SOCIAL MEDIA AND TALENT DEVELOPMENT: INFLUENCING FACTORS ON USE BEHAVIOR AND EMPLOYEES' WORK SUCCESS

A Dissertation

by

FATEMEH REZAEI

Submitted to the Office of Graduate and Professional Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Chair of Committee,	Michael Beyerlein
Committee Members,	Larry Dooley
	Beverly Irby
	Lori Moore
Head of Department,	Mario Torres

December 2018

Major Subject: Educational and Human Resource Development

ABSTRACT

Despite increasing the significant role of technology and popularity of social media among the new generation of employees, there are few studies related to the impacts and benefits of utilizing social media as a human resource development (HRD) tool in organizations. Additionally, although the concept of talent development seems to becoming an important topic among human resource scholars and professionals in recent years, there is a paucity of research in which talent development (TD) is the main focus.

This dissertation sought to investigate the role of influencing factors in and the potential outcomes from implementing various social media platforms in different talent development activities. In a three-journal article format, first I conducted a systematic literature review of talent development interventions. The review helped the study to (a) identify the available TD interventions, issues and challenges, (b) understand the role of social media in designing interventions, and (c) recognize the gap in the literature regarding the application of social media tools for developing talented employees.

In the second quantitative study, I used the results of the systematic literature review to fill in the gap in TD literature. Therefore, the second manuscript explored the possible effects of leveraging social media as a TD intervention, since the systematic literature review of TD demonstrated that there is no study examining such effects.

The third study was a practitioner guide or view point to assist HRD professionals in positioning social media for TD purposes within the organizations. The practitioner guide integrated the results of the first and the second manuscripts. I began by describing the necessity of using social media in workplace, stating the possible TD interventions that

were proved to be effective, and providing a functional and convenient framework for practitioner in which different choices of social media in talent development and their potential outcomes have been displayed.

DEDICATION

This dissertation is dedicated to

My Mother, whose affection, love, sacrifice, and prays of day and night made me able to always believe in good faith, and work hard to make my dreams come true.

My Father, Whose tireless efforts, support, encouragement, and constant passion for learning taught me to believe in myself, and inspired me to continue regardless of my doubts.

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to my committee chair, Dr. Michael Beyerlien, for giving me his full support, insightful ideas and feedbacks all through my PhD program. I am also thankful to my current and former committee members, Dr. Dooley, Dr. Irby, Dr. Paetzold, and Dr. Moore, for their guidance throughout the course of this research.

Loving thanks to my many friends in Texas, who always made me feel loved and supported when I needed them the most. They made me realize the definition of home isn't a place but rather who gives you a reason to be happy and safe.

Thanks also go to my colleagues and the department faculty for making my time at Texas A&M University a great experience. I would like to acknowledge Chantelle Nesh, Jay Clancy and Darren Short who helped me to reach out to my study participants.

I am appreciative of my professor, Dr. Alfred, for supporting me with open heart when I just began my graduate school and needed help the most.

I am highly indebted to my supportive mom and dad who were always there for me regardless, and whose good examples have taught me to work hard for the things that I aspire to achieve.

I like to acknowledge my sister and brothers for their unconditional love and care, and for being excellent role models for me in my life. Even when you were far from me, you always gave me the feeling of assurance and reliance I needed to get though the hard days.

A special love to my nephew, Yonah, the little guy whom I love from the bottom of my heart. He is the light of my life and the reason I start my days with a hope to make the world a better place for his future and see his smile.

I owe a million thanks to very special person, *Reza*, with whom I share many days of laughing and crying, for his continued and unfailing love, support and understanding during my pursuit of graduate school that made the completion of this journey possible. He was always around at times I thought that it is impossible to continue, and helped me to keep things in perspective. I greatly value his contribution and deeply appreciate him for always making my life easier and putting smile on my face as my best friend and partner.

CONTRIBUTORS AND FUNDING SOURCES

This work was supervised by a dissertation committee consisting Dr. Michael Beyerlien [advisor], Drs. Larry Dooley, Beverly Irby of the Department of [Educational and Human Resource Development] Dr. Lori Moor of the Department of Agriculture Leadership, Education, and Communication.

All work conducted for the dissertation was completed by the student independently. There are no outside funding contributions to acknowledge related to the research and compilation of this document.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

TABLE Page

CHAPTER I

INTRODUCTION

This chapter provides a brief background to the dissertation topic; then provides an overview of the three studies that are in lieu of the main purpose of the dissertation. It discusses three studies' purpose and research questions, significance, theoretical and conceptual framework if applicable, and their design.

Talent Development

Although Talent management (TM) and talent development (TD) have significant influences on organizations' outcomes such as productivity, job satisfaction, and absenteeism (Lawler, 2008), the TD field has been confronted with several emergent issues that need to be addressed: (1) a rapid declining trend in working populations of most developed countries as a result of retiring baby boomers and decreasing birth rate (Kim & McLean, 2012); (2) the new technology savvy generation of employees (Nafukho, Graham, & Muyia, 2010) who need different work arrangements to be successful at their job; an d (3) technological advancement. These issues demonstrate that traditional TD systems that worked effectively in previous years might not be adequate and appropriate for addressing the new issues like shortage of labor forces (Kim & McLean, 2014).

TD specifically has been defined as

> The activities that focus on the planning, selection and implementation of development strategies for the entire talent pool to ensure that the organization has both the current and future supply of talent to meet strategic objectives and that development activities are aligned with organizational talent management processes. (Garavan, Carbery, & Rock, 2012, p. 6)

Technology and Talent Development

Technology is a substantial part of every organization. Technological advancement would provide a useful platform to build more effective and innovative TM systems. For example, in one study, a model of knowledge-centric components and practices of workplace learning and performance has been proposed by Jensen (2005). In this model, the main element suggests increasing the effectiveness of the talent management system by combining formal and informal learning (HRD techniques). The model demonstrates how various technologies (e.g. Wiki, online bookmaking, webinar, virtual worlds, and social media) in both formal and informal learning settings may influence and support talent management strategies by fostering a learning organization. Jensen's model has been used in subsequent studies to highlight how sharing information via any social activities would be beneficial in knowledge management and creating a learning organization (Aggestam, 2015; Rashman, Withers, & Hartley, 2009; Swif & Hwang, 2013)

Virtual human resource development systems involved in selecting, developing, rewarding, and enhancing talent within the organization, have been attracting researchers' attention recently (Yoon & Lim, 2010). For example, technologies such as system analytic and database queries facilitate the TM practices by their unique or common identifications and interests and investigate the information flow and knowledge sharing within the specific network in the organization. Researchers also discussed the role of social media in making connection with remote talent and matching the job with the appropriate talent (Aral, Dellaroca, & Godes, 2013). Aral et al. (2013) stated that one of the possible research frameworks within the area of social media would be exploring questions like how organizations and firms would utilize social media's features to benefit their business or

how organizations and firms can choose from different kinds of initiatives which social platforms offer to maximize their effectiveness and make sure they align with the organizations' strategies. Another example of social media's positive effect is social media's potential to manipulate the decision-making process of employees, and therefore cause production of higher quality decisions. It happens by encouraging employees to consider the other aspects of a subject through such a huge influx of opinions and ideas.

Additionally, the role of social media in innovation and research and development should not be overlooked. By data mining and environmental scanning firms can identify the emerging trends in the market. Being able to identify the trend in the market by social media should be helpful in the development of talent capacity, reaching for more creative ideas and attaining a sense of accomplishment that helps organizations retain their talents (Mount & Martinez, 2014). Since social media websites are popular, easy to use, and almost free, the social media application in sharing knowledge and ideas, collaborative online training, and building social networks with low-cost investment would be beneficial for organizations (Garg & Telang, 2012; Lin & Lazer, 2013; Roberts & Sambrook, 2014; Thomas & Akdere, 2013).

There are several other ways that social media contributes to organizations. These benefits might not be directly related to developing talent, but rather facilitate HRD professionals' responsibility through attracting and deploying appropriate employees. For example, employer brand functions as a significant factor for attracting people. With proper branding or job advertisement external talent will be aware of organizations and the value of working in them. As a result, employers are able to find and hire employees who

match with the organization's needs more easily (Garg & Telang, 2012; Roberts & Sambrook, 2014).

Virtual human resource development (VHRD) is a new concept in HRD that focuses on a "media-rich and culturally relevant web[bed] environment" (Bennet, 2009, p. 364) that can offer organizations new practices to address their emergent issues. Warschauer and Grimes (2007) suggested that the term Web 2.0 is not just a new version of existing web technology, but that it embodies actual "changes in the communicative uses of the underlying Web platform" (p. 2) that try to enhance creativity, collaboration, and information sharing among users (Tu, Blocher, and Ntoruru, 2008). Social networks such as Facebook, Twitter, LinkedIn, wikis, and social book marks are some of the most cited technologies or tools in web 2.0 that have affected the HRD field in many ways including knowledge sharing and training (Wang, 2012), thus having the potential to contribute to TD programs and practices.

Within the area of virtual human resource development and talent development, exploring questions such as how organizations utilize social media to benefit their business or how organizations choose from different kinds of initiatives that social platforms offer to maximize their effectiveness would have significant contributions to both research and practice.

According to many studies (Aral, Dellarocas, & Godees, 2013; Lin & Lazar, 2013; Mount & Martinez, 2014), social media has changed the way of communication and knowledge sharing. Social media's features along with their popularity especially among the new generation of employees allows user to participate more in discussion, engage in knowledge sharing, and be passionate more about personal relationships along with

vocational relationships. Before describing the development of social media over time, I will define what social media is and then I will describe the historical development of social media in general and in organizations.

Social Media

Social media and social network often have been used interchangeably (Hartshorn, 2010). Social media refers to the contents that can be uploaded for the purpose of one to many communications. Social network is about engagement, creating relationships and communicating with others. Social media is a channel of communication while social network includes two-way communication for the purpose of developing relationships and engagement (Bedell, 2010). Social media/network sites can be defined as "a set of technologies and channels targeted at forming and enabling a potentially massive community of participants to productively collaborate" (Bradley, 2010, n.p.).

As social media grows, conversations reach to wider audiences in a short period of time, collaboration between groups increases, and ideas are being generated and shared. All of these demonstrate that with social media being more popular the channels of communications are getting diverse and people's challenges to search for and save information are getting decreased.

Hence, social network sites that provide tools and ways to connect with others (e.g. Facebook, Twitter) are considered both social media and social networking. However, tools such as YouTube, that is a tool to share videos, are defined as social media (Burke, 2013).

History of Social Media Development

During 1970s social media was developed through different forms. For example, Multi-User Dimension (MUD) was developed which was a real-time virtual world that provided its user with role-play games, online chats, and interactive fictions. In the1980s, different kinds of social media tools emerged allowing their users real-time chats (e.g. IRC, Internet Relay Chat), sending emails to several people simultaneously (e.g. Listserv), and creating virtual communities (e.g. WELL, Whole Earth "Lectronic Link) (Edosomwan, Prakasan, Kouame, Watson, & Seymour, 2011). The first social network site (SNS) in the1990s, SixDegrees.com, launched in 1997. SixDegrees combined various features of some existing websites such as the ability to create profiles, list friends and surf the friends lists and allowed its users to connect with and send message to others. Between 1997 and 2001, several social network or social media sites (e.g. MySpace, LinkedIn, tribe.net, Yahoo!360, YouTube) brought various features together and offered users different combinations of services including but not limited to, creating personal or professional profiles, finding friends, and sending messages (Boyd & Ellison, 2007; Edosomwan et al., 2011).

With the introduction of Ryze.com in 2001, the next wave of social network sites emerged. Ryze's goal was to help people in business expand their networks and create supports without competing. Tribe.net and LinkedIn came out after Ryze and had the same purpose to leverage the professional networks through their tools (Boyd & Ellison, 2007). From 2004 to 2010 a huge amount of social network websites launched. Facebook, Flicker, Twitter, and Couchsurfing are some the famous sites that provided the combination of social and professional assistance and applications in different ways. These social network

websites regularly have been adding features according to their users' needs (Boyd, 2006b).

Facebook launched in 2004 and has grown to more than 500 million active users.

YouTube, the world's most popular online video sharing, was founded in 2005. The site grows fast with more than 65000 new videos uploaded every day (YouTube, 2005).

In 2006, Twitter emerged in which people were offered different options than the other social network sites such as microblogging (Edosomwan et al., 2011).

Google buzz, launched in 2010, integrates a web-based email program and allow users to perform various activities through the Gmail service from posting and updating, and sharing photos and links, as well as allowing the users to represent their activities on the other websites such as Facebook and Twitter (Edosomwan et al., 2011).

Several SNSs are growing exponentially. Some of them intentionally are looking for narrower audiences to meet a specific purpose. For instance, Couchsurfing is an activity-centered SNS that targets travelers around the world, Ning offers its users opportunity to create their own niche social network website. Currently with the rise of SNSs organization of online communities has been shifting from communities structured by topic to the ones structured by individual as personal networks. Most SNSs support the goal of maintain and reinforcing of pre-existing relationships and connections (Boyd & Ellison, 2007).

