidance and masculinity have a significant effect on HRM practices in the Jordanian pharmaceutical industry. However, while cultural values have the most significant effect on HRM practices, other aspects such as the political environment, religious environment, economic issues, technology, leadership, ethics and corporate governance also affect HRM policies in Jordan (Aladwan, Bhanugopan, and Fish 2014).

Another important practical implication is that HRM practices in Jordan are yet to receive the deserved level of attention from organisations. In many Arab companies and more precisely Jordanian firms, expenditure and the elapsed time on T&D are considered a waste of time and money and do not contribute to improving workers' commitment or overall performance (Aladwan, Bhanugopan, and Fish, 2014). By way of illustration, a previous study investigating the determinants and impact of training on 500 Small Medium Enterprises (SMEs) in Jordan (Magableh, Kharabsheh and Al-Zubi, 2011), has established that training expenditures ratio ranged between 1 percent and 34 percent, with an average of 5.5 percent of the total organisational operation cost. The total expenditure on training between the years 2008 to 2011 was ranging from \$280 to \$60000 annually, with an average of approximately \$5480, which is more than 82.5% less than the average spending. Similarly, in a study investigating T&D practices in the Jordanian Water Company, Al-Husan and James (2003) found that the monthly training expenditure was around \$3 per employee. Moreover, overseas training programme expenses were in the form of donations from other countries and were limited for some individuals within the senior management team.

Despite the above, Jouda, Ahmad, and Dahleez (2016) argue there are insufficient studies and knowledge have been found in the developing countries regarding HRM, and little is known about HRM practices within the Middle Eastern economies. Therefore, the current study aims to further our understanding of HRM practices including training preferences and suggests approaches to meeting the needs of different age groups within the context of Jordan.

2.13.1 Training, recruitment and selection in Jordan

Superior employee recruitment tactics and strategies are an essential source of competitive advantage (Thawabieh, 2017). Fundamentally, organisations pursue and expect to hire the best and most experienced people available. However, like in most Arab nations, the ability of organisations in Jordan to recruit the best is hampered by the ‘Wasta’ practice. ‘Wasta’ is a practice in which job vacancies are filled, not by the most qualified, but by those with connections to senior and influential people within the organisations and society (Berger et al., 2015). The ‘Wasta’ practice disregards achievements and competencies to help someone secure a job. According to Albdour and Altarawneh (2012), ‘Wasta’ has both negative and positive consequences on organisations. To begin with, it diminishes workplace diversity and taints a company’s image. It also results in incompetent workers and makes it difficult for an organisation to attract talented employees who do not have connections. The only positive identified is the utilising of social networks to attract qualified people who share an organisation’s values (Berger et al., 2015).

Budhwar and Mellahi (2006) argue that other than the ‘Wasta’ practice, organisations also do not refer to job descriptions during recruitment and selection. Instead, they use the descriptions as just part of the routine and bureaucratic procedures. Therefore, the selection process in Jordan is neither meritocratic nor objective and systematic. Consequently, some employees do not clearly understand their specific roles in the workplace, which appears to be pertinent across all generations and job roles. Although recruitment, selection and promotion policies within the Jordanian organisations are being affected by ‘Wasta,’ still, the power of ‘Wasta’ goes beyond these practices to T&D opportunities, which ultimately jeopardise workers development (Ta’Amnha, Sayce and Tregaskis, 2016). Even though ‘Wasta’ practice particularly may affect the youth more than the older generation, there are no studies that document this specifically and, therefore, should be considered in future studies.

Altarawneh (2009) asserts that T&D of personnel is an essential facet of HRM because it increases, improves and refines skills, knowledge and capabilities of the concerned managers and employees. That enables them to be more effective and creative in the performance of their jobs and tasks. It also ensures that employees are up to date with most recent inventions and developments in the relevant industry, field, or sector. The dearth of training leads to less competent employees without a refined job, technical and soft skills. The fact that the employees are selected through the dubious process of favouritism makes it worse. It makes it

virtually impossible for the Jordanian workers to compete with the global workforce doing similar jobs in other parts of the world.

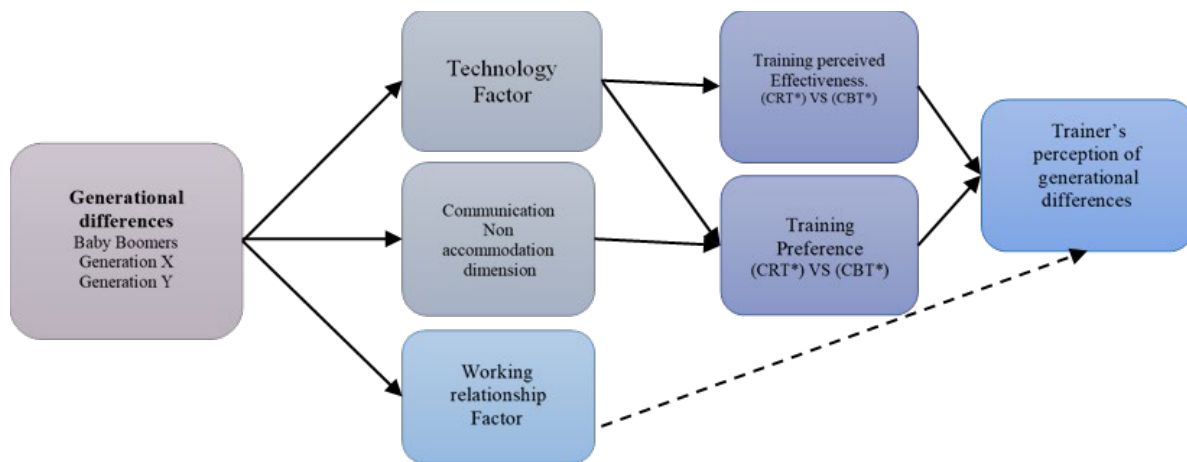
A study by Obeidat, (2014) on the characteristics of the training process within the banking sector in Jordan, suggests that to engage employees in training programmes especially those who entered the workplace for the first time; management should take into account that employees are different with respect to their characteristics, behaviours and capabilities. For example. Obeidat, (2014) also reported a specific type of behaviour: that younger employees are not taking their work seriously enough and “it takes time to teach them how to be more professional” (p.391).

Having discussed HRM practices, including T&D, recruitment and selection in the Jordanian context, its implication on employees and organisational outcomes. The following section presents the conceptual framework of the current study.

2.14 Conceptual framework

The current study's framework is based on two main factors. First, the literature review. Second, the research questions. The aim was to produce an overview that combines the literature review with the study's research questions and provides a road map for the study. According to Adams, Khan and Raeside (2014), the integration of different ideas from different theories helps researchers to construct their study's conceptual framework. Likewise, Grant and Osanloo (2014, cited in Adom, Hussein and Agyem, 2018, p.438), “a theoretical framework offers several benefits to research work. It provides the structure in showing how a researcher defines his/her study philosophically, epistemologically, methodology and analytically”. The theoretical model of the current study was designed to examine generational difference as an independent variable among the three generations included in the study of T&D preference and perceived effectiveness of online/ computer vs. classroom interventions as a dependent variable which will be discussed in more details in the methods chapter (Chapter 3, Methodology). The current framework (Figure 4) was based on the theory of generations (Mannheim, 1952) combining with three other factors: technology acceptance model (TAM) (Davis, 1985); communication accommodation theory (CAT) (Giles, Taylor and Bourhis, 1973) as mediating factors, and leader-member exchange theory (LMX) (Dansereau Jr, Graen and Haga, 1975) as a moderating factor.

Figure 4. Conceptual framework of the current study.



*CBT: Computer-based training

*CRT: Classroom-based training

To develop a framework on the subject of generations in organisations, I draw on an extant theoretical perspective of generations in the workplace. Based on Mannheim's (1952) theory of generation, Dencker et al. (2008) theorised that generational characteristic appears in the workplace based on shared memories and experiences of events and social contexts within the same period of generational development stages. They also posited that shared generational character would result in mutual work-related expectations, expressed as psychological contracts. Joshi, Dencker and Franz (2011) argued that shared memories of the decisive events of individuals' early life become crystallised as attitudes and behaviours. They also noted that inter-generational interaction, a fundamental factor of Mannheim's (1952) theory of generations, is mainly significant to transmitting skills, knowledge, experiences and resources across generations.

I would surmise that the steady nature of generational membership and set of organisational collective experiences and memories are associated with a shared character in the workplace (see, for example, Ashmore et al., 2004). Moreover, based on these perspectives, interpersonal processes between different generations draw on diverse sets of work attitudes and behaviours resulting from different organisational formative experiences (Hogg and Terry, 2000). Consequently, an age-based generational character can be defined as membership in an age group that shares collective memories developed throughout the determinative stages of their life course. Additionally, a specific side of the generational character is likely to have a distinguishable effect on workplace attitudes and behaviours.

This research aimed to examine trainees' and trainers' perspectives of preferences and perceived effectiveness of classroom and computer/online-based training associated with generational differences in technology, communication and working relationships in work contexts. The current study integrates three infamous behavioural theories within social science, namely, technology acceptance model (TAM) (Davies, 1989), communication accommodation theory (CAT) (Giles, Taylor and Bourhis, 1973) and leader-member exchange theory (LMX) (Dansereau Jr, Graen and Haga, 1975). Each theory explains and elucidates mechanisms underlying an individual's workplace behaviour. Taking separately these theoretical approaches generate conflicting predictions. Rarely, however, have these theories been directly combined or/and compared in the same study. It has been suggested that "it is more appropriate to combine theories because of their differences rather than similarities" (Wall, Devine-Wright, and Mill, 2007, p.3). Therefore, in this study, the three frameworks fit together as part of the current research as different generations work together in organisations; they influence and are influenced by interaction. In addition, I combine these disciplinary lenses to offer an actionable framework for studying generations in organisations and examine the effect of such factors on the relationship between organisational age distributions and trainees' training behaviours. The theoretical underpinning of the three theories is discussed next.

According to TAM (Davies, 1989), technology involvement is defined in four ways (technology perceived usefulness, perceived ease of use, behavioural intention to use and actual use of new technology). This theory depends on the psychological construct of behavioural intention as a dependent factor, which signifies that behaviour results from an intention to carry it out (Ma, Chan and Teh, 2020). TAM is specially personalised to interpret technology acceptance behaviours in work settings and organisational environments, influencing how employees participate in technology-enabled tasks. TAM has been commonly applied and adapted to examine the aspects that influence older employees' technology usage. For example, McCloskey (2006) hypothesised that technology participation will be the lowest for the older employees and showed that age directly affects all dimensions of technology involvement. Scholars have examined some parts of technology adoption by the senior employees, including the psychological benefits of using the computer for learning (Billipp, 2001) and the effectiveness of computer-based training (Marquie, Jourdan-Boddaert, and Huet, 2002). Based on previous studies, I wish to highlight that technology engagement vary between generations and can affect their preference and perception of technology and thus its implementation.

This research is built on well-known principles inherent in communication accommodation theory (CAT); it has guided, in specific, the sorts of dependent factors applied in previous research (e.g., Giles, Coupland, and Coupland, 1991). CAT directly explores the ways in which people use language in in-group interaction, with its fundamental basis to clarify "the social cognitive processes mediating individuals' perceptions of the environment and their communicative behaviours" (Giles et al., 1987, p. 14). CAT was designed to theorise that "communicators are motivated to adjust their speech styles with respect to one another as a means of expressing values, attitudes, and intentions" (Street and Giles, 1982, p. 205; see also Watson and Gallois, 1998). CAT assumes that our interactive behaviours are fuelled by social stereotypes and recognising how interaction becomes even more complicated when interlocutors have nothing in common (Zhang and Giles, 2018). As far as age and generations in the work domain, stereotypes are abundant and could be exceptionally negative. As expected, these negative generalisations have powerful behavioural consequences as they contribute to an upsurged societal distancing between individuals of different generations (Hummert and Ryan, 1996). In the current study, CAT was utilised as it predicts how individuals of different generations might communicate and interact in biased ways in favour of their generational group.

This study also utilises a Leader-Member Exchange (LMX) theory to examine associations between generational membership and training behaviours. The main assumption of LMX theory is that leaders manage workers differently, based on 'in group' and 'out group' perspectives. The type of relationship between leader and subordinates could lead to differing outcomes for different workers. An important foundation of LMX theory is that leaders and managers have limited personal, social, and organisational resources, such as time and energy, and, thus, deliver such resources between their followers selectively (e.g., Graen and Uhl-Bien, 1995). Managers do not communicate with all workers equally, which, over time, results in the construction of LMXs that differ in quality.) extended LMX theory hence integrates the notion of generations. This integration is supported by the claim that "Recent data suggest that the leadership of people is not adequate work engaging millennial employees" (Espinoza, Ukela, and Rusch, 2010 cited in Graen and Schiemann's, 2013, p.458). This assertion is in line with Uhl-Bien (2006), who proposed that the perceived quality of LMX relationships between managers and subordinates depends on prior expectations concerning the social exchange relationship. In summary, I propose that the LMX relationship quality mediates the interactive

effect of trainees' age and training preference and perceived effectiveness. The primary assumption is that under these theoretical frameworks, each factor is likely to influence different generation trainees' behaviour, thus their perception and preference of training.

2.15 Summary of the chapter

The current study aimed to examine generational differences from trainees' and trainers' perspectives of the design and delivery of training programmes in the Jordanian context. According to the existing literature, three to four different generations are working together side by side and interrelating in the contemporary workforce (Calk and Patrick, 2017). Each generation has different training preferences and needs which managers and trainer should meet to improve organisational performance. Another distinction comes in the form of communication styles and the use of technology in the workplace (Hartman and McCambridge, 2011). The generations' attitudes and views of how people should relate to their employers and trainers are also different. HR management needs to understand each cohort's distinctive characteristics to enable a swift transition of knowledge (Cummings-White and Diala, 2013). Unfortunately, the Jordanian organisations view training suspiciously and consider the money spent on training to have been wasted (Aladwan, Bhanugopan, and Fish (2014). HR practices, such as selection and recruitment, are widely affected by cultural values, particularly the "Wasta" practice, in which candidates are recruited not based on merit, but rather on their networks across the society (Thawabieh, 2017). However, no known empirical research has focused on exploring how different generations respond to training within the context of developing economies in general and Jordan in particular. Therefore, this research is needed to develop a deeper understanding of how different generations respond to training and to what extent do technology, communication and working relationships affect their preferences and perceived effectiveness of computer and classroom-based training.

3. Chapter Three: Methodology

3.1 Introduction to the chapter

This research aims to explore generational differences from trainees' and trainers' perspectives of the design and delivery of training and development (T&D) programmes within the Jordanian telecommunication sector. This chapter presents the research methods which were applied to examine the extent to which Baby Boomers, Generation X and Y differ in their preferences and perceived effectiveness of computer and classroom-based training. Given the absence of generational studies in the Jordanian context, I have adopted a combination of quantitative and qualitative study designs which enabled me to describe and explore the phenomenon within such a setting (the telecommunication sector of Jordan). I explain what I recognise as an epistemological worldview. Thus, through a process of deductive reasoning. I have implemented the pragmatist paradigm, which is pluralistic and practical (Creswell and Clark, 2017). I engage in a discussion of qualitative and quantitative approaches which were viewed as complementary to each other and how I have applied them in practice. In an attempt to further distil the nuances of generational differences and its impact on T&D, a cross-sectional case study design was applied, which involves collecting data from a population sample at one point in time (Hair Jr et al., 2015). I discuss the setting of my research, presenting the study sample, size and strategy which I have used for data collection. Finally, this chapter concludes by discussing the validity and reliability and the ethical considerations and issues which grounded my research.

3.2 Study design

Study design refers to the strategy chosen by researchers to integrate or combine different parts of research in a clear and logical manner, it includes the plan for the data collection, measurement, and analysis to address the study problem in an effective manner (De Vaus, 2001). In other words, it is an outline that is formed to search for answers to the proposed research questions. Studies can be categorised into several types, such as descriptive, experimental, exploratory and historical, which are selected based on the research problem (Kuada, 2000). Gill and Johnson (2002) classified research designs as descriptive, exploratory, experimental, analytical (explanatory) and observational studies. In the next section, however, I will discuss each type of study design that is available to the researchers to understand the

differences between them. Subsequently, I present and discuss each design in relation to the current research.

A descriptive study is one of the most frequently used type of study designs in the social sciences, which attempts to describe the overall image of what is occurring in the sampled population without measuring the correlation, link or relationship such as the manifestation or commonness of set of individuals (Adams et al., 2007). This type of design is beneficial for setting out a starting point of "how we think the world is," and it is considered as the baseline of the exploratory analysis (Adams et al., 2007, P.22). Cooper, Schindler and Sun (2006) assert that descriptive research comprises subjective research, cross-sectional, case reports and series, that measure the reappearance of the components, hence examining the subject matter.

Exploratory study is used to explore those circumstances in which the intervention being examined has no clear, single set of results (Yin, 2003). Additionally, it is considered to be the most suitable design for studies that are dealing with high levels of ambiguity and unfamiliarity about the subject. Also, it is most suitable when the study problem is not well understood (e.g., very few existing studies on the subject). Brown (2006, p.43) asserts that exploratory research "tends to tackle new problems on which little or no previous research has been done." However, the purpose of the exploratory study is to identify the limits of the environment in which the problems of interest are most likely to reside and to identify the related variables that could be found in the research context and be of relevance to the study.

Analytical or explanatory study design attempts to evaluate the association between two components, that is, the effect of an intervention on an outcome. According to Kasi (2009), the explanatory design enables to identify the rate of results in a screening examination group to measure the impact of one factor on the other. With regard to experimental studies, these types of designs are similar to experiments in areas of other science disciplines, as subjects are allocated to more than one set to receive exposure under a carefully controlled environment. These controlled trials, particularly if they are randomised, could control most of the preparations that could occur in experimental essences. Still, whether this occurs will depend on the type of research composition and application (Saunders, Lewis and Thornhill, 2009).

The current research combines descriptive and exploratory study designs that were applied to examine trainees' and trainers' perceptions of generational differences in the delivery and

design of training programmes. Specifically, how do these different cohorts respond to T&D in anticipation of generational differences? On the one hand, the descriptive method of the current research was utilised to identify the characteristics of different generations addressed through analysing the demographic factors and identify trainees' behaviours of perceived effectiveness and preference to computer and classroom-based training. On the other hand, the exploratory research design was used to better understand the nature of the problem (Singh, 2007).

Having defined the types of research designs and identified the current research study design, the next section of this paper discusses the research philosophy adopted in the current research and the assumption of ontology and epistemology.

3.3 Research philosophy

Research philosophy refers to "a system of beliefs and assumptions about the development of knowledge...it is precisely what you are doing when embarking on research: developing knowledge in a particular field" (Saunders, Lewis and ThornHill, 2009, P.124). According to Burrell and Morgan (1979), understanding and creating a philosophical perspective requires various key assumptions by the researcher regarding two main aspects: the nature of society and science. Selected research philosophy is affected by the researcher's practical considerations grounded by the nature of the study problem and questions (Saunders, Lewis and ThornHill, 2009). According to Johnson and Clark (2006), there are two focal philosophical approaches that science involves: subjective and objective approaches, which are outlined by several main assumptions regarding ontology, epistemology and methodology.

The assumption of ontology is related to the nature of reality, even if the reality is "the product of one's mind" (Burrell and Morgan 1979, p.1). Ontology is concerned with the description of different subjects and their associations to find answers. Ladyman, (2007, p.303) defines ontology as "the theory of what exists." However, the assumption of epistemology, relates to the nature of knowledge and "How is it possible, if it is, for us to gain knowledge of the world?" (Hughes and Sharrock 1997, p.5). It relates to "the nature, validity, and limits of inquiry" (Rosenau 1992, p.109). In other words, epistemology demonstrates what sorts of knowledge are considered to be passable (Gray, 2014). The research philosophy selected in this research includes substantial expectations and beliefs about my understanding of the world. Therefore,

I have followed the epistemology research viewpoint, as it attempts to answer two important philosophical questions; What should be considered acceptable knowledge in a discipline? Can the social world be studied according to the same principles as the natural sciences? In this line of thought, the current research assumes that humans are regarded as natural objects and their behaviours can be explained by external forces that affect them, such as historical events, shared culture and social location (Mannheim, 1952).

3.4 Research approach

Trochim (2006, p.1) refers to two "broad methods of reasoning as the inductive and deductive approaches." On the one hand, inductive reasoning is grounded by the interpretive paradigm, which involves observation or data and pattern of changes in the data, evolving hypotheses, or theory (Khan, 2014). According to Creswell and Clark (2017), the inductive method begins with the specific and ends with the general. Creswell and Clark (2017, p.23) added, inductive means "bottom-up, using the participants' views to build broader themes and generate a theory interconnecting the themes." Researchers who prefer flexibility in their studies usually choose inductive reasoning (Hair et al., 2015). On the other hand, deductive reasoning refers to moving from the general to the specific. Creswell and Clark (2017, p.23) describe the deductive approach as it "works from the 'top-down,' from theory to hypotheses to data to add to or contradict the theory." According to Jonker and Pennink (2010), there are several steps in conducting a deductive method such as developing theory, assumptions, or hypotheses based on a theory, collecting and analysing data in a specific setting or context. The deductive approach helps the researcher to gain reliable and relevant knowledge to reach accurate data and information (Cohen et al., 2007).

As far as the current research is concerned, the deductive method was adopted by developing a theoretical framework and then empirically tested to examine generational differences in T&D in the Jordanian context. Differences and similarities between trainees' behaviours toward training also help in analysing generational cohort perspectives of trainers in a multigenerational workplace setting. Along with this, different sorts of data and information were used to generate knowledge regarding technology use, communication style and working relationships of employees within different generational groups. The flow of research shifts from general to specific, also identified as the top-down approach (Creswell and Clark 2017). This method helps collect information with the aid of different data collection approaches,

regarding the theories and other data related to the subject in question, thus helping to reach the anticipated results (Harris and Brown, 2010).

Having defined research design, philosophy and approach of the current study, the following section identifies basic principles of the research methodology. The choice of the research methodology reflects a combination of principles and values that influence my perspective of the chosen paradigm (Blaikie, 2007). Bryman (2012) concurs that both quantitative and qualitative methods can present a set of unique but opposing characteristics. These features reflect the 'epistemological' beliefs about what represents acceptable knowledge. In deciding the appropriate research strategy. Scholars, as Bryman (2012) and Silverman (1998), believe that there are two opposite models of research paradigms: positivism and interpretivism. However, other paradigms, such as pragmatism, discard the distinction between realism and anti-realism, which has been the main argument about positivism as opposed to interpretivism in the social disciplines. Theorists for example (Creswell, 2003; Somekh and Lewin, 2005; Tashakkori and Teddlie; 2003; Biesta, 2010), believe that pragmatism supports the use of both qualitative and quantitative approaches. Thus, the three paradigms are discussed in more detail in the following section.

3.5 Research paradigm

Within and across many disciplines, there are differing ideas of what research is and how it associates with knowledge development. A paradigm is a set of thoughts and beliefs which guide actions and formally creates a set of research policies (Kivunja and Kuyini, 2017). According to Guba (1990), paradigms guide researchers on how to decide to carry out a study. Patton (2002, p.69) defines paradigm as "a way of thinking about and making sense of the complexities of the real world." For Chalmers (1982, p.90) paradigm is "made up of the general theoretical assumptions and laws, and techniques for their application that the members of a particular scientific community adopt." There are some well-known research paradigms such as positivism, post-positivism, interpretivism, constructivism, critical theory and pragmatism. The current study, however, is guided by the pragmatic paradigm. However, before defining and explaining the paradigm of the current study 'pragmatism', I will elucidate the course of positivism and interpretivism paradigms as each of them deal with different types of data that were utilised in this thesis.

3.5.1 Positivism paradigm

Positivism, as a research approach, marks itself as a base of the quantitative method, with its background in natural disciplines. According to Guba et al. (1998), one of the main characteristics of the positivist paradigm is limiting all phenomena to take scientific guidelines by following a deductive approach to either approve or reject hypotheses. In general terms, the positivist paradigm has an objectivist conception of social science, which is grounded on numerical data, then implements deductive reasoning to comprehend the relationship between theory and practice. According to Swanson and Holton (2005, p.18), "positivism assumes that an objective world exists and that scientific methods can mirror and measure while seeking to predict and explain causal relations among variables."

The positivist paradigm aims to examine a theory "through observation and measurement in order to predict and control forces that surround us" (O'Leary, 2004, p.5). However, Blumer (1956, p.685) notes that in determining positivist research characteristics, this approach tends to overlook the "process of interpretation or definition that goes on in the human group." From a social science and realism perspective, Blumer (1956) argues that the tendency is to use the positivist paradigm to question the reliability of the approach itself when examining the impact of the subject being explored. The link between the individual's perception of daily events and the researcher's role is separated and hence ignored.

Similarly, Schutz (1962) states that due to the scientific approach of the quantitative method or positivist paradigm, it fails to distinguish between individuals and social institutions from the "social world." For Guba and Lincoln (1994) positivist paradigm is only able to generate findings and results which exist individualistically of a form of theoretical framework and thus can become a problem when studying realistic topics such as behaviours, attitudes and perceptions. In addition, positivists believe that only the information provided by science can result in scientific knowledge; it means that they advocate for the application of natural science methods such as objective observation to the study of social reality. Guba et al. (1998), demonstrate that the separation and being value-free means that the subject being researched is stripped from their social world. For example, Sarantakos (2012) suggests that research in the social world must be determined in real life, or else, it will be dehumanised or artificial. Therefore, adopting a positivist approach could limit the research to examine only perceived experiences through the sample's senses rather than understanding the reflective perceptions of

career success and progression among trainers, trainees and managers from a generational perspective.

3.5.2 Interpretivism paradigm

In contrast to positivism, interpretivism as a research paradigm is based on the qualitative method. Interpretivists recognise that certainty is made by an individual's perception of it. Interpretivists also believe that people with their own mixed and diverse experiences, backgrounds and assumptions contribute to the continuous construction of reality that exists in the social context through social interactions (Hennink, Hutter and Bailey, 2011). Moreover, Interpretivists hold the view that social studies have to be created by social interaction, either by the research topics or between the researcher and the study itself. This paradigm is characterised by its social interaction, which seeks to study the subjective rather than objective sense to social reality. By implementing this inductive reasoning, the study progression considers the researcher's mutuality and research subject (Easterby-Smith, Thorpe and Lowe, 1991). In other words, the researcher would not be separated or to be detached from the study as positivist paradigm advocates, but as an alternative, the researcher examines the research in a subjective manner, which is reflective of this research. The current study seeks to find evidence in terms of relationships between factors; the main independent factors are generational differences (cause of relations) and the dependent variables are training perceived effectiveness and preference as theoretical components (effect of relations) in which are grounded by the positivism approach.

As discussed above, quantitative research is generally associated with the positivism paradigm. and the interpretivism paradigm is mainly grounded by qualitative research. The following section discusses pragmatism as a research paradigm which guides the present study.