Social Media Revolution

Over the time application of social media has changed. From using social media for finding friends and building personal relationships, to sharing pictures, videos, and links

with both personal and professional networks only for the sake of sharing fun or useful information, to further usage of social media in business world for the purpose of increasing productivity and effectiveness. For example, social media first was used by businesses for marketing their products by creating brand awareness (both for individuals and enterprises) and customer satisfaction at a minimum cost. Gradually social media found its role within the other sections of business such as identifying and hiring employees, sharing knowledge and building work groups (Edosomwan et al., 2011).

Enterprise Social Media

Social media in the workplace has been used for creating external relationships with stakeholders as well as building internal communications within the enterprise. Enterprise social media is defined as:

> Web-based platforms that allow workers to (1) communicate messages with specific coworkers or broadcast messages to everyone in the organization; (2) explicitly indicate or implicitly reveal particular coworkers as communication partners; (3) post, edit, and sort text and files linked to themselves or others; and (4) view the messages, connections, text, and files communicated, posted, edited and sorted by anyone else in the organization at any time of their choosing. (Leonardi, Huysman, & Steinfield, 2013, p.1)

Social media offers some unique and transformational features that distinguish it from other forms of communication technologies. First, social media allows users to communicate message with the broad population, choose communication partner, post, view, and edit information all the times, and record, store, and save contents for future use simultaneously (Leonardi et al., 2013). Second, it facilitates social learning by providing

individuals' visibility (visibility of communicative content among people who might work in different domains), broader networks, and traceable communicative actions (communication between people, its outcomes, other's opinions).

Social media usage in organizations can be through public-access and private-access social media tools. Public social network websites (SNS) such as Facebook, Twitter, Instagram, and Goggle+ in the early to mid-2000s, often have been used first for marketing and customer service, but have grown to help establishment of internal communications, new employees' orientation, and learning about new colleagues. Private social media in which external access to the organizations' information are restricted. Customized, private hosted wikies or internal blogging systems have been implemented on organizations' intranet and have facilitated collaboration, knowledge sharing, and work process improvements. Internal social media helps employees to feel more included in the community, make new connections, have access to tacit knowledge of several people, and receive instant feedback on ideas and problems (Leonardi et al., 2013).

Recently, in order to leverage features of public social media and still maintain the privacy of information, many of the most successful companies in the world use social software that integrates features of public and private social media to enable users' accesses to wide range of opportunities and applications. Yammer, Oracle's Social Network, and IBM's Connections are examples of enterprise social software that can be hosted in the cloud or installed on a company server. (Leonardi et al., 2013).

Functional Abilities of Social Media

In a study by Kietzmann, Hermkens, McCarthy, and Silvestre (2011), the authors introduced seven functional blocks of social media and their implications. These functional

blocks are intended to help mangers understand and make sense of what social media are and how they can be involved in social media for their organizations' betterment and avoid damages from ignoring the power of social media.

The first functional block of social media is identity block. Identity represent "the extent of which users reveal their identities in a social media setting" (Kietzmann et al., 2011, p.243). the implication of identity block in brand awareness and networking and the fact that revealing the extent of personal or professional information can be managed on social media suggest individuals and organizations protect their privacy and still benefit from social media with creating a balance between sharing too much information and being too much conservative.

Conversations is another functional block of social media that represent "the extent to which users communicate with other users in a social media setting" (Kietzmann et al., 2011, p.244). Conversation in social media helps organizations to monitor the rate and direction of favorable or unfavorable conversations, respond to the negative conversations, and demonstrate their care and positive intentions accordingly.

Sharing is another functional block of social media and demonstrates "the extent to which users' exchange, distribute, and receive content" (Kietzmann et al., 2011, p.245). By choosing appropriate social media channels, finding networks with shared interests, aligning organizations' strategies with the functionality of social media, and deciding on the extent of shared contents/materials, organization will be able to utilize sharing function of social media for their benefits.

Presence represents "the extent to which users can know if other users are accessible" (Kietzmann et al., 2011, p.245). For example, Facebook has a Friend Around

Me feature that allows users to find out where others are or whether they are virtually available or not. Using the presence functional block, organizations provide a platform with a selective presence indicator to facilitate the conversation and relationship building among employees.

Relationships is “the extent to which users can be related to other users” (Kietzmann et al., 2011, p.246). Relationships can be defined based on their structure and flow. Structure of relationships shows the number of connections in one’s social network and the position of individuals in their network; thus, defining the influentially of a member in his/her network. The flow of relationship represent the strength and multiplicity of relationships. Connections that are stronger and more frequent as well as built upon on both personal and professional relationships are more effective and long-term.

Reputation represents “the extent to which users can identify the standing of others, including themselves, in a social media setting” (Kietzmann et al., 2011, p.247). Reputation in different social media can be shown as numbers of likes, endorsements, views, ratings, and other metrics. Organizations need to create an effective reputation system through social media for the purpose of both organization’s branding and employee’s visibility. Through such reputation systems quality of people’s contribution can be rated within the community.

Groups is another functional block of social media and is defined as “the extent to which users can form communities and sub-communities” (Kietzmann et al., 2011, p. 247). According to Dunbar (1992) there is a limitation in people’s cognitive ability to maintain stable social relationships. Organization can benefit from creating formal and informal groups in order to label enormous connections into different groups and avoid being

overwhelmed when dealing with followers, fans, friends, colleagues and others. Additionally, creating groups and subgroups with customized settings for each category help to protect individual's identity and intellectual rights.

Narrowing down the functionality of social media, Thomas and Akdere (2013) believed that HRD can leverage the power of social media in talent development. Today, many employees have access to social media websites on their cellphones and computers all the time. Talent development practitioners are able to use positive work-related aspects of this medium to enhance workplace learning, encourage knowledge sharing, and improve the overall organizational effectiveness. In fact, according to the consulting firm McKinsey & Company, 69 percent of executives who have implemented a social media strategy reported that their companies have gained measurable business benefits, including better access to knowledge and higher revenue.

To be sure, there are plenty of encouraging and inspirational anecdotes about how organizations have used social media for brand awareness, customer service, and so forth. Many talent development professionals, however, have found it challenging to incorporate social media into their offerings (Thomas & Akdere, 2013). This challenge is due in part to skepticism at management and leadership levels about whether employees will use these tools for work-related reasons.

Indeed, even though the potential for social media to enhance learning and gain competitive advantage is clear as mentioned above, and the audience for these tools is already built in (organizations know that employees are spending time on social media websites), talent development professionals need to tread carefully in their adoption of these tools (Thomas & Akdere, 2013).

Advantages and Disadvantages of Social Media

Social networking technologies support the new forms of decision making and outcomes by providing new forms of feedback and new styles of interaction (Sinclaire & Vogus, 2011). For example, social media for supporting peers in teams can bring value for organizations. Task completion will be easier and finding and reaching out to the team members will be faster through internal blogging for trouble shooting or sharing group schedules. Additionally, by letting information to be available and accessible permanently, team work and knowledge sharing become more productive.

Younger and junior employees use social media for taking mental breaks from work, information sharing, and communicating with professional networks (Walden, 2016). If the internal social media provides attractive interactive features, it will encourage employees to use social media for work-related activities while employees still stay connected through social media on their personal accounts. Professional conversations and activities through LinkedIn while at work contribute to expanding professional relationships with clients, stakeholders, and the appropriate communities.

Social media facilitates cooperation among individuals who are physically dispersed from each other and gives them flexible work schedules. An example of social media's positive outcome from cooperation of employees is its potential to manipulate the decision-making process of employees. Therefore, social media cause production of higher quality decisions because employees are encouraged to consider the other aspects of a subject through such a huge influx of opinions and ideas.

The role of social media in innovation and research and development should not be overlooked. By data mining and environmental scanning firms can identify the emerging

trends in the market. It would be related to the development of talent capacity, reaching for more creative ideas and attaining a sense of accomplishment that helps organizations retain their talents (Mount & Martinez, 2014). In addition, application of social media in sharing knowledge and ideas, collaborative online training, and building social networks with low-cost investment are other benefits of using social media since they are popular, easy to use and almost free (Garg & Telang, 2012; Lin & Lazer, 2013; Roberts & Sambrook, 2013; Thomas & Akdere, 2013).

On the other hand of advantages, there are some concerns about the benefits of social media. The concept of "presence bleed" discussed the issue when employees stay connected to their jobs constantly even the times they were previously off limits (Gregg, 2011). Blurred boundaries of work and life as a result of emergence of communication technologies such as social media put more pressure on individuals to be virtually available even when they are physically dispersed from the work environment (Walden, 2016).

Other disadvantages of social media would be the potential for unwanted employees' distraction from work. There are also concerns about privacy issues such as intrusion in personal life or information leaking (Walden, 2016). Additionally, using public SNSs creates tensions within organizations. For example, information leakage, hierarchy problems (online connection of supervisors and subordinates through public SMSs), and work life boundary issues has been identified as common concerns toward using social media at work (DiMicco & Millen, 2007).

Dissertation's Overarching Purpose

The purpose of my dissertation is to investigate how incorporating social media in talent development activities would serve organizations. To fulfill the purpose of my

dissertation, I conduct three studies that collectively answer my dissertation' questions. By that, the purpose of my study is: (a) identify talent development strategies, outcomes, and challenges discussed in the literature, (b) identify the different applications of social media by organizations for developing talented employees, (c) examine the effects of social media interventions on employees' work success when interventions are applied in the presence of different antecedents, and (d) propose a practical guideline on how to position social media as a talent development tool within the organization.

My study proposes a model that illustrates how individuals' belief toward usefulness of social media in performance, ease of use, social influences, and facilitating conditions affect employees' use of social media for developmental purposes; Additionally, I explore how developmental activities for talented employees influence employee's work success.

Problem Statement and Significance of the Study

Talent management (TM) and Talent development (TD) plays an important role in achieving positive organizations' outcomes such as productivity, job satisfaction, absenteeism, and etc. (Lawler, 2008). Because of that researchers have suggested that to be effective in TM, the senior managers in human capital centric organization (organizations that strive for success by attracting, developing, retaining, organizing and managing people) should spend 30-50 percent of their time on talent management (Lawler, 2008). However, despite the significant impacts of TM and TD for positive organizations' outcomes, there is paucity of research in the TD field (Garavan, Carbery, & Rock, 2012).

The deficiency of talent expected in a few years both in the US and international labor markets as a result of retiring Baby Boomers and decreasing birth rate demonstrate

that organizations will confront a rapid declining trend in working populations in most developed countries (Kim & McLean, 2012). Therefore, traditional TM systems that worked effectively in previous years might not be adequate and appropriate for addressing the new issues like shortage of labor forces (Kim & McLean, 2012). In a study conducted by Deloitte consulting firm (2016), C-Suite executives believed that "to keep Millennials, companies should place greater emphasis on nurturing and developing their people, creating interesting and purposeful work, and building an environment with career flexibility and tools that enables employees to collaborate and exchange ideas transparently". Social media is one of the emerging tools that has the potential to change the traditional HR systems and create innovative ways to attract, develop, and retain the talented employees (Aral, et al., 2013; Lin & Lazar, 2013; Mount & Martinez, 2014).

There seems to be no theoretical framework or model in the HRD field that shows the relationship between using SM in different TD interventions and related organizational outcomes. Therefore, there is a need to conduct extensive research focused on the relationship between organizations implementing various TD interventions using social media and individual, group, global, and organizational level outcomes such as performance, Return on Investment (ROI), knowledge sharing, brand awareness, satisfaction, commitment, tendency to leave or work and many others. There is little evidence to show which intervention is associated with specific outcomes and how the perspective toward TD (exclusive, only top performers, inclusive, all employees) can influence both the nature of selected intervention and the relationship between specific intervention and outcome.

Theoretical Framework

The connectivism theory (Siemens, 2005) and Unified Theory of Acceptance and Use of Technology (UTAUT) model (Venkateshn Morris, Davis, and Davis, 2003) will construct a framework to guide my study together. These two frameworks together along with supporting literature can guide and justify my research purpose. Theories in general explain why, how, and when specific relationships in a specific domain cause specific events (Wacker, 1998). "A theory may be viewed as a system of constructs and variables in which the constructs are related to each other by propositions and the variables are related to each other by hypotheses" (Wacker, 1998, p. 364). Accordingly, in the current study, I intend to understand how different antecedents and conditions will influence the use and effectiveness of social media usage on positive outcomes for employees. Having a relevant theory and a guiding model would justify the rationale behind my research purpose and provide guidelines to shape the research design.

Connectivism theory states that in the digital era we need to pay attention to the dynamic ever-changing nature of information and knowledge creation. It also articulates that knowledge creation within the cycle of individuals-network-organization leads to learning within the organization. According to the theory, knowledge is embedded in individuals, technology and the connections among them. Through building effective communities and networks, the produced knowledge improves individual and organizational learning. Therefore, in order to use the tacit knowledge created in the process of networking and to improve learning, diversity of opinions, openness to different perspectives, autonomy of participants, and connectivity of elements should be developed along the process.