3.5.3 Pragmatism paradigm

The theoretical research paradigm of pragmatism guides this study. This paradigm has emerged among theorists (i.e., Johnson and Onwuegbuzie, 2004; Morgan, 2007; Teddlie and Tashakkori, 2010; Pearce, 2012; Hall, 2013) who claimed that it was unlikely to reach the "truth" about the real world only through one scientific approach as constructed under the positivist paradigm, nor was it likely to define social reality as advocated by the interpretivist paradigm. For them, the monolithic research approach was not sufficient. Instead, these

theorists (Patton, 1990; Tashakkori and Teddlie, 2003; Alise and Teddlie, 2010; Biesta, 2010), argue that a worldview was needed which could offer research methods that are perceived to be best suitable for examining the case at hand. Consequently, these philosophers looked for pluralistic and practical methods of research that would allow a mixture of approaches that highlight the actual participant's behaviours and beliefs behind these behaviours and the likely consequences that follow from different behaviours. That led to the emergence of a paradigm that seeks to use mixed approaches to comprehend human behaviour, hence the pragmatist paradigm. This paradigm supports a relational epistemology for example (relationships in a study are best decided by what the researcher believes suitable to that specific research), a non-singular reality ontology (each person has his understanding of reality), value-laden axiology (a study which benefits people), and a mixed-methods methodology (a mixture of research approaches, quantitative and qualitative methods). In general, pragmatism was created in an attempt to overcome the two conflicting positions of positivism and post-positivism on the one hand and the interpretivist paradigm, on the other hand, hence, put an end of what so-called "The Paradigm Wars" (Gage, 1989 p.5).

Having discussed the research design, philosophy, approach and paradigm of the current study, the next section discusses the types of methods used in the current study along with rationale for choosing a research design which enabled me to answer the research questions.

3.6 Quantitative and qualitative methods

According to Creswell (2009, p.4), quantitative approach involves "testing objective theories by examining the relationship among variables." Creswell (2009, p.4) added, "these variables can be measured, typically on instruments, so that numbered data can be analysed using statistical procedures." To examine trainees' and trainers' perceptions of the relationship between generational cohort factors and T&D variables, this study used four measures of survey scales. These measures include preference and perceived effectiveness of computer and classroom-based training (Negron, 2017), technology acceptance model (TAM) (Amoroso and Hunsinger, 2009), communication accommodation theory (CAT) (McCann, and Giles, 2006) and leader-member exchange (LMX) theory (Graen, and Schiemann, 2013), which will be discussed later in this chapter (see section 3.12 survey instruments).

According to Williams (2007, p.67), a qualitative research approach is a general method that includes discovery. It is also defined as an "unfolding model" that happens in an actual environment, which allows the researcher to be directly involved in the research or experiment, also, it covers a high level of detail from high involvement in the real experiences (Creswell, 1994). One of the defining characteristics of qualitative research is the social phenomenon, which is examined from an individual's point of view. Merriam (2002, p.3) states that "the key to understanding qualitative research lies the idea that meaning is socially constructed by individuals in interaction with their world." Qualitative research methods allow the researcher to understand an individual's own experiences and perspectives. The qualitative method also allows for the reporting of these personal experiences in an attempt to assist other scholars and practitioners to comprehend the effect of these experiences and views on the behaviour under study. The data analyses for the current research aims to address the five purposes identified by Greene, Caracelli, and Graham (1998) which are: in quest of, improvement; illustration; elaboration and clarification of the findings of the qualitative approach with the findings from the quantitative approach.

3.7 Rationale for research design

To address the objectives of this research; how do trainees' and trainers perceive generational differences in training programmes and how do trainers train differently in response to generational differences. The current study used a mixed-methods exploratory research design. Using a mixed-methods approach within one research was based on the fact that quantitative or qualitative data are inadequate by themselves to accommodate the tendencies and details of a certain case. Using a combination of quantitative and qualitative data allows for more robust analysis, benefiting from the strengths of each method (Ivankova, Creswell and Stick, 2006). Creswell (2003) asserts that using qualitative and quantitative methods either in parallel or sequential stages has a major advantage; it allows the researcher to answer confirmatory and exploratory questions simultaneously, thus verifying and generating theory in the same study. In addition, Teddlie and Tashakkori (2003, p.15) note that this sort of research demonstrates the expected relationship between variables and answers exploratory questions on how such relationships have occurred.

Qualitative research methods refer to a range of data collection and analysis techniques that allow for examining and understanding behaviours of values, beliefs and assumptions of

participants regarding their perspectives and perceptions, among other things of the subject matter (Choy, 2014). A qualitative research approach also can aid in circumstances where a quantitative survey may be difficult to conduct. Although trainers and managers were approached for interviews in the current study, logically, it was not feasible to collect data using quantitative approaches from the same sample or even the whole population, as a larger sample was required to make conclusions. Moreover, the interpretation of the results will be unlikely representing members of each age group (generation). Hence the sample of trainers and managers was considered small in number and would not allow generalisations to be made and the results would not be valid. According to Fowler and Lapp (2019, p.61), “when sample sizes are too small, you run the risk of not gathering enough data to support your hypotheses or expectations. The result may indicate that relationships between variables are not statistically significant when, actually, they are”.

Quantitative approaches allow generalisations to be made about large populations based on smaller representative samples. In the current research, online surveys were distributed to trainees from the three telecommunication companies. However, it was not viable to conduct face to face interviews or any types of qualitative approach with the same participants as it was difficult to gain access and contact them individually. Also, due to the nature of the research questions, the current study required a sufficient sample size to objectively verify the result. Large samples were required to analyse the association in the pattern between different age groups and examine the impact of age (generational membership) as an independent variable on training preference and perceived effectiveness as dependent factors.

The information gained from qualitative interviews with trainers and managers identifies characteristics that impact age group’s perceptions and preferences of training, beliefs regarding technology use, attitudes toward communication, and behaviours regarding other generational member leaders, which are key determinants of their overall training outcomes. This information can contribute to a better understanding of the disparity that exists between different generation trainees and responses toward training design and delivery methods. Moreover, data obtained from the qualitative method are mainly beneficial in designing and developing research procedures for culturally and socially age-diverse workforce. The result would be much needed and more culturally appropriate paradigms in research, socially and culturally.

Therefore, using mixed methods design allows me to ratify previous research results and explore new ideas and phenomena on the subject of generational differences in a training setting. Moreover, the qualitative method use in the current study was not designed to substitute but meant to be considered as a complementary to quantitative method. The results from both methods were to be a broader, more realistic understanding of the generations position of our changing workforce and the world in general.

Creswell (2009) notes that three aspects should be taken into consideration when conducting a mixed methods research approach: timing, weighing and mixing. Timing in a mixed-methods approach refers to the way that the research will happen either in stages (successive) or simultaneously (concurrent). Weight is the second aspect of a mixed-methods approach. According to Creswell (2009, p.206), weight is defined by "priority given to quantitative or qualitative research in a particular study." Some studies distribute weight equally; other studies, however, place emphasis on one method over the other. The third feature of the mixed methods approach is mixing. Creswell (2009, p.207-208) asserts, "mixing means either that the qualitative and quantitative data are actually merged in one end of the continuum, kept separate on the other end of the continuum, or combined in some way between these two extremes."

Additionally, Creswell (2009 p.208) describes three forms of mixing: integrating, connecting and embedding. Integrating in mixed methods design refers to merging the two databases, the qualitative with the quantitative data. Connecting means mixing quantitative and qualitative research data by connecting the analysis of the data in the first stage of research with the data collected from the second stage of the study. Embedding means having secondary data within a larger study combined with a different type of data as the primary database.

Given the nature of this research, both qualitative and qualitative data were collected at the same time. In specific, the distribution of the questioners and the process of conducting interviews were done in parallel. Although parallel mixed analyses involve a minimum amount of mixing between the two methods (qualitative and quantitative), it can be utilised to improve the interpretation of statistically significant results (Onwuegbuzie and Leech, 2004). The integration of the data did not occur until the data interpretation phase and the results from each type of analysis were neither compared nor combined until both sets of analyses were finalised. In addition, both sets of data were equally important with equal weight distribution.

On the one hand, the quantitative data set aimed to examine trainees' responses to T&D in anticipation of generational differences. On the other hand, the qualitative data set was utilised to expand on the understanding of these differences from managers' and trainers' perspectives, also to explain any themes that have emerged from the use of the questionnaires. Finally, these two types of data sets (quantitative and qualitative) were connected, mixed and then analysed using statistical and non-statistical software packages SPSS and NVivo, which were used to analyse the collected data through coding, identifying themes, patterns and practical application testing tool (Given, 2008). According to Groenewald (2004), such tools offer valuable assistance in easing the difficult task of organising text-based data. Moreover, the survey questionnaires and interviews were analysed together to develop some significant findings that emerged in the research, which will be discussed in large in the next chapter (Chapter four, data analysis results and findings).

3.8 Setting for the study

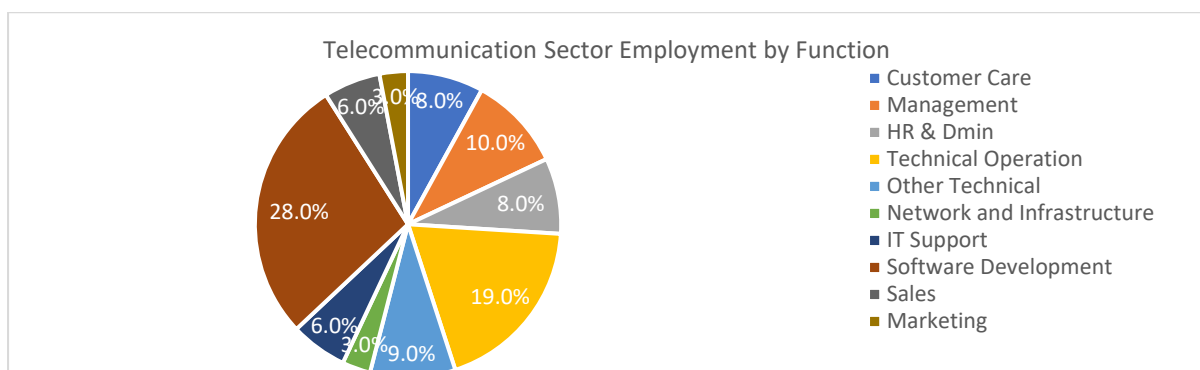
This research was conducted on 3000 participants working in three telecommunication companies (Zain Jo, Jordan Telecom Group (JTG)/Orange Jo and Umniah) located in Amman, Jordan. The Jordanian telecommunication sector offers a rich and diverse population of workforce from different age groups and generations working side by side. Also, this sector is among the fastest growing and most advanced sectors of the Jordanian economy, which employs around 90,000 people (direct and indirect) (Export.gov, 2018). As explained earlier, both primary and secondary data sets were used for this research. Secondary research was based on a review of the literature, such as published journals, government reports, and other relevant academic sources, which helped identify the gaps in knowledge (e.g., Urick, 2017; Berge and Berge, 2019. Chapter 1, page 6). To fill this gap, primary research was developed. More specifically, survey questionnaires and semi-structured interviews were utilised to collect data from relevant stakeholders, which are explained in more detail in the next section (section 3.9, study sample). De Vaus (2002) cites those surveys provide quantitative data that may be used to establish concrete factual findings in social research. However, semi-structured interviews provide a more in-depth perspective of respondents' opinions and allow thorough questioning to explore the underlying topic.

3.9 Study sample

In meeting the aim of this research, a cross-sectional case study design was applied to explore the extent to which trainees respond differently to training and whether trainers train differently in anticipation of generational differences in the Jordanian context. Cross-sectional design involves collection of information or data from a sample of a population at only one point in time (Hair Jr et al., 2015). The scope and nature of the current study informed the choice of cross-sectional case study approach. Primarily, the study explores T&D programmes which are not transient but persistent in organisations. According to Mann (2003, p.57), "cross-sectional studies are the best way to determine prevalence and are useful at identifying associations that can then be more rigorously studied using a cohort study or randomised controlled study." Further, cross-sectional case studies are also cheap to undertake, and the researcher only gets into contact with the study population once. Cross-sectional studies also contain multiple variables at the time of data snapshots.

I have chosen companies that have been in existence for the last ten years. The assumption is that such companies have the best sample population and data that can be relied upon to make conclusions. It is also true that such organisations have employees from different generations. The study has engaged both private and public companies in Jordan, with around 3000 employees distributed on several functions (Figure 5) shows the telecommunication sector employment distributed in percentage by function (Moict.gov.jo, 2018).

Figure 5. Telecommunication sector employment by function (ICT and ITES industry statistics and yearbook Jordan, 2018).



As discussed earlier, the study sampled the whole workforce from three telecommunication companies in Jordan. In total, the sample population was around 3000 employees. In addition, 13 corporate managers and trainers from the sampled companies were approached for

interviews. The interviewees were accessed through the company's HR department (gatekeepers). After identifying the list of trainees from the HR department, a stratified random sampling approach was applied to achieve representative samples of each generation. According to Thompson (2012, P.141), "In stratified sampling, the population is partitioned into regions or strata, and a sample is selected by some design within each stratum. The design is called stratified random sampling if the design within each stratum is simple random sampling". Each stratum had individuals from the same age group (generation). Stratified random sampling captures the main characteristics of a population in a sample (Baran and Jones, 2016). This method produces characteristics in the sample that are proportional to the characteristics of the overall population. Stratified random sampling also has a small error in estimation and the assurance of high precision compared to random sampling (Baran and Jones, 2016). The stratified sample eliminates the chances of human bias in the selection of whom to be included in the sample (Baran and Jones, 2016).

Since the study involved different generations with different characteristics, beliefs and preferences, the stratified random sampling approach assures a high precision in the case study and minimises the standard error of an estimator for a fixed total sample size (Cochran, 1977). In this respect, it is most likely that the findings of the present study are representative and generalisable to the whole industry. To increase the chance of getting representative samples, I have considered developing the strata across different departments as training intervention occurs in different departments. Age was the primary factor defining the strata as it gives a clear picture of the generation in which individuals belong.

3.9.1 Quantitative sample size

Comrey (1988) recommends a sample size of 200 to be acceptable for most studies of ordinary dimension analysis, containing 40 questions or less. Comrey (1988) also categorises a sample size of 100 as poor, 200 reasonable, 300 respectable, 500 impressive and 1000 outstanding. However, larger samples increase the generalisability of the conclusions reached. The survey used in this research consisted of 64 items. A basic sample size determination was performed using Yamane's (1967) equation for calculating sample size, which is presented in Figure 6, along with clarifications as to how these decisions were made. According to Singh and Masuku (2014, P.15), "Yamane (1967) provides a simplified formula to calculate sample sizes". In which n represents sample size, N is the population size, and e signifies the level of precision.

Figure 6. Yamane's formula for calculating sample size (Yamane, 1967).

$$n = \frac{N}{1 + N(e^2)}$$

The resulting sample size is demonstrated in Figure 7. In this research, $N = 3000$ represents the whole study population, with a 5 percent margin of error (e). I have determined a 5 percent margin of error (error researcher is willing to accept) as it is considered acceptable in most educational and social research (Krejcie and Morgan, 1970).

Figure 7. The resulting sample size of Yamane's formula.

$$n = \frac{3000}{1 + 3000(.05)^2} = 352.941$$

The results from Yamane's equation showed that the required sample size for this study was 353 participants. However, a total of 660 surveys were recieved, achieving 22 percent response rate. According to Baruch (1999, p.423), "a response rate of 20-30 percent is fairly typical for a mail-out survey to a large sample of organisations". The surveys were distributed via Smart Survey® for the Arabic version and Online Surveys Tool (formerly known as BOS) for the English version. The survey was translated to the Arabic language by a bilingual university lecturer who is an expert in the management field, and then back-translated into the source language (English) by another bilingual translator who is blinded to the original survey. According to Werner and Campbell (1970), back-translation is an efficient method widely used in cross-cultural studies, which can check for the accuracy of the translation. The two versions were then compared and revised by a third bilingual expert in the field of HRM and leadership. During the translation process, special attention was given to cultural nuances by avoiding idiomatic expressions, slang and emotionally suggestive terms. No major issues were encountered in the translation process.

3.9.2 Qualitative sample size

Patton (2005) openly recognised the absence of criteria for determining the sample size of qualitative research. Nonetheless, some qualitative methodologists are not concerned about the lack of guidelines. Hardly, if ever, qualitative methodologists rationalise the sample sizes of a qualitative study (Marshall et al., 2013). Glaser and Strauss (1967) note that there is a lack of published standards rationalising the sample sizes of qualitative research; still, most qualitative studies commonly followed the concept of data saturation. The concept of "saturation" entails bringing new participants continually into the study until the data set is complete, as indicated by data replication or redundancy. In other words, saturation is reached when the researcher gathers data to the point of diminishing returns when nothing new is being added" (Bowen, 2008, p.140). Glaser and Strauss (1967) recommend the concept of saturation for achieving a suitable sample size in qualitative studies. Other rules have also been suggested. For example, Morse (1994) suggested nearly 30-50 participants for ethnography studies, whereas Creswell (1998) suggests 5 to 25 interviews acceptable in qualitative studies. These recommendations can help the researcher to evaluate the number of participants they will need, but eventually, the required number of participants should depend on when saturation is reached. In this research, 15 trainers and managers were approached for interviews, including two pilot studies, since the data was repeated after the 13th interview.

3.10 Interview research strategy.

Interviews were deployed to obtain in-depth information about the strategies and methods used by trainers to train individuals from different generations. Also, to examine if these strategies could reduce the gap between generational cohorts with respect to technology communication and working relationships in a training setting. According to Alshenqeeti (2014), interviews are flexible, have a higher response rate and assurance of the researcher's control. Each interview was scheduled for 45-60 minutes and followed the semi-structured interview guide. According to Kitchin and Tate (2000, p.213), "Semi-structured interviews are probably one of the most commonly used qualitative methods.". This interview approach is beneficial for exploring complex behaviours, thoughts, and reactions and collecting a diversity of experiences. In addition, this type of interview involves testing relationship between several variables.

The process of the interviews in the current research was flexible with some degree of structure, using a very general interview guide and trying to make the interviewee feel as comfortable as possible. All the participants were regarded as experts as directed by O'Keeffe et al. (2016), and thus let to speak freely. I sought more information from the interviewees to collect information relevant to the current research and reduce researcher bias (Klenke, 2016). However, the interviewees were allowed to go off on a tangent as long as they were reminded of the issues related to the research. Moreover, the interviewees were given the liberty and autonomy to answer to the best of their knowledge and to sum up the interview by giving their views. Also, they were given a chance to ask questions at the end of the interview. However, minimum demographic and personal questions were asked during the interview. In addition, reliability and validity issues have been taken under consideration during the interviews, by avoiding asking leading questions and taking notes alongside the tape recorders. Also, the interviews were conducted in an environment that was chosen by the interviewees to minimise any external interferences.

During the interview, I had collected different answers from the respondents to the interview questions. The detailed views were further developed to meet the research objectives. Audio records of the interview aided the data transcription process. All the transcribed materials were categorised based on the generation of respondents for ease of analysis. The taped recordings were transcribed and then imported into NVivo software, which was utilised to organise the data and maximise the efficiency of the analysis. Using NVivo software enhanced the research quality, which eliminated the manual tasks and gave me more time to examine trends, categorise themes, and make conclusions. Non-verbal signals and tokens (e.g., stutters, pauses) were also considered in the transcription process, which was in line with the verbal aspects of the research.

Each interview took an average of one hour to be transcribed. During the transcription process, I removed any comments which are not related to the research questions 'dross'. Field and Morse (1985) defines the term 'dross' as any material that happens in transcripts which does not relate directly to the subject in hand or that is repetitive or peripheral. According to Burnard (1994, p.112), "the first stage of the analysis is to clean-up the text. Each transcript file is worked through and any 'dross' removed". Hence, only related data to the study remained. Sentences were categorised into segments and labelled. Data coding and categorising processes were also done to identify the common themes which have emerged from the data. The themes

were based on the participants' views, which have increased the validity and analysis of the phenomenon. General and unique key themes related to each research question were extracted. Vaismoradi et al., (2016, p.107) state that “any judgment of the validity of developed themes depends on themes’ adequacy in portraying the “storyline” developed based on participants’ accounts. This is researchers’ creativity to depict themes through the presentation of a story that is psychologically, culturally, and socially innovative”.

As explained earlier at the beginning of the qualitative part of this chapter, the results of the qualitative study were organised by themes. The findings from the interviews were combined with the survey findings. The data was then examined to identify the extent to which the phenomenon prevailed in the Jordanian context in which the study anticipates generational differences in the context of the chosen workplace.

3.11 Survey research strategy

The study questionnaire was converted to an online survey management tool, Online Surveys (formerly known as Bristol Online Survey) (BOS) was used for the English version and Smart Survey® for the Arabic version. The survey items were translated into Arabic and then back-translated to English. According to Werner and Campbell (1970), back translation is an efficient method and widely used in cross-cultural studies, which has the capability to check for the accuracy of the translation. Further, the items were compared with the original terminologies to assess translation validity. Furthermore, a group of Jordanian PhD candidates with working experience in the HR field discussed the terminologies in each translated item to avoid any misinterpretation caused by cultural differences; no major issues were encountered in the translation process. The surveys were sent to the participants by email with an informed consent letter requesting their participation in the study. The questionnaire started with demographic questions followed by the questionnaire items, which were presented in sequence bases based on themes within the literature review of the study. In addition, participants were given two months to complete the survey and a weekly reminder was sent to the participants reminding them to complete the questionnaire. Yet, the reminders did not include those individuals who have already completed the survey.

As discussed earlier, the current study used both qualitative and quantitative methods. Specifically, a survey questionnaire and semi-structured interview were used to collect primary data which were collected in parallel. On the one hand, the questionnaire aimed to examine

trainees' responses to training in anticipation of generational differences. On the other hand, the interviews were conducted to explore whether trainers train differently in anticipation of generational differences and explain themes which have emerged from the use of the questionnaires. According to Tashakkori and Teddlie (2003 p.297), "data collection is simply a technique that is used to collect empirical research and how researchers get their information."

Having discussed the research strategy of the interview and questionnaire, the next section, however, it is an outline of the survey instruments and interview questions used to answer the research questions.

3.11.1 Pilot Study of the Survey

A pilot study is a "small-scale test of the methods and procedures to be used on a larger scale" (Porta, 2008, p.215). The main reason for conducting a pilot study was to assess the viability and feasibility of the method that intended to be used on larger-scale research; this could be applied to all types of research (Leon, Davis, and Kraemer, 2011). A pilot study can reveal insufficiencies in the design, method and survey structure. Also, it enables the researcher to obtain feedback from the respondents whether they understand the questions. According to Baker (1994), 10-20 percent of the total anticipated number of participants is considered a reasonable number for conducting a pilot study. In the current research, 10 percent of the total sample size was considered to be acceptable to pre-test precisely the logistics of the study tools. The survey used in this research consists of four existing valid and reliable measurements such as training preference and perceived effectiveness (Negron, 2017); technology (Amoroso and Hunsinger, 2009); communication (McCann, and Giles, 2006); and working relationships (Graen, and Schiemann, 2013), which were used in previous studies.

The online survey used for the current pilot study was sent to forty-five individuals from different age groups representing the three generational cohorts of the current study. However, due to the non-completion of fifteen respondents, thirty questionnaires were considered for the pilot study achieving a 66.7 percent response rate. The purpose of conducting the pilot study was to examine the comprehensibility of the instructions, wording of the questions, and if there were any misleading or inappropriate questions causing failure to answer. All participants responded positively to the ease of navigation and clarity of directions, and there were no issues

regarding the repetition or clarity of the questions. However, because of the pilot study, few minor amendments were made to the survey, these amendments included the structure and layout of the survey.

3.12 Survey instruments

Addressing the research questions required a deep understanding of the differences between the three generations: Baby Boomers, Generations X and Y in their behaviours and responses toward different training methods. This research builds upon previous studies (e.g., Graen, and Schiemann, 2013; McCann, and Giles, 2006; Amoroso and Hunsinger, 2009; Negron, 2017) to examines the extent to which do trainees respond differently in anticipation of generational differences, also to what extent do technology communication and working relationships mediate the relationship between generational membership and training preference and perceived effectiveness in the context of the Jordanian telecommunication sector. Data from the quantitative method was in the form of a survey questionnaire, which was utilised to provide statistics, for example, frequencies, percentages of participant responses among generational cohorts, specifically, Baby Boomers, Generation X, and Y.

The questionnaire instruments were divided into five main parts. Part 1. Employee/trainee demographics were used to measure characteristics, dimensions and dynamics of the participants, such as age/birth year range, gender, level of education and job position. 2. The second part of the instrument was designed to measure the differences between the three-generational cohorts regarding their training perceived effectiveness and preference of computer-based training versus classroom-based training. 3. The third part contained technology perceived usefulness, ease of use, attitude toward using and behavioural intention to use. 4. The fourth section contained communication accommodation, non-accommodation, and avoidance items. Finally, 5. The last section of the survey questionnaire was aimed to assess the working relationships in training settings within the three generational cohorts of the current study.

The questionnaire consisted of 64 item scales with a 5-point Likert type response scale, where 1 represents “strongly disagree”, 2 represents “disagree”, 3 represents “neutral”, 4 represents “agree”, and 5 represents “strongly agree”. Likert-style scale is widely used in survey questionnaires, it allows for fairly exact assessments of opinions. According to Brooke, (1996),

a 5-point Likert scale anchored with 1= Strongly Disagree and 5 = Strongly Agree is used to evaluate a system's usability in a relatively quick and reliable fashion. A neutral response was included in the middle of the categories of the questionnaire as it is commonly encouraged respondent choice (McMillan and Schumacher, 2010). Results were collected and analysed to determine significant differences among generational cohort mean scores which helped me to answer the research questions.

3.12.1 Preference and perceived effectiveness of computer and classroom-based training scale

The training effectiveness and preference survey questions were adapted from a study by (Negron 2017), which is an instrument used to measure the preference and perceived effectiveness of computer/online-based and classroom-based training. The scale was based on a statement made by the participants regarding training and other factors related to the learning approaches. The instrument was helpful for the current research in measuring participants' views of training programmes and assessing generational differences in terms of their perceptions using a set of questions such as, "Computer-based or web-based training enhances my effectiveness to learn." The themes of the instrument increased the understanding of generational differences in training within the Jordanian telecommunication sector. Focusing on the training experiences and perceptions dimension provides an insight into the differences and similarities between trainees from different generations regarding their training needs and preferences within a training setting.

3.12.2 Technology acceptance model (TAM) scale

The TAM scale (Amoroso and Hunsinger, 2009) was adopted in this research to understand the generational differences in embracing technology within and among different age groups also to examine the general conception of technology use in training among generational cohorts. The TAM survey scale was based on four components: perceived usefulness, ease of use, behavioural intention of use and actual system (Davis,1985). First, perceived usefulness, this dimension measures the degree to which users believe that using technology in training will enhance their effectiveness, such as "Using the technology can enable me to accomplish tasks more quickly.". Second, perceived ease of use, this construct identifies the extent to which users (trainees) find technology easy to use and the benefits outweigh the efforts of using it (Park, 2009), an example of this subscale item "I find the technology to be fixable to interact

with.". Third, behavioural intention to use, this dimension identifies the behavioural intention of interaction with technology and is a strong indicator of actual use (Teo, 2011) an example of this construct, "I enjoy using technology." Fourth, actual system use, this dimension was utilised to measure generational cohorts' perception of using technology within training settings. For example, "I use the technology as many cases/opportunities as possible." Moreover, the data which have emerged from the TAM scale was analysed to examine the mediating role of technology in the relationship between generational membership and training preference and perceived effectiveness, which will be discussed in large in chapter 4, 'data analysis results and findings.'.

3.12.3 Communication accommodation theory (CAT) scale

CAT identifies the cognitive reasons for changes in communication as people seek to minimise or emphasise social differences between interlocutors (Griffin, 2012). The theory emphasises that people relate their speeches and behaviours with others to their own during conversations, where speakers seek approval in social situations; they convert their communication to that of interlocutors. The change includes and extends beyond language choice, paralinguistic features, accent, and dialect used in interactions. As a result, communication accommodation is a mutual feeling of identification between the receiver and the source (West and Turner, 2010).