Connectivism theory provides a starting point to rationalize my research. Extensive usage of social media and the power of social media in connecting people from all over the world, as well as the huge amount of information being shared on social network sites suggest that effective learning can occur if the proper platform is provided for learners. Understanding how concepts such as diversity of opinions, connectivity, openness, and autonomy will affect individual's learning; or how the cycle of information through both individuals and technology improves knowledge sharing within the organizations, assist social media researchers to explore new notions of learning in technological advancement age. For example, it will explain how connections of huge networks of people and accessible resources through using social media platforms will direct employees' learning. In addition, the process of making sense and identifying patterns and choosing information that is useful for the purpose of people's development and organizations' goals is important when dealing with the scattered and huge amount of information on social media. Connectivism theory asserts that learning is not just about how learning happened in organization, but it is also about how individuals identify the useful information that helps them learn for their purposes.

The connectivism theory, however, cannot guide the current study alone. Since the theory is new and has not been tested through empirical studies sufficiently, the variables and relationships among the constructs of the theory has not been clearly established yet. According to the theory, creating effective networks foster open and autonomous learners with diverse opinions who have strong tendency to participate and stay connected to each other. Then, these effective networks will improve learning outcome of individuals. The consequent learning is evaluated not only by the individual knowledge but with the

evaluation of learning process. Keeping in mind the principles of connectivism theory, I better understand how employees' connections and collaboration through utilizing social media and other learning resources influence learning process and the learning outcomes; what is needed to be done in order to improve the learning.

The complementary model of UTAUT directs my study to collect relevant data about the influence of employees' perception, attitude, and other environmental factors on social media usage. The UTAUT examines the role of employees performance expectancy, effort expectancy, social influences, and facilitating conditions on the use of social media in the presence of moderating factors such as gender, age, occupation, experience, and voluntariness of use. After finding out what factors affect usage of social media in organizations, the positive outcomes of usage of social media through creating an effective learning network, according to connectivism theory, can be investigated. It means, the relationship between usage of social media and employees' perception of their performance, productivity, and satisfaction at their jobs and expected improvements in their career prospect as a result of using social media can be studied examine the improvement in individual learning.

In summary, although there are several other theories in learning and organization development that would make a proper foundation for my study, connectivism theory and UTAUT model together will make a suitable guidance for my study. Both theories are new and have been built to fulfill the growing need of researchers to explain phenomenon resulted from the technological advancement in recent years. These theories together will create an appropriate framework for my study which is in alignment with my study's purpose.

First Theory: The Connectivism Theory of Learning

Connectivism is a learning theory that has been introduced for networking through technology and e-learning by Siemens (2005). It was developed to address the new needs of learners who have been dealing with the huge amount of knowledge and information flow over the past 10 years. Additionally, informal and continuous learning is becoming a significant trend that occurs any time and everywhere in various ways. Informal learning happens through life-time social networking and creation of virtual communities of practices due to the technological advancements and new generation of employees' tendency and capability to self-directed learning.

Connectivism was developed to fill in the gap of previous learning theories such as behaviorism, cognitivism, and constructivism. These three traditional theories stated that knowledge "is an objective that is attainable (if not already innate) through either reasoning or experiences" (Simens, 2005, p. 2). Traditional learning theories described how learning occurs inside the person, but often fail to explain the stored and manipulated learning by technology that happens outside of people and within organizations. Traditional learning theories focus on the process of learning and do not explore the value of knowledge that has been developed inside the individuals. Connectivism theory, however, tries to explain how learning occurs between individuals, technology, and in connection of individuals and technology. According to connectivism, learners participate in a learning community and make connections with others through words, images, videos, and multimedia in order to acquire and apply knowledge. It means that learning not only depends on having access to the rich, dynamic, and interconnected network of individuals in a learning community, but also it is affected by technology itself (Goldie, 2016).

Another overlooked factor by the traditional learning theories is that in the digital era when knowledge is ample, the process of evaluating the worthiness of information before starting to learn is vital. Connectivism theory attempts to explain how individuals need to recognize and synthesize connections between the huge amounts of information in the environment and assess the usefulness of knowledge with a new approach to learning. Connectivism explains that people no longer rely on their own experiences to gain knowledge and learn, but they gain their competence from forming connections and utilizing another people's knowledge.

Connectivism embraces principles of chaos, network, self-organization, and complexity theories to form its underlying promises. As Siemens (2005) stated, chaos theory explains "the connection of everything to everything" (p.4). Sensitive dependence of elements to each other in learning and decision-making create a challenge when underlying conditions are changing rapidly. Therefore, recognizing the patterns within the chaos is an important skill in learning when core elements of environment cannot be controlled by individual all the time. Additionally, self-organization which is defined as "the capacity to form connections between sources of information, and thereby create useful information pattern" (Siemens, 2005, p.4) is a key learning task for individual to self-organize and construct knowledge on a personal-level and organizational-level in a changing environment with complex relationships among the elements of the environment.

Principles of Connectivism

Siemens (2005) introduced principles of connectivism theory:

> (1) Learning and knowledge rests in diversity of opinions; (2) Learning is a process of connecting specialized nodes or information sources; (3) Learning may reside in non-

> human appliances; (4) Capacity to know more is more critical than what is currently known; (5) Nurturing and maintaining connections is needed to facilitate continual learning; (6) Ability to see connections between fields, ideas, and concepts is a core skill; (7) Currency (accurate, up-to-date knowledge) is the intent of all connectivist learning activities; (8) Decision-making is itself a learning process; (9) Choosing what to learn and the meaning of incoming information is seen through the lens of a shifting reality; (10) While there is a right answer now, it may be wrong tomorrow due to alterations in the information climate affecting the decision. (p.5)

Connectivism helps organizations to address the challenge of knowledge management in the digital age. In order to make sure learning happens, ample knowledge stored in people and in data bases needs to be connected with the right people in the right context. For doing that, connectivism starts with individual knowledge going in to people's network that feeds into organizations. Organization knowledge again feeds back into the network and continues to improve individuals learning within the knowledge development loop.

Implication of Connectivism in Talent Development through Social Media

Social networks such as Facebook, Twitter, LinkedIn, wikis, and social book marks are some of the most cited technologies or tools in web 2.0 that have affected the HRD field in many ways such as knowledge sharing and training (Wang, 2012), and thus have the potential to contribute to TD programs and practices. Conversations in web 2.0 will produce knowledge that leads to learning according to connectivism theory if the network created through those communities possesses the required characteristic such as diversity, autonomy of participants, openness, and connectivity (Downes, 2006)

Second Theory: Unified Theory of Acceptance and Use of Technology (UTAUT)

The unified model of acceptance and use of technology has been developed by Venkateshn Morris, Davis, and Davis (2003) with integration of eight prior models to explain the factors associated with technology users' perceptions and behaviors. The eight theories contributed to the UTAUT are as follows:

(1) Theory of reasoned action (core constructs: attitude toward behavior, subjective norms)

(2) Technology acceptance model (core constructs: perceived usefulness, perceived ease of use, subjective norms)

(3) Motivational model (core constructs: extrinsic and intrinsic motivation)

(4) Theory of planned behavior (core constructs: attitude toward behavior, subjective norm, perceived behavioral control)

(5) Model of PC utilization (core constructs: job-fit, complexity, long-term consequences, affect toward use, social factors, facilitating conditions)

(6) Innovation diffusion theory (core constructs: relative advantage, ease of use, image, visibility, compatibility, result demonstrability, voluntariness of use)

(7) Social cognitive theory (core constructs: outcome expectations-performance, outcome expectation-personal, self-efficacy, affect, anxiety)

(8) Combined theory of reasoned action and theory of planned behavior (core constructs: attitude toward behavior, subjective norms, perceived behavioral control, perceived usefulness).

All factors from previous models were measured through a research study among all constructs. Four constructs were identified as significant variables affecting acceptance

to use and usage behavior of individuals. Performance expectancy, effort expectancy, social influences, and facilitating conditions. Each of these four consists of different variables from the eight prior models. Performance expectancy is defined as "the degree to which an individual believes that using the system will help him or her to attain gains in job performance" (Venkateshn et al., 2003, p. 447). Effort expectancy is defined as "the degree of ease associated with the use of the system" (Venkateshn et al., 2003, p. 450). Social influence is defined as "the degree to which an individual perceives that important others believe he or she should use the new system" (Venkateshn et al., 2003, p. 451). Facilitating conditions is defined as "the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system" (Venkateshn et al., 2003, p. 453).

The model states that gender, age, experiences, and voluntariness of use will have a moderating effect on the relationship between performance expectancy, effort expectancy, social influences, and facilitating conditions and behavioral intention to use technology. Finally the model suggests that behavioral intention to use technology will have a positive influence on use of technology. The UTAUT synthesizes the known models to provide a foundation for research in a technological advancement age.

To examine the role of social media in talent development, understanding the antecedents and affecting variables of employees' intention to use and usage behavior is a key task. By incorporating the elements of UTAUT in my research, I will identify how employees' expectations toward usefulness and ease of use for different kinds of social media tools along with social influences and organization support would influence employees' use of social media for different developmental activities. According to

Venkateshn et al. (2003), examining the link between user acceptance or usage of technology and individual or organizational outcomes is an important direction for researchers.

Organization of the Dissertation

This dissertation is comprised of five chapters. In Chapter 1, I have discussed the purpose and the problem, explained the significance of the study, stated my research limitation, delimitation, and assumptions, and defined key terms. In Chapter 2, I present the first study which is the systematic review of the literature on talent development. The goal is to display the current status of talent development practices and examine the currently application of social media for developmental interventions to support the foundation of my study and identify the gap in the literature. Chapter 3 is a quantitative study, examining the relationship between antecedents and outcomes of using social media tools through mediation analysis. Chapter 4 comprises a discussion of the findings of the previous studies in a separate journal article to provide a practical framework for HRD implications of social media in talent development. Chapter 5 includes a summarization of three studies, conclusions, and recommendations for future research and practice.

Dissertation Studies

Chapter 2 is a systematic literature review of empirical studies in talent development. The working title for chapter 2 is "Talent Development: A Systematic Literature Review of Empirical Studies". The purpose of Chapter 2 is to identify and examine the findings from empirical research regarding organizations' talent development interventions, organizational or individual outcomes, and implementation issues. My intention is to contribute to the Human Resource Development field by displaying the

current status of the empirical studies in talent development literature and proposing a model that demonstrates the relationship among study's findings.

The additional goal to conduct the systematic literature review is finding out whether social media has been utilized as a talent development tool within the organizations, and thereby, identifying the gap in talent development and social media literature.

Chapter 3 is a quantitative research to examine the antecedents and outcomes of social media usage within the organization. The second article title is "Mediating Effect of Social Media Use Behavior on the Relationship between Predictor Factors and Work Success: A Conceptual Model for Talent Learning and Development". The study intends to: first, identify the current social media tools using by organizations for talent development; and second, examine the direct and indirect effect of independent variables such as performance expectancy, effort expectancy, social influences, and facilitation condition on employees' performance, productivity, satisfaction, and career prospect through the use of social media.

Chapter 4 is a practitioner paper entitled "Social Media in Action: The Potentials for Developing Talented employees". The purpose of Chapter 4 is to contribute to HRD practices through proposing a practical outline and implications regarding the ways social media could be utilized in organization for the purpose of talent development. The research question is: How social media would be positioned as an HRD intervention to enhance talented employees' work success?

Chapter 5 discusses the previous chapters' findings to make recommendations for future research and practice. This chapter is a practitioner guide that targets audiences who are working in corporates as HRD practitioners or consultants.

Chapter 2

The main purpose of the current literature review is to identify and examine empirical findings regarding talent development (TD) strategies in organizations. By using Garrard's (2013) Matrix method, this study identified 33 empirical articles to be included for the review based on the research inclusion criteria. The findings indicated the majority of the studies have been conducted in countries other than the US, and they have been published after 2007. Additionally, results demonstrated organizations mostly applied organizational development (OD) interventions at the individual level for developing talented employees followed by formal training and development (FT&D), global level OD, organization-wide OD, and team level OD. Outcomes and issues in regard to implementing TD interventions also have been discussed in some research.

Chapter 3

This study examines the influence of factors such as performance expectancy, effort expectancy, facilitation condition, and social influence on the use of social media tools for different learning and development activities. Additionally, the study investigates the work success outcomes including performance, productivity, and job satisfaction as a result of using social media usage.

Chapter 4

This study is a practitioner guide, intends to provide a practical framework for professional in the HRD field to assist them in choosing the right social media tools in different learning and development activities to maximize the results.

The study first explains what it means to use social media for learning and development (L&D) purposes; then, provides some benefits of social media for

organization, followed by the applications of social media in organization's learning and talent development practices, and useful recommendations.

CHAPTER II

TALENT DEVELOPMENT: A SYSTEMATIC LITERATURE REVIEW OF EMPIRICAL STUDIES[*]

Summary

Purpose – Although the concept of talent development (TD) has spread widely among human resource scholars and professionals in recent years, there have been few empirical studies in which TD has been discussed. The main purpose of this systematic literature review is to identify and examine empirical findings regarding TD strategies. In addition, implementation issues and outcomes are identified and discussed.

Design/methodology/approach – This systematic literature review used Garrard's matrix method to organize the review of publications. It identified 34 empirical articles from the total of 550 publications.

Findings – The findings indicate that a majority of the studies were conducted in countries other than the US and that they were all published recently, after 2007. Additionally, the results show that organizations have mostly applied organizational development (OD) interventions at the individual level for developing talented employees, followed by formal training and development (FT&D), global-level OD, organization-level OD, and group-level OD. Some research has also discussed outcomes and issues regarding the implementation of TD interventions.