In the setting of the current study, the CAT scale (McCann and Giles, 2006) identifies the perceptions of communicators among trainees from different generational cohorts concerning their conversational behaviour with trainers and how they affect the delivery of training. According to Dings (2014), positive-rated conversations lead to further communication between and among interlocutors and group identity becomes a symbolic bond and a motivating factor reinforcing cultural patterns. In this manner, items within the CAT scale for example "They were supportive," "They talked as if they knew more than me" and "I restrained myself from arguing with them," indicated trainees' perception of trainers' communication in training interventions; whether they accommodate their communication styles in favour of their generation and whether trainees tend to respectfully avoid communicating with trainers in anticipation of generational differences. Therefore, items included in this scale were helpful to understand the adjustments that trainers and managers make to their communication styles to gain approval, maintain a positive social identity, and increase communication efficiency with

those with whom they converse (trainees). In addition, CAT was utilised to examine the mediating effect of communication in the relationship between generational membership and training.

3.12.4 Leader-member exchange (LMX) theory scale

The LMX reaffirms that leaders use different styles in dealing with subordinates and choose to develop relationships with each subordinate. The relationship ranges from those based on employment contracts to those characterised by reciprocal influence, liking, respect and mutual trust (Schyns and Day 2010). LMX recognises that leaders test subordinates with different work assignments and the degree to which subordinates comply with the demands of tasks demonstrates the worthiness to be trusted and dictates the LMX relationship (Sanders et al. 2010). Although the LMX survey scale (Graen and Uhl-Bien, 1995) is most commonly used by researchers to explore theoretical questions, it also can be used to analyse managers' leadership style.

In the case of the current research, the LMX scale was adopted from (Graen and Schiemann, 2013), comprising six items. For example, "My trainer has trust that I would carry my training load." The data collected from the LMX scale gave a great understanding of trainee's perception of trainer or manager's behaviour toward them based on in-group and out-group perspective, and whether trainers tend to build a high-quality relationship with trainees amid generational differences. It could be argued that the behavioural traits of today's workers make it hard for trainers to gain rewarding high-quality interrelations with their juniors. In specific, Generation Y are keen on individual activities more than their predecessors and thus, the LMX could be undermined by the increased level of individuality. In addition, due to Millennial's advanced skills in digital communication, they find it easier to collaborate and communicate using social media and instant messaging and these means of communications could reduce the opportunity for a high-quality relationship to the extent that they would not enable to establish mutual trust and could be observed as disrespectful. Therefore, the data from this scale helped assess the quality of relationships between the trainees and trainers within the training intervention. The data collected determined the mediating and moderating effect of this scale on the relationship between generational differences and training, which will also be discussed further in more detail in chapter four, data analysis, results and findings.

3.13 Interview questions

The interview questions were created and developed using secondary sources such as previous literature, academic journal and publications. The questions of the interview were organised thematically based on four main themes with three questions for each theme. The themes were organised as the following: preferences and perceived effectiveness of computer and classroom-based training, technology, communication and working relationships. The purpose was to examine whether trainers train differently in anticipation of generational differences and to explore the strategies and methods utilised by trainers to manage the gap between different generational cohorts. Additionally, Secondary questions were used to solicit more input from the participants during the interview.

3.14 Validity and reliability

The review of the literature helped pool together a comprehensive list of measures; the measures for preference and perceived effectiveness of classroom and computer/ online based training (Negron, 2017), technology acceptance model (TAM) (Amoroso and Hunsinger, 2009), communication accommodation theory (CAT) (McCann, and Giles, 2006) and leader-member exchange theory (LMX) (Graen, and Schiemann, 2013) were adopted from previous research. The survey questionnaire helped collect the subject's demographic information and the subject's perception of each model variable. The first section of the survey included demographic variables such as gender, age, educational level, years of experience at the current organisation. The second section indicates the degree of participant's agreement with each item within the models mentioned above and theories using a five-point Likert scale. On the scale, 1 strongly disagrees, 2 disagrees, 3 is neutral 4 agree, and 5 strongly agrees.

During the initial questionnaire development, interviews with experts in the field of HRM and university PhD candidates from the business department of Anglia Ruskin and Cardiff metropolitan universities were conducted to refine the instruments. These interviews enabled me to estimate task clarity and assess if the instrument captures the desired phenomena, also verify omitted aspects that are important (Riordan, Markman and Stewart 2012). However, some minor changes were made alongside iterations before continuing the study. These changes will be discussed further in more detail in chapter 4, data analysis, results and findings in the quantitative pilot study section.

3.15 Ethical consideration and issues

Ethics is a philosophical term which refers to the conduct of individuals that guides the norms and values of people's behaviour and their relationships with each other (Blumberg, Cooper and Schindler, 2005). Ethics are essential in the research process. According to Bickman and Rog, 2009,) researchers must take care of several ethical matters at different levels of their research progress and there can be ethical concerns at every step of the research progression. In the context of the current study, I had the necessary approvals from the relevant authorities such as Institutional Review Board, Anglia Ruskin University and the sampled company's management and HR departments regarding the need to gather data from their employees (e.g., trainees, trainers and managers). However, before conducting this research, I have obtained approval from the Institutional Review Board by filling the ethical and approval forms. Also, I have obtained approval from the selected companies' HR management (gatekeepers) to participate in this study. I then conducted a pilot study with two participants (manager and trainer) in which the findings were used to adjust the interview questions. The piloting sessions were recommended by my supervisory team at Anglia Ruskin University to assess the feasibility and usefulness of the survey items and research questions given the nature and purpose of the current study.

Further, I have ensured the honesty and quality of this research and respected the participants' anonymity and privacy, avoiding harm to any of the respondents and showing that my study is neutral and independent. In addition, confidentiality and privacy were preserved in which I have not disclosed any information to other employees. Managers nor employees were able to connect the data to any of the participants, as the data was unidentifiable by applying codes on the survey questionnaires and interview records. In addition, quotation marks used in the study were coded using a 'pen name' rather than the name of the participant. Also, the name of places and any recognisable material were changed to maintain privacy and confidentiality. Research data was preserved by maintaining questionnaire records and interview transcripts in a secure place in a locked filing cabinet and were stored on a computer protected with a password in a locked room; only myself had access to the information. The research data will be kept for one year after the submission of this thesis and then will be destroyed confidentially (British Sociological Association, BSA, 2002).

3.16 Summary of the chapter

The current research aimed to examine trainees' and trainers' perception of generational differences in training within the telecommunication sector of Jordan. A cross-sectional case-study approach was adopted to conduct the study. According to Hair Jr et al. (2015), cross-sectional studies involve collecting data from a population sample at only one point in time. A survey questionnaire was used to gather demographic data and to measure the effectiveness and preference of various training methods as perceived by different generational groups. The survey questions were used from four survey scales: training perceived effectiveness and preference, TAM model, CAT theory and LMX theory scales. The survey questionnaire was developed to determine the extent to which trainees from different cohorts favoured specific training programmes over the other based on their training experience and their perception of training effectiveness.

Moreover, semi-structured interviews were used to collect data from managers and trainers, which sought more information from the interviewees to collect information that was relevant to the current research and to determine whether trainers train differently in anticipation of generational differences. Secondary data were also collected from the literature review, published journals, government reports, and other relevant academic sources to identify gaps in the literature. Obtaining secondary data enabled me to comprehend the impact of generational differences on T&D programmes coupled with the data from the interviews for reliability. The target population for this study was the trainers and trainees working in the telecommunication sector in Jordan. The study sampled the whole workforce from the three companies. The sample population was around 3000 employees representing Baby Boomer, Generation X and Y cohorts. In addition, 13 trainers and corporate managers from the sampled companies were approached for interviews including two separate pilot interviews. Thematic analysis of primary research findings was done in light of theoretical frameworks.

4. Chapter Four: Data Analysis, Findings and Results

4.1 Introduction to the chapter

The current research aims to explore trainees' and trainers' perspectives of Baby Boomer, Generation X and Millennials as defined by Lancaster and Stillman (2002); Howe and Strauss (2007) in terms of the design and delivery of training and development (T&D) programmes in the Jordanian telecommunication sector.

In this chapter, I present analysis, findings and results emerging from the statistical analysis of the survey questionnaires and interviews. The chapter starts with the research questions to help the reader to return to the focus of the study. Next, I discuss the meaning of reliability analysis (Cronbach alpha), followed by the reliability results of the pilot and main study. Thereafter, I analyse the exploratory factor analysis (EFA) by measuring the inter-correlation within the variables and present its results. Then I continue to analyse the normality of the data using Shapiro-Wilk test which measures the normality of collected data. Following this, I present the descriptive and inferential statistics using frequency and percentage scores which enabled me to interpret the data in a meaningful way.

To answer the first research question (stated below, section 4.2), Kruskal-Wallis and Mann-Whitney's analysis results were presented, which measure differences between the three generational cohorts regarding their preference and perceived effectiveness in classroom against computer-based training. Also, mean scores for each age-group (generation) were computed and compared, which gave a better understanding of their response to training. Next, to answer the second research question, Spearman rank correlation (Spearman, 1904) and multiple regression analysis were performed, followed by bootstrap analysis to examine the mediating effect of technology, communication and working relationship on the relationship between generational differences and training preference and perceived effectiveness of classroom versus computer-based training. Also, I present the study mediating model which illustrates technology and communication factors' role in the relationship between generational membership and training preference and perceived effectiveness.

Following this, I present an overview of the qualitative analysis. Followed by a discussion of pilot interviews. I elaborate on the sample size required to perform pilot interviews. Also, I

present and discuss the main themes which guided the qualitative part of my research. Next, research questions 3 and 4 are restated to give an insight into the questions under examination, followed by data analysis of the interviews, key themes and supporting statements that emerged from the interviews are also discussed. Finally, I present a summary of the chapter to remind the reader of the analysis that has been conducted and the results which have emerged from the data analysis.

4.2 Research questions

The following are the research questions that guided my study:

1. To what extent do trainees respond differently to training based on age/generation?
2. To what extent do technology, communication and the working relationships operate as mediators in the relationship between trainee's age/generation and their response to training?
3. To what degree do trainers train differently in anticipation of generational differences?
4. How do trainers manage the gap between generational cohorts in terms of technology use, communication style and working relationships in training?

Before I start analysing the data based on each research question, I will start by measuring the reliability of the pilot and main study questionnaires, which helped validate the study instruments.

4.3 Reliability analysis

Reliability refers to the extent to which the study instruments are repeatable when different individuals perform the tools, on different cases, under different settings which measure the same thing (Drost, 2011). In simple terms, reliability is the stability and consistency of measurement over different circumstances in which essentially the same outcomes must be obtained (Nunnally, 1978). The reliability analysis of the current study was measured using Cronbach's alpha (Cronbach, 1951), which is commonly used in social and organisational sciences and widely used for questionnaire development and validation of research studies (Bonett, and Wright, 2015). Cronbach's alpha analysis indicates internal consistency between scale items. In other words, it evaluates how consistent are the responses or dimensions of a survey (Hatcher and O'Rourke, 2013). Alpha was created by Cronbach (1951) which was initially used to evaluate the consistency of a psychometric tool (Cortina, 1993). The scores of

Cronbach alpha vary between zero and one, the higher scores indicate the items are measuring the same dimension. Conversely, if the alpha score was low (close to zero) it indicates that some or most of the items are not measuring the same dimension (Leontitsis and Pagge, 2007). The majority of authors (e.g., Nunnally, 1978; Pallant, 2013) suggest a 0.7 cut off point to be acceptable reliability without the need for any scale development. However, other scholars (e.g., Hair et al., 2010; Santos, 1999) suggest a cut off of 0.6 to be adequate. Bonett and Wright (2015) argue that there is no universal minimally acceptable reliability score, as the reliability alpha score is subjected to the nature of the study application and the population reliability score, not only on the sample reliability score. Therefore, in the current study, the alpha value above or equal 0.695 ($\alpha \geq 0.695$) is considered an acceptable reliability value to efficiently carry out this research.

4.3.1 Pilot study reliability test results

To test the reliability of the pilot survey, in this research, 13 separate tests of Cronbach's alpha coefficient analysis were conducted using SPSS software (version 20). The data collected from the pilot survey were recorded to be an interval scale type of data, which can be used after coding based on the average inter-item correlation. As explained earlier, 13 separate reliability tests were performed, one for each dimension and variable within the data derived from the pilot study. Table 1 illustrates Cronbach's alpha reliability scores for each factor and dimension. The values for all the factors and dimensions were in the ideal range and objectively reliable based on the alpha coefficient results. The lowest score reliability value $\alpha = 0.727$. The alpha analysis also showed that scores for each dimension within the main variables were in the ideal range with the lowest alpha score of 0.763. Therefore, all the items and dimensions within the questionnaire were obtained for the collection of the main study data.

Main factor	Dimension	Cronbach's Alpha (α) for each dimension within the main variable	Number of items in each dimension	Cronbach's Alpha (α) for each variable
Training	Effectiveness	.808	10	.727
	Preference	.763	10	

Technology	Perceived usefulness	.957	6	.967
	Perceived ease of use	.962	6	
	Attitude toward using	.860	4	
	Behavioural intention to use	.917	3	
Communication	Accommodation	.877	6	.809
	Non-accommodation	.800	4	
	Avoidance communication	.893	9	
Working relationship	Working relationship	.835	6	.835

Table 1. Reliability statistics scores for each factor and dimensions within the pilot study.

4.3.2 Main study reliability results

As discussed above, reliability analysis was performed to validate the pilot study of the current research. Cronbach's alpha reliability test was also carried out to measure the reliability scores of each factor and sub-factor within the instrument that has been used to collect the main study data. This enabled me to validate the internal consistency between the scales items and verify the reliability of the factors, dimensions and the stability of the tools, which is demonstrated in table 2. The reliability analysis of Cronbach's alpha showed that the scales within the questionnaire reached acceptable value, $\alpha \geq 0.695$. All the items seemed to be worthy of retaining for further analysis to answer the research questions, which is discussed later in this chapter.

Main factor	Dimension	Cronbach's Alpha (α) for each dimension within the main factor	Number of items in each dimension	Cronbach's Alpha (α) for each factor
Training	Effectiveness	.749	10	.844
	Preference	.792	10	

Technology	Perceived usefulness	.953	6	.956
	Perceived ease of use	.945	6	
	Attitude toward using	.710	4	
	Behavioural intention to use	.749	3	
Communication	Accommodation	.935	6	.803
	Non-accommodation	.785	4	
	Avoidance communication	.697	9	
Working relationship	Working relationship	.926	6	.926

Table 2. Reliability statistics scores for each factor and dimension within the main study data

4.4 Exploratory factor analysis

Factor analysis is a data reduction technique, it takes potentially a large set of variables and looks for a way that the data can be reduced or summarised (Beavers, et. al, 2013). By using a smaller set of variables or components, it looks for clumps or groups that have very strong inter-correlation within a set of variables. Factor analysis method has many different uses, it is used by researchers particularly when developing scales that measure a specific construct or particular analogy area (Schönrock-Adema, et. al, 2009).

Factor analytic procedures are statistical methods that require a large sample before they stabilise (Beavers, et. al, 2013). Small samples affect the correlation coefficient among the variables, thus will be less reliable and could not generalise as well as those derived from a larger sample. Tabachnick and Fidell (2001, p.588) recommend at least 300 cases or measurement points when conducting factor analysis. Likewise, Comrey (1973) suggested sample sizes of those of 300 or above as being very good. Hence, the sample size which was obtained from the current main study equals 660 responses which enabled me to perform a factor analysis on the main dataset.

There are two main approaches to perform factor analysis test, the first approach is Exploratory Factor Analysis (EFA) and the second is Confirmatory Factor Analysis (CFA) (Thompson, 2004). On the one hand, EFA is used typically in early stages of research in which the researcher aims to develop a theory or to gather information about relationships among variables and it is commonly used in organisational studies (Cumming, 2014; Reio Jr and Shuck, 2015). The second approach CFA is used to confirm or test specific hypotheses or theories that have been developed concerning the structure or the construct underlying a set of variables. CFA helps the researcher to have a better understanding of what a scale might be measuring (Marsh, et al., 2014). In the current research, however, it was important to assess the validity of the factors and to examine relationships among variables. Therefore, I use EFA to reveal the factor structure of the instruments.

Another important aspect that should be taken into consideration when performing factor-analytic work, is the type of rotation of the extracted factors used to assist the interpretation of the results (Ruscio and Roche, 2012). There are two general categories or types of rotation. The first one is called Oblique rotation, which is used when the researcher believes the items within the scale are correlated. The second option is called Orthogonal rotation, which is used when the researcher believes the items are not correlated (Treiblmaier and Filzmoser, 2010). However, in the social sciences, the variables or constructs are usually correlated, then, Oblique solutions are to be ideal (Treiblmaier and Filzmoser, 2010). According to Beavers et al (2013, p.10) "Oblique rotations account for the relationships between the factors, which often is more appropriate within social science research". Also, since Oblique rotations are generally the default setting in most statistical packages such as SPSS, they appear to be used most regularly by researchers (Henson et al., 2004). In the current study, I use Oblique direct rotation for the reason that the items within the constructs are correlated and the developed scales within the questionnaire were adopted from previous studies (e.g., Negron, 2017; Amoroso and Hunsinger, 2009; McCann, and Giles, 2006; Graen, and Schiemann, 2013).

There are additional statistical measures and assessments of the factorability of data, to determine the inter-correlation between the items within the constructs or variables. The first measure is the 'Determinant' of a correlation matrix, which is a score calculated using the value within a square matrix, indicating the existence or non-existence of probable linear groupings within the matrix (Beavers, et. al, 2013). Determinant scores of a correlation matrix range between zero and one. A non-zero determinant or greater than .001 indicates that a variable or

construct is statistically possible. If the determinant score was less than .001 or equal to zero it means the items within the variable or dimension are too unrelated and the correlation is too low. In the current study, the determinant value for each dimension ranged between .04 (the lowest score of technology factor, perceived usefulness construct) and .461 (the highest value of technology factor, behavioural intention to use construct) which are illustrated in Table 3. All the determinant scores for the current research indicated that there are correlations within the items which represent the dimensions within the factors. Although, these values indicated linear relations within the matrix of the factor analysis, still, it does not suggest any indication of the real sense or significance of the constructs (Beavers, et. al, 2013).

To verify the significance of the dimensions, I use Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser 1974), which is the second assessment of factorability. KMO is an assessment of the common variance in the survey items, which is generally used to deliver more composite measures for assessing the strength of the relationships and suggesting the factorability of the variables. Kaiser (1974) recommended the following parameter for evaluating the measure of KMO value and the degree of common variance: between 0.90 and 1.00 is considered “Marvellous”; from 0.80 to 0.89 “Meritorious”; from 0.70 to 0.79 “Middling”; from 0.60 to 0.69 “Mediocre”; 0.50 to 0.59 “Miserable”; and from 0.00 to 0.49 “Don’t Factor”. In other words, the greater the value the better inter-correlation between items (Beavers, et. al, 2013). In the current study, the results of KMO analysis, as shown in Table 3, indicates that the values of the constructs ranged between .666 (lowest value) and the highest value of .920 which indicates “Mediocre” to “Marvellous” degree of common variance. In other terms, all the items within the constructs are significantly correlated.

In addition to using KMO measure of sampling adequacy, Bartlett’s test of Sphericity was used in this research as a third factorability assessment. Bartlett’s test of Sphericity analysis evaluates if these determinant scores are mathematically above zero (Beavers, et. al, 2013). The null hypothesis of Bartlett’s analysis reveals that the detected correlation matrix is equivalent to the items within the matrix individually, signifying that the correlation matrix is not acting as a factor (Pett, Lackey and Sullivan, 2003). In this study, Bartlett’s test of Sphericity produced significant analysis results, which rejected the null hypothesis. Bartlett’s test of Sphericity results (Table 3) showed that all the dimensions within the questionnaire items scored a value of .000 providing evidence that the correlation matrix is mathematically different from an individual matrix, and thus supporting that linear grouping exists.

Main factor	Dimension	Determinant	Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy.	Bartlett's Test of Sphericity Sig (<i>p</i>) value	Number of items in each dimension
Training	Effectiveness	.017	.823	.000	10
	Preference	.046	.858	.000	10
Technology	Perceived usefulness	.002	.920	.000	6
	Perceived ease of use	.004	.919	.000	6
	Attitude toward using	.094	.745	.000	4
	Behavioural intention to use	.461	.666	.000	3
Communication	Accommodation	.006	.883	.000	6
	Non-accommodation	.250	.758	.000	4
	Avoidance communication	.050	.770	.000	9
Working relationship	Working relationship	.011	.918	.000	6

Table 3. Determinant, Kaiser-Meyer-Olkin (KMO) and Bartlett's test of Sphericity results.

4.4.1 Principal factor analysis (PFA)

As discussed above, the results of KMO showed a positive correlation between items in each construct within the main variables (see Table 3). However, it was necessary to perform a factor analysis extraction using principal factor analysis (PFA), also called principal axis factoring (PAF) to determine factor loadings of each main variable. Basto and Pereira (2012), suggest that, as an alternative of analysing the existent correlation matrix such as in principal component analysis, PFA or PAF operates with an adjusted correlation matrix on which the Oblique components are substituted by approximations of the communalities as it inspects the

elements that can explain the shared correlation among the main factors. For the current study, PAF analysis was performed for the dependent variable (training preference and perceived effectiveness) to determine the number of constructs extracted from the variable. The PFA analysis of the dependent variable (Table 4) is divided into three sub-categories: Initial Eigenvalues, Extracted Sums of Squared Loadings and Rotation of Sums of Squared Loadings. However, in the current study and for the purpose of results interpretation, the study is only concerned with Extraction Sums of Squared Loadings, which allow identification of the number of rows (representing constructs) in this panel of table 4 corresponding to the number of variables retained. The results showed that the eigenvalue (which reflects the number of extracted factors whose sum should be equal to number of items which are subjected to factor analysis) of the first factor accounts for 29.166 percent of the variance, the second 13.469 percent, the third 17.013 percent and the fourth 2.562 percent, and all the remaining factors were not significant. To simplify these results, the percentages of the eigenvalues show four constructs loaded on the dependent variables, which represents: 1. preference of classroom-based training; 2. preference of computer-based training; 3. perceived effectiveness of classroom-based training and 4. perceived effectiveness of computer-based training.

Total Variance Explained

Factor	Initial Eigenvalues	Initial Eigenvalues	Initial Eigenvalues	Extraction Sums of Squared Loadings	Extraction Sums of Squared Loadings	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% Of Variance	Cumulative %	Total
1	6.297	31.483	31.483	5.833	29.166	29.166	5.287
2	3.131	15.657	47.140	2.694	13.469	42.635	2.669
3	1.412	7.061	54.201	.937	4.687	47.322	1.023
4	1.029	5.144	59.345	.512	2.562	49.884	4.402
5	.958	4.791	64.136				
6	.823	4.114	68.250				
7	.732	3.659	71.910				
8	.675	3.375	75.285				
9	.590	2.952	78.237				
10	.552	2.761	80.998				
11	.528	2.640	83.638				
12	.485	2.424	86.063				
13	.469	2.344	88.407				
14	.420	2.098	90.506				
15	.377	1.885	92.391				

16	.348	1.741	94.132
17	.327	1.635	95.767
18	.300	1.499	97.266
19	.288	1.442	98.708
20	.258	1.292	100.000

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 4. Principal factor analysis (PFA) of training variable.

PFA analysis was also performed on the three dependent variables; technology, communication and working relationships to determine the factor structures of these variables. The results (Table 5) showed that the eigenvalue of the first factor accounts for 35.100 percent of the variance, the second 11.070 percent, the third 7.508 percent, the fourth 2.911 percent, the fifth 2.766 percent, the sixth 2.041, the seventh 1.631 and the eighth 1.175, and all the remaining factors were not significant. The percentages of the eigenvalues showed eight constructs loaded on the three mentioned above variables, representing four constructs of technology variable which are: perceived usefulness, perceived ease of use, attitude toward using and behavioural intention to use. The results of PFA also showed that the communication variable was loaded on three constructs: accommodation, non-accommodation and avoidance communication. In addition, the working relationships variable had only one construct. These variables are analysed separately as mediating factors, which are explained later in this chapter (section 4.7.2).

Total Variance Explained

Factor	Initial Eigenvalues	Initial Eigenvalues	Initial Eigenvalues	Extraction Sums of Squared Loadings	Extraction Sums of Squared Loadings	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings ^a
	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %	Total
1	15.723	35.734	35.734	15.444	35.100	35.100	9.199
2	5.161	11.730	47.464	4.871	11.070	46.169	8.900
3	3.732	8.482	55.946	3.304	7.508	53.677	3.130
4	1.673	3.802	59.748	1.281	2.911	56.589	2.717
5	1.596	3.626	63.374	1.217	2.766	59.354	4.861

6	1.151	2.616	65.990	.898	2.041	61.395	10.538
7	1.126	2.559	68.550	.718	1.631	63.026	8.033
8	1.082	2.458	71.008	.517	1.175	64.201	9.274
9	.940	2.136	73.143				
10	.871	1.979	75.123				
11	.717	1.631	76.753				
12	.686	1.560	78.313				
13	.621	1.411	79.723				
14	.602	1.368	81.091				
15	.579	1.315	82.406				
16	.533	1.212	83.618				
17	.467	1.061	84.679				
18	.444	1.010	85.688				
19	.427	.971	86.660				
20	.403	.916	87.575				
21	.380	.863	88.438				
22	.374	.851	89.289				
23	.356	.808	90.098				
24	.332	.755	90.853				
25	.328	.745	91.598				
26	.313	.711	92.309				
27	.300	.683	92.991				
28	.284	.645	93.636				
29	.267	.608	94.244				
30	.253	.575	94.819				
31	.247	.561	95.380				
32	.234	.532	95.912				
33	.215	.490	96.401				
34	.206	.467	96.869				
35	.180	.409	97.278				
36	.171	.389	97.667				
37	.168	.382	98.048				
38	.155	.352	98.400				

39	.141	.320	98.720
40	.135	.306	99.026
41	.118	.269	99.294
42	.112	.254	99.548
43	.102	.233	99.781
44	.096	.219	100.000

Extraction Method: Principal Axis Factoring.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

Table 5. Principal factor analysis (PFA) of Technology, communication and working relationship variables.

Before proceeding to analyse the quantitative data, it will be necessary to perform a normality data test as it will determine the types of analysis needed to answer the first and second research questions.

4.5 Normality test of Shapiro-Wilk analysis

Shapiro-Wilk analysis is based on the correlation between the data and the corresponding normal scores (Peat and Barton, 2008), it compares the values of the collected data from the sample to a normally distributed group of values with identical mean score and standard deviation; the null hypothesis signifies that the distribution of the sample is normal. If the test was significant, the data derived from the sample is non-normally distributed. There are several other analyses for testing the data normality, for example, Jarque–Bera, Anderson–Darling, Cramer–von Mises and Shapiro–Francio (Thode 2002). However, researchers recommend the Shapiro-Wilk analysis as the best option for examining data normality (Thode, 2002). According to Ghasemi and Zahediasl (2012, P.489), “it is preferable that normality is assessed both visually and through normality tests, of which the Shapiro-Wilk test, provided by the SPSS software, is highly recommended”.

In the current study, a normality test of Shapiro-Wilk statistic ($p > .05$) (Shapiro and Wilk, 1965; Razali and Wah, 2011) was performed for each sub-factor of training perceived effectiveness and preference of computer/online and classroom-based training, which is illustrated in table 6. A visual inspection of histograms normalisation in-shape analysis was also implemented for each factor which provides an accurate method for continuous and

categorical data to detect if the data follows a normal distribution (Graph 1). Results from the Shapiro-Wilk statistic and visual inspection of histograms revealed that the p -value in each sub-factor was less than 0.05, as a result, the null hypothesis which presumes the data is normally distributed was rejected. Moreover, the results from the normality descriptive analysis test showed skewness of the data in the first variable (training perceived effectiveness) which was -.980 (SE = .095) and kurtosis of 2.122 (SE = .190). The analysis also showed that the skewness of the data from the second factor (training preference) was -.187 (SE = .095) and kurtosis of -.284 (SE = .190). According to Hair et al, (2010), if the raw scores of the factor exceeded $+1/-1$ ratio for skewness and kurtosis, it is mostly considered a threshold value for determining a non-normal distribution. In addition, if the total scores of skewness and kurtosis were less than 2.3 then it resembles a moderate deviation, and if the scores were above 2.3 it indicates extreme deviation from normality (Lei and Lomax, 2005).

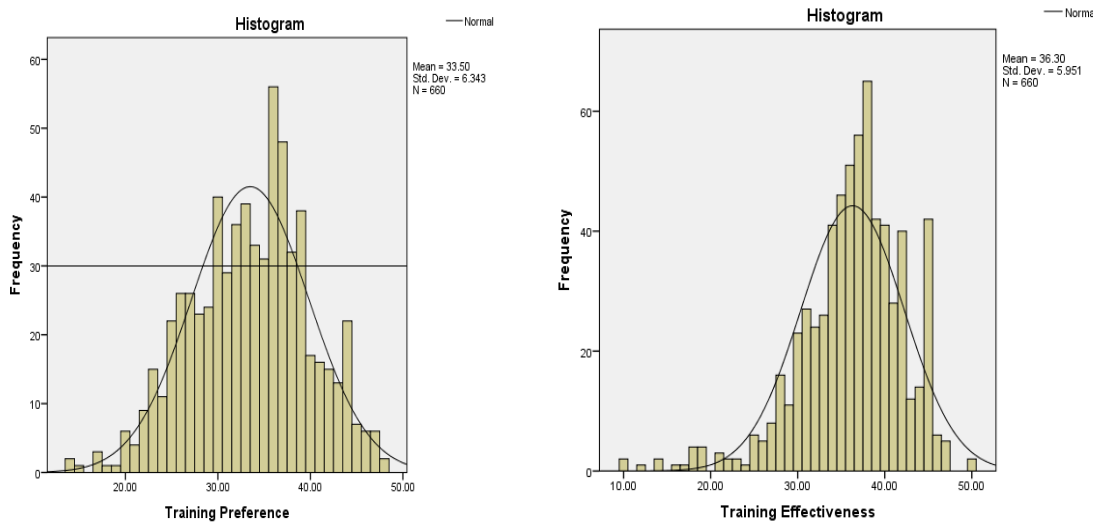
The results from the Shapiro-Wilk statistic (Shapiro and Wilk, 1965) (Table 6) and visual inspection of histograms analysis (Graph 1) showed that the data did not follow a multivariate normal distribution. In this case, a p -value less than 0.05 was considered significant which indicates that the data was not normally distributed. Moreover, further analysis of Shapiro-Wilk showed that technology, communication and working relationships factors did not follow a normal distribution (see Appendix 2). Therefore, a nonparametric analysis was performed on all the study variables.

Shapiro-Wilk

	Statistic	df	Sig.
Training Perceived Effectiveness	.947	660	.000
Training Preference	.991	660	.001

Table 6. Normality tests of training preference and perceived effectiveness.

Graph 1. Histograms of training preference and perceived effectiveness.



4.6 Descriptive and inferential statistics

Before analysing the data, which was collected from the survey questionnaire responses, the data was coded manually by categorising the non-numerical data into clusters and transferring the numerical codes to these clusters. The data was also verified before being transferred into an Excel sheet. Next, the data from the participant demographic factors of the generational cohort group along with scale total scores of training effectiveness and preference, technology, communication and working relationships were inserted into SPSS software (version 20) for analysis. Descriptive statistics of frequencies, percentages and means were utilised to describe the study sample using the demographic data attained from the survey such as gender, age, birth year range, education level, and job position. Shapiro-Wilk (Shapiro and Wilk, 1965) normality analysis along with non-parametric tests of Kruskal-Wallis and Mann-Whitney were used for all inferential statistics. These statistical approaches were selected to examine the differences between the three-generational cohorts (Baby Boomers, Generation X and Y) in response to training preference and perceived effectiveness and in computer-based training against classroom-based training. In addition, Spearman correlation coefficient, regression and bootstrap analysis were used to test the mediation effect of technology, communication, working relationships between birth year (generational cohorts) and training, which will be discussed later in this chapter.

4.6.1 Demographics of the sample

The first part of the survey contains nine demographic questions which were analysed using descriptive statistics. According to McMillan and Schumacher (2010), descriptive statistics are a set of figures which characterise the data and represent the most beneficial means to summarise data which helps in the interpretation of results. The questions asked to the participants were gender, birth year range of generational cohort group, level of education, and years in current position. The inclusion of the demographic factors was helpful to ensure a true representation of the population demographic. However, since the present study is concerned with the birth year range of generational cohort groups, the other factors were not considered for further analysis. Within a sample of 660 participants, 52.1 percent acknowledged themselves as male ($n = 344$) and 47.9 percent acknowledged themselves as female ($n = 316$). Based on their year of birth, all participants were associated with one of the generational cohorts of the current study. The study was comprised of Baby Boomers representing 3.6 percent ($n = 24$), 25.8 percent Generation X ($n = 170$), and 70.6 percent Millennials ($n = 466$). Table 7 shows gender and birth year (generation) frequencies and percentages. According to Jordan Department of Statistics, (2018) Generation Y/Millennials comprised the majority of the labour force in Jordan, representing 60 percent of the total workforce, Generation X followed next with 33.8 percent, and Baby Boomers composed 2.9 percent of the Jordanian labour force in 2018. The current study sample should represent the general population of the Jordanian workforce. However, the percentage of Generation Y/Millennials employees (70.6 percent) in this research slightly exceeds the norm of 60 percent as determined by the Jordan Department of Statistics (2018). This was a random sample and possibly contributed to a higher percentage of Millennial participants.

		Frequency	Percent
Gender:			
	Male	344	52.1
	Female	316	47.9
	Total	660	100.0
Generational Cohorts:			
Baby Boomers	1944-1960	24	3.6
Generation X	1961-1981	170	25.8
Generation Y/Millennials	1982-2002	466	70.6

Total	660	100.0
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Table 7. Respondents by gender and generations.

Survey participants were asked to state if they were Jordanian or non-Jordanian, 92.9 percent ($n = 613$) identified themselves as Jordanian nationality and 7.1 percent ($n = 47$) respondents identified themselves as non-Jordanian. Respondents were asked to indicate their highest level of education, experience and position at the current job, which is illustrated in Table 8 in frequencies and percentages. Almost 75 percent of the participants had earned a bachelor's degree ($n = 497$; 75.3 percent). More than half of the survey respondents had been working at their current organisation for five years or less ($n = 517$; 63.2 percent). This high ratio of employment at the same company “less than one year and from one to five years” is most probably due to the entry of young workers (Millennials) into the labour force which represents the largest generational cohort in the study (70.6 percent).

Nationality	Frequency	Percent
Jordanian	613	92.9
Non-Jordanian	47	7.1
Total	660	100
Highest Level of Education Completed		
Did not complete High school	6	.9
High School Diploma	68	10.3
BA, BS degree	497	75.3
Master's degree	76	11.5
PhD, DBA	13	2.0
Total	660	100
Experience/Length of time at current job		
Less than one year	192	29.1
1-5 years	225	34.1
6-10 years	91	13.8
11-15 years	85	12.9
More than 16 years	67	10.2
Total	660	100.0
Position at current job		

Executive level (CEO-CFO)	24	3.6
Director	37	5.6
Head of Department/ Manager	69	10.5
Supervisor	116	17.6
Employee/ Team member	414	62.8
Total	660	100.0

Table 8. Respondents by “nationality (Jordanian or non-Jordanian) highest level of education completed”, experience/ Length of time at current Job” and “position at current job”.

Survey participants were asked if they had any type of training including on-the-job and/or-of-the job-training in their current organisation, all survey respondents indicate that they had one or more training at their current job, representing 100 percent of the total. Moreover, the participants were asked to indicate how many training courses or sessions they have had in their current organisation, the number of training programmes ranged between 1 to 50 courses and sessions, with a mean score of 6.24. The last item of the demographic section was in a yes-no question format, asking the participants to indicate if they were a coach, corporate trainer or training consultant, the majority of those who responded (94.4 percent) answered “no” with only 37 participants (5.6 percent) indicated that they were a trainer at their current organisation. The results are displayed in Table 9.

	frequency	percentage	Mean	SD
Have you had any training in your current organisation	660	100.0	1.0000	.0000
Number of training programmes attended	600	100.0	6.2424	5.25253
Are you a coach, corporate trainer, or training consultant				
Yes	37	5.6		
No	623	94.4		
Total	660	100.0	1.9439	.23021

Table 9. Respondents by “If they had training in their organisation, number of training programmes attended and if they are coach, corporate trainer or training consultant”

In general, the sample demographic characteristics provide an overall description of trainees who participated in this study survey. The demographic data of generational cohorts were used to address the first and second research questions.

4.7 Statistical analysis and results for each research question

The second part of the questionnaire was to be answered in terms of preference and perceived effectiveness of computer and classroom-based training, technology use, communication style and working relationships among the three generational cohorts which are included in the current study. The collected data emerged from the calculated sum of a 5-point Likert scale for each question within the survey. The calculated sum of each age group was helpful to detect differences and similarities in the degree of training preference and perceived effectiveness of computer-based training as opposed to classroom-based training, and if statistically significant differences exist between generational cohorts.

4.7.1 Research question 1

To answer the first research question: To what extent do trainees respond differently to training based on age/generational cohort? A non-parametric analysis of variance was used to compare several independent samples since the normality test of Shapiro-Wilk showed that the data did not follow the normal distribution. According to Driscoll, Lecky (1990, p.124) non-parametric analysis is used on nominal and ordinal data as well as quantitative data that were not normally (or nearly normally) distributed. Kruskal–Wallis non-parametric analysis of variance is mostly used as an alternative to a standard one-way ANOVA when data are from a suspected non-normal population (Elliott, and Hynan, 2011). Results of Kruskal–Wallis analysis (Table 10) indicates there were statistically significant differences between the three-generational cohorts regarding their training preference and perceived effectiveness $p = .002$ and $p = .000$ respectively.

	Training Effectiveness	Training Preference
Chi-Square	12.813	18.913
df	2	2
Asymp. Sig.	.002	.000

Table 10. Kruskal-Wallis test a. Kruskal Wallis test b. Grouping variable: generations (birth year) of Training effectiveness and preference, (Test Statistics^{a,b}).

Additionally, to accurately examine the difference between two age-groups paired, Mann-Whitney analysis was performed, the results are illustrated in table 11. According to Pettitt, (1979 p.127) “An appealing non-parametric test to detect a change would be to use a version of the Mann-Whitney two-sample”. Additionally, Bonferroni alpha adjustments were made for each set of the sample (P value comparison between two generational cohorts) to ensure accuracy and true representation of *p*-values, which is also illustrated in table 11. Bonferroni adjustment is a correction applied to *p*-values when two or more dependent or independent statistical analyses are performed on the same data set (Cabin and Mitchell, 2000). Bonferroni adjustments were also made to control the inflation caused by Type I (false positive) error rate. A Type I error known as (α) is the level of significance the researcher set for his hypothesis test. The alpha level (α) of 0.05 indicates that the researcher is willing to accept a 5 percent chance that he or she is wrong to reject the null hypothesis (Abdi, 2007).

The results from Mann-Whitney U test along with Bonferroni corrections (Table 11) showed there were no statistically significant differences ($P = .226$) between Baby Boomers and Generation X with respect to training perceived effectiveness. The results also showed there was a significant difference between Baby Boomers and Generation Y ($P = .012$), also between Generation X and Generation Y ($P = .046$) regarding training perceived effectiveness. However, with respect to training preference, the results indicate there were statistically significant differences between all age groups; between Baby Boomer and Generation X ($P = .034$), between Baby Boomer and Generation Y ($P = .001$) and between Generation X and Generation Y ($P = .027$).

Training Effectiveness	Test	Std. Error	Std. Test Statistic	Sig.	Adj. Sig.
Sample 1 – Sample 2	Statistic				
Baby Boomer - Generation X	-73.771	41.495	-1.778	.075	.226
Baby Boomer - Generation Y	-115.161	39.832	-2.891	.004	.012
Generation X - Generation Y	-41.390	17.051	-2.427	.015	.046
Training Preference	Test	Std.	Std. Test	Sig.	Adj.
Sample 1 – Sample 2	Statistic	Error	Statistic		Sig.
Baby Boomer - Generation X	-105.289	41.524	-2.536	.011	.034

Baby Boomer - Generation Y	-149.752	39.856	-3.757	.000	.001
Generation X - Generation Y	-44.463	17.062	-2.606	.009	.027

Table 11. Mann-Whitney U and Bonferroni alpha adjustments of training effectiveness and preference P-Value between two generational groups paired.

In the section that follows, mean scores were calculated to determine differences and similarities in training preference and perceived effectiveness of computer versus classroom-based training for each generational group.

As described in the previous page, Mann-Whitney U test and Bonferroni corrections were implemented to determine the difference between two age-groups paired in terms of training preference and perceived effectiveness. In addition, two measures were constructed from the two previously mentioned constructs (training preference and perceived effectiveness) to determine whether individuals from different generations differ in their perceived effectiveness and preference of training. These two measures are computer-based training (CBT) and classroom-based training (CRBT). Six items of the questionnaire measured the extent to which different generations perceived their effectiveness in CBT and four items measured perceived effectiveness in CRBT. Also, eight items measured generational preference for CBT and two items measured their preference in terms of CRBT. Mean ranks were computed and compared for the three generational groups which give a better understanding of their responses. The results of table 12 showed that there were statistically significant differences (p value = .000) between the three generations regarding their response to perceived training effectiveness in CBT. The results illustrated in table 12 also showed that Baby Boomer generation ranked least on the mean score of perceived training effectiveness in CBT with a mean of 2.00 which means that the respondents from this generation (Baby Boomers) disagreed that CBT was an effective method to receive their training. Generation X and Millennials, however, were almost neutral in their responses to training effectiveness with mean scores of 3.10 and 3.44 respectively.

With respect to training perceived effectiveness of CRBT which is highlighted in table 13, no significant differences were found between the three generations with a p value of 0.655. In terms of training preference of CBT, the results as shown in table 14, indicated that there were significant differences among the three generations p = .000. In addition, the results showed that Baby Boomers scored least with a mean value of 2.03 indicating they do not prefer CBT as a method of receiving training. As far as Generation X and Y are concerned, with mean

scores of 3.01 and 3.47 respectively indicating that they were more neutral in their preference toward CBT. The last section of the scale required respondents to give information on their preference for CRBT. Table 15 showed there were no statistically significant differences between the three generations regarding their CRBT preference with a p value of .781. These observations of training perceived effectiveness and preferences of CBT and CRBT of each generation are labelled in the bivariate boxplots in graph 2 and 3.

Training effectiveness	Sig (p)	Birth year	N	Mean Rank
CBT				
Baby Boomer		1944 - 1960	24	2.00
Generation X		1961 - 1981	170	3.10
Generation Y		1982 – 2002	466	3.44
	.000	Total	660	

Table 12. Training perceived effectiveness of computer-based training (CBT) Mean ranks for each generation.

Training effectiveness	Sig (p)	Birth year	N	Mean Rank
CRBT				
Baby Boomer		1944 - 1960	24	3.34
Generation X		1961 - 1981	170	3.18
Generation Y		1982 – 2002	466	3.34
	.655	Total	660	

Table 13. Training effectiveness of classroom-based training (CRBT) Mean ranks for each generation.

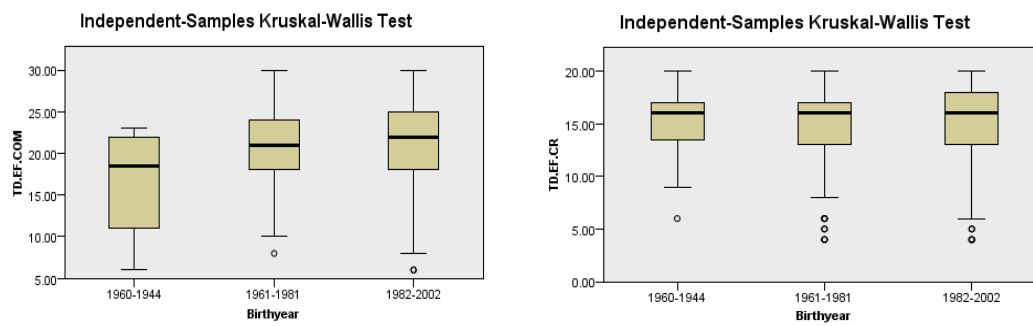
Training preference	Sig (p)	Birth year	N	Mean Rank
CBT				
Baby Boomer		1944 - 1960	24	2.03
Generation X		1961 - 1981	170	3.01
Generation Y		1982 – 2002	466	3.47
	.000	Total	660	

Table 14. Training preference Computer-based training (CBT) Mean ranks for each generation.

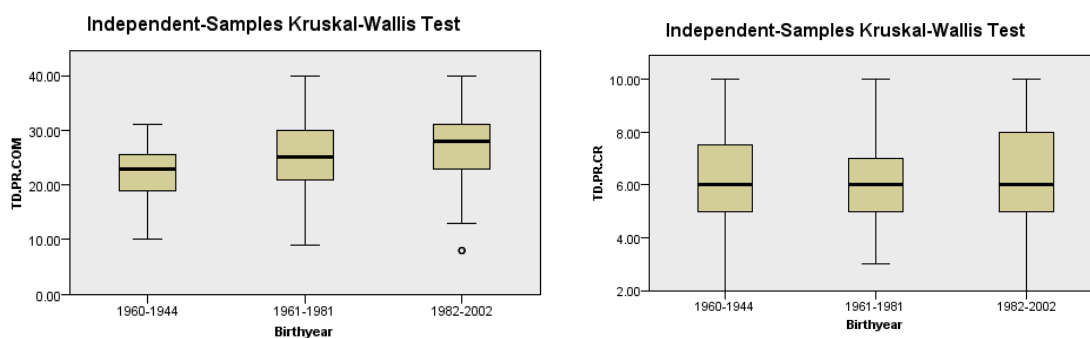
Training Preference	Sig (p)	Birth year	N	Mean Rank
CRBT				
Baby Boomer		1960 - 1944	24	308.44
Generation X		1961 - 1981	170	326.61
Generation Y		1982 – 2002	466	333.05
	.781	Total	660	

Table 15. Training preference Classroom-based training (CRBT) Mean ranks for each generation.

Graph 2. Boxplots of perceived training effectiveness of computer-based training (TD.EF.COM) against classroom-based training (TD.EF.CR).



Graph 3. Boxplot of training preference of computer-based training (TD.EF.COM) against classroom-based training (TD.EF.CR).



In the next section, I present the analysis and results obtained from the quantitative data of the questionnaire, along with a discussion of the findings to answer the second research question.

4.7.2 Research question 2

This part of the quantitative analysis follows on from the previous part, which answers the second question of the study; to what extent do technology, communication and working relationships operate as mediators in the relationship between trainee's age/generation and their

response to training preference and perceived effectiveness? Spearman rank correlation (Spearman, 1904) and multiple regression analysis were performed to provide an overview of how the variables, technology, communication and working relationships are associated. A non-parametric analysis of Spearman rank correlation was used as the study data failed a normality test (see table 10, normality test). “Spearman's rank correlation coefficient is a non-parametric rank statistic proposed by Charles Spearman as a measure of the strength of an association between two variables. It is a measure of a monotone association that is used when the distribution of data makes Pearson’s correlation coefficient undesirable or misleading.” (Hauke and Kossowski, 2011, p.89).

The results from Spearman rank correlation illustrated in table 16 shows a significant statistical correlation coefficient between birth year representing the three generational cohorts and training effectiveness (T-EF) ($b = .128^{**}$, $p = .001$), and training preferences ($b = .148^{**}$, $p = .000$). The results also showed a significant correlation coefficient between birth year and all technology dimensions except for technology perceived usefulness (Tech PU) dimension with a b value of $.074^{**}$ and a p value of 0.59 . However, with respect to communication factor dimensions, there was no statistically significant correlation between birth year and communication dimensions except for communication non-accommodation (Comm NA) ($b = .127^{**}$, $p = .001$). Also, no significant correlation was found between the birth year and working relationships (WR) factor with a correlation value of $b = .014$ and alpha value $p = .727$.

Correlations ^b		B year	T-EF	T-P	Tec PU	Tec PEU	Tec AU	Tec BIU	Com A	Com NA	Com AV	WR
B year	CC (b)	1.000	.128**	.148**	.074	.133**	.193**	.103**	-.010	.127**	.026	.014
B year	Sig.	.	.001	.000	.059	.001	.000	.008	.805	.001	.504	.727
T-EF	CC (b)	.128**	1.000	.483**	.407**	.759**	.403**	.350**	.306**	.003	.150**	.331**
T-EF	Sig.	.001	.	.000	.000	.000	.000	.000	.000	.934	.000	.000
T-P	CC (b)	.148**	.483**	1.000	.446**	.767**	.510**	.396**	.156**	.108**	.179**	.132**
T-P	Sig.	.000	.000	.	.000	.000	.000	.000	.000	.005	.000	.001
Tech PU	CC (b)	.074	.407**	.446**	1.000	.452**	.617**	.590**	.265**	.064	.230**	.234**
Tech PU	Sig.	.059	.000	.000	.	.000	.000	.000	.000	.102	.000	.000
Tech PEU	CC (b)	.133**	.759**	.767**	.452**	1.000	.496**	.376**	.183**	-.007	.113	.190
Tech PEU	Sig.	.001	.000	.000	.000	.	.000	.000	.000	.861	.004	.000
Tech ATU	CC (b)	.193**	.403**	.510**	.617**	.496**	1.000	.483**	.228**	.026	.149**	.194**

Tech ATU	Sig.	.000	.000	.000	.000	.000	.	.000	.000	.500	.000	.000
Tech BIU	CC	.103**	.350**	.396**	.590**	.376**	.483**	1.000	.193**	.091**	.232**	.214**
	(b)											
Tech BIU	Sig.	.008	.000	.000	.000	.000	.000	.	.000	.019	.000	.000
Com A	CC	-.010	.306**	.156**	.265**	.183**	.228**	.193**	1.000	-.126**	.168**	.632**
	(b)											
Com A	Sig.	.805	.000	.000	.000	.000	.000	.	.001	.000	.000	.000
Com NA	CC	.127**	.003	.108**	.064	-.007	.026	.091**	-.126**	1.000	.361**	-.068
	(b)											
Com NA	Sig.	.001	.934	.005	.102	.861	.500	.019	.001	.	.000	.082
Com AV	CC	.026	.150**	.179**	.230**	.113**	.149**	.232**	.168**	.361**	1.000	.227**
	(b)											
Com AV	Sig.	.504	.000	.000	.000	.004	.000	.000	.000	.000	.	.000
WR	CC	.014	.331**	.132**	.234**	.190**	.194**	.214**	.632**	-.068	.227**	1.000
	(b)											
WR	Sig.	.727	.000	.001	.000	.000	.000	.000	.000	.082	.000	.

** . Correlation is significant at the 0.01 level (2-tailed). b. List wise (CC (b)) = Correlation Coefficient (b)

Table 16. Spearman's correlation regression of the study dimensions.

The abbreviations illustrated in table 16 are explained in the next table (17).

Explanation of abbreviation.	
Abbreviation	Explanation
B year	Birth year
T-EF	Training effectiveness
T-P	Training preference
Tech PU	Technology perceived usefulness
Tech PEU	Technology perceived ease of use
Tech ATU	Technology attitude toward using
Tech BIU	Technology behaviour intention to use
Com A	Communication accommodation
Com NA	Communication non accommodation
Com AV	Communication avoidance
WR	Working relationship

Table 17. Explanation of abbreviation.

As discussed above, Spearman rank correlation and multiple regression analyses were conducted to assess the correlation coefficient of each dimension depending on the significance of the relation (p value). The results presented above (Table 16) showed that birth year representing ‘generational cohorts’ was positively associated with technology perceived ease of use (Tech PEU) (b = .133**, p = .001), technology attitude toward using (Tech ATU) (b = .193**, p = .000) and technology behavioural intention to use (Tech BIU) (b = .103**, p = .008). It also showed that birth year (generational cohort) was positively correlated with communication non-accommodation (Comm NA) (b = .127**, p = .001). In addition, the results showed that there was a positive strong relation between birth year and training

effectiveness (T-EF) ($b = .128^{**}$, $p = .001$), and training preference (T-P) ($b = .148^{**}$, $p = .000$). The results indicated that Tech PEU, Tech ATU and Tech BIU were positively associated with training effectiveness $b = .759^{**}$, $.403^{**}$ and $.350^{**}$ respectively, with a p value of $.000$ for the three constructs. Also, the results indicated that Tech PEU, Tech ATU and Tech BIU were positively correlated with training preference (T-P) with a correlation coefficients $b = .767^{**}$, $.510^{**}$ and $.396^{**}$ respectively and p values of $.000$ for all three dimensions. Although Comm NA dimension was significantly correlated with birth year, it was only correlated with training preference (T-P) $b = .108^{**}$ $p = .005$ and did not correlate with training effectiveness (T-EF) ($b = .003$, $p = .934$).

This section so far has analysed the correlation between birth year representing generational cohorts and technology, communication and working relationships factors, also with training effectiveness and preference which was illustrated in Table 16. I will now move on to analyse the mediating effect of technology and communication dimensions on the relation between birth year representing the three generational cohorts as an independent factor and training preference and perceived effectiveness as depending factors since Spearman rank correlation showed a significant association between the three aforesaid factors.

According to Dearing and Hamilton, (2006) analysis of mediating factors is essential to the research of human development. Mediation analyses in social studies often depend on a sequence of regression analyses relying on the techniques drawn by Baron and Kenny (1986), by which a decline in the direct path after inclusion of a prospective mediator is considered an indication for a mediation effect. Yet, this method does not offer a direct estimation of the size of the indirect effects. More statistically robust approaches, for example, the Sobel test (Sobel, 1982) which analyse the significance of indirect effects, but it is essential to fulfilling several suppositions (i.e., a normally distributed sample of the effect between the independent factor and the mediating variable and between the mediating factor and the dependent factor) that are unlikely to occur. Conversely, an alternative method for a non-normally distributed sample is bootstrapping of estimates of specific indirect effects which was introduced by Efron (1992) and recommended by Hayes and Preacher (2008), which examines the indirect effects of mediators (Cornelis, Van Hiel, Roetsand and Kossowska, 2009). Bootstrapping is a class of computer-intensive statistical methods that uses resampling methods to generate empirical estimates of population distribution (Efron and Tibshirani, 1994). Thus, in the current study, a mediation effect was tested using bootstrapping method with bias-corrected confidence

estimates which provide accurate statistical evaluations and allows to assess the error of estimates (MacKinnon, Lockwood, and Williams 2004; Preacher and Hayes, 2004), with 95 percent confidence interval (CI) of the direct effect was obtained with 5000 bootstrap resamples (Preacher and Hayes, 2008).

However, before I present the analysis of the bootstrap approach, it was necessary to explain how to measure the accuracy percentage deviation of the lower (LL) and upper lengths (UL) of the bootstrap confidence intervals (CI). The LL of a CI for a parameter is the distance between the lower endpoint of the CI and the parameter estimate. The UL is defined analogously. The LL and UL of the ideal bootstrap CI should not occur with zero in between (Andrews and Buchinsky, 2002). In simple terms, zero does not occur between the LL and the UL of the CI.