[*] Reprinted with permission from "Talent Development: A Systematic Literature Review of Empirical Studies" by Rezaei, F.& Beyerlein, M., 2018, European Journal of Training and Development. 42(1/2). 75-90, Copyright © 2018, Emerald Publishing Limited.

Originality/value – This article is among the first to identify the talent development interventions through a systematic literature review to provide guidance for the follow-up empirical works.

Keywords Talent Management, Talent Development, Interventions, Issues and challenges, Outcomes, Systematic Literature Review

Introduction

Despite the talent development (TD)'s positive function within organizations, the talent deficiency in a few years both in the US and international labor markets is an issue that highlights the need for conducting studies in TD area (Kim & McLean, 2014). Several reports discussed a rapid declining trend in working populations in most developed countries as a result of retiring baby boomers and decreasing birth rate makes it difficult to find the appropriate employees at the right time for the right job (e.g. Kim & McLean, 2014). Therefore, effective traditional talent management (TM) systems need to be adequately modified for addressing the new issues such as shortage of labor forces.

Implementing TD practices in organizations influences organizations' outcomes such as productivity, job satisfaction, and absenteeism (Lawler, 2008). Confirming such significant impacts, researchers suggested in order to be effective in managing talented employees, the senior managers in human capital centric organization (organizations striving for success by attracting, developing, retaining, organizing and managing people) should spend 30-50 percent of their time on talent management (Lawler, 2008). However, despite the positive organizations' outcomes and importance of implementing TD practices, there is a paucity of research in the TD field (Hedayati & Li, 2016; Garavan, Carbery, & Rock, 2012).

The purpose of the current study is to identify and examine findings from empirical research regarding organizations' talent development (TD) strategies, taking into consideration the countries in which the studies were conducted, and to identify the positive outcomes of TD implementation as well as potential issues and challenges. The study aims to contribute to the field of human resource development (HRD) by summarizing the current status of empirical studies in the TD literature and proposing a model that captures the relationships among the study's findings. To fulfill its purpose, this study seeks to answer the following questions:

1. What is the main focus of the TD studies? Is it TD or TM?
2. What definitions of TD have been used by the authors? Are they inclusive or exclusive?
3. What are the studies' designs and data collection methods?
4. What are the year and country of origin in which the research was conducted?
5. What are the main findings of the studies related to TD interventions, organizational outcomes, and implementation issues?

Talent Management and Talent Development Definition

TM and consequently TD's definitions, dimensions, and scopes have not been clearly examined (Collings & Mellahi, 2009; Hedayati & Li, 2016; Lewis & Heckman, 2006). Collings and Mellahi (2009) has one of the most cited definitions:

> Activities and processes that involve the systematic identification of key positions which differentially contribute to the organizations' sustainable competitive advantage, the development of a talent pool of high potential and high performing incumbents to fill these roles, and the development of a differentiated human resource

architecture to facilitate filling these positions with competent incumbents and to ensure their continued commitment to the organization. (p.305)

What is more related to the human resource development field in the TM definition is incorporating the development of talent as one of the primary TM‘s responsibilities. Some researchers advocated the essential role of talent development in the talent management definitions (Kim & McLean, 2014; Lewis & Hechman, 2006).

Talent development has been defined as:

> Planning, selecting, and implementing developmental strategies for the entire talent pool to ensure the organization has both the current and future supply of talent to meet strategic objectives; as well as to ensure developmental activities are aligned with organizational talent management processes. (Garavan, Carbery, & Rock, 2012, p.6)

Talent Management and Talent Development Scopes and Working Boundaries

Three distinct viewpoints toward the TM’s definitions and working boundaries were identified by Lewis and Heckman (2006).

The first viewpoint states TM’s responsibility for providing typical human resource practices such as recruiting, selecting, developing, and succession planning. In this perspective toward TM, developing talent is considered as one of the TM’s primary responsibilities.

In the second view point, TM needs to make sure organizations are provided with an adequate flow of talented employees. By modeling employees’ internal growth to higher positions and demonstrating external workforce supply and demand, TM offers a proper plan for the organization’s future workforce supply.

The third view focuses on employees' outstanding performance without considering organizational boundaries or specific jobs. In this approach, TM categorizes employees by their performance level to identify and keep the top performers at each position and terminate the lower level performers.

In order to recognize TM system's working boundary, four typologies in TM have been identified: practical exclusive talent management, practical inclusive talent management, elite talent management, and fully inclusive talent management (Swailes, Downs, & Orr, 2014). Three of the typologies emphasize attracting, developing and retaining minorities who are considered as high-performance employees within the organization; while the fourth typology assumes the entire workforce can be credited as a talent.

Similar to TM, TD's scope and working boundary could be classified in two distinguishable categories: inclusive and exclusive (Garavan, Carbery, & Rock, 2012; Illes, Chuai, & Preece, 2010; Swailes, Down, & Orr, 2014). Inclusive TD focuses on developing each potential employee and considers all employees as talent, whereas exclusive TD considers high potential and high performers as talent (Illes et al., 2012; Swailes et al, 2010) who possess distinct characteristics such as the ability to master new expertise quickly and constantly contribute strong results (Ready, Conger, & Hill, 2010).

Method

The primary method used to answer this study's questions is a systematic literature review, which is "a form of research that reviews, critiques, and synthesizes representative literature on a topic in an integrated way such that new frameworks and perspectives on the

topic are generated" (Torraco, 2005, p. 356). Therefore, to construct a new model in the area of TD, existing empirical studies need to be reviewed and systematically synthesized.

First, a broad multidisciplinary search in the most well-known data-bases in human resources including Human Resource Abstract, Business Source Complete, PsycInfo, and Academic Search Complete was conducted. The time frame for the search included all published peer-reviewed studies through May 2017. The search encompassed 2 concepts: (1) TD or TM and (2) human resources (HR) or personnel management or development. Each concept was searched using keywords appearing in the titles and abstracts and thesaurus terms provided by the individual databases. *Talent development*, *talent management*, *developing* or *managing talent*, *human resource development* and *talent*, and combinations of these were used to generate as many publications as possible for the literature review. The concept of HR was not used in searching the HR database, as it is the focus of the database. The search history for each database, including keywords and results, is provided in Appendix A.

To ensure that all relevant studies were included in this review, a secondary search in the main HRD journals (*Human Resource Development Quarterly*, *Advances in Developing Human Resources*, *Human Resource Development International*, and *Human Resource Development Review*) was also carried out. The database and journal searches generated 550 publications. These 550 publications were then screened for their relevance to the research topic and their fit with the following inclusion criteria.

Inclusion/exclusion criteria

All peer-reviewed, empirical studies (qualitative, quantitative, and mixed-method) written in English that fit the inclusion criteria were included in this literature review.

Articles were excluded from further review if they (1) studied talent in the school, sport, or art fields, because talent in these fields has a different meaning from what HRD considers as talent, or (2) were related to leadership development, management development, career development, or learning capabilities. Thus, articles that did not specifically indicate a contribution to the areas of TM or TD were excluded from the current study. For example, if an article merely discussed leadership development and did not mention how leadership development is associated with TD, then the article did not meet the inclusion criteria for the current literature review. Additionally, after reviewing the manuscripts, eight qualitative studies were excluded because they did not discuss the study's method or data collection, and therefore the trustworthiness of the findings could not be evaluated.

Data extraction

In order to determine which studies would be used in the final analysis, a first abstract screening was conducted. Garrard's matrix method (2013) was used to organize the review of the final 33 studies from different perspectives: the article's main focus (TM or TD), its definition of talent (exclusive or inclusive), the study's purpose, and TD interventions, outcomes, and implementation issues.

Findings

After reviewing the abstracts of the identified studies in the first-round abstract screening, 242 of the 550 articles were found to meet the inclusion criteria. In a secondary screening, the full texts of the 242 studies were reviewed. Thirty-three of the 242 studies were identified as the most relevant articles for the final analyses, based on the inclusion/exclusion criteria. The findings regarding the current study's questions are discussed in the following sections.

Study main focus

Of the 34 studies, 29 studies mainly focused on TM and discussed TD to some extent. The remaining studies (four) focused mainly on TD.

Definition of TD

Seven studies found that an inclusive approach to TM and TD was adopted by the organizations under study. Five studies found both inclusive and exclusive approaches in the organizations. The remaining studies (21) reported that the companies defined their talent exclusively.

Design and data collection

Twenty-two studies used a qualitative approach for the study design and data collection method, seven studies used a quantitative approach, and four studies used a mixed-method approach. Six studies used surveys, three studies used only interviews, and the remaining 24 studies used various combinations of surveys, interviews, archival data, and focus groups for data collection.

The primary findings related to the current study's questions 1–4 are presented in Table 2.1.

Table 2.1. Primarily Findings (Question 1-4)

Publication year	**Focus**	**Country**	**Definition**	**Method/Design**
2017	TM	China	Both	Interview
2016	TD	Malaysia	Inclusive	Survey
2016	TM	Netherlands	Inclusive	Interview, Document review, Focus group, Survey
2016	TM	Germany	Exclusive	Survey

Table 2.1. Continued

Publication year	Focus	Country	Definition	Method/Design
2016	TM	Czech Republic	Both	Survey
2016	TM	Ghana	Inclusive	Interview
2016	TM	North Europe	Exclusive	Case study Survey
2015	TM	Malaysia	Exclusive	Survey
2015	TM	Germany	Inclusive	Case studies, Publicly available information, Interview
2015	TM	Czech Republic	Inclusive	Survey, Secondary data analysis
2015	TM	England	Inclusive	Workshop, Focus group
2013	TM	US	Inclusive	Descriptive content analysis
2013	TM	Poland	Exclusive	Focus group Telephone survey
2013	TM	US UK	Both	Case study Interview Secondary data
2013	TM	Spain	Exclusive	Secondary data Survey
2013	TM	UK	Both	Grounded theory Case study Archival data Interview Focus group
2013	TM	Germany	Exclusive	Quantitative Survey Telephone interview
2013	TM	Spain	Mostly Exclusive	Qualitative Multiple case studies Initial interview Semi-structured interview
2012	TM	Multi national	Inclusive	Qualitative Case studies Semi-structured interviews Archival data
2012	TM	Different countries	Exclusive	Case study Semi-structured interview

Table 2.1. Continued

Publication year	Focus	Country	Definition	Method/Design
2012	TM	India	Exclusive	Mix-method survey Focus group Interview Archival data
2012	TM	UK	Exclusive	Archival data
2012	TM	India	Exclusive	Survey
2011	TD	China	Exclusive	Existing dataset, Semi-structured interview
2011	TM	US	Exclusive	Case study, Document analysis, Interview
2010	TM	China	Exclusive	Case study, Interview
2010	TM	Brazil Russia India China	Exclusive	Structured interview
2010	TM	Germany, Ireland (US subsidiaries)	Inclusive	Case study Semi-structured interview
2009	TD	South Korea India	Inclusive	Qualitative Archival data Content analysis
2009	TD	Malaysia Thailand	Exclusive	Qualitative Interview
2009	TM	Asia	Inclusive	Survey
2008	TM	England	Exclusive	Interview
2008	TM	Scotland	Inclusive	Literature review, Focus group
2007	TM	Italy	Both	Multiple case studies Phone interview
Total=34				

Interventions

For reviewing the studies' findings on TD interventions, McLean's (2006) organizational development intervention categories were used as a framework to categorize the TD interventions into five groups: formal training and development (T&D), individual-

level organizational development (OD), team-level OD, organization-level OD, and global-level OD. The interventions' types and their descriptions are presented in Table 2.2.

Table 2.2. Interventions

Types of Intervention	Example of Interventions
Formal T&D	**In-house seminars, executive MBA programs** (Juhdi, Yazit, Jusoh, & Supar, 2015). **Young and senior executive and non-executive programs** (Festing, Kornau, & Schafer, 2015). **Collaboration with external source of knowledge such as universities, trade associations and consulting companies, company's own training and development programs** (Chadee & Raman, 2012; Burbach & Royle, 2010; Sparrow, Farndale,& Scullion, 2013; Cho & McLean, 2009; Valverde, Scullion, & Ryan, 2013 Festing, Shafer, & Scullion, 2013; Tansley & Tietze, 2013; Wang-Cowham, 2011; Hartmann, Feisel, & Schober, 2010; Hall-Ellis & Grealy, 2013). **On-the-job, off-the-job, and external training** (Zheng, 2009; Wang-Cowham, 2011; Hall-Ellis & Grealy, 2013); Expertise and talent training (Cho & McLean, 2009, Lehman, 2009; Tansley & Tietze, 2013). **Individualized training** (Valverde, Scullion, & Ryan, 2013; Lehman, 2009; Hall-Ellis & Grealy, 2013; Oppong & Gold, 2016; Thunnissen, 2016). **Personalized credibility training such as awareness and liaison training** (Gold, Oldroyd, Chesters, Booth, & Waugh, 2016) **Leadership and management training** (Goldet al., 2016; Macfarlane, Duberley, Fewtrell, & Powell, 2012; Maxwell & Mclean, 2008; Thunnissen, 2016).