Results of bootstrapping mediation analysis of technology (dependent variable), tables 18, 19, 20 and 21, confirmed the mediating role of Tech PEU (95% CI, LL .4121 - UL 1.7658), ATU (95% CI, LL .6949 - UL 1.9005) and BIU (95% CI, LL .8082 - UL 1.6914) in the relation between birth year (generational membership) and training perceived effectiveness and preference. Moreover, the results showed that Tech PU (technology perceived usefulness) (95% CI, LL .2198 - UL .8747) was also a mediating the relation mentioned above with a *p* value of .0017, thus, confirming the mediating effect of technology as a factor with multidimensional constructs. Further, Comm NA (communication non-accommodation) (95% CI, LL .3291 - UL 1.4424) played a mediating role between birth year (generations) and training preference T-P with a *p* value of .0019 which is illustrated in table 22. Furthermore, most importantly, the result of the bootstrap analysis showed that training perceived effectiveness T-EF and training preference T-P were significantly associated with the birth year (generation) with a *p* value of .000 for both constructs which are illustrated in tables 23 and 24.

Model summary of mediating effect of technology factor Tech PU construct

R	R-sq	MSE	F	df1	df2	p
.1222	.0149	23.0528	9.9787	1.0000	658.0000	.0017
Model	coeff	se	t	p	LLCI	ULCI
constant	21.0463	1.2788	16.4585	.0000	18.5354	23.5573

Birth year	1.0889	.3447	3.1589	.0017	.4121	1.7658
(Generation)						

Table 18. Bootstrap outcome: (Technology Factor) perceived usefulness dimension. Tech PU (Mediator)

Model summary of mediating effect of technology factor Tech PEU construct

R	R-sq	MSE	F	df1	df2	p
.1626	.0264	18.2836	17.8679	1.0000	658.0000	.0000
Model	coeff	se	t	p	LLCI	ULCI
constant	16.3651	1.1388	14.3702	.0000	14.1290	18.6013
Birth year	1.2977	.3070	4.2270	.0000	.6949	1.9005
(Generation)						

Table 19. Bootstrap outcome: (Technology Factor) perceived ease of use dimension. Tech PEU (Mediator)

Model summary of mediating effect of technology factor Tech ATU construct

R	R-sq	MSE	F	df1	df2	p
.2117	.0448	9.8114	30.8846	1.0000	658.0000	.0000
Model	coeff	se	t	p	LLCI	ULCI
constant	10.6863	.8342	12.8097	.0000	9.0482	12.3244
Birth year	1.2498	.2249	5.5574	.0000	.8082	1.6914
(Generation)						

Table 20. Bootstrap outcome: (Technology factor) attitude toward using dimension. Tech ATU (Mediator)

Model summary of mediating effect of technology factor Tech BITU construct

R	R-sq	MSE	F	df1	df2	p
.1269	.0161	5.3944	10.7702	1.0000	658.0000	.0011
Model	coeff	se	t	p	LLCI	ULCI
constant	9.9099	.6186	16.0205	.0000	8.6953	11.1246
Birth year	.5473	.1668	3.2818	.0011	.2198	.8747
(Generation)						

Table 21. Bootstrap outcome: (Technology Factor) behavioural intention to use dimension. Tech BITU (Mediator)

Model summary of mediating effect (communication factor) Comm NA construct

R	R-sq	MSE	F	df1	df2	p
.1209	.0146	15.5900	9.7602	1.0000	658.0000	.0019
Model	coeff	se	t	p	LLCI	ULCI
constant	7.6662	1.0516	7.2901	.0000	5.6013	9.7311
Birth year (Generation)	.8858	.2835	3.1246	.0019	.3291	1.4424

Table 22. Bootstrap outcome: (Communication Factor) communication non-accommodation dimension outcome. Comm NA (Mediator)

Model summary of mediating effect T-EF

R	R-sq	MSE	F	df1	df2	p
.8453	.7145	10.2358	203.6709	8.0000	651.0000	.0000

Table 23. Bootstrap outcome: Training perceived effectiveness dimension. T- EF (independent)

Model summary of mediating effect T-P

R	R-sq	MSE	F	df1	df2	p
.8019	.6431	14.5579	130.1194	9.0000	650.0000	.0000

Table 24. Bootstrap outcome: Training preference dimension T-P (independent)

To further simplify the results of the bootstrapping analysis (Preacher and Hayes, 2004). I organised the results in four simple steps (shown in table 25 and graph 4): Step 1 of the mediation process (path c-1); the regression of birth year (generational cohorts) disregarding the mediator was significant $b = .3298$, $t = 4.3298$, $p < .01$. Step 2 (path a-1) showed that the regression of birth year (generations) on the mediator, technology, was also significant, $b = .7127$, $t = 34.3696$, $p < .001$. Step 3 (path b-1) of the mediation model showed that the mediator (technology) controlling for the birth year (generations) with training perceived effectiveness and preference was significant, $b = .7127$, $t = 34.3696$, $p < .001$. Step 4 (path c-1') of the bootstrap analyses revealed that the direct effect of the birth year (generational cohorts) on training perceived effectiveness and preference becomes non-significant when controlling for technology $b = .3298$, $t = .7081$, $p = .4791$. The overall results showed that technology fully

mediated the relationship between birth year (generational cohorts) with training perceived effectiveness and preference. Tables 25 display the results. Also, graph 4 shows the mediating model of path a-1, path b-1 and path c-1.

-
- x variable predicts y – path c-1
- a) $F = 18.7469, p < .01, R^2 = .0277$
- b) $b = .3298, t = 4.3298, p < .01$
- 1) x variable predicts m – path a-1
- a) $F = 23.6519, p < .01, R^2 = .0347$
- b) $b = 4.1837, t = 4.8633, p < .01$
- 2) x and m together predicting y
- $F = 616.8214, p < .001, R^2 = .6525$
- a) m variable predicts y – path b-1
- i. $b = .7127, t = 34.3696, p < .001$
- b) x variable no longer predicts y – path c-1'
- a) $b = .3298, t = .7081, p = .4791$
-

Note: y : (dependent variable) Training effectiveness and preference. x: (Independent variable) Birth year. m: (mediator 1) Technology. m: (mediator 2) communication non accommodation. Sample Size: 660.

Table 25. Simplified results of the mediation factor of technology (dependent variable) on the relation between birth year and training effectiveness and preference.

Bootstrap analysis was also performed to examine the mediating effect of communication non-accommodation dimension on the relationship between birth year (generations) and training preference dimension and whether it fully mediated the relationship. The results illustrated in table 26 showed that the regression of birth year (generational cohorts) disregarding the mediator (communication non-accommodation) was significant $b = .1676, t = 3.469, p < .01$ (path-c-2). The results also showed that the regression of birth year (generations) on the mediator, communication non-accommodation was significant, $b = .885, t = 3.12, p < .01$ (path a-2). The mediation model results showed that the mediator (communication non-accommodation) controlling for birth year (generations) with training preference was also significant, $b = 1.568, t = 3.469, p < .001$. Lastly, bootstrap analyses revealed that the direct effect of birth year (generational cohorts) on training preference was significant when controlling for communication non-accommodation $b = .1676, t = 2.71, p = .0068$. Overall,

the results showed that communication non-accommodation partially mediated the relationship between birth year (generational cohorts) and training preference. Graph 4 shows the mediating model of path a-2, path b-2 and path c-2.

x variable predicts y – path c-2

a) $F = 11.0, p < .01, R^2 = .0324$

b) $b = 1.5681, t = 3.469, p < .001$

1) x variable predicts m – path a-2

a) $F = 9.76, p < .01, R^2 = .0146$

b) $b = .885, t = 3.12, p < .01$

2) x and m together predicting y

a) $F = 11.01, p < .001, R^2 = .0324$

b) m variable predicts y – path b-2

i. $b = .1676, t = 2.716, p < .001$

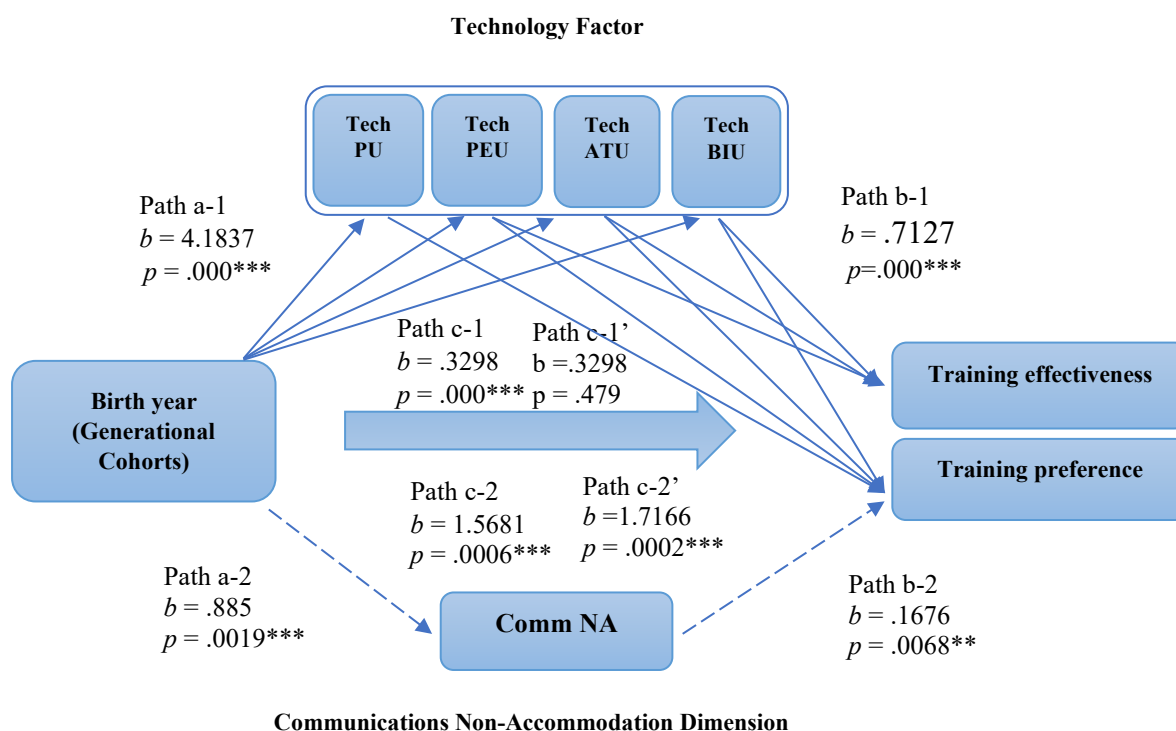
c) x variable also predicts y – path c-2'

i. $b = 1.7166, t = 3.808, p = .0002$

Note: y : (dependent variable) Training preference. x: (Independent variable) Birth year. m: (mediator 1) Communication non-accommodation. m: (mediator 2). Sample Size: 660.

Table 26. Simplified results of the mediation effect of (communication dependent variable) non-accommodation dimension on the relation between birth year and training preference.

Graph 4. Mediation model of the study showing the effect of generational membership on training Preference and perceived effectiveness through technology and communication dimensions.



Note: * $p < .05$, ** $P < .01$, *** $p < .001$.

Finally, before proceeding to the qualitative part of the current study, it was necessary to examine the moderating effect of working relationships factor on the relationship between generations and training perceived effectiveness and preference. The previous results of Spearman coloration coefficient, which was illustrated earlier in table 16 page, 99, showed no correlation between generations and working relationships factor. Also, the results of bootstrapping (table 27) found that the mediating effect of the working relationships factor was not significant with a p value of .1650. Further analysis of bootstrap moderation models of training perceived effectiveness (Table 28) and training preference (Table 29) was performed which showed no moderating effect of working relationships on the relation between birth year representing generations and both training effectiveness and preference, with a p value of .218 and .134 respectively.

Model summary of mediating effect WR.

R	R-sq	MSE	F	df1	df2	p
.0541	.0029	19.9577	1.9318	1.0000	658.0000	.1650
Model	coeff	se	t	p	LLCI	ULCI
constant	21.6232	1.1898	18.1735	.0000	19.2869	23.9594

Birthyear	.4458	.3207	1.3899	.1650	-.1840	1.0756
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Table 27. Bootstrap outcome: Working relationship factor (WR) (Mediator).

Model summary moderating effect of working relationship factor (WR).

Model	coeff	se	t	p	LLCI	ULCI
constant	9.0082	6.4528	1.3960	.1632	-3.6624	21.6788
Birth year	3.4225	1.7517	1.9538	.0512	-.0172	6.8622
WR	.9781	.2810	3.4807	.0005	.4263	1.5298
Int_1	-.0938	.0761	-1.2332	.2180	-.2432	.0556

Table 28. Bootstrap outcome: Training effectiveness

Model summary moderating effect of working relationship factor (WR)

Model	coeff	se	t	p	LLCI	ULCI
constant	9.5343	7.6577	1.2451	.2136	-5.5023	24.5709
Birth year	4.6264	2.0788	2.2255	.0264	.5444	8.7083
WR	.7978	.3335	2.3923	.0170	.1430	1.4526
Int_1	-.1354	.0903	-1.4990	.1343	-.3127	.0419

Table 29. Bootstrap outcome: Training preference

So far, this chapter has discussed the analysis and results of the quantitative data of the questionnaire which answers the first and second research questions. The following section discusses the results of the qualitative analysis which emerged from the interviews to answer the third and fourth research questions.

4.8 Overview of the qualitative analysis

This part of the chapter presents and discusses the qualitative analysis and findings, which have emerged from interviews with trainers from the Jordanian telecommunication sector. Thirteen trainers and managers who had the experience of training different age groups/generations and worked in one of the three sampled companies as internal and external trainers were approached for an interview. The responses were recorded, which helped analyse the data more accurately and recollect the information obtained during the interview. The interviewees' diversity was ensured to represent trainers from each generational cohort to have different perspectives of each generation. A set of five questions (see Appendix 4) was prepared and

asked to have a clear understanding of trainees' backgrounds, such as age, educational background, level of education and experience. These questions have helped me to recognise the generation to which the trainer belongs. However, before conducting the interviews, a pilot study was performed with two participants; it helped validate the interview questions and was useful in determining the duration required to complete the interview. Supplementary questions were also used to solicit more input from the participants through the interview. In the next section, however, I discuss the pilot's interview process and analysis in more detail.

4.9 Pilot interviews

Before conducting the main study interviews, a pilot study was performed with two randomly selected trainers within the sampled companies. While some researchers argue that in qualitative studies, separate pilot research is not essential (e.g., Holloway 1997, p.121), I decided to conduct pilot interviews to assess the acceptability of the interview questions from the interviewees' perspective, discover any practical issues or difficulties and resolve them before beginning the main study. In addition, piloting qualitative methods can also be carried out if "the researcher lacks confidence or is a novice, particularly when using the interview technique" (Holloway 1997, p.121). Although I conduct a pilot interview with two participants, the collected data was not used in the final findings.

According to Peat et al., (2002, p.57) "an essential feature of a pilot study is that the data are not used to test a hypothesis or included with data from the actual study when the results are reported". Similarly, Perry (2001) suggested that there could be no separate pilot exercise in qualitative studies, given the unique characteristics of qualitative research. However, Kilanowski (2006) argued that a pilot study could be performed to train qualitative researchers. Moreover, to improve the reliability of a qualitative study (Padgett, 2008). In the current research, the pilot works were conducted for practical reasons, which have helped me to self-evaluate my readiness and commitment as a researcher.

4.10 Data analysis of interviews

As was pointed out before, this part of the thesis consists of qualitative data analysis which aimed to explore generational differences from trainers' perspective in terms of the design and delivery of training within the Jordanian telecommunication sector. To answer the third and fourth research questions, the qualitative analysis of this study was organised into four main

themes, which were In line with the main themes identified in the literature review as the following: training preference and perceived effectiveness, technology, communication and working relationships.

4.10.1 Research question 3

Addressing the third research question of to what degree do trainers train differently in anticipation of generational difference. I discuss the methods and strategies used by trainers to train different generation workers. Also, I discuss generational differences/similarities in training outcomes as perceived by the trainers.

4.10.1.1 Training preference and perceived effectiveness of training

This theme was designed to assess the trainers' training methods and the perceived impact of these methods on trainees' preferences and perceived effectiveness of training. The participants were asked about their views on the differences and similarities between generations in training and where these differences are being noticeable. One thing that came out to be shared in all the responses is that age plays an essential role in designing and delivering training programmes for different age groups. An interview with a TA becomes evident when he stressed the importance of knowing the trainees' age when delivering training. He elaborates:

"Trainers should recognise their audience and knowing their training preferences, especially with an age-diverse workforce, taking into consideration their educational background, skills and knowledge."

Almost all the trainers agreed that Generation Y is the group that prefers to use technology in their training as they are the youngest ones and adapt quickly to technology compared to Generation X or Baby Boomers. Older generations, however, prefer traditional methods of training. These findings are similar to those reported by Urick et al. (2016), they argue, technology usage and preference at the workplace relating to training are different among different generation workers. Similarly, Urick (2017 p.3) notes that "Younger workers are often perceived as willingly embracing technology while this is often not the perception of older workers."

HK is one of the trainers who belongs to Generation X, he provides an example of how technology preferences vary among different generation trainees:

"When delivering training, I always notice that the older generation (Baby Boomers) do not prefer to use technology in training, and they are always satisfied if the training programme does not contain any technological tools or methods such as computers. However, the younger generations Generation Y, are always asking and requesting to include all the available technologies within the training."

It was also observed by the trainers that the absorption rate of information is the highest when it comes to people belonging to the younger generation. It is the reason why trainers include advanced technological training tools (e.g., Virtual reality, Intelligent Tutorial System, and programmed instructions) in the training curriculum of younger generations and they do not experiment such advanced tools with Baby Boomers, as it takes a great deal of time and effort to make them learn these tools. These results are in line with a previous study, Gursoy, Chi, and Karadag (2013, cited in Clark, 2017) stated that Generation X managers' perception of Baby Boomer employees that they are slow learners and not efficient with technologies. AZ emphasised the connection between the younger generation and their technical ability and the main reason behind this connection:

"In my opinion, the general knowledge of the younger generation, regardless of their level of education, is higher than the older generation, because the involvement level of technology is higher among the young generation. All the knowledge and information needed can be accessed through Google search engine and mobile applications. That is why the younger generation is more effective than older workers and their interaction and engagement during the training workshops are higher than the older generation when it comes to technology-based training".

It can be said that all trainers based on their responses agree that age is one of the factors that could determine trainee's effectiveness of classroom and technology-based training and at the same time, it could indicate their training preferences. However, Farrell and Hurt (2014) have acknowledged that non-technology-based training would sometimes entice the Millennial's multi-tasking qualities and their need for instant feedback. However, the influence of

technology on their life cannot be ignored. Apart from the technological difference, the factors that differentiate the trainer RA has dictated various age groups as she says:

"There are other aspects which could play an important role in trainee's training preferences and effectiveness such as lifetime experiences, secondary sources of training, and acculturation statuses including contact, conflict, and adaptation that may influence trainees to prefer a certain type or style of training over the other."

Although the younger generations are early adopters to technologies, it seems they are not as effective in technology use as the older generations. For example, Kim (2018) found that Millennials wasted more than twice as much time as Baby Boomers at the office when using various ways of technologies.

HK illustrated the similarities between the generations in the methods and tools used in training sessions:

"In a quick reflection of how different generations perceive training methods. In general, they have no problem with any of the methods, such as power-point lectures with open discussions, brainstorming sessions, role-play sessions, and reflection sessions on cases (presented in videos or by the trainer). However, I believe that Baby Boomers and Generation X like to elaborate more and be more open when giving their views in classroom-setting training and brainstorming sessions. Usually and from general observation, Baby Boomers are less satisfied with online or computer-based training. However, that does not mean that they are less effective in technology-based training".

4.10.1.2 Training methods used to train different generations

Turning now to training methods and strategies that trainers use to train workers from different generations and age groups. It is found that some trainers prefer to classify their trainees based on their competency in computer skills and their ability to get used to the advanced tools quickly, while others prefer to encourage their trainees to be creative and innovative. The trainer FR insists on boosting the differences of trainees to be seen as an advantage instead of a disadvantage. He says:

"Motivation to mentor each other so that the skills gap can be filled out is what my training method is all about."

The trainers themselves know very well that Baby Boomers and Generation X are not used to technological-online methods of training; thus, they make sure that instead of sending them electronic instructions, they are handed out printed materials. These findings are in line with results of Seipert and Baghurst (2014) who found that older generations (e.g., Baby Boomers) value face-to-face interaction; they are content with traditional "old-style" lectures and printed resources. Also, as told by RA, piloting plays an essential role for the trainer, while designing the training methods for different generations as through piloting, the trainer will be able to receive feedback from employees that helps him know their trainees better and design and prepare training content and tools accordingly.

RA elaborates more on the piloting method that is used in the organisation where she works:

"To make sure that the training programme is effective, we tend to run a pilot session by hosting trainees from different levels of experiences and diverse skills and by default, this could include different employees from different ages. Also, in our organisation we survey the trainees after the pilot session, which gives us the opportunity to prepare the training content to meet the audience preferences of the materials that will be used in training".

Warr and Birdi (1998) found significant substantial differences in training preferences between age groups, including a low level of participation of older employees in training, and suggest that training approaches methods should be adjusted to fit the preferences of various age groups. Another training method used by the trainer MZ (1) is the dynamic learning, according to him:

"We call it learning by doing; that is why we focus on the dialogue in training to engage as many trainees as possible. We are currently working on dialogue-based training. The working groups for the training contain between three to five individuals, we have noticed that if we increase the number of trainees to more than five, this will affect negatively on their engagement in training."

This evidence presented thus far supports the idea that positive dialogue can enhance training effectiveness and engagement among different generations. Even though this method of learning is not appreciated across all generations, it seems to be valued by Millennials. According to Sandeen (2008), Millennials appreciate programmes that focus on learning by doing, such as internship opportunities. Moreover, they expect to have access to information through the internet continually. Also, they excel in a multi-tasking environment. Gursoy, Maier and Chi (2008) state that the learning dialogue method can bridge the generational groupings.

4.10.1.3 Training outcomes

Another aspect of training a multigenerational workforce was if there are differences or/and similarities regarding their training outcomes. One thing that is believed and noticed by the majority of the trainers is that the outcome is more fruitful in Generation X and Y trainees as they are the ones who possess better educational backgrounds and thus their ability to grasp what is being taught in the training programmes electronically or verbally is comparatively higher than those Baby Boomers. For example, Beaver and Hutchings (2005, p.599) describe organisations' perception of Baby Boomers' work characteristics. They assert that "while employers tend to regard older employees as being more loyal to organisations there also appears to be some built-in ageism in which it is assumed that older workers are more resistant to change, less creative, less interested in technology and less trainable." It is found in the case of almost all Baby Boomers they learn better when there is minimum involvement of technology in their training sessions, while the younger generation learns better when they are aided and taught using computers and advanced technologies. AS based on his experience, he further reinforces the argument of the impact of age on training outcomes:

"Age, educational background, and level of education are three factors that decide the outcome of training."

Trainer RA believes that assessing learning objectives and results of the trainees could determine whether age is a decisive factor in improving or deteriorating training outcomes. He supports his opinion:

"In order to know if the outcomes of training differ depending on age and generation, trainers must noticeably define the learning objectives and anticipated outcomes of the training to focus on the suitable performance compartments. For example, improving employee satisfaction scores or reducing turnover rates. Consequently, trainers must focus on the training areas that apply to these specific objectives."

Understanding differences and relationships between preferences and motivations of generations and related work outcomes can be used as an important milestone in developing effective training methods (Westerman and Yamamura, 2007). According to Velada, et al. (2007, p. 283 cited in Thompson, 2016) organisations must guarantee that training achieves the desired outcomes and increases employee performance. In a study on the topic of training from a generational perspective, Dwyer and Azevedo (2016) suggest evaluating training results not only in the short-term such as measuring immediate reactions and intellectual learning directly after the training but also to observe their long-term behaviours.

Having discussed trainers' views of differences and similarities between generational trainees in training and the methods used by trainers to train different generations. I will now move on to analyse the data, which addresses the fourth research question.

4.10.2 Research question 4

The second research question of the current study was to examine how do trainers manage the gap between different generations in terms of technology use, communication style and working relationships? First, I discuss how technology can affect trainees' engagement in training. Also, I investigate how trainers communicate with trainees of different generations. In addition, I explain the dynamics of trainees and trainers' relationships in training settings. This provides an insight into trainers' perception of the generational gap and the strategies used to manage this gap.

4.10.2.1 Technology use in training

The second theme was based on the use of technology in training. It has already been noted that the younger generation prefers the usage of technology more than the older generations. However, this theme explores to what extent different generations prefer to use technology in training or how comfortable they are in using different technological tools such as distance

learning Google classroom IM, Digital caller and email video conference. A set of three questions were asked during the interview with the trainers. They were asked about their opinions and views regarding the differences or similarities between generations in technology use in training. Among the three generations, X and Y are Tech-savvy based on responses from trainers. FR claimed:

"The three generations Baby Boomer, Generation X, and Y are slightly similar in overall technology use and preference. However, the younger generation (Generation Y) indicates greater satisfaction with content and "usefulness" and "user-friendliness."

He further adds that the extensive use of smartphones and laptops for social networking from an early age makes the younger generation use technology more comfortable in their training sessions. Venter (2017) reported that Baby Boomers and Millennials have access to similar technologies, however, their usage of technology is very different. For example, Kim (2018) notes that the Baby Boomer generation uses technology to collect information. In contrast to Millennials, they view technology as a tool that can help them achieve self-expression and create connections and friendships.

MZ (1) based on his long experience as a trainer, He states that:

"For sure, technology divides generations, Generation X and Y are similar with regard to technology use preference as they both grew up in a technological era, they are experts in using technology in one form or another, and enjoy using technology especially in the workplace, and they expect technology to be incorporated in their learning process. However, the Baby Boomer generation is noticeably different from Generation X and Y in that they were born and raised in a pre-technology era and accordingly tended to prefer tangible learning tools. They like facilitated, instructor-led training and enjoy learning using textbooks and handouts."

Regarding the differences between generations in their response to technology in training and to what extent they are comfortable using it (e.g., emails, digital calendars and video conferencing). One thing that comes out is that Baby Boomers dislike using technology in training, whereas the younger generation asks for more technological advancements in training

sessions. MZ (1), ZH, and MAZ agree that Millennials find it much easier to combine technology in their training classes; they excel in multi-tasking and are often seen using two to three different applications and programmes. However, according to Czaja (2006), technology use among individuals of all generations and age groups is influenced by several demographic and non-demographic factors such as gender, education and socioeconomic, as well as computer self-efficacy and computer anxiety.

RA provides an example of how 'digital divides' generations; he states:

"Baby Boomers prefer face to face conversations and printed materials, Generation X prefers to communicate using email or IM, and Millennials prefer text messages."

FR further provides more examples of how Baby Boomers prefer traditional training methods like white board and handouts. He thinks that the kind of experience an individual has and the educational background determine how quickly individuals adapt to the technology in and off training. According to Lowell and Morris (2019, p.116), "Baby Boomers were not raised with technology to the extent that children are today; therefore, they, on average, may not take new technology as quickly as younger generations.". Millennials were the first generation to be "unconsciously competent users of both the personal computers and the internet" (Erickson 2012, p.3) and they expect technology to be part of training (Lowell and Morris 2019). HK has witnessed the usage of WhatsApp and emails while training by all the three-generational cohorts. Baby Boomers have, to some extent, started using emails as part of their training requirements, as their job requires them to learn these skills but have not opted for other technologies like texting and social networking as quickly as the younger generations. HK also elaborate on the use of the mobile application as a tool during the training session:

"WhatsApp mobile application is the most common technological method that all generations prefer to use; emails are also extensively used by the three generations. In general, the way that individuals respond to technology is mostly related to their age, access to technology and the way they communicate."

The experiences that trainers had with the usage of technology by the trainees during the training session helped us understand that technology's presence affects the performance of different generation trainees. The younger trainees find it more convenient to use technological

means while they are trained, whereas Baby Boomers face some difficulties when using technology in training. Trainers have to emphasise the benefits of using technology in their training. HK exemplifies the differences between generations of technology use in training:

"I have noticed that the younger generations (Generation X and Y) absorb information faster than the older generation (Baby Boomers). In general, they are more enthusiastic about training. The older generation, however, they always try their best to be effective and have the precision to learn specifically when it comes to technological tasks in the training as they have the experience to become effective."

The interview with HK illustrates that he disagrees entirely with the claim that differences in technology use among different generations will affect their training effectiveness. HK elaborates further on this:

"I believe that whether the technology exists or not, it will not affect trainee's performance nor engagement significantly. When we compared two training programmes using the same content, with a different level of technology, I found that trainees performed equally in the two regardless of their age or generation."

The results that came out were quite surprising regardless of their age and generation; trainees' engagement was almost the same in both programmes, which elucidates the existence of technology in training has a limited impact on trainee's behaviour. In support of this view, Lai and Hong (2015), criticised the idea of labelling an entire generation (Millennials) as 'digital native' or 'tech-savvy,' as social and cultural factors have more substantial influence on people's behaviour.

In some cases, cultural issues might affect trainee's engagement and performance, which could also affect how trainers deliver and design their training materials. Such a situation is described by MZ (1)

"As a part of cultural seniority and authority respect, trainers and trainees should wait until older senior executives complete their training tasks before moving on to the next task."

Regardless of technology existence, cultural factors also could affect the training process, thus affecting trainees' effectiveness and performance.

4.10.2.2 Communication in training

This theme was also designed to answer the fourth research question, which was based on the type of communication methods used by people of different generation trainees in training settings. This theme consists of a set of three questions which were aimed to investigate trainee's communication preference in training. Also, the questions asked were formatted to give an insight into the strategies being used by the trainers to remove the communication barriers between different generation trainees.

The majority of the responses (8 out of 13 respondents) suggest that younger generation trainees prefer to communicate using interactive online tools such as query dialogue boxes, IM, or WhatsApp or even email and other messaging apps. While trainees belonging to the older generation, prefer to communicate via telephone or face-to-face to get their queries resolved, it was noticed that even if the inquiry or help button was present at any of the online tutorial video page, trainees from older generations chose to call the trainer or ask when they meet the trainer. FR provides an example of how communications differ between different individuals in training:

"In the case of online distance learning, communication can vary between individuals, and some trainees use the telephone while others use online tools to ask questions and query."

The reason behind such behaviour shown by all generations is based on their confidence level of using technology. The younger generation trainees use online communication and social networking apps on a daily basis, that is why they prefer this type of communication. In contrast, the older trainees are relational focused and prefer telephone calls and personal face to face communication over these messaging apps. MZ (2) response to this question can help trainers decide what precisely the communication preference of trainees is:

"Millennials are used to working together and prefer a collaborative method of working and resolving issues. They are relaxed using technology and sometimes

favour face-to-face interaction. Generation X, to some extent, are tech-savvy, want feedback and answers to all their questions and concerns. However, the older generation will accept more top-down and hierarchical attitudes, although they prefer working in teams and face-to-face communication."

Respondents alluded different generations have different communication styles. It is in large part because of technology, as each age group utilises different communication methods differently. By way of illustration, Venter (2017, p.504) states that "the difference in communication media has the potential for conflict and misunderstanding between the generations causing a generational communication gap." While the Baby Boomer generation is prepared to utilise technology for productivity reasons such as achieving jobs and tasks, they desire a face-to-face interaction or using the telephone. Millennials prefer using digital communication, such as emails and IMs. By way of illustration, Chou (2012, p. 75) found that Generation Y desire "frequent, positive, and open communication in the workplace" this was also confirmed by Gursoy, Maier, and Chi (2008); Howe and Strauss, (2007). These different styles can lead to miscommunication at all-both of which pose a real problem.

To some extent, this indicates the existence of a communication gap between different generations. To manage this gap, trainers gave different opinions, if we look at the response by FR, he says:

"Utilisation of all the communication means will help bridge the gap between generational cohorts as well as between the trainees and trainers."

FR further suggests that the establishment of groups consisting of trainees from different generations and setting up some group discussions can help fill the existing communication gap. Although according to him, this can be carried out in a classroom setting only. To solve this limitation, AS suggested that the creation of WhatsApp groups and setting up a timeslot for queries can help to address any communication issues. It will initiate the two-way communication between the trainees themselves also between the trainer and trainees. In the context of the current study, it is possible that trainers could use such methods of communication (WhatsApp groups) and find common ground so they could manage to communicate with trainees, and thus to bridge the communication gap between trainees as well.

MAZ possesses his personal opinion to eliminate the communication gap and according to him:

"Personally, I think that adopting varying communication styles could remove the gap, while Baby Boomers choose and prefer face to face communication, Millennials prefer to communicate through IM and text messaging. Generation X and Y are also more likely to enjoy training in a collaborative style. Since each generation has different communication styles, trainers should provide different means of communication, which can reduce the gap."

HK holds the view that group discussion is an effective method to bridge the communication gap between different generations:

"As a trainer, I try to use one type of communication regardless of age differences, engaging different trainees in a group discussion can solve their communication gap, which improves communication between different generations."

The trainers' responses to the strategies they implement to remove communication barriers between the trainer and trainees of a different generation revealed that the engagement of the audience is necessary for any training. Regardless of age or generation effect, there are very few people who respond well to wordy PowerPoint presentations or long boring lectures thus it is to be made sure that the lecture or training session consists of a decent number of graphics and various teaching tools to keep the trainees interested throughout the session. The strategy that is used by ZH and suggested to follow:

"Using affirmative responses, responding to others in means that recognise their knowledge, thanking them for their contributions, asserting their right to emotional state, even if you disagree, make inquiries, or express a positive feeling, and focused training can also help break down barriers."

RA suggested that social network tools should be utilised to their fullest capacity. According to RA, the best strategy is to set up an active learning culture and make all the trainees feel like a part of that culture can boost emotional engagement. She suggested that optimising the training for mobiles using different mobile platforms and applications can make the training much more engaging. This emotional investment leads to increased learning, which can remove

communication gaps between different generational cohorts. The strategy being used by MZ (1) is quite impressive, and he suggests:

"Trainers should focus on the problem, not the individual. Trainers should always use support reactions, reply to others in ways that acknowledge their knowledge."

HK and JM suggest focusing on two-way mentoring and communication. A learning environment should be created by the trainer, where every learning opportunity is supported.

4.10.2.3 Interpersonal relationships in training (trainers'-trainees' relationships)

The purpose of this theme was to explore the trainer-trainee interpersonal relationship and examine if this relationship improves or degrades the performance and engagement of trainees involved. This theme was also designed in line with the literature review to answer the fourth research question of how trainers manage the gap with trainees of different generations.

The responses of different trainers over the question as to whether an interpersonal relationship with trainees could affect their engagement in training. All the respondents have one thing in common, they suggest that trainers should not be involved with any sort of personal relationship with trainees as it could affect the training process. MZ (1) suggests that sometimes trainers should give extra attention to senior trainees as this can influence other trainees' engagement, thus their effectiveness. ZH elaborates on this matter:

"Trainer's behaviour and attitude are key factors shaping the relationship with trainees, which affect their training engagement and effectiveness."

These views surfaced mainly with the working and training environment within the Jordanian culture. For example, Budhware and Mellahi (2006) state that the unwritten roles of workers relations are implicit in an individual's relationships with each other and the respect of age and seniority is very strong among the Jordanian people, also, it is evident inside and outside the workplace. MZ (1) elaborates on the importance of giving attention to seniors inside or outside the workplace:

"In some cases, as a trainer, you should give more attention to senior trainees as they influence other individuals in the process of participation and engagement within the training. Taking into account personal relationships with trainers could affect the learning process. So, I tend to avoid any personal relationships with the trainees. The method of dialogue in training is ideal to allow trainees to participate without the need to focus on a specific age group over the other."

In response to this question, RA suggests that all trainees should be treated equally, and the information given to them should be equal. HK has the opinion that trainers should not be engaged in personal relationships with trainees. This sort of personal relationship with a specific group may affect the trainers' relationships in other groups. Although these sorts of personal relationships are rarely built as most of the training sessions, do not last more than three days and it is challenging to build a personal relationship in such a short time. FR opines that:

"Personally, trainers should respectfully treat each trainee regardless of their age or which generation he or she belongs to. However, in some cases, interrelationship with trainees could be necessary to make the training more fun and increase the engagement level, as long as this interrelationship would not negatively affect other trainees."

Regarding trainer's behaviour and its impact on trainee's effectiveness, responses collected from the participants showed that professionalism should be ensured by exemplifying role models in their interaction. As stated by HK, trainers should be clear about organisational tasks, reinforce appropriate subjective elements and professional attitude during the training session. Also, equal opportunity should be given to all trainees to ensure they are engaged in the training without any partiality. MZ (1) elaborates on trainee's engagement and age diversity in training, according to him:

"As a trainer, I consider diversity, and whether it is a cultural and age diversity a strength, it brings more opportunities, ideas, views, opinions and techniques. Even if they hold different characters, needs, preferences, and attitudes, trainers must adapt his/her training methods to suit each age group while offering great respect not only

to individuals and generational groups but also to gender, ethnicity, and minority differences."

Berge and Berge (2019, P.50) discuss the challenges and strategies of learning and development of a multigenerational workforce, they argue that "training and development experts should be cautious when designing training interventions based solely on generational differences". Moreover, Lester et al. (2012) argue that trainers must focus on shared values when training employees from different generations. Deal (2007) also suggests several methods of training in an age-diverse workforce such as on-the-job training, one to one mentoring, group discussions and peer interaction. Berge and Berge (2019) point out that learning and development will be characterised by the need for critical thinking, communication and problem-solving. The studies reviewed support the idea that managers and trainers should produce a comprehensive work setting, where skills and knowledge of all employees from different generations enhance organisational effectiveness and the persistent development of its individuals.

4.11 Summary of the chapter

This chapter aimed to present the analysis and findings of the qualitative and quantitative data obtained from surveying trainees and interviewing managers and trainers in the Jordanian telecommunication sector. In an attempt to answer the first research question: whether different generation trainees differ in their preference and perceived effectiveness of classroom and computer-based training. Non- parametric tests of Kruskal-Wallis and Mann-Whitney were conducted. The results showed that Baby Boomers differ in their preference and perceived effectiveness of computer-based training from Generation X and Y. However, there were no differences between Generation X and Y in the same factors. The results also showed that there were no differences among the three generations in preference and perceived effectiveness of classroom-based training. The second section of the quantitative analysis aimed to answer the second research question of the extent to which technology, communication, and the working relationship mediate the relationship between generational membership and training preference and perceived effectiveness. A series of bootstrap analysis was conducted. The results indicated a strong mediating effect of technology factor on the relationship between generational membership and training preference and perceived effectiveness. The results also confirmed the mediating role of communication-non accommodation construct on the relationship

between generational membership and training preference. However, the mediating effect of communication accommodation and non-avoidance contracts were negative. Additionally, no mediating role was found with working relationships linking generational membership and training preference and perceived effectiveness. The second part of the chapter discussed the qualitative analysis of the data obtained from interviews with managers and trainers in the Jordanian telecommunication companies.

The purpose of the qualitative part of this study was to answer the third and fourth research questions: to what degree do trainers train differently in anticipation of generational differences and how trainers manage the gap between different generations in terms of technology, communication and working relationships in training settings. The analysis was based on four themes consistent with the literature review of the current study. The third research question's analysis indicated that understanding trainees' characteristics and preferences is essential for trainers to design the training content to suit the different needs of different generations. The analysis also showed that trainers use a variety of methods that are adequate for each generation to engage them in training. With respect to the analysis of the fourth question, the most common difference between the three generations is the utilisation of technology. The findings also showed that managers and trainers use different approaches to overcome the generational gap in technology use and communication style, which will be discussed in the next chapter

In the next and the final chapter of the thesis, I discuss the findings and results based on the analysis of both the quantitative and qualitative data, followed by limitations and recommendations. Finally, the conclusion of the study is presented.

5. Chapter Five: Discussion and Conclusion

5.1 Introduction to the chapter

The aim of this research was to explore trainees' and trainers' perspectives of different generational cohorts concerning the design and delivery of training and development (T&D) practices from in the telecommunication sector of Jordan.

The first part of the chapter discusses generational differences in preference and perceived effectiveness of classroom vs. computer/online-based training. The results showed that Baby Boomers were different from Generation X and Y in their perceived effectiveness and preference for computer-based training. However, the three generations were similar in their perceived effectiveness and preference for classroom-based training. Accordingly, I elaborate on and clarify the nature of these differences. Next, I continue with a discussion of each generation in terms of their response to training. I discuss them based on the theory of generation (Mannheim, 1952) and show how this concept reflects the different behaviours and approaches attributed to different generations. The analysis of the empirical data gives the possibility to support the theory itself.

Then, I discuss the mechanism through which generations are associated with training related factors (i.e., technology, communication and working relationship) and its components most of which have been examined separately by other researchers (e.g., Davis, 1989; McCann and Giles, 2006; Dansereau Jr, Graen and Haga, 1975). At this point, I clarify how these variables affect the relationship between generational membership and training using serial mediation models, including Spearman correlation regression (Spearman, 1904) and bootstrap approach (Hayes and Preacher, 2008). It goes on to discuss the mediating effect of technology components (i.e., perceived ease of use, perceived usefulness, attitude toward using and behavioural intention to use), and communication non-accommodation component. Also, I continue with a discussion of the mediating and moderating role of working relationships factor on the relationship between generational membership and training.

Addressing the third and fourth research questions, I provide insight into the strategies used by trainers to train a multi-generational workforce and the effect of generational diversity on the delivery and design of training programmes in the workplace. I also look into the methods used

during the training of computer and classroom-based programmes and show that different approaches were used at different stages when delivering training. I contribute to generational studies as the impact of training on different generations behaviours was underexplored in previous studies. I explain the relationship between generational differences and how trainers train in anticipation of the differences under training-related factors. I then turn to discuss how trainers manage the gap between different generations in the training setting. I then elaborate on the trainer's view and perception of generational differences in technology, communication, and working relationships in training and their impact on trainees' training outcomes. Also, I focus on the learning methods used to train different generations from trainer's perspective and how they are compared in their preference of computer and classroom-based training.

I present all the implications and contributions together in one section. I discuss contributions to organisational and generational studies. Also, practical contributions are discussed. The study limitations and recommendations for future research were also discussed. Finally, a conclusion is presented summarising the findings, implications, contribution, limitations of the current study and recommendations for future research.

Before proceeding to discuss the findings of the current study, it was necessary to remind the reader of the research questions which guided the study. This thesis set out to answer the following questions:

1. To what extent do trainees respond differently to training preferences and perceived effectiveness based on age/generational cohort?
2. To what extent do technology, communication and working relationships operate as mediators in the relationship between trainees' age/generation and their response to training?
3. To what degree do trainers train differently in anticipation of generational differences?
4. How do trainers manage the gap between generational cohorts in terms of technology, communication and working relationships in training?

5.2 Discussion of findings

5.2.1 Generational differences in preference and perceived effectiveness of classroom and computer-based training

The current study found that Baby Boomers are different from Generation X and Y in preference and perceived effectiveness of computer-based training. Surprisingly, no differences were found between Generation X and Y in the same factors. Also, the non-parametric Kruskal Wallis and Mann Whitney U analysis (Chapter 4, tables 10 and 11) showed no statistically significant differences between the three generations' preferences and perceived effectiveness of classroom-based training.

The body of literature examining generational differences in preference and perceived effectiveness of computer and classroom-based training is extremely limited and very few studies have examined generational differences in response to training in the workplace (Urlick, 2017). Similarly, Berge and Berge (2019, p.46) note, “specifically, regarding training and development, there is little or no empirical research regarding generational differences. More broadly, even though generational stereotypes are widely held, they are not supported by empirical research”. The findings of the current study are consistent with that of Urlick (2017), who concluded that the older generation has less technological proficiency in training initiatives (as perceived by them) than the younger generation, suggesting that technology in training may not be as effective. The results also corroborated the findings reached by Seipert and Baghurst (2017), who reported that the older generation (Baby Boomer) preferred trainer-centred settings as an alternative to decentralised technology-based training. However, the current study contrasted the conclusion of Farrell and Hurt (2014), who found that on the job training, whether it is based on technology or not, could appeal to the dynamic learning style of the Millennials employees. The current research provides a more comprehensive insight into generational differences in training preferences and perceived effectiveness compared with Urlick (2017) who examined only training preference of two generations (defined as older and younger generations), and Farrell and Hurt (2014) as they only examined training preference of the Millennial generation.

Interestingly, Urlick (2017) noted that although generational differences in technology-based training appear to be a common perception expressed by many workers of all ages, trainers should not be overenthusiastic in presuming that all young trainees prefer technology. This

suggestion is further reinforced by Jones (2012), who demonstrated that the younger generation in each cohort is a mixture of individuals with different characteristics. Therefore, it is possible that training preferences could be influenced by other factors, such as trainer's interaction with the trainees. As a result, by looking at the factors which affect trainees' perception and preference of training methods, it is possible that generational perceptions and preferences differed based on the training setting and by examining one type of training, for example (online or on the job) the different behaviour could have been ignored.

However, the current study contradicts the findings from Boysen, Daste and Northern (2016), who found that graduate medical education students from all generations were accepted and engaged with technology in training. In contrast, the findings of the organisational setting research reached mixed conclusions. Perhaps generational studies in the higher education settings are more focused on the learning and performance of their teachers, thus simplifying the exploration of differences between age groups. Whereas studies in an organisational context, including the current study, tended to be more focused on trainee's perception and preference of training instructions. Although the volume of research is limited, perhaps the concept of generations in educational studies differs from other types of generational studies in the workplace, resulting in different findings.

Although the body of literature into the differences between generational cohorts in preference and perceived effectiveness of computer and classroom-based training is limited, one study by Stapleton et al. (2007) examined generational differences of students' perceptions about online learning systems, they found no significant differences between Millennials and the other two generations (Baby Boomer and Generation X) regarding perceived learning toward online learning systems. This result may be explained by the fact that differences between generational perceptions related to contributing factors learning effectiveness did not appear in the differences in overall quality perceptions. For example, given that students had sufficient contact with colleagues and instructors, and the course used suitable technology, their observed behaviours were not affected, and overall perceived learning did not reflect intergenerational differences. That is, Millennials and other generations believe that online learning programmes are not only a matter of technological factors; better technology does not mean better learning.

Another possible explanation of the inconsistent findings in the literature could be due to the potential effect of unexplored mediating or moderating variables, which could affect the

relationship between age/generation and training and the need of additional examination on the mechanism through which generational membership are associated with training preference and perceived effectiveness.

In the next section, I will discuss the findings of the current empirical research on the mediating effect of technology, communication and working relationships on the relationship between generational membership and the preference and perceived effectiveness of computer and classroom-based training.

5.2.2 Mediating role of technology, communication and working relationships

Addressing the second research question, I directly explore the mediating effect of technology, communication and working relationships factors on the relationship between a trainee's age/generation and preference and perceived effectiveness of computer and classroom-based training. The current research responds to Lyons and Kuron (2014) call for further theoretical research to explore mediators and moderators in the relationship between generation and work-related variables, providing insight into the dynamics of each factor and components in the above-mentioned relationship.

5.2.2.1 A mediating role of technology

The results from the serial mediation models (see Chapter 4, tables 18,19,20 and 21) computed using Hayes and Preacher (2008) bootstrap approach showed that the effect of technology was best mediated through the combination of its four components; perceived ease of use, usefulness, attitude toward using and behavioural intention to use. From a theoretical standpoint, this suggests that technology is a complex process that relies on behavioural assessments and components with perceived levels of use. In addition, the current results showed that age is an essential factor that influences technology adoption in training settings. When explained in the current research context, the results indicate that using technology in terms of features and designs can improve trainee's perception of usefulness, ease of use, behaviour and attitude equally toward computer and classroom training.

The results of the current study are in accord with a study by Turner (2015), who found that including certain types of technology in training were more engaging to specific generations. Although Turner's (2015) findings were more focused on the difference between generations

in technology use in training interventions, the attention of my study was more focused on the impact of technology as a mediating variable on the relationship between generations and training. However, the findings of the current study are contrary to previous studies, which have suggested that age would not improve the explanatory power of the technology acceptance model (TAM) (Davis, 1989) when included as a mediating factor (Chung et al., 2010).

Notably, little attention has been given to the effect of age/generation on TAM (Sun and Zhang, 2006). While studies for example (Porter and Donthu, 2006) indicate its vital role in decisions about technology adoption, other researchers (e.g., Paul and Stegbauer, 2005) have emphasised the risk of a growing digital divide between generations. Consequently, using TAM as a mediator of age, the current study highlights generational differences in preferences and perceptions of classroom and computer-based training, emphasising possibly different perceptions for trainees' preferences and effectiveness in training by different generations.

Overall, the findings of the current study are consistent with Boysen et al. (2016), who found that including technology in instruction was valued by all generations. Also, they were accepting and engaged with technologies used during training. Similarly, these results are in line with Dutot and Safraou's (2012) study, which found that different generations have a different level of awareness towards technology. These results are likely to explain the importance of such a factor in understanding how technological components mediate the effect of age (generational cohort membership) on the training intervention in both classroom and computer-based training.

Another possible explanation of the results that over the past 20 years all generations have become more familiar with technology (Dutot, 2014) and generational characteristics, dispositions and beliefs toward technology would not affect the way they perceived their learning preference nor their effectiveness. Whether a digital gap exists or not, technology plays a significant role in influencing their response to training. In other words, both 'digital natives' and 'digital immigrants' (Prensky, 2001) see technologies as a critical influencer of preference and effectiveness of training.

5.2.2.2 *A mediating role of communication*

The results of the mediation model of communication non-accommodation construct (see Chapter 4, Table 22) showed a significant mediation effect when testing for mediation in the relationship between age/generation and preferences of both computer and classroom-based training (but not training perceived effectiveness). Contrary to expectations, the nonparametric Spearman rank correlation regression (Spearman, 1904) (see Chapter 4, table 16) showed no correlation between communication accommodation, communication avoidance constructs, and both training preference and perceived effectiveness. Hence, the mediators did not meet the prerequisite conditions for mediation analyses for two of the outcome components. Further, the analysis of the bootstrap approach (see Appendix 3, Table 1 and 2) confirmed the results of Spearman correlation, which showed non-significant mediation effects of communication accommodation and communication avoidance components on the relationship between age/generations and preference and perceived effectiveness of computer and classroom-based training.

Perhaps surprisingly, no research has considered the role of CAT in affecting trainees (of different age groups/generations) preference and perception of training effectiveness. Based on the current study's context, the findings showed that non-accommodating interaction between trainees and trainers from different cohorts affects trainees' preferences more than accommodating or avoiding interaction. Hence, it suggests that non-accommodation interaction is possibly a general approach to sustaining outgroup communication, which ultimately reduces or eliminates the communication gap.

The results support the findings reached by McCann and Giles (2006), who showed a difference in perceived non-accommodation interaction from younger workers about their older colleagues, hence, younger employees believed that older co-workers were less accommodating in their interaction. In accordance with the present results, a previous study by Giles, et al., (2010) also has demonstrated that communications differ among employees of different age groups and generations, the study also found that younger workers were more likely to indicate using non-accommodation communication with their older managers and colleagues. These results corroborate Zhang and Lin's (2009) ideas, who found criticism as a commonly reported non-accommodation communication pattern among older workers.

A possible explanation of the results is that non-accommodation might be described by a variety of perceived behaviours, such as overaccommodation and under accommodation (Giles et al., 2007). Giles and Gasiorek (2011) described over-accommodation or so-called "elderspeak" as an overly simplified dialogue in communications with older adults. However, it is important to mention that under accommodation is usually appraised in a more negative way than overaccommodation in comparable conditions. Accordingly, there is a possibility for an intersection between these two forms of non-accommodation: dialogue that is empirically divergent (regarding qualities for instance speed), similarly may also be an indication of a distancing (under accommodating) act. Nevertheless, in some situations, it could instead be acknowledged as accommodative. However, surprisingly, there is some indication that under accommodation is, in fact, more widespread for younger workers (Giles et al., 2007).

5.2.2.3 Mediating and moderating role of working relationships

The results of Spearman correlation analysis (Spearman, 1904) (see Chapter 4, Table 16) showed no correlation between generational membership and working relationships factor. Also, no correlation was found between working relationships and training preference nor perceived effectiveness. Furthermore, the bootstrap analysis results showed a non-significant moderating and mediating role of working relationships (measured using LMX distribution measure) on the relationship between generations and, training preference and perceived effectiveness. At a pronounced level, the negative association reported above indicates the absence of a relationship. A possible explanation of the results is that the variable, construct, or instrument may not be appropriate for studying this particular phenomenon.

Although LMX has been tested as mediator and moderator in the relationship between generational differences and work-related variables in past research (e.g., Zacher et al., 2011), no known empirical research has examined LMX as a mediator or moderator in the relationship between generational membership and training related outcomes. However, studies (e.g., Neubert, Wu, and Roberts, 2013) highlighted the importance of specific leader behaviours and their effect on the quality of the relationship that managers can form with their subordinates. For example, Baldwin and Magjuka (1997, cited in Kuvaas and Dysvik, 2010) suggest that managers' support may strongly affect the relationship between training expectations, engagement, and transfer of knowledge to the workplace.

In a recent study by Gupta, Bhal and Ansari (2019) examined the effect of age difference in the dyadic of leader-member on leader-member exchange (LMX), found that age might not determine their perception of the quality of LMX. However, there is much less information about the mediating role of LMX on age differences and trainees' training preferences.

Overall, less is known on specific aspects affecting the trainer-trainee relationships, as utilised in this study. The findings of this study showed that preferences and perceived effectiveness of online and computer based-training of different generations were not affected by the trainees'-trainers' relationships and thus confirmed that trainers (as perceived by the trainees) were not engaged in interpersonal relationships based solely on age. These results could also be attributed to the fact that preferences and perceived effectiveness of training programmes extend beyond the intergenerational differences. Therefore, relationships and exchanges between trainees and their trainers would not affect the training transfer nor related outcomes.

The next part of the chapter discusses the main findings which have emerged from the qualitative analysis of the interviews, which answers the third and fourth research questions.

5.2.3 Training in anticipation of generational differences

The analysis of the interviews showed that trainers and managers consider age as an essential factor among others (i.e., educational level and background), which could affect the design and delivery of training programmes in a multigenerational organisational context. The analysis showed that trainers utilise different methods of training depending on the background of their audience. For example, managers reported that using dialogue methods and WhatsApp groups can engage different generational trainees. However, others used a separation technique between age groups which enabled the trainers to deliver more focused training content based on different needs and preferences. These findings of the current study are in line with Urick and Hollensbe (2014) study, which showed differences in training preferences between generations and utilising a variety of arrangements responding to these preferences. However, the finding contradicts Urick, (2014) research in which he reported that even though trends occur, each individual within a generation is also an individual who might not fit their generation's prototypical preferences. Urick (2014) added that trainers offered different training methods as options for all employees, regardless of age.