Table 2.2. Continued

Types of Intervention	Example of Interventions
Individual level OD	**Job design: transfers, downward and upward movements job enlargement, enrichment, job rotation** (Judi, et al., 2015; Lehmann, 2009; Macfarlane et al., 2012; Hall-Ellis & Grealy, 2013; Ewerlin & Sub, 2016; Kunasegaran, Ismail, Mohd Rasdi, …& Ramayah, 2016; Thunnissen, 2016).), **flexible hours and working** (Cho & McLean, 2009; Macfarlane, Duberley, Fewtrell, & Powell, 2012). **Mentoring and coaching** (Gold, et al. 2016; Judi, et al., 2015; Sparrow, Farnadale, & Scullion, 2013; Lehmann, 2009; Tansley & Tietze, 2013; Huang & Tansley, 2012; Festing, Kornau, & Schafer, 2015; Hall-Ellis & Grealy, 2013; Swailes & Blackburn, 2016; Oppong & Gold, 2016; Ewerlin & Sub, 2016; Gibb & Zhang, 2017; Thunnissen, 2016). **Professional and managerial and leadership development opportunities** (Chadee & Raman, 2012; Cho & McLean, 2009; Tansley & Tietze, 2013; Huang & Tansley, 2012). **Resource support: training expenditure, scholarship and traineeship, research facilities sharing** (Zheng, 2009; Chadee & Raman, 2012; Cho & McLean, 2009). **Personal feedback** (Burbach & Royle, 2010; Hall-Ellis & Grealy, 2013). **Stretch assignments** (Burbach & Royle, 2010; Tansley & Tietze, 2013; Huang & Tansley, 2012; Ewerlin & Sub, 2016). **Career fairs** (Sparrow et al., 2013). **Value and career criteria clarification** (Cho & McLean, 2009; Thunnissen, 2016).) **Career development plans** (Lehmann, 2009, Huang & Tansley, 2012; Guerci & Solari, 2012; Swailes & Blackburn, 2016). **Job description** (Lehmann, 2009). **Informal, experiential learning** (Tansley & Tietze, 2013, Huang & Tansley, 2012, Guerci & Solari, 2012; Oppong & Gold, 2016; Gibb & Zhang, 2017). **Visibility by top managers** (Guerci & Solari, 2012)

Table 2.2. Continued

Types of Intervention	Example of Interventions
	Verbal assessment and self-development activities (Maxwell & Mclean, 2008; Oppong & Gold, 2016). **Internship** (Hall-Ellis & Grealy, 2013; Ewerlin & Sub, 2016). **Life-long development and learning plans** (Kunasegaran, Ismail, Mohd Rasdi, …& Ramayah, 2016)
Team level OD	**Team building through autonomy and creativity** (Oltra & Vivas-Lopez, 2013). **Team working and learning** (Oppong & Gold, 2016; Oltra et al., 2013; Macfarlane et al., 2012; Ewerlin & Sub, 2016). **Social networks and networking events** (Wang-Cowham, 2011; Festing, Kornau, & Schafer, 2015). **Community engagement events** (Hall-Ellis & Grealy, 2013). **Story telling** (Oppong & Gold, 2016)
Global level OD	**Valuing and hiring global workforce** (Oltra et al., 2013), **global succession planning** (McDonnell, Lamare, Gunnigle, & Lavelle, 2010). **Global manger training** (McDonnell et al., 2010). **International assignments and global mobility** (McDonnell et al., 2010; Huang & Tansley, 2012; Oppong & Gold, 2016). **Overseas training and exposure** (Wang-Cowham, 2011)
Organization level OD	**Succession and replacement planning** (Burbach & Royle, 2010; McDonnell et al., 2010; Cho & McLean, 2009; Festing, Schafer, & Scullion, 2013; Macfarlane et al., 2012; Rothwell, 2011; Kunasegaran, Ismail, Mohd Rasdi, …& Ramayah, 2016). **Firm-wide culture change** (Sparrow, Farnadale, & Scullion, 2013, Hartmann, Feisel, & Schober, 2010). **Learning organizations through networking** (Sparrow et al., 2013) and **knowledge sharing** (Oltra et al., 2013) **Benchmarking** (McDonnell et al., 2010). **Accountability and performance-based reward system** (Cho & McLean, 2009; Lehmann, 2009; Oppong & Gold, 2016).

Table 2.2. Continued

Types of Intervention	Example of Interventions
Organization level OD	**Modernizing education and training** (Macfarlane et al., 2012; Ewerlin & Sub, 2016). **Creating employees' skill profile and look for potential talent pools** (D'Annunzio-Green, 2008). **Managerial support and building personal relationships between employees and organization** (Hartmann, Feisel, & Schober, 2010; Swailes & Blackburn, 2016) **Annual performances appraisal system** (Thunnissen, 2016).

Trends, issues, challenges, and outcomes

Trends. This systematic literature review of talent development identified important trends in the TD publications. All of the articles were published after 2007, and the majority of these (26 out of 34) were published after 2010. Additionally, only three studies were conducted in the US, compared to 18 studies that were conducted in European countries and the remaining 12 that were conducted in Asian and South American counties. The fact that more than half of the studies were conducted in European countries might demonstrate a pioneering role of these countries in developing talented employees.

Issues. Issues identified from the review of literature include dealing with personal concerns and employees' work–life balance is an issue that organizations can face when implementing TD interventions (Juhdi, Pa'wan, & Hansaram, 2015). Organizations are also concerned about losing their trained employees, because they believe that better-trained and highly skilled employees may be more attractive to their competitors (Zheng, 2009).

Burbach and Royle (2010) point to five other issues: (a) a weak connection between the headquarter and its subsidiaries, i.e., the subsidiaries have no voice in the introduction

of T&D or TM systems, (b) a measurement tool deficiency for assessing the value added by the implemented TD model, (c) difficulty in the talent review strategy because data can be lost in the system, (d) an inappropriate TD model for subsidiaries, since models are based on the headquarters' template, and (e) line managers' limited knowledge or impartial interest in the TM system.

An additional issue identified by Hana and Lucie (2015) is that employees do not usually actively look for development, but rather expect their organizations to provide TD opportunities for them. However, although employees assumed that the organization would initiate the developmental activities, fewer than half of the organizations under study had been actively involved in monitoring employees' developmental needs. Since TM is mostly used for reliable employees in leadership positions and other employees are undervalued, organizations face a serious issue when implementing a more inclusive approach to TD to meet the expectations of all employees who could be considered as talent (Hana & Lucie, 2015).

*Challenges***.** Challenges in implementing TD interventions were identified by several studies: (a) a perceived low value of training except for on-the-job training (Skuza, et al., 2013), (b) negative attitudes regarding the value of developing "soft" skills (Skuza, et al., 2013), (c) low acceptance of failures (Oppong & Gold, 2016; Skuza, et al., 2013), (d) the organization's unwillingness to include employees in decision-making processes (Fajcikova, Fejfaroya, & Urbancoya, 2016; Skuza, Scullion, & McDonnell, 2013), (e) treatment of high potential as a threat to high-level positions because the organizational culture believes power comes from knowledge and expertise, and (f) punishment for

mistakes and little opportunity to ask questions, because this might be interpreted as a lack of knowledge (Skuza, Scullion, & McDonnell, 2013).

In addition, (g) seniority and the concept of "dead positions" mean that senior employees should have secured positions and opportunities, (h) commitment is expressed as having a relationship with the immediate supervisor and not primarily with the company, (i) personal relationships affect the success of performance appraisals to a very large extent, and (j) there are nontrained supervisors in leadership and people management positions who have inadequate understanding of the TD system and process (Lehman, 2009; Oppong & Gold, 2016; Swailes & Blackburn, 2016). Additional challenges that were observed include (k) talented employees' unhappiness regarding mobility (Huang & Tansley, 2012), (l) translating the many developmental needs that result from yearly appraisals into possible training plans (D'Annunzio-Green, 2008), and (m) the significant time and money investment needed to implement TD activities (Hall-Eliss & Grealy, 2013; Fajcikova, et al., 2016). Table 2.3 summarizes the TD issues and challenges.

Table 2.3. TD Issue/Challenges

TD Issues/Challenges	Examples
Personal	Work-life balance; unhappiness toward mobility especially foreign assignments
Managerial	Limited knowledge or disinterest in TM system; perceived low value of most training; negative attitude toward developing soft skills; unwillingness to include employees in decision making; high potential is treated as threat to mangers' positions; untrained supervisors in leadership positions; incomplete understanding of TD process
Organizational and procedural	More skilled, more attractive for competitors; weak connection and conflicting principles between headquarter and subsidiaries across different countries, difficulty in measuring the added value; not effective data management system; US based intervention for international companies; not delivering the promises regarding rewards and opportunities; unclear promotion criteria and uncertainty about career possibilities.
Cultural	Low acceptance for failure, punishment for mistake; little opportunities for asking questions; consider to have limited or no knowledge if ask questions; seniority;
Interpersonal	Relationship-based commitment; personal relationship effects performance evaluation and talent selection for further access to opportunities;

Outcomes. Several positive organizational outcomes associated with implementing TD interventions were identified:

- TD interventions influenced service delivery and firm growth and harmonized relationships between employer, employees, and customers (Zheng, 2009);
- Providing traineeships/apprenticeships and skill development support had a significant positive impact on employees' turnover rates (Zheng, 2009);

- Certain TM practices related to teamwork design and dynamics stimulated learning and led to the development of team spirit (Hartmann, Feisel, & Schober, 2010; McDonnell, Lamare, Gunnigle, & Lavelle, 2010);
- Training had a direct impact on employees' commitment to the organization (Cho & McLean, 2009; Hartmann, et al., 2010);
- Long-term development programs had strong effects on workplace adaptation (Kunasegaran, Ismail, Mohd Rasdi, … & Ramayah, 2016).

On the other hand, Zheng (2009) found that HR practices with training resource support do not necessarily yield good employee retention outcomes. No other negative or noneffective outcomes were reported by the studies reviewed.

Discussion

TD has largely been ignored in HRD publications (Garavan et al., 2012). Only four studies in the current literature review have a main focus on TD. There might be two explanations for the identification of so few articles specifically on TD. First, the boundaries between HRD and TD are vague, and second, disagreement between different definitions of TD might have led to the exclusion of a specific study from the TD literature.

It seems that the terms *talent management* and *talent development* have not been used more frequently in the management and HRD literature because of the blurred boundary between TM and HRM and also between TD and HRD. According to Lewis and Heckman (2006), "TM seems to be the new phrase designed to re-package standard solutions to HR challenges" (p. 142). Being a part of TM, TD appears to have the same status. It is hard to distinguish TD from HRD activities since there is not a clear-cut

boundary between TD and HRD. Therefore, there seems to be an enormous overlap between HRD-related publications and TD publications, and researchers use different vocabularies such as employee development, leadership development, management development, training and development, and career development interchangeably.

Trying to define TD as a discrete concept from HRD could be considered as both differentiating the current literature review and a limitation. The distinction between TD and HRD led to identification of only a few articles specifically on TD, because the current study excluded all publications that did not say anything about how their findings contribute to the fields of TM or TD. This may be a limitation of this review, since there might be publications that make indirect contributions to TM and/or TD, but because those articles did not specifically mention TM or TD, they were excluded from this review.

Another reason that might have made it difficult to find articles on TD is the dissonance among definitions of TD and its scope (Garavan et al., 2012; Hedayati & Li, 2016), which could result in TD-related studies being categorized under several topics, depending on the researchers' perceptions and definitions of TD.

In the current study, the review of publications labeled as TM/TD indicates the current status of research that is explicitly in the TD area. A few articles on TD highlight the need for researchers to thoroughly examine workplace practices while thinking about building appropriate research-based frameworks and models for developing talent and not for other HRD practices. This systematic literature review revealed the following important findings regarding TD interventions, literature trends, issues, challenges, and outcomes.

Talent development interventions

From the perspective of the current study, TD interventions in the workplace were classified into five groups: T&D, and individual-, organization-, team-, and global-level OD interventions. Individual- and organizational-level OD along with T&D interventions were cited as the most common practices; the researchers mention few team- and global-level OD interventions.

From another perspective, Garavan et al. (2012) divided TD programs into four types: (a) Formal programs include a wide range of strategies, including conceptual and skill-based development, personal growth development, feedback, and action-focused development interventions. Formal programs' effectiveness as an intervention have not been clearly acknowledged by research. (b) Relationship-based developmental experiences focus on involving other sources for developing talented employees, such as sponsoring, mentoring, coaching, providing career advice, and offering psychosocial support. Some studies have shown that relationship-based interventions have had significant impacts for talent development, but they have failed to further examine the extent and nature of the influences. (c) Job-based developmental practices emphasize performing stretch tasks, implementing changes and new practices, and designing jobs. For successful application of job-based interventions, organizations need to provide adequate design requirements and support systems. (d) Finally, there are informal and non-formal opportunities such as informal and experiential learning. Although informal and non-formal interventions are frequently used in organizations, there are few research-based frameworks for their required antecedents and possible outcomes within the organization.

The TD intervention classification in the current study is to some extent inconsistent with Garavan et al.'s (2012) categorization. All of the interventions discussed in Garavan's

study were found in the current literature review; however, the current study's proposed categories are more comprehensive, having been adopted from a well-known OD model (McLean, 2006) in which a broader spectrum of interventions are covered (see Table 2).