5.2.4 Generational gap in technology, communication and working relationships

The analysis of the current study indicated that most of the trainers and managers agree that members of Generation Y prefer and expect using technology in their training as they are the youngest ones; they are more engaged in technology when compared to Generation X and Baby Boomers. These findings are consistent with that of Urick's (2017) study, who reported that training preferences might differ between different generations of workers. Also, "older generations tended to be less keen on formal instructor-led training approaches" (Urick 2017, p.56). The findings reported in this research also showed that generations communicate differently in training. The majority of the responses from trainers indicated that trainees from Generation X and Y prefer to communicate using online tools such as query dialogue boxes, e-mails and other messaging apps, while the trainees belonging to older generations preferred to communicate via telephone and face-to-face to get their queries resolved. The results also indicate that the working relationship (trainer-trainee relationship) is essential for their engagement in the training process. However, these findings contradict the findings of the quantitative results, which was reported earlier that trainees-trainers relationship did not affect how trainees perceived the methods used in training (computer and classroom-based training).

The findings also indicated that managers and trainers do not prefer to be involved in a personal relationship with any of the trainees, which could affect the process of knowledge transferee. In line with these findings, Granovetter (2005) state that trainers who are driven by leader-member exchange style are less likely to build a relationship with employees who only are interested in themselves because these individuals are not eager to offer anything in return, thereby leading to low-quality exchange relationships that cause less favourable outcomes to the worker and organisation. Still, some cultural issues (e.g., age and seniority respect) could affect their training approach. One important finding is that in a training setting, senior workers from the older generations require particular attention from trainers to influence other age groups in their engagement and training participation. Moreover, due to the respect for seniority in the Jordanian culture, Baby Boomers, on certain occasions, are treated in a superior manner in organisations and more precisely in training to the extent that they could choose exactly when to begin and when to end the training session. Overall, the current research findings provide a range of implications for organisations, HR managers and trainers.

The next section of the study follows on from the previous section, which outlines the implications of the findings. Since this research was performed in a practical context, it outlines possible strategic ideas which practitioners can implement to improve and develop training programmes in a multi-generational workplace.

5.3 Implication for policy and practice

The results of the current study support the idea that each generation has a different perception, preference and response to training. These differences could be attributed to differences in values, attitudes, perspectives and behaviours in the workplace (Strauss and Howe, 1991; Mannheim, 1952). According to Ort (2014), Baby Boomers, Generation X and Y have different training needs that should be met at the workplace. The current data highlight the importance of “carrying out activities and practices that complement employees’ generational preferences differences and similarities” (Wiedmer, 2015, p.51). The most prominent finding to emerge from the analysis is that Baby Boomer generation labelled as “digital immigrants” (Prensky, 2001, p.1) viewed the internet and computers as technologies that negatively affect business and productivity. Also, it is somewhat surprising that no differences were found between the three generations regarding perceived training effectiveness, as they emphasise their training effectiveness in-classroom training over online/computer-based training.

Regardless of the theoretical explanation for the fundamental reason for the observed differences, these outcomes have significant practical implications for the labour force and organisations. For instance, given the differences between Baby Boomer and Millennials workers, training programmes have to be structured, taking into consideration the needs of all age groups. An essential aspect of Millennial trainees is associated with instrumentality. Hence, the application of new technology, managers, leaders and trainers may wish to emphasise how new technology will help employees increase their productivity or attain more effective outcomes. In contrast, Baby Boomers, seem to be more affected by perceived behavioural control. Here, managers and trainers may wish to emphasise the ease of use of new technology in order to achieve participation and engagement from Baby Boomers employees who most probably are inherently sceptical about the application of new technology in training, thus, in the workplace.

The results of the current study have important implications in an era where organisations struggle to retain their senior expert workforce. Organisations that want to retain or attract older workers may need to provide training, which encourages them to use technology as a part of their daily work. In addition, the current study points out that for technology implementation and acceptability, age, actually, matters. Given the increase in technology adoption in organisations, it appears that technologies play such an essential role in mediating human relationships. These findings support previous research (Morris and Venkatesh, 2000; Angeline, 2011; Oh, and Reeves, 2014 Subramanian, 2017; Kim, 2018.), which has important implications for the process by which technology is introduced, utilised and managed within training in organisations. This research offers a crucial first step in understanding how technology could affect employee training perceived effectiveness and preferences in today's workforce. These results also have implications for the corporate world of older generations as the younger generation engages in more technologies in training and using electronic communication tools. Therefore, it is imperative to comprehend that the oldest generation may be less likely to be engaged in this sort of exchange within the training.

In light of recent events of COVID-19 pandemic, which forced many organisations around the globe to move to online and virtual workplaces, it is becoming essential for organisations to manage intergenerational communications and transfer knowledge efficiently (Urlick, 2019). According to Urlick (2020), when employees are not driven to communicate or work with others of different age groups, knowledge transfer will not occur, this, in turn, will affect organisation as they cannot continue to function and new knowledge is not added to the collective memory. Knowledge transferee in multigenerational settings could be supported by utilising two-way mentorship assisted by technology; employees should be asked to lead training surrounding ways to move online and facilitate work (Sprinkle and Urlick, 2018). Therefore, "it is important for managers to understand the potential generational perceptions that may impact the way age-diverse employees will work together" (Urlick, 2020, p.392).

Implications are drawn for the industry to retain the workforce using training strategies designed to meet the preferences and needs perceived by three generations inhabiting today's workplace. The current study suggests implications for organisational leaders who are trying to develop HRM strategies including training to engage quality workers from different generations in training initiatives resulting in improved effectiveness and, thus, higher productivity. The results of this research are supportive of the existing generational differences.

Although the literature has produced generous research regarding generational differences at the workplace, little attention has been given to the impact and implications of age diversity on policies. As the older generations are retiring, companies face some difficulties in retaining and training younger generations so they can effectively learn from their predecessors as both cohorts are part of the labour force. The academics and literature have come to differing conclusions regarding whether generational differences could lead to conflict and confusion and misunderstanding (McCann and Giles, 2006), whereas others see the positive effect of generational diversity on creativity and improved flexibility (Helyer and Lee, 2012, Jans, Postmes and Van der Zee, 2012; Siebert, 2008). The results of the present research showed that the older generation holds the edge at the workplace in terms of designing and planning the policies and procedures, as a consequence, have greater access to meaningful work and training opportunities which could be attributed to cultural values within the Jordanian society. Budhwar and Mellahi, (2006) noted that the respect of seniority and age is very strong among Jordanian people and is observable inside and outside the workplace. Such an issue has significant implications for the government and society at large. As policies and procedures are mainly developed and confirmed by the older workers, this suggests that there is still more work to be done before the younger generation will be engaged in such a process and perhaps, more generally, the Arab workforce. While behaviours, attitudes and values do not change easily, several strategies could be considered by the authorities to better understand the differences and similarities among the various generations encourage individuals of different generations to be active and contribute to society. For example, particular emphasis should be placed on the encouragement of younger people to join the labour market and to seek promotion within work, this could significantly contribute to the local economy. Moreover, government and public sectors should develop a network of individuals to act as support for young individuals' employees.

Additionally, all the differences detected are better explained by cohort, rather than age effect differences in training preferences and perspectives. More notably, the differences are statistically significant and in a practical context, the differences observed are too strong to be ignored and are most possibly to be interpreted as a "real" difference when used in a real-life setting. As a result, an implication of this study is to emphasise the importance for managers and HR specialists to attend to generational differences, offering a variety of training arrangements that respond to these different preferences.

5.4 Implications for Theories

The theoretical implications of the present thesis are discussed in two parts. First, the implications drawn regarding the theory of generation (Mannheim 1952), after that, the implications of the theoretical frameworks of technology acceptance model TAM (Davis, 1985), communication accommodation theory CAT (Giles, Taylor and Bourhis, 1973) and leader member exchange theory LMX (Dansereau Jr, Graen and Haga, 1975). Each section briefly reviews the concept and restates the gaps in the literature, then summaries the contributions made by the study.

Studies in the field of sociology has long investigated the notion of generation as a sociological phenomenon (see, for example, pilcher 1994). Although much of the research on the sociology of generations did not assign exact age boundaries to the changes of meanings associated to the notion, there is broad consensus that generation became a more urgent subject of investigation and obtained a markedly different reality than what was before the industrial society. The work of Karl Mannheim, particularly, provided a theoretical foundation for the later research of this phenomenon in the early 20th century. The generational sociology can offer useful understandings into the empirical research of the different generational cohorts' experience and participation with the historical setting in which people live, despite the fact that the challenges of such research have been extensively recognised, (see, for example, Pilcher 1994; Lyons et al., 2015).

Recent sociological theorists for example Alwin and McCammon (2007) have been more forthright about the significance of generational identity in identifying generations from birth cohorts; birth cohort combined with shared generational identities equals generation. This theoretical approach is unique because it also emphasises the significance of social identity constructs in generational work (Tajfel and Turner, 1979). The notion of generations is closely associated with social identity, Joshi et al., (2010) addressed this as part of a theoretical contribution to understand workplace generations. Essentially, Joshi et al., (2010) have proposed a definition of generational cohorts and by what means they effect interactions and behaviours within organisations.

I argue that generation should be viewed as a phenomenological process including the engagement of the individual with broader societal systems, which are all changeable across time. Generational cohorts should be understood within the historical and sociological context

in which they are presently positioned, rather than trying to separate the influence of age, time and cohort. This entails using a cross-sectional study to document the effects of the age and historical events on the emergence of generational cohort impacts across their larger social context. The aim of the current study is not to examine how different generations have been created as a social phenomenon, but to comprehend workplace behaviours of different generations, Implicit in the research question ‘to what extent do trainees respond differently to training based on age/ generation?

Prior study has revealed that training methods preference can differ between groups of individuals (Urlick, 2017). Yet, previous generational studies have mainly focused on training as a dependent factor without including mediators or moderators, concluding that learning characteristics tend to vary from generation to generation (for example Farrell and Hurt, 2014; Seipert and Baghurst, 2014; Riding and Rayner 2013). Lyons and Kuron (2014) reviewed the literature which examined generational differences in the workplace and concluded that future generational studies need to examine mediators and moderators in the relationship between generation and work-related variables along with a will need a greater consideration of context. The current study aimed to fill this gap and examine how training mediums such as classroom and computer-based training can influence preferences and perceived effectiveness of different generations as well as the factors which could explain the mechanism through which generational membership could be associated with training. The literature review demonstrated that only a few studies have examined potential generational differences in training, and all of them were carried out in the western context (see for example, Urlick, 2017; Farrell and Hurt, 2014; Seipert and Baghurst, 2014). Thus, the current research chose a different context – Middle Eastern economy – which have a unique social and cultural structures and aimed to explore in what way this unique setting effects training behaviours of different generations as well as to the variables which influence their choice of training.

The current thesis employs Technology Acceptance Model (TAM) (Davis, 1985) as a part of the study’s framework which examined generational differences in perceptions and intentions of technology use and the extent to which these differences could affect the design and delivery of workplace training. According to Chung et al., (2010) the TAM is composed of four key components: perceived ease of use, perceived usefulness, behavioural intention and actual use which explains and predicts how individuals adopt and use new technologies. Although much research has found that age plays a significant role in technology adoption decisions (e.g.,

Akhter, 2003; Porter and Donthu, 2006), and several studies have emphasised the risk of a growing digital divide between generations (e.g., Paul and Stegbauer, 2005), the influence of technology on age has received scant attention (Sun and Zhang, 2006). As a result, this study uses technology as a mediator to highlight age-related differences in perceptions of new technologies, underlining potentially differing needs for increasing engagement in training settings by different generations.

The results of this study provided new empirical insights into how the levels of technology use influence trainees from different age group training behaviour in a workplace environment. The results indicated that technology including its four constructs; perceived usefulness, perceived ease of use, behavioural intention to use and actual use within training settings affected trainees' preference and perceived effectiveness of computer and classroom-based training. Prior research exploring this area has been limited, with only a few studies investigating technology use in generational studies (i.e., Niehaves and Plattfaut, 2014; Chung et al., 2010). Sun and Zhang (2006) only in part examined age as a mediating factor which was found to have a significant impact on the future intention of technology adoption.

Chung et al. (2010) came to mixed findings, indicating that using age as a mediator would not increase the TAM's explanatory power. Therefore, the current research has expanded our knowledge by demonstrating how technology use in the training settings affect the relationship between generational membership and preferences and perceived effectiveness of computer and classroom-based training. Moreover, the results of the current project provided further support to the body of knowledge of how age influences trainees' technology adoption in the workplace.

The current study also contributed to our understanding of how different generation trainees communicate with their trainer in an outer-group perspective and whether these interactive methods affected the design and the delivery of training. In addition, by utilising communication accommodation theory (CAT) (Giles, Taylor and Bourhis, 1973), this research was able to examine the mediating effect of communication on the relationship between generational membership and training. According to Soliz and Giles (2015) CAT is characterised by a main extension of the focus from the two accommodation approaches of convergence and divergence to the entire course of communication in an ingroup and outgroup setting.

Prior studies that have studied CAT in an organisational setting had been conducted to examine communication between ethnic groups (Giles and Johnson, 1981), and between generations (Coupland, Coupland, and Giles, 1991; Williams and Nussbaum, 2001), while the current research has studied communication between generations in training settings. The testing of the theory in a new research setting delivered further generalisability to the body of knowledge. The results of the current study were in line with the findings reached by McCann and Giles (2006), showing differences in perceived non-accommodation interaction from younger workers about their older colleagues, and younger employees believed that older co-workers were less accommodating in their interaction, and those of Giles, et al., (2010), who showed that communications differ among employees of different age groups and generations, also showed that younger employees were more likely to indicate using non-accommodation communication with their older managers and colleagues. Another study has also found disapproval as a generally reported non-accommodation communication pattern among older employees (Zhang and Lin's, 2009). These consistencies in conclusions of different research with different settings and different samples enhances the validity and reliability of the results.

Furthermore, the results of this research provided further support for the role of communication components as mediators in the relationship between trainees' age (generation) and training preferences and perceived effectiveness. In specific, the results indicated that communication non-accommodation construct is necessary for a comprehensive understanding of the mechanisms behind trainees' training preference. Although no mediating effect was found for the other two constructs within communication (communication accommodation and avoidance), non-accommodation in some contexts it could be interpreted as overaccommodation and under accommodation (Giles et al., 2007). This finding was in line with Giles and Gasioerek's (2011) study who defined under accommodation as usually appraised in a more negative way than overaccommodation in comparable conditions, and thus it could be acknowledged as accommodative interaction (Giles et al., 2007).

Finally, leader member exchange LMX theory (Dansereau Jr, Graen and Haga, 1975) is based on notion that managers/leaders develop exclusive exchange relationships with each of their subordinates and that the development and maintenance of high-quality exchange relationships lead to organisational success (Graen and Uhl-Bien, 1995). Previous research showed that leader's behaviour could strongly affect the quality of the relationship that can be formed with

their employees (Neubert, Wu, and Roberts, 2013). The current thesis departs markedly from previous research in that it examined LMX as a mediator and moderator factor of the interactive effect of trainees age and training preference and perceived effectiveness. Although LMX has been tested as a mediator in the association between age/generation and work-related factors (e.g., Zacher et al., 2011), the results of the current study provided no evidence of the role of working relationships as a mediator or moderator in the association between generational membership and preferences and perceived effectiveness of training.

5.5 Limitations

Although this research sheds additional light on generational differences in training, it is not without its limitations. Thus, several important limitations need to be considered. First, with regard to the research methods, the present research employed a cross-sectional survey design as participants (trainees) were surveyed in a one-time. Some scholars (e.g., Twenge et al., 2010; Krahn and Galambos, 2014) have recommended longitudinal methods as time-lag and sequential longitudinal designs which offer better insights into generational change over time. Other researchers (e.g., Campbell et al., 2015) recommended two methods for measuring generational differences. First, comparing generations can be done using a cross-sectional survey design on any factor at one point in time. For instance, comparing Generation X (individuals born between 1961 and 1980) and Millennials (individuals born between 1981 and 2000) to determine a difference between them. The second method is using a cross-temporal approach to compare samples of the same age participants within generations at different periods. Cross-temporal approach (see Twenge, 2001) is a method which allows for an immediate investigation of age and cohort effects and thus allow researchers to examine age differences while controlling for birth cohort and explore birth cohort differences within age groups. however, due to the limited resources, it was not viable to conduct a panel or longitudinal study. Although cross-sectional data capture both age and cohort variance, the cross-temporal approach is preferred because it controls for age effect.

Another issue that needs to be acknowledged in terms of the methodological limitations was related to the research design. A mixed method approach was adopted, which was viewed as complementary to each other. However, this approach was used to collect data from two separate samples by interviewing trainers and managers and surveying trainees from the same population. As discussed in section 3.7 (chapter 3), it was not viable to survey trainers and managers as the sample was considered small in number and would not allow generalisations.

In addition, the findings were unlikely to represent members of each generation. Moreover, it was not possible to conduct interviews with trainees as it was difficult to gain access and contact them individually and a large sample was required to analyse the association in patterns between different generation trainees. Despite these limitations, the current study was able to produce interesting and reliable findings.

Additionally, the generalisability of the qualitative results is subject to certain limitations. For instance, the study employed a qualitative exploratory design by interviewing trainers and managers from the sampled companies. As a deductive case study, the results are not generalisable to other individuals. However, the findings can be associated with other conclusions on the subject under investigation. Moreover, the findings of this study could be beneficial to trainers and managers within other types of organisations with a multigenerational workforce. In addition, the current study sampled employees (trainees, trainers and managers) from the three Jordanian telecommunication companies across all departments, thus, it will not be suitable to generalise the findings to populations outside these three organisations.

Although generational studies often include other generational cohorts, such as Traditionalists also called “Silent Generation” (individuals born before the year 1945) (Lyons and Kuron, 2014, p.142), this research did not include this cohort due to the limited number of employees and managers in this generation both in the study sample as well as the Jordanian workforce. The current study also did not include Generation Z (born after 2001) due to the limited studies on this generational group, especially regarding their training behaviour and, more precisely, their preference and perception of online and classroom-based training in the organisational context. Also, this cohort who were 18 years old in 2019 has recently entered the workforce, and research on their workplace characteristics is scarce. Consequently, this generation is mostly unidentified.

An important limitation that needs to be considered is the training methods of computer vs. classroom-based that have been compared in this study. Although the current study addresses Sprinkle and Urick (2018) call for a more generational study investigating individualised, non-technology-based training, other types of non-technology training were not included, such as case study, behaviour modelling, role-playing and business games; their examination should be addressed in future generational research.

Finally, because of the integrative nature of the study, it was imperative to adopt multiple frameworks represented by different theories for the advancement of the subject. Although the study has successfully demonstrated the association between different variables, the integration of multiple theories can generate conflicting predictions and findings. Technology acceptance model (TAM) (Davies, 1989), communication accommodation theory (CAT) (Giles, Taylor and Bourhis, 1973) and leader-member exchange theory (LMX) (Dansereau Jr, Graen and Haga, 1975) were integrated to explore trainees' and trainers' perception toward training preference and perceived effectiveness and to examine the factors which influence training behaviour. Moreover, combining these frameworks helped better understand the mechanism through which generational membership is affected by technology communication and working relationships, which could influence trainees' training behaviours.

5.6 Future research

The methodology, findings and implications of the current study provide several recommendations for future research. This study aimed to explore generational differences between Baby Boomer, Generation X and Y in terms of design and delivery of T&D programmes within the Jordanian telecommunication sector. Further research should be done to examine generational differences at other businesses and sectors such as the manufacturing, production and tourism industry to determine if the findings of the current research can be generalised to other industries. Studies of other sectors and contexts possibly will produce further valuable information. More research could be conducted to compare the findings of this research with other businesses to help solidify if generations respond differently to traditional and computer-based training.

The evidence presented in this study suggests that some significant generational differences in training behaviours do exist. Nevertheless, further extensive research is needed to investigate these tendencies more closely. In specific, future research should move beyond a one-time frame for collecting data. Using time-lag or longitudinal design studies of the same individuals as they grow older could be conducted. Additionally, a comparison is required between the two methods to comprehend whether differences in training are due to age or to generational effect. A panel study would indicate if there were generational differences in training behaviours and whether preferences and perceptions of training effectiveness vary as trainees age. Also, it is interesting to understand whether individuals (trainees) change their preference and perceived

effectiveness of classroom vs. computer-based training as they progress through their careers. For example, do Baby Boomers always prefer to learn through traditional methods, even with the increased use of technology?

Another possible direction for future research includes exploring individuals within a single generation (e.g., Millennials); gender considerations are another possibility for study. For instance, to examine whether Millennial females have similar preferences and perceptions of training effectiveness to Millennial males. Indeed, it is not possible to apply the same reasoning to other demographic factors. For example, should we neglect gender as a demographic basis for individual and generational differences since it is not possible to demonstrate that all females are exposed to the same environmental effects? The general knowledge of gender and other demographic factors (i.e., ethnicity and race) has progressed over time to become more subtlety and comprehensive.

A natural progression of this work is to consider a qualitative investigation of trainee's perception and behaviour toward computer and classroom-based training. Using a qualitative grounded theory approach (Strauss and Corbin, 1998) could be beneficial for areas of study where limited theory is existing. As this research can be considered a starting point model development, future study is needed to expand the current model to build a theory that explains the studied empirical phenomenon.

Finally, like many other parts of everyday life, COVID-19 pandemic has affected employees, managers, and organisations around the globe, organisations had to change the way they deliver and design training programmes and move to online and virtual sittings. Although computer-based and online training provide alternative methods to traditional training of transferring knowledge and skills, it could not completely replace conventional learning. In this regard, further investigations are needed to identify the potential use of online training among different generations and explore the obstacles they face while engaging with virtual workplaces and find ways to overcome these problems. COVID-19 pandemic may be similar to potential future crises. Therefore, researchers will need to determine what we can learn from this pandemic to improve future T&D interventions.

5.7 Conclusion

On the whole, this study set out to examine generational differences from trainees' and trainers' perspective of the design and delivery of training and development activities within the Jordanian telecommunication sector. The study has shown that Baby Boomers are different from Generation X and Y in preference and perceived effectiveness of computer-based training. However, there were no differences between Generation X and Y in the same factors. The study has also shown that there were no statistically significant differences between the three generations in preferences nor perceived effectiveness of classroom-based training. The second major finding was that the effect of technology, including its four components (perceived ease of use, usefulness, attitude toward using, and behavioural intention to use), was best mediated the relationship between generational cohort and training preference and perceived effectiveness. Also, the findings have shown a significant mediation effect of communication non-accommodation when testing for mediation in the relationship between age/generation and preferences of both computer and classroom-based training (but not training perceived effectiveness).

Moreover, the most prominent finding to emerge from this study is that no correlation has been found between working relationships variable and preference, or perceived effectiveness of training. The results also have shown that the working relationships has no significant mediating nor moderating effect on the relationship between age and training preference and perceived effectiveness. Finally, the qualitative investigation has confirmed that age is an essential factor that trainers and managers should consider when designing and delivering training programs in an age-diverse organisational context. Additionally, this study has identified several essential strategies and approaches which help trainers and managers to reduce the generational gaps in terms of technology, communication and working relationships in a training context.

The evidence from this study has shown that some significant generational differences in training attitudes do exist and that generations have a different perception and preference for training. These differences could be attributed to differences in values, attitudes, perspectives and behaviours in the workplace (Strauss and Howe, 1991). Moreover, each generation has different training needs that should be met at the workplace. Another implication of this research is to emphasise the importance for managers and HR specialists to attend to generational differences, offering a variety of training arrangements that responds to these

different preferences. This research suggests that the differences detected are better explained by cohort, rather than age effect. Some differences are statistically significant and in a practical context, the differences observed are too strong to be ignored and are most possibly interpreted as a “real” difference when used in a real-life setting.

This thesis provided a more in-depth insight into differences between generations in terms of their response to training. More specifically, their preference and perceived effectiveness of classroom versus computer-based training within the Jordanian context. Additionally, this study provides the first analysis of the mechanism through which generations are associated with training preference and perceived effectiveness, which examines three mediating training-related factors: technology, communication and working relationships. The current research responded to Lyons and Kuron (2014) call for more qualitative research on generational differences in work-related variables. Accordingly, this study has gone some way towards enhancing our understanding of the trainer’s perception of the methods used to train a multigenerational workforce in anticipation of generational differences. Finally, the findings of this research contribute in several ways to our understanding of the strategies used by trainers and managers to manage the gap between different generations in terms of technology, communication and working relationships in training and provide a basis for further research.

The most important limitation lies in the fact that the current research used a cross-sectional design. Although cross-sectional data capture both age and cohort variance, cross-temporal or longitudinal approach is preferred because it controls for age effects, which could determine if aging and experience account for the differences. Additionally, the generalisability of these findings is limited as this research employed a qualitative exploratory design by interviewing only trainers and managers from the sampled companies and thus, the results are not generalisable to other individuals. Moreover, this research sampled employees (trainees, trainers and managers) across all departments of the three operating telecommunication companies in Jordan, thus it will not be suitable to generalise the findings to populations outside these three organisations. Finally, the current study also did not include Generation Z (individuals born after 2001). This generation have recently entered the workforce and research on their characteristics and training behaviour in the workplace is very scarce.

This research has thrown up several questions in need of further investigation. For example, future research should be done to examine generational differences at other businesses and

sectors to determine if the findings can be generalised to other industries. Future studies should also move beyond the one-time frame for collecting data; using time-lag or longitudinal design studies of the same individuals as they age could reveal whether individuals change their training preferences and perceived effectiveness as they progress through their careers. Lastly, gender considerations are another possibility for future study; should we neglect gender as a demographic basis for individual and generational differences since it is not possible to demonstrate that all females are exposed to the same environmental effects?