TD issues and challenges

Issues and challenges regarding the implementation of TD interventions can be examined from personal, managerial, organizational, procedural, cultural, and interpersonal perspectives. For example, unhappiness about mobility and the work–life balance are personal issues affecting the execution of TD interventions and their outcomes. Table 3 displays various issues/challenges along with examples identified by this study. According to the findings, most challenges and issues have been driven by the managerial perspective, as managers do not have a thorough and correct understanding of TD systems and tend not to value the importance of developing talented employees for their organizations. Additionally, organizational and cultural issues seem to have noticeable impacts on implementing TD interventions, as shown in Table 3.

Interesting trends in the findings

The study's findings demonstrated two interesting trends in the published TD research.

First, all of the studies were published after 2007, which might be driven by two significant events leading to a rise in researcher interest in TD after 2007:

1. The financial crisis in 2008 changed the ways organizations manage their resources. HR practices also have been influenced by changes driven by the financial crisis, and not only do they "motivate employees to have more performance, to be more dedicated, to set for themselves ever higher standards in order to keep their job"

(Stefanescu & Darabaneanu, 2011, p. 105), but they also force organizations "to solve current problems without damaging the company's long-term interests, to restructure the staff list and reduce salary expenses without losing [valuable employees]" (Stefanescu & Darabaneanu, 2011, p. 105) and to act firmly without destroying employees' loyalty and trust .

2. There has been a projected baby boomer retirement and talent deficiency in the job market. The first baby boomer generation (1946–1964) began to retire after 2006, and the retirement trend will continue until 2030. After 2006, organizations became aware of losing their baby boomer employees and thus tried to implement appropriate mentoring and coaching interventions in order to prepare and train the next generation of employees. In addition, because of retiring baby boomers and the declining birth rate (Kim & McLean, 2012), the labor demand will exceed the supply in the labor market and therefore force organizations to think about applying new and revised TM and TD systems.

The second trend in the literature is that, except for three articles, the remainder of the studies were conducted in countries other than the US. In particular, more than half of the studies were conducted in European countries. This might indicate a disconnection and separation in the US between research and practice in the TD area but also closer attention and the leading role of European counties regarding the concept of talent development. In any case, despite the numerous TD activities that are taking place in the workplace across the globe, there are not sufficient research-based frameworks or models to guide HRD practitioners or assess the present status of TD interventions.

Talent Development Model

The need for a TD model to demonstrate TD's intervention antecedents and outcomes within the organization inspired this study's development of a TD model derived from the current literature review findings. Figure 2.1 presents the proposed TD model.

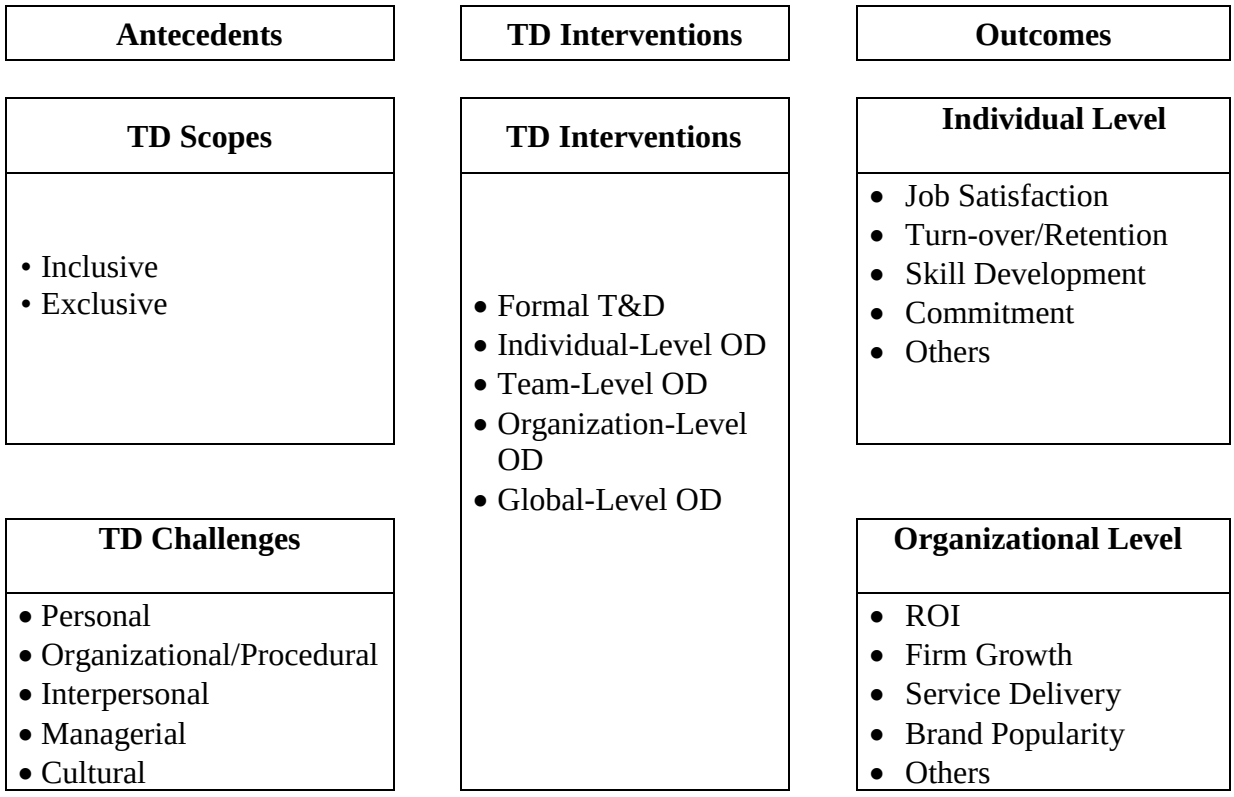

Figure 2.1. Antecedents and Outcomes of TD Intervention Reported by Empirical Studies

The model advocates an organizational perspective on the scope of TD, along with challenges/issues regarding the implementation of TD interventions that would predict organizations' choices of which types of TD interventions to implement. These antecedents would influence how organizations approach TD (which intervention is used and to what extent the intervention affects employees) and how successful interventions

are if they are applied. The model also indicates that organizations have various choices of interventions from the T&D, CD, and OD areas; they need to realize the one that fits their needs and aligns with the organization's objectives and mission.

According to the model, the outcomes from implementing TD interventions can be divided into two groups: individual-level and organizational-level outcomes. Any TD intervention with the described antecedents may yield different outcomes. Therefore, several might be used in combination to examine the relationship between different elements of the TD model. The relationship between the model's variable could not been identified through the literature review. Thus, there is no arrows in the model demonstrating how models' variables are related to one another.

Implications

Research

There seems to be no theoretical framework or model in HRD publications to demonstrate the relationship between the use of different TD interventions and organizational outcomes. Therefore, there is a need to conduct extensive research that focuses on the relationship between various TD interventions that have been implemented, such as succession planning, mentoring, global assignments, and culture change, and individual, group, global, and organization level outcomes, such as performance, Return on Investment (ROI), knowledge sharing, brand awareness, satisfaction, commitment, tendency to leave, and many others.

There is little evidence that indicates the association between interventions and their specific outcomes or that examines how the perspective taken toward TD (exclusive or inclusive) can influence both the nature of an intervention and the relationship between

specific interventions and outcomes. Thus, there are opportunities for researchers to conduct studies that examine how utilizing different combinations of antecedents and TD interventions would lead to different results.

Additionally, some studies note that although organizations are using TD practices extensively and usually have strategies for managing their talents, there is a lack of research that adequately examines these practices and makes the connection between research and practice. Based on the current study's findings, researchers can use available processes, models, and frameworks that have been proposed for developing talented employees across organizations to build a valid and reliable framework for further research and practice.

Practice

According to McLean's (2006) OD categorization, there are several applicable interventions at different levels of performance (individual, group, process, global, organization, community, and national) for talent development. The results of examining the TD literature show that the most common interventions have been implemented at the individual level and have been designed to benefit individuals, followed by T&D interventions. Through looking further at other levels of OD interventions that have been presented by researchers, TD practitioners can benefit from using various interventions and gain the competitive advantages of being innovative and making differences.

CHAPTER III

MEDIATING EFFECT OF SOCIAL MEDIA USE BEHAVIOR ON THE RELATIONSHIP BETWEEN PREDICTOR FACTORS AND WORK SUCCESS: A CONCEPTUAL MODEL FOR TALENT LEARNING AND DEVELOPMENT

Summary

The Problem.

This study examined the influence of factors such as performance expectancy, effort expectancy, facilitation condition, and social influence on the use of social media tools for different learning and development activities. Additionally, the study investigated the work success outcomes including performance, productivity, and job satisfaction as a result of using social media usage.

The Solution.

Results indicated that the predictor factors would influence employees' perceived work success through the mediation effect of social media usage. According to employees reported extent of use, not all social media tools have the same influence. External and internal professional networking success as LinkedIn and Yammer, followed by microblogging tools (Twitter) and Internal online chatting were reported as the most used tools by employees. Our results showed that there is not difference in the extent of use or perceive work success between different demographic categories such as age, gender, position, and education.

The Stakeholders.

The impact of designing effective and efficient social media intervention to improve employees' learning and development and gain positive individual outcomes would help organizations in different industries to keep the pace with technological advancement and gain a competitive advantage.

Introduction

The talent development (TD) field has faced several changes recently. A rapid declining trend in working populations of most developed countries as a result of retiring baby boomers and decreasing birth rate (Kim & McLean, 2014) as well as the new technology savvy generation of employees (Nafukho, Graham, & Muyia, 2010) who need different work arrangements to be successful at their job, besides technological advancement are the emergent issues that need to be addressed. These changes demonstrate that traditional human resource management systems that worked effectively in the previous years might not be effective and appropriate for addressing the new issues such as shortage of labor forces and changes in technologies (Kim & McLean, 2014).

The issues resulting from technological advancements come in different types at different times. Recently, the new concept of virtual human resource development (VHRD) was defined for the first time in HRD as a "media-rich and culturally relevant web[bed] environment" (Bennet, 2009, p. 364). VHRD suggests organizations explore new practices by utilizing technologies in their human resource systems. Three distinct phases of VHRD literature demonstrate technological changes over time and express how people connect to, through, and within technology across the organizations (McWhorter, 2010).

Different types of technological methods and tools have been used in each phase. For example, in the connecting-to-technology phase and appearance of personal computers, PC training and computer-supported teams became substitutes for the traditional HRD interventions to increase the productivity of organizations. In connecting through the technology, the Web 2.0, 3D virtual worlds, and virtual communities allowed human resource experts to develop and create effective HRD interventions for building two-way communications. Three-dimensional technologies provided a place for people to represent themselves and interact in real-time through avatars in virtual worlds (Chapman & Lahar, 2008). These 3-dimension games provided the real-time interactions among individuals and created opportunities to design real-time trainings, community building, knowledge sharing, and many other interactive interventions in the connecting within the technology phase (McWhorter, 2010).

Web 2.0, which is a vision of web technology in the connecting within the technology phase, embodies actual "changes in the communicative uses of the underlying Web platform" (Warschauer & Grimes 2007, p. 2), and tries to enhance creativity, collaboration, and information sharing among users (Tu, Blocher, & Ntoruru, 2008). Social networks such as Facebook, Twitter, LinkedIn, wikis, and social book marks are some of the most cited technologies or tools in Web 2.0 that have affected the HRD field in many ways including knowledge sharing and training (Wang, 2012), thus having the potential to contribute to TD programs and practices.

One of the possible research agenda within the area of VHRD and talent development is exploring questions like how organizations and firms utilize emergent technologies such as social media to benefit their business or how organizations and firms can choose from

different kinds of initiatives which social platforms offer to maximize their effectiveness in employee development and make sure those initiatives are aligned with the organizations' strategies (Aral, Dellaroca & Godes, 2013).

Talent Development

Talent development is defined

> Planning, selecting, and implementing developmental strategies for the entire talent pool to ensure the organization has both the current and future supply of talent to meet strategic objectives; as well as to ensure developmental activities are aligned with organizational talent management processes. (Garavan, Carbery, & Rock, 2012, p.6)

Based on the definition, all kinds of activities that contribute to the development of employees could be considered as TD practices. Such activities include, but not limited to formal training and development programs, job design, mentoring and coaching, resource sharing and feedback systems, networking, community engagement events, global mobility and international assignments, succession planning, culture change, relationship buildings, and many others (Rezaei &Beyerlein, 2017).

Garavan et al. (2012) divided TD programs into four types as follows: first, formal programs include a wide range of strategies, including conceptual and skill-based development, personal growth development, feedback, and action-focused development interventions. Formal programs' effectiveness as an intervention have not been clearly acknowledged by research. Second, relationship-based developmental experiences that focus on involving other sources for developing talented employees, such as sponsoring, mentoring, coaching, providing career advice, and offering psychosocial support. Some studies have shown that relationship-based interventions have had significant impacts for

talent development, but they have failed to further examine the extent and nature of the influences. Third, job-based developmental practices emphasize performing stretch tasks, implementing changes and new practices, and designing jobs. For successful application of job-based interventions, organizations need to provide adequate design requirements and support systems. Fourth, informal and non-formal opportunities such as informal and experiential learning that take place with the minimum supervision and planning within the organization. Although informal and non-formal interventions are frequently used in organizations, there are few research-based frameworks for their required antecedents and possible outcomes within the organization. Social media-based learning and development can be considered as a type of informal TD programs discussed above.