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Appendix 1

Interviewees personal information

Pseudonym	Age/Generation	Job Title	Educational Background	Experience as a Trainer	Type of
FR	Born in 1983/Y	Quality and Training manager	Graduate in business administration	7 years	External
AS	38 years/X cohort	Head of I.T Department.	Bachelor's in computer science	3 years	Internal and External
HK	Born in 1984/Y or millennials	Monitoring and evaluation manager	B.A. in English literature/ Masters in translation	3 years	Internal and External
JM	Born in 1985/Y	Learning and development senior	MBA	5 Years	Internal
MZ (1)	45 years/X cohort	Head of quality assurance	Master's in industrial engineering	7 years	Internal and External
RA	1982/Y or millennials	Organization development manager	M.A. in business management	14 years	Internal
ZH	40/X cohort	Employment manager	Bachelor's in business administration	10 years	Internal and External
MZ (2)	64/Baby Boomer	Programming manager	Masters in technical education	31 years	Internal and External

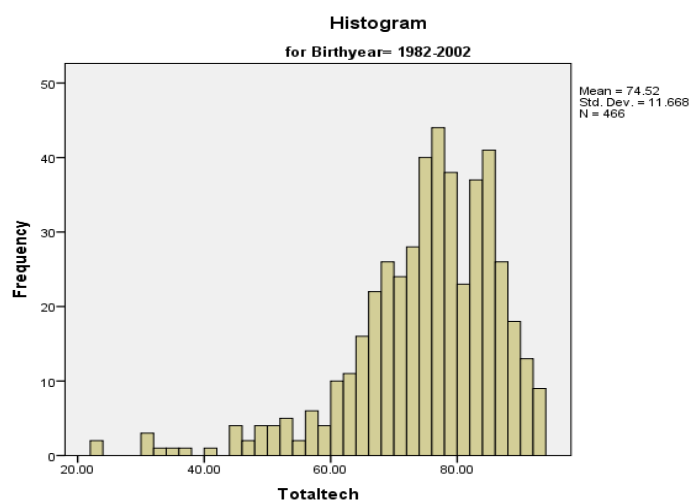
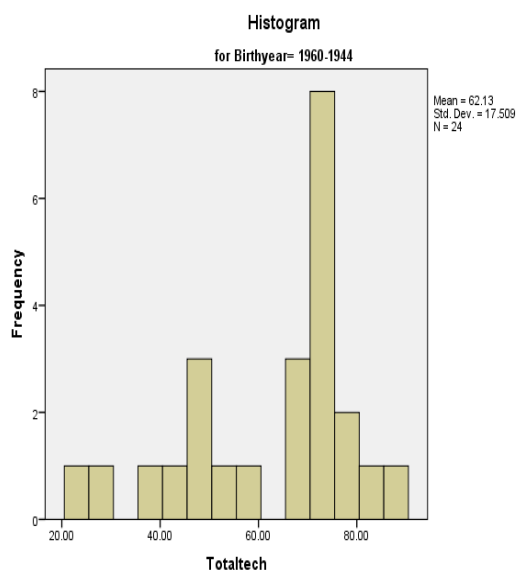
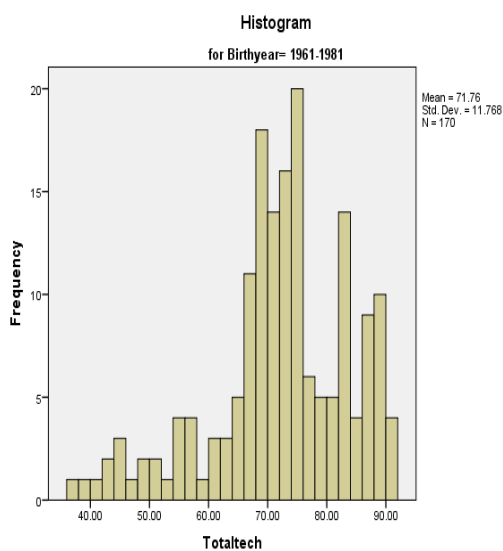
MJ	1987/Y cohort	IT senior manager	Master's computer science	in 7 Years	Internal and External
HA	47 years/X cohort	HR consultant	Master's HRM	in 9 years	Internal
ZM	1984/Y Millennial	or Organisation training and development manager	M.A. business management	in 12 years	Internal and External
TK	47/X cohort	Employment assistant manager	MBA	8 years	Internal
OS	63/Baby Boomer	Programming manager	Master's management information system	in 25 years	Internal and External

Appendix 2

Results of Shapiro-Wilk Normality test of Technology factor

Kolmogorov -Smirnov ^a	Kolmogorov -Smirnov ^a	Kolmogorov -Smirnov ^a	Shapiro -Wilk	Shapiro -Wilk	Shapiro -Wilk	Shapiro -Wilk
Birthyear	Statistic	df	Sig.	Statistic	df	Sig.
1960-1944	.235	24	.001	.896	24	.017
1961-1981	.113	170	.000	.946	170	.000
1982-2002	.103	466	.000	.915	466	.000

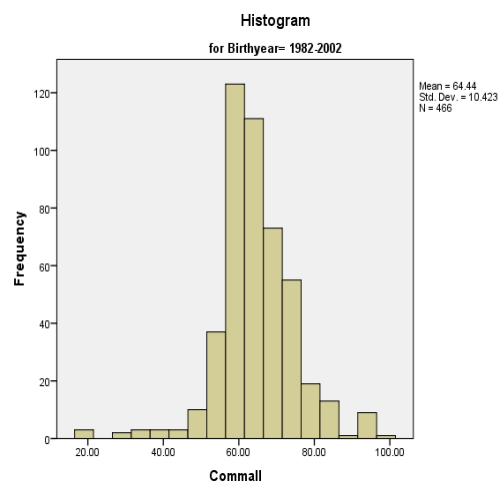
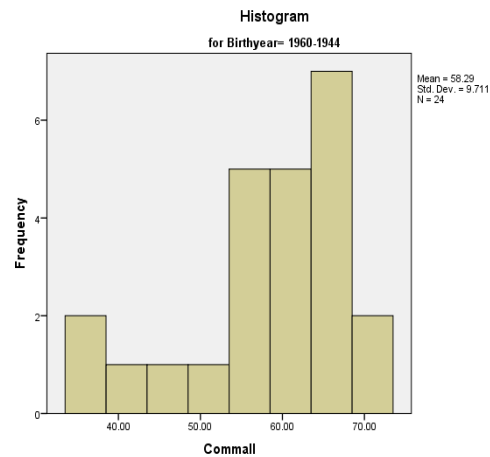
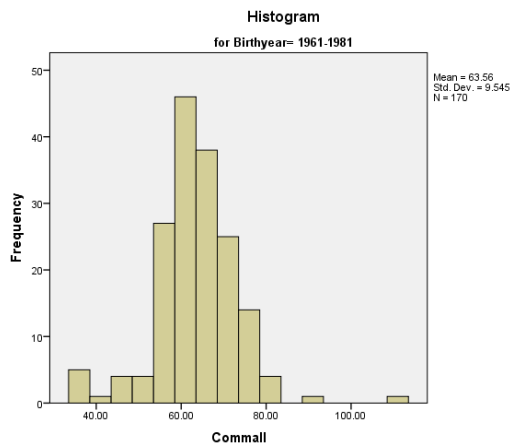
a. Lilliefors Significance Correction



Results of Shapiro-Wilk Normality test of Communication factor.

Kolmogoro v-Smirnov ^a	Kolmogoro v-Smirnov ^a	Kolmogoro v-Smirnov ^a	Kolmogoro v-Smirnov ^a	Shapiro -Wilk	Shapiro -Wilk	Shapiro -Wilk
Birthyear	Statistic	df	Sig.	Statistic	df	Sig.
1960-1944	.198	24	.015	.884	24	.010
1961-1981	.087	170	.003	.931	170	.000
1982-2002	.108	466	.000	.937	466	.000

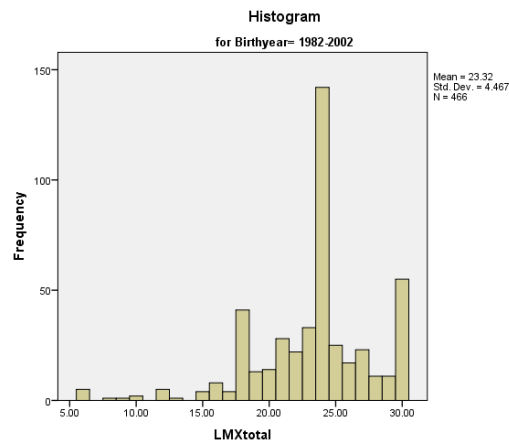
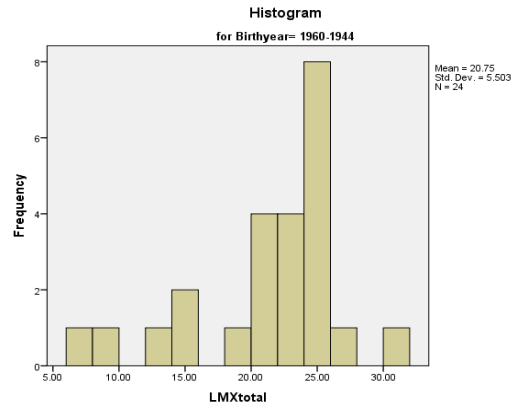
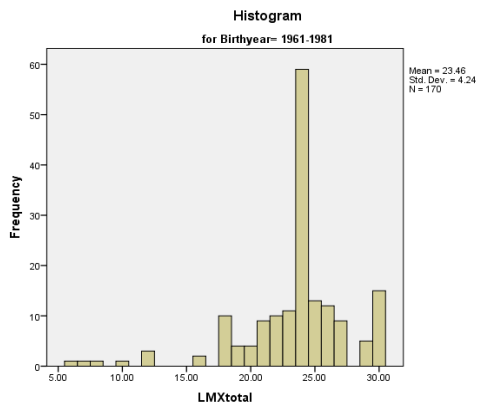
a. Lilliefors Significance Correction



Results of Shapiro-Wilk Normality test of Working relationships factor.

Kolmogoro v-Smirnov^a	Kolmogoro v-Smirnov^a	Kolmogoro v-Smirnov^a	Kolmogoro v-Smirnov^a	Shapiro -Wilk	Shapiro -Wilk	Shapiro -Wilk
Birthyear	Statistic	df	Sig.	Statistic	df	Sig.
1960-1944	.196	24	.018	.871	24	.005
1961-1981	.215	170	.000	.863	170	.000
1982-2002	.170	466	.000	.913	466	.000

a. Lilliefors Significance Correction



Appendix 3

Bootstrap results of Communication Accommodation (CA) and Avoidance Communication (AC) constructs

Table 1 OUTCOME VARIABLE: Comm CA

Model Summary						
R	R-sq	MSE	F	df1	df2	p
.0351	.0012	21.9206	.8120	1.0000	658.0000	.3679

	coeff	se	t	p	LLCI	ULCI
constant	21.8415	1.2470	17.5159	.0000	19.3930	24.2900
Birthyear	.3029	.3361	.9011	.3679	-.3572	.9630

Table 2 OUTCOME VARIABLE: Comm AC

R	R-sq	MSE	F	df1	df2	p
.0537	.0029	36.0237	1.9064	1.0000	658.0000	.1678

	coeff	se	t	p	LLCI	ULCI
constant	27.9378	1.5985	17.4772	.0000	24.7990	31.0766
Birthyea	.5950	.4309	1.3807	.1678	-.2512	1.4411

Appendix 4

Interview questions

Section A: Background Questions

1. How old are you?
2. What is your job title?
3. What is your educational background?
4. How many years have you been employed as a trainer in your current organisation?
5. Are you an external or internal trainer?

Section B: Discussion Questions

Theme1: Training and development effectiveness and preferences

1. Can you tell me about generational differences/similarities in training? And where are these differences being noticeable?
2. Can you describe what kind of training methods that you use to train workers from different generations?
3. Could you tell me about the differences and or similarities between generational cohorts regarding their training outcomes?

4.

5. Theme2: Technology

1. Could you tell me about the differences or similarities between generations regarding technology use in training?
2. Can you give me an example of how different generations respond to technology in training? And to what extent they are comfortable with technology? For example (e-mail, IM, digital calendars and video conferencing)?
3. Could you describe how the presence of technology in training affects the performance of different generation trainees?

Theme3: Communication

1. Could you describe how different generations prefer to communicate in training?
2. Could you describe how trainers manage the gap between different generations regarding their communication preferences in training?

3. Could you tell me about the strategies that trainers use which can be implemented to remove communication barriers between trainers and trainees of a different generation?

Theme4: Working relationship (trainer trainee relationship)

1. To the best of your knowledge, could you describe your interpersonal relationship with trainees and how it affects their engagement in the training?
2. How does the behaviours of trainers contribute to the engagement of different generational cohorts in training?
3. What skills do trainer's need to be prepared to deal with differences between generations?

Appendix 5

Employee Survey Questionnaire

This survey has been designed to evaluate how different generational cohorts experience training and development at work. As such, you will be asked questions about several related themes such as training effectiveness, preferences, technology use, communication style and working relationships.

Please note there are no right or wrong answers; respond sincerely according to your own experience and opinions.

By completing this survey, you will be helping the researcher gather a better understanding of how to improve the design and delivery of training and development at work to better suit different generations values and needs.

The study is being conducted by Rany Abu Eitah, a PhD student attending Anglia Ruskin University Cambridge UK.

Thank you for your time and cooperation.

Please do not write your name or any identifying marks on the survey. Participation in the survey is on a voluntary basis and the information you provide will be kept completely confidential, your manager or colleagues will not know if you participated and cannot identify your data. The data provided will only be analysed globally and a general report will be shared with the whole of the organisation. and only a description of the group as a whole will be reported. Any concerns can be communicated to Rany Abu Eitah, at Rany.abu-eitah@student.anglia.co.uk.

☐ I am aware that participation is voluntary and confidential. I am consenting to participate.

Background information

Directions: Please place an “X” in the appropriate box that best describes you.

1. Indicate your gender:

☐ 1. Male

☐ 2. Female

2. Indicate the year range in which you were born:

- ☐ 1. Born in 1943 or earlier Traditionalists
- ☐ 2. 1944 – 1960 Baby Boomers
- ☐ 3. 1961 – 1981 Generation X
- ☐ 4. 1982 – 2001 Generation Y/ Millennials
- ☐ 5. 2002 or later Generation Z

3. Are you Jordanian?

- ☐ 1. Yes
- ☐ 2. No

4. Indicate the highest level of education you have completed:

- ☐ 1. Did not complete High School
- ☐ 2. High School Diploma
- ☐ 3. Bachelor's Degree
- ☐ 4. Master's Degree
- ☐ 5. PhD; DBA; Professional Degree

5. Indicate how long you have been working at your current place of employment:

- ☐ 1. Less than 1 year
 - ☐ 2. 1 year - 5 years
 - ☐ 3. 6 years – 10 years
 - ☐ 4. 11 years – 15 years
 - ☐ 5. More than 16 years

6. Indicate your position at your current job:

- ☐ 1. Top-level/Senior management level; CEO; CFO; COO.
- ☐ 2. Director.
- ☐ 3. Manager; Department head.
- ☐ 4. Supervisor; Front-line manager.
- ☐ 5. Not in a supervisory position; Team member.

7. Have you had any (on-the-job /of-the-job) training in your current organisation? If yes, please indicate how many.

☐ 1. Yes

☐ 2. No

Number of training course/s

8. Are you a coach, corporate trainer or training consultant?

☐ 1. Yes

☐ 2. No

Training and Development

Please answer the questions below reflecting on your experiences in relation to training and development at work.

To each statement presented, indicate your level of agreement placing an 'X' on the corresponding column on a scale from 1 (strongly disagree) to 5 (strongly agree)

no	Training preference and effectiveness Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	Learning is more effective in an online environment with an instructor.	1	2	3	4	5
2.	Learning is more effective with an instructor in a classroom environment.	1	2	3	4	5
3.	Computer-based or web-based training enhances my effectiveness to learn.	1	2	3	4	5
4.	Instructor-based training enhances my learning rather than computer-based training.	1	2	3	4	5
5.	Learning in an instructor-led classroom is more effective than	1	2	3	4	5

	web-based or computer-based training					
6.	Web-based training is more effective than instructor-based classroom training.	1	2	3	4	5
7.	Instructor-based classroom training is more effective, because I can interact with the instructor and colleagues.	1	2	3	4	5
8.	Online learning is an effective way to motivate me to learn.	1	2	3	4	5
9.	Online learning is an effective way for me to retain important information and facts.	1	2	3	4	5
10.	Online instructor-led training makes learning more effective.	1	2	3	4	5
11.	I prefer taking courses through the computer.	1	2	3	4	5
12.	I prefer learning online or through computer-based training rather than a residence classroom environment.	1	2	3	4	5
13.	I prefer traveling to a resident classroom-based course out of town than taking an online course from my office or home.	1	2	3	4	5
14.	I prefer having more online courses available to use as initial training or refresher training in basic occupational processes and procedures.	1	2	3	4	5
15.	I would prefer taking a scheduled, web-based online	1	2	3	4	5

	course where I interact with other colleagues and an instructor through the computer.					
16.	I would prefer taking a self-paced computer-delivered course where I do not have contact with other colleagues or an instructor through the computer.	1	2	3	4	5
17.	I would prefer taking an online course where I have to complete assignments and post them to the instructor through the computer.	1	2	3	4	5
18.	I would prefer taking an online course for personal satisfaction and enjoyment.	1	2	3	4	5
19.	My experience/level of comfort with using computers in general is strong.	1	2	3	4	5
20.	I think learning through the computer is a frustrating process.	1	2	3	4	5

Technology in Training

Please answer the questions below that relate to your perception of the use of technology in training and development.

To each statement presented, indicate your level of agreement placing an 'X' on the corresponding column on a scale from 1 (strongly disagree) to 5 (strongly agree).

Technology acceptance items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. Using the technology can enable me to accomplish tasks more quickly.	1	2	3	4	5

2. Using the technology can improve my performance.	1	2	3	4	5
3. Using the technology can make it easier to do tasks.	1	2	3	4	5
4. Using the technology can increase my productivity.	1	2	3	4	5
5. Using the technology can enhance my effectiveness.	1	2	3	4	5
6. I find the technology useful.	1	2	3	4	5
7. Learning to use the latest technology is easy for me.	1	2	3	4	5
8. I find it easy to get what I need by using the technology.	1	2	3	4	5
9. I can interact with the technology.	1	2	3	4	5
10. I find the technology to be fixable to interact with.	1	2	3	4	5
11. It is easy for me to become skilful at using technology.	1	2	3	4	5
12. I find the technology easy to use.	1	2	3	4	5
13. I have fun interacting with the technology.	1	2	3	4	5
14. Using the technology provides me with a lot of enjoyment.	1	2	3	4	5
15. I enjoy using the technology.	1	2	3	4	5
16. Using the technology bores, me.	1	2	3	4	5
17. Use the technology whenever there is a feature to help.	1	2	3	4	5
18. Use the technology in as many cases/opportunities as possible.	1	2	3	4	5

19. Will continue to use the technology in the future.	1	2	3	4	5
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Source: Technology acceptance model (TAM) scale (Amoroso.D.L, and Hunsinger,DS, 2009).

A Communication and Relationships Perspective within Training

Please answer the questions below reflecting on your own communication and relationship experience with your trainer from a different generational cohort as to yourself.

Please place an “X” on the generational group, that is different than your own, you are thinking about as you are answering the questions (Please place an “X” in the appropriate box)

- ☐ 1. Trainer. born in 1943 or earlier.
- ☐ 2. Trainer born between the years 1944 -1960.
- ☐ 3. Trainer born between the years 1961-1981.
- ☐ 4. Trainer born between the years 1982 - 2002.

Note: Age calculation of each generational cohort is based on the year 2019.

To each statement presented, indicate your level of agreement placing an ‘X’ on the corresponding column on a scale from 1 (strongly disagree) to 5 (strongly agree)

no	Communication accommodation items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	They were supportive	1	2	3	4	5
2.	They were helpful	1	2	3	4	5
3.	They gave useful advice	1	2	3	4	5
4.	They complimented me	1	2	3	4	5
5.	They had kind words for me	1	2	3	4	5
6.	They were considerate	1	2	3	4	5
7.	They ordered me to do things	1	2	3	4	5
8.	They acted superior to me	1	2	3	4	5
9.	They talked as if they knew more than me	1	2	3	4	5

10.	They spoke as if they were better than me	1	2	3	4	5
11.	I spoke in a respectful manner	1	2	3	4	5
12.	I felt obliged to be polite	1	2	3	4	5
13.	I spoke in a polite way	1	2	3	4	5
14.	I did not criticize them	1	2	3	4	5
15.	I waited until asked to speak	1	2	3	4	5
16.	I avoided certain topics	1	2	3	4	5
17.	I remained silent if my opinion conflicted with theirs	1	2	3	4	5
18.	I held back my opinions	1	2	3	4	5
19.	I restrained myself from arguing with them	1	2	3	4	5

Source: communication with people from different ages in the workplace Thai and American data (McCann, and Giles, 2006).

no	Leader-member exchange items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1.	My trainer is satisfied with my work in training.	1	2	3	4	5
2.	My trainer would help me with my training problem.	1	2	3	4	5
3.	My trainer has confidence in my ideas in training.	1	2	3	4	5
4.	My trainer has trust that I would carry my training load.	1	2	3	4	5
5.	My trainer has respect for my capabilities within training.	1	2	3	4	5
6.	I have an excellent working relationship with my trainer.	1	2	3	4	5

Source: Leadership-motivated excellence theory: an extension of LMX. (Graen and Schiemann 2012)

Appendix 6

Participant Consent Form

NAME OF PARTICIPANT:

Title of the project: Exploring the effect of generational differences on training and development within the Jordanian telecommunication sector.

Main investigator and contact details: Rany Abu Eitah

[Rany.abu-eitah@student\(anglia.ac.uk\)](mailto:Rany.abu-eitah@student(anglia.ac.uk))

Members of the research team: Dr Stephanie Russell

[Stephanie.russell\(anglia.ac.uk\)](mailto:Stephanie.russell(anglia.ac.uk))

Prof Simon Down

[Simon.down\(anglia.ac.uk\)](mailto:Simon.down(anglia.ac.uk))

Dr Marina Boz

[Marina.boz\(anglia.ac.uk\)](mailto:Marina.boz(anglia.ac.uk))

1. I agree to take part in the above research. I have read the Participant Information Sheet (08 July 2018 V1.0) for the study.
I understand what my role will be in this research, and all my questions have been answered to my satisfaction.
2. I understand that I am free to withdraw from the research at any time, without giving a reason.
3. I am free to ask any questions at any time before and during the study.
4. I understand what will happen to the data collected from me for the research.

5. I have been provided with a copy of this form and the Participant Information Sheet.
6. I understand that quotes from me will be used in the dissemination of the research.
7. I understand that the interview will be recorded.

Data Protection: I agree to the University¹ processing personal data which I have supplied.
I agree to the processing of such data for any purposes connected with the Research Project
as outlined to me*

Name of participant (print).....Signed..... Date.....

Name of person

witnessing consent (print)..... Signed..... Date.....

I WISH TO WITHDRAW FROM THIS STUDY.

If you wish to withdraw from the research, please speak to the researcher or email them at
rany.abu-eitah@student.anglia.ac.uk stating the title of the research.

You do not have to give a reason for why you would like to withdraw.

Please let the researcher know whether you are/are not happy for them to use any data from
you collected to date in the write up and dissemination of the research.

Date 30 July 18

V1.2

¹ “The University” includes Anglia Ruskin University and its Associate Colleges

Appendix 7

Gatekeeper letter Zain JO Company

Gatekeeper Letter

Name of organisation: Zain Jordan

Dear Sir/Madam,

I would like to invite you to assist me in conducting a PhD research study. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more information. Take time to decide whether or not to facilitate this research.

RESEARCH TITLE

Exploring the Effect of Generational Differences on Training and Development within the Jordanian Telecommunication Sector.

WHO I AM AND WHAT THIS STUDY IS ABOUT

The study is being conducted by Rany Abu Eitah, a PhD student attending Anglia Ruskin University Cambridge UK. This research is being undertaken as a part of a PhD research at the faculty of Business and Law, Human Resources and Organisational Behaviour department. The aim of this study is to critically analyse employee's (trainees and trainers) response to training in anticipation of generational differences. Also, to examine the outcomes of training based on age cohort difference and to identify if the business is constrained by these differences in employee behaviours/attitudes.

WHAT I NEED YOUR ASSISTANCE WITH

The study consists of distributing an online survey questionnaire to the employees in your company, also conducting interviews with 20 managers and trainers that have delivered training to employees. The interviewees will be accessed through the company human resource department. After the identification of the list of employees from the HR department, the researcher will use a stratified random sampling approach to achieve representative samples of each generation. Each stratum will have people of the same age group and generation. All of the participants will be located in the proximity of Amman, Jordan. Before the interview begins, permission to use the digital recorder will be requested. In addition, a consent form will be given to the participants to be completed and signed. Confidentiality and privacy will be preserved in this research by not disclosing any information to other employees, excluding for individuals who are engaged in the research, for example, research advisors. The researcher himself and the supervisory team will only have access to participant data. Your role as a gatekeeper is simply one of distributing information and that interested participants should contact the researcher directly.

WHAT TAKING PART IN THE RESEARCH WILL INVOLVE?

The interview semi-structured questions were designed based on four themes within the body of knowledge, Training effectiveness and preferences, technology acceptance and communication style preferences, manager employee relationship to explore similarities and differences between generational cohorts in the workplace. The interview will take approximately 45 to 60 minutes, and all information obtained in the interview will be

confidential and anonymous. No personal names of individuals or businesses will be revealed. Your participation in this study is voluntary, and there is no monetary compensation for your participation. If you agree to take part in this research, a consent form will be handed to you before the interview takes place, once the form has been completed and signed, the researcher will collect the consent from you by hand. However, you may withdraw at any time during the selection process or the interview.

The study has the following risks: first, you will be asked to volunteer an hour of your time and second, there will be no compensation for your time although your information can serve to broaden the depth of knowledge on generational differences in the workplace.

The benefits of participation are that it would offer some practical guidelines for managers and trainers to overcome the gap between different generations in the workplace. Your participation will also help the researcher complete the thesis requirements. In addition, the data collected may serve as a baseline for future studies.

WHO WILL HAVE ACCESS TO DATA FROM RESEARCH?

All notes and digital recordings will remain confidential and stored in a secure place in a locked filing cabinet and it will also be stored on a computer protected with a password in a locked room, only the researcher and the academic supervisors will have access to the original data. The information and the data will be kept for one year and then will be destroyed confidentially (British Sociological Association BSA, 2002)¹. All data used in the study will be confidential and anonymous to the extent that no participants' names or the names of respective business will be used (please see consent form, 29 July 18 V1.2).

WHAT WILL HAPPEN TO THE RESULTS OF THE STUDY?

The results of this research will only be used for writing up for a PhD thesis and may be used for academic publications under copyright confirming to data protection legislation in the UK.

WHO SHOULD YOU CONTACT FOR FURTHER INFORMATION?

For further information please feel free to contact the researcher or the researcher's supervisors at: Researcher: Rany Abu Eitah. [Rany.abu-eitah@student\(anglia.ac.uk\)](mailto:Rany.abu-eitah@student(anglia.ac.uk)) or by phone: (44) 7576340637 (UK Mobile) and (0962) 797034104 (Jo Mobile).

Researcher's supervisors: Dr Stephanie Russell [Stephanie.russell\(anglia.ac.uk\)](mailto:Stephanie.russell(anglia.ac.uk)), Prof Simon Down [Simon.down\(anglia.ac.uk\)](mailto:Simon.down(anglia.ac.uk)), Dr Marina Boz [Marina.boz\(anglia.ac.uk\)](mailto:Marina.boz(anglia.ac.uk)).

[THANK YOU]

Signature of gate keeper

E-mail address

Date



mohammad.othman@jo2cin.com

4.12.2018

Signature of researcher

Date

I believe the participant is giving informed consent to participate in this study.

¹ British Sociological Association (BSA) 2002. *Statement of ethical practice*.

Gatekeeper letter Orange JO Company

Gatekeeper Letter

Name of organisation: Orange Jordan Telecom Group

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WHAT WILL HAPPEN TO THE RESULTS OF THE STUDY?

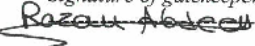
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[THANK YOU]

Signature of gatekeeper 	Email address <u>razan.al-jeda@orange.com</u>	Date <u>7/1/2019</u>
Signature of researcher _____		Date _____

I believe the participant is giving informed consent to participate in this study.

¹ British Sociological Association (BSA) 2002. *Statement of ethical practice*.

Gatekeeper letter Umniah Company

Gatekeeper Letter

Name of organisation: Umniah

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umniah

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Phone: (+962) 6 200 2000, Fax: (+962) 6 200 3372,
P.O.Box 942481, Amman 11194, Jordan

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Instagram Facebook YouTube Twitter @umniah LinkedIn @umniahjo | app umniah.com

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[THANK YOU]

Signature of gate keeper

-----*[Signature]*-----

E-mail address

[Signature] rsawadna@ummic.com

Date

[Signature] 11.6.12019

Signature of researcher

-----*[Signature]*-----

Date

[Signature] 6/Jan/2019

I believe the participant is giving informed consent to participate in this study.

¹ British Sociological Association (BSA) 2002. *Statement of ethical practice*.