Implementing TD practices in organizations influences organizations' outcomes such as productivity, job satisfaction, and absenteeism (Lawler, 2008). Researchers suggested in order to be effective in managing talented employees, the senior managers in human capital centric organization (organizations striving for success by attracting, developing, retaining, organizing and managing people) should spend 30-50 percent of their time on talent management (Lawler, 2008). However, despite the positive organizations' outcomes and importance of implementing TD practices, there is a paucity of research in the TD field (Hedayati & Li, 2016; Garavan, et al., 2012).

Social Media

Social media has changed the way of communication and knowledge sharing (Aral, Dellarocas, & Godees, 2013; Lin & Lazar, 2013; Mount & Martinez, 2014). Different social media platforms introduce various applications that allow users to get involved in personal relationships along with vocational relationships and encourage them

to participate in discussions and engage in knowledge sharing regardless of time and place (Rezaei & Chakraborty, 2017).

The emergent need to pay attention to social media's influence on people's lives and work can be illustrated through recently released statistics by social media's websites and the results of several studies. For instance, Twitter, the second most popular social media in the world (26% internet users in the US), reached 284 million monthly active users (active users are measured by counting the number of unique users during a specific measurement period). Everyday 500 million tweets are sent (Twitter.com). An example for application of Twitter for the purpose of organization development is a visualization tool "Whisper" (Lin & Lazar, 2013). Whisper is a tool to show how, when, where and what kinds of information has been spread through Twitter. Lin and Lazar (2013) attempted to trace the tweets in a real-time manner by Whisper in order to detect the opinion leader and identify the popularity of an idea (Rezaei & Chakraborty, 2017).

Another example of Twitter feature is the ability to identify the Hemophily phenomenon among Tweets (Kwak, Lee, Park, & Moon, 2010). Homophily occurs when "a contact between similar people occurs at a higher rate than among dissimilar people" (Kwak et al., 2010, p.594). By mapping the contacts within the organization through homophily, organizations find people with proximity of ideas. It allows them to use the information when making decisions about building team works and put employees in the same work group or distribute them within the organizations in different groups based on an organization's strategy and the purpose of the team.

Facebook is known as the first popular social media in the United States and world (Statista.com, December 2016). As of December 2016, Facebook had more than 1.6 billion

global monthly active users. Active users are those which have logged in to Facebook during the last 30 days. This statistic also shows a timeline with the worldwide number of active Facebook users from 2008 to 2016. In the third quarter of 2012, the number of active Facebook users had surpassed 1 billion. Number of Facebook active users in the United States as of April 2013 (in millions) was 148.6 (Statista.com). There was been a rapid and steady increase of users of Facebook as a form of social media.

LinkedIn is another social media platform which has been introduced specifically for professional and work-related networks. Therefore, exploring its effects on individuals' network and organizations' HRM/HRD-related activities is important. LinkedIn is one of the most popular social networks in terms of active users in the professional world. During the second quarter of 2016, LinkedIn had 450 million members, up from 380 million at the same quarter of 2015. This statistic ranked countries worldwide by number of registered members of LinkedIn as of the first quarter of 2016. United States users were 128 million. There were over 20 million registered users in the United Kingdom and over 12 million registered users in Canada. Overall, the professional social network had more than 104 million members in European countries (Statista, 2016). The percentage of online job seekers that use LinkedIn compare to other popular job search platform indicate that the more popular job search boards such as monster.com or indeed.com are visited by approximately 0.25% of Internet users. Each person spends four minutes on average on these websites, while LinkedIn is consumed by 3.4% of daily Internet users, each user spends 7.4 minutes/day on average (Garg & Telang, 2012). Social media tools seem to be replacing more traditional forms of internet communication.

Reflecting on the number of users and anticipated growth rate, it is conceivable to claim that social media have the potential to provide opportunities for HR developers to design and implement innovative methods of knowledge sharing and performance improvement. One of the benefits of social media application in HRD practices is to create a suitable balance between high-tech interventions and high-touch interactions among employees. Acknowledging the low actual human interaction when using virtual environments and technological tools, social media among the other technological tools provides a place for more interaction among individuals who may or may not be physically dispersed from each other (Wang, 2012) to foster a sense of inclusion and community.

Technology and Talent Development

Technology is a substantial part of every organization. Technological advancements provide a useful platform to build more effective and innovative employee management and development systems. Technologies such as system analytic and database queries facilitate the talent management practices by their unique or common identifications and interests and investigate the information flow and knowledge sharing within the specific network in the organization. For example, Jensen (2005) proposed a model of knowledge-centric components and practices of workplace learning and performance. In this model, the main element suggests increasing the effectiveness of the talent management system by combining formal and informal learning (HRD techniques). The model demonstrates how various technologies (e.g. Wiki, online bookmaking, webinar, virtual worlds, and social media) in both formal and informal learning settings may influence and support talent management strategies through fostering a learning organization. Jensen's model has been used in subsequent studies to highlight how sharing

information via any social activities would be beneficial in knowledge management and creating a learning organization (Aggestam, 2015; Rashman, Withers, & Hartley, 2009; Swif & Hwang, 2013)

Researchers also discussed the role of social media as one of the emerging and rapidly growing technologies in making connection with remote talent and matching the job with the appropriate talent (Aral, Dellaroca, & Godes, 2013). Another example of social media's positive effect is its potential to manipulate the decision-making process of employees and therefore cause production of higher quality decisions, because employees are encouraged to consider the other aspects of a subject through such a huge influx of opinions and ideas.

Additionally, the role of social media in innovation and research and development should not be overlooked. By data mining and environmental scanning, firms can identify the emerging trends in the market. Being able to identify the trend in the market by social media should be helpful in the development of talent capacity, reaching for more creative ideas and attaining a sense of accomplishment that helps organizations retain their talents (Mount & Martinez, 2014). Since social media websites are popular, easy to use, and almost free, the social media application in sharing knowledge and ideas, collaborative online training, and building social networks with low-cost investment would be beneficial for organizations (Garg & Telang, 2012; Lin & Lazer, 2013; Roberts & Sambrook, 2013; Thomas & Akdere, 2013).

There are several other ways that social media contributes to the organizations. These benefits might not be directly related to developing talent, but they facilitate HRD professionals' attempt to to attract and deploy appropriate employees. For example,

employer brand functions as a significant factor for attracting people. With proper branding or job advertisement external talent will be aware of organizations and the value of working in them. As a result, employers are able to find and hire employees who match with the organization's needs more easily (Garg & Telang, 2012; Roberts & Sambrook, 2013).

Significance and Purpose of the Study

The anticipated growth rate, and the potentials of social media application to increase effectiveness of learning and development practices within the organizations, provide opportunities for HR developers to design and implement innovative methods of knowledge sharing and performance improvement. One of the benefits of social media application in HRD practices is to create a suitable balance between high-tech interventions and high-touch interactions among employees. Acknowledging the low actual human interaction when using virtual environments and technological tools, social media among the other technological tools provides a place for more interaction among individuals who may or may not be physically dispersed from each other (Wang, 2012) to foster a sense of inclusion and community.

The primary goals of this quantitative study are to investigate (a) the extent and types of social media tools used by organizations for developing talented employees, (b) the effects of using social media tools in TD practices on individual level outcomes such as work success, (c) The influence of factors including performance expectancy, effort expectancy, facilitating conditions, and social influence on employees' use behavior, and (d) the role of demographic characteristics such as age, gender, education, and position in use of social media and perceived work success.

The current study explores the possible effects of leveraging social media as a TD intervention. The systematic literature review of TD (Rezaei & Beyerlein, 2018) demonstrated that there are few study examining such effects. This study is a quantitative relational design research in which the relations among the variables of the study will be tested through different mediation analyses.

Research Questions

The following four questions guide the study:

1. Which types of social media tools do the organizations use for talent development and to what extent?
2. How does performance expectancy, effort expectancy, social influences, and facilitating conditions directly and indirectly through social media influence employees' work success?
3. What is the effect of using social media tools for TD practices on employees' work success including performance, productivity, and job satisfaction?
4. How demographic characteristics influence the use of social media tools or perceived work success?

Conceptual Framework

In this study, I investigate interrelationships among a set of variables. Therefore, I will construct a model to show how variables influence or have been influenced by other variables (Lunenburg & Irby, 2008). The model I will propose is adapted from two models: Unified Theory of Acceptance and Use of Technology Model (UTAUT) (Venkatesh, Morris, Davis, & Davis, 2003), and a dissertation research model studying influencing factors on employees' work success by Graham (2015). Performance

expectancy, effort expectancy, facilitating conditions, social influence, and use behavior are the variables borrowed from the UTAUT model. Work success variables (performance, productivity, satisfaction) have been measured using Graham's model of work success. Figure 3.1 shows the model.

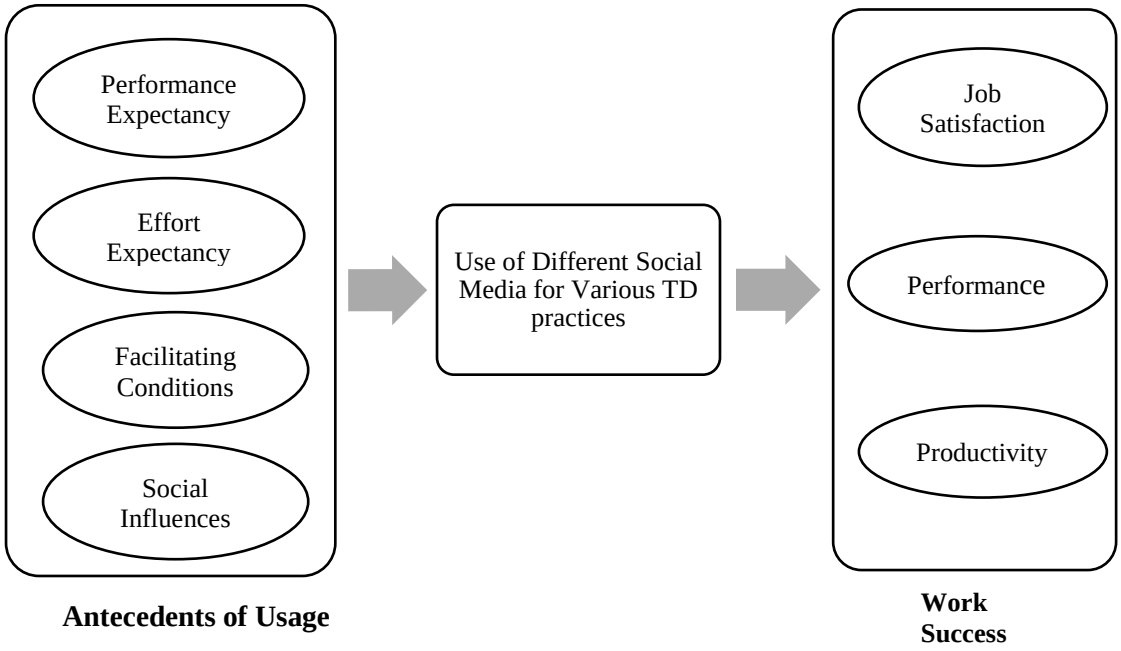

Figure 3.1. Social Media Processes in the Organization-Conceptual Model

The proposed model represents how expectations of social media users about usefulness and easiness of social media tools, as well as availability of different facilitating conditions or influence of others would determine the actual use of social media in their work. Then, the model examines whether use of social media have any effects on employees' perceived work success.

Study Hypotheses

Hypotheses of the study are supported by previous literature. Since the relationship between antecedents and outcomes of social media usage through mediation analysis is the primarily goal of the study, each hypothesis consists of examining three parts. First, the relationship between antecedents and use of social media, the relationship between use of social media and work success, and third the indirect relationship between antecedents and work success through use of social media.

UTAUT Factors and Social Media Usage

The influencing factors in employees' use of technology and specifically social media has been studies in several research. For instance, Usefulness was identified as the most important determinant of educational use of Facebook followed by facilitating conditions, social influences, and ease of use in a study by Mazman & Usluel (2010). Researchers identified perceived usefulness (performance expectancy) and perceived ease of use (effort expectancy) as important antecedents to an individual's intention to use a particular technology. Individual's positive or negative feelings toward a system, in particular their perceptions on the level of difficulty of use of the system, will have an impact on their decision to use or not (Cody-Allen Kishore, R., 2006; Davis, 1989; Venkatesh et al. 2003). Krause (2010) examined the attitude, perceptions, and behavioral intentions of engineering workers toward Web 2.0 tools in their workplace. He found statistically significant correlation between performance expectancy and effort expectancy on behavioral intention to use Web 2.0 tools and technologies. Employees responded that Web 2.0 tools assist them in their work and are easy to learn.

The role of social influence on use behavior, however, has been controversial. Some researchers advocated the inclusion of social influence in the social media adaption and use (Fulk, Steinfield, Schmitz, & Power 1987; Mazman & Usluel, 2010), while others have not included them (Venkatesh et al., 2003). Previous work has found social influence to be significant only in mandatory settings (Venkatesh & Davis 2000). Krause (2010) found that others' opinions did not influence employees' use of social media tools. The empirical results also indicate that facilitating conditions have a direct influence on usage beyond that explained by behavioral intentions alone (Venkatesh et al., 2003).

Social Media Usage and Work Success Variables

There is paucity of research to understand the influence of different social media applications on organizational performance and productivity (Philpot, 2013). Although there are assumptions regarding the positive outcomes from using social media at work, there are few or no research to advocate such assumptions. In practice, companies that are using social media have reported measurable benefits. Increased access to experts, higher employee satisfaction, lower travel and communication costs are some of the positive outcomes of implementing social media interventions (Bughin, Chui, & Miller, 2009).

In a study by Watson-Frit, Narasimhan and Rhee (1998), researchers examined the self-reported performance, productivity, and satisfaction among telecommuters. They concluded as a result of fewer disruptions, and availability of proper communication tools and support systems, employees reported higher level of performance, productivity, and job satisfaction. Social media related behaviors may also help employees increase their work performance (Carlson, Zivnuska, Harris, & Carlson, 2016) and job satisfaction (Hanna, Kee, & Robertson, 2017). For instance, positive correlations between use of social

networking tools and job satisfaction were found depending on how intense an individual uses Facebook to connect with their co-workers. A strong correlation between certain social networks attributes such as an expertise search tool and work performance, productivity and job security were identified as well (Wu, 2013).

Conflicting findings and shortage of research regarding the potential benefits of utilizing social media within the workplace suggest that organizations look into potentially promoting the use of social media tools in their organizations. In order to do so, I propose the following hypotheses o test the relationship among the study's variable.

H1-a: The influence of performance expectancy on work success will be mediated by use of external social media.

H1-b: The influence of performance expectancy on work success will be mediated by use of internal social media.

H2-a: The effect of effort expectancy on work success will be mediated by use of internal social media.

H2-b: The effect of effort expectancy on work success will be mediated by use of external social media.

H3-a: The effect of facilitating condition on work success will be mediated by use of external social media.

H3-b: The effect of facilitating condition on work success will be mediated by use of internal social media.

H4-a: The effect of social influences on work success will be mediated by use of external social media.

H4-b: The effect of social influences on work success will be mediated by use of internal social media.

Demographic Differences in Use of Social Media and Reported Work Success

The investigation of the effect of demographic variable particularly for gender and age in today's workplace environments regarding the acceptance and use of technology is contradictory.

On one hand, Venkatesh et al. (2003) found that age and gender interact in a manner as to moderate performance expectancy, effort expectancy, and social influence. In another study, the author found out that Generation Y cohort members are significantly more likely to use social media for knowledge management and learning, as compared to their older colleagues (Philpot, 2013).

On the other hand, Cameron (2006) studied software usage in a university setting and found that when age was considered with actual usage behavior, there was no significant difference between performance expectancy or effort expectancy and attitude towards using the technology (Krause, 2010). Krause (2010) found that employees liked and disliked the same learning activities and technology usage regardless of generation.

Walker and Jorn (2009) discovered that since 2007, no correlation was found between age and desire for technology in the classroom, technology use, comfort level, or even perceived usefulness of technology (Kriegel, 2013). Guo (2009) researched differences of adoption and use of social networking across age, gender, using the UTAUT model and found no correlation between social networking sites' use and gender or age.

Regarding the role of position in use of technology or perceive positive outcome is conflicting as well**.** For instance, Rice and Shook (1990) use of electronic mail was not

significantly different between upper-level managers or lower-level clerical staff; Whereas, McAfee (2009) suggested managers are slower to adopt social media than non-managers.

The role of education in the use of technology in general and social media in particular has not been identified. In the current study, education level was added to examine whether or not level of education would influence the use behavior of employees or their perceived work success. In this study, I examine the differences among demographic categories in social media usage and reported work success by following hypotheses.

H5: Use of social media is different between gender, age, education, duration of employment, and position type.

H6: Reported work success resulting from the availability and use of social media within the organization is different between gender, age, education, duration of employment, and position type.

Methodology

The following section discusses the selection of participants in pilot and main study, instrumentation, procedure, and data collection method. This study employed a relational quantitative design to test the relationship between variables through several mediation analyses (Hayes, 2013).

Selection of Participants

The pilot study population consisted of 90 employees within the HR department of a huge publicly traded Internet domain registrar and web hosting company. The pilot was a preparatory step for the main study reported later in the paper.

The main population included the employees of a huge digital industrial company. The population companies have been selected based on the availability of data related to the current study's purpose. Selected company both in pilot and main studies had a widespread usage of social media for employees' developing purposes.

Instrumentation

This study used a four-part questionnaire. The first part asked for demographic characteristics. The second part used the modified version of UTAUT instrument to ask for the antecedent variables. The third part used the modified version of work success instrument to measure the outcomes of the social media usage. The fourth part measured the employees' use of several social media tools for different learning and development activities. The details of each instrument are explained in the following sections.

UTAUT: Performance Expectancy, Effort Expectancy, Facilitating Condition, and Social Influences

UTAUT (United Theory of Acceptance and Use of Technology) instrument developed by Venkatesh, Morris, Davis, and Davis (2003) is an instrument to measure performance expectancy, "the degree to which an individual believes that using the system will help him or her to attain gains in job performance" (p.447), effort expectancy, "the degree of ease associated with the use of the system" (p.450), facilitation conditions, "the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system " (p.453), and social influences, "the degree to which an individual perceives that important others believe he or she should use the new system" (p. 451). Each variable consists of four items rated on a five-point scale from 1 (Strongly disagree) to 5 (strongly agree). All internal consistency reliabilities were greater than .70

(Venkatesh, et al., 2003) for the original instrument. All the Cronbach's alpha of variables for the current sample were above .71 (See Appendix C and D for the list of questions and reliability test result).

Work Success

Work success includes 14 items adopted from three instruments presented in Grasham (2015). The survey instrument measures different components of work success: performance, productivity, satisfaction (all adapted from Belanger, Collins, & Cheney, 2001). The instrument's reliability was evaluated using Cronbach's Alpha and confirmatory factor analysis in SPSS/PC 8.0. Cronbach's alpha resulted in reliabilities higher than .80 (Belanger et al., 2001). Employees rated their response on a seven-point scale from 1 (disagree completely) to 7(agree completely). All the Cronbach's alpha of variables for the current sample were greater than .92 (See Appendix C and D for the list of questions and reliability test result).

Social Media Usage

The survey instrument measuring the current individual uses of social media explores the differences in the uses of different types of social media for various purposes of TD. Use of social media for each TD practice was measured by five-point Likert-type scales and reflected the degree to which employees utilize different social media applications for different TD practices. The list of different social media tools with their goals and application in the organization's current learning and development (L&D) practices was provided by the company's social media manger (See Appendix 3 for the list of questions).

Procedure

The first step in data collection consisted of contacting the director of Human resource development or social media manger to discuss the types of social media the organization use for its talent development activities. Then, the pilot test of the survey was conducted within the HR department of a huge publicly traded Internet domain registrar and web hosting company, as well as the feedback of six methodologists. Lastly, the main data for the study was collected from the 4000 employees of a huge digital industrial company

Modifications and Pilot Test of the Instruments

UTAUT's original instruments measure several factors: performance expectancy, effort expectancy, attitude toward using a technology, social influence, facilitating conditions, self-efficacy, anxiety, and behavioral intention to use the system. In my dissertation, I measured four variables including performance expectancy, effort expectancy, social influence, and facilitating conditions. Another change I have made to the original one was that I replaced the word "system" with "social media" to fit the items with my dissertation. For example, in the survey developed for this dissertation the statement "I would find the system useful in my job" has been replace with "I would find social media useful in my job".

Work success questioner has been modified to use in this dissertation as well. The original instrument measures four items consist of productivity, performance, satisfaction, and career prospect. In my dissertation career prospect was not be a factor to measure. Additionally, the phrase "my work environment" has been replaced by "using social media at work". For example, in an item to measure productivity a statement "my work

environment allows me to work efficiently" was changed to "using social media at work allows me to work efficiently".

To make sure that the changes I have made did not cause misunderstanding and ambiguity to the original statements I conducted a pilot test of the survey. The survey was created through TAMU's Qualtrics as it is supposed to be sent to the study's participants. six quantitative researchers were asked to answer the questions and provide their feedbacks on the clarity and structure of the questions. A few changes in wording have been made according to the researchers' comments. At the second phase of pilot test, 45 employees out of 90 from the HR department responded to the survey and provided their feedback.

Data Collection

Survey data addressing research questions were collected electronically via TAMU's Qualtrics survey tool through a four-part questionnaire. The first part asked for personal characteristics related to study variables including age, gender, education, and occupational categories. The second part measured the performance expectancy, effort expectancy, social influence, and facilitating conditions adapted from UTAUT for both external and internal social media tools. The third part measured the different elements of work success including performance, productivity, and job satisfaction. The last part of the survey explored the current use of external and internal social media tools for various L&D applications.

Data Analysis

According to Lunenburg and Irby (2008) regression analysis is appropriate when researchers are looking to predict "the correlation between a combination of two or more predictor variables and a criterion variable" (p.80). PROCESS is a tool for SPSS software

that use OLS-regression-bases paths to estimate the indirect and/or direct effects of one variable on the other variable through the mediation variables (Hayes, 2013). According to Hayes (2013) "A simple mediation model is any causal system in which at least one causal antecedent X variable is proposed as influencing an outcome Y through a single intervening variable M" (p.86). Mediation analysis in PROCESS use the bootstrapping method to produce the outputs. Unlike other methods of regression analysis, in bootstrapping, no assumption is made about the shape of the sampling distribution (Hayes, 2013, p.106). Therefore, when the normality assumption of the sample size has not been met due to the small sample size, bootstrapping method is the preferred method to test the hypotheses to reach the results with higher power. Therefore, to test H_1 to H_4, I used PROCESS software (Hayes, 2013) in conjunction with SPSS software. To minimize the variations in the estimation of the limits of a confidence interval, we relied on 10,000 bootstrapped samples, using 95% bias corrected bootstrapped confidence intervals (CIs).

ANOVA tests was conducted to answer H_5 and H_6 to explore the mean differences among different demographic categories. A correlational analysis was run to explore which social media tools have the greatest influence on work success.

Results

Participants consisted of 435 employees of a digital industrial company, with almost 10% response rate. 42% of employees were below 40 years old, 55% were males, 49% had master's degree and higher, and 40% held managerial position (See table 3.1 for descriptive statistics)

Table 3.1. Demographic Variables

Gender	**N**	**Percentage**	**Valid Cumulative Percent**
Age Category			
Below 30	45	10.3	11
30-40	128	29.4	42.3
40-50	132	30.3	74.6
50-60	92	21.1	97.1
Above 60	12	2.8	100
Missing	26	6	
Total	435	100	
Gender			
Male	225	51.7	55.3
Female	182	41.8	100
Missing	28	6.4	
Total	435	100	
Education			
High school diploma	20	4.6	4.9
Associate degree	17	3.9	9.1
Bachelor degree	170	39.1	50.7
Master's degree	184	42.3	95.8
Doctorate degree	17	3.9	100
Missing	27	6.2	
Total	435	100	
Position			
Managerial	163	37.5	40.1
Non-managerial	243	55.9	100
Missing	26	6.7	
Total	435	100	

Table 3.2 and 3.3 demonstrate descriptive statistics (M and SD) and correlation coefficients for the study variable. All correlation is significant at 0.01 level which means there are significant relationship between the study model's antecedents, mediator, and outcome. In both tables, the strongest correlation is between the performance expectancy and work success, while the weakest correlation is between facilitation condition and social media usage.

Table 3.2: Means, Standard Deviations, and Pearson correlations for External Social Media

Measures: External Social Media	**M**	**SD**	**1**	**2**	**3**	**4**	**5**	**6**
1.Performance expectancy	2.62	1.10						
2.Effort expectancy	3.93	.86						
3.Facilitating conditions	3.62	.78						
4.Social Influence	2.88	.96						
5.Work success	3.35	1.33	.742**	.462**	.407**	.521**		
6. SM usage	1.83	.63	.505**	.355**	.306**	.333**	.524**	

Table 3.3: Means, Standard Deviations, and Pearson Correlations for Internal Social Media

Measures: Internal Social Media	**M**	**SD**	**1**	**2**	**3**	**4**	**5**	**6**
1.Performance expectancy	2.98	1.14						
2.Effort expectancy	3.96	.87						
3.Facilitating conditions	3.68	.85						
4.Social Influence	3.1	1.03						
5.Work success	3.92	1.37	.786**	.427**	.536**	.623**		
6. SM usage	2.56	.74	.527**	.386**	.325**	.434*	.531**	

**. All correlation is significant at the 0.01 level (2-tailed).
Work success is a composite of overall performance, productivity, and job satisfaction.

Hypotheses Testing

The first four hypotheses examine the relationships between UTAUT antecedents and work success through the use of social media as a mediator. Figure 3.2 illustrates the conceptual mediation model for H_1-a when external social media is a mediator. For the rest of hypotheses figures follow the same format. The first hypotheses examine the mediation

pathway from facilitating condition to work success through the use of external social media tools.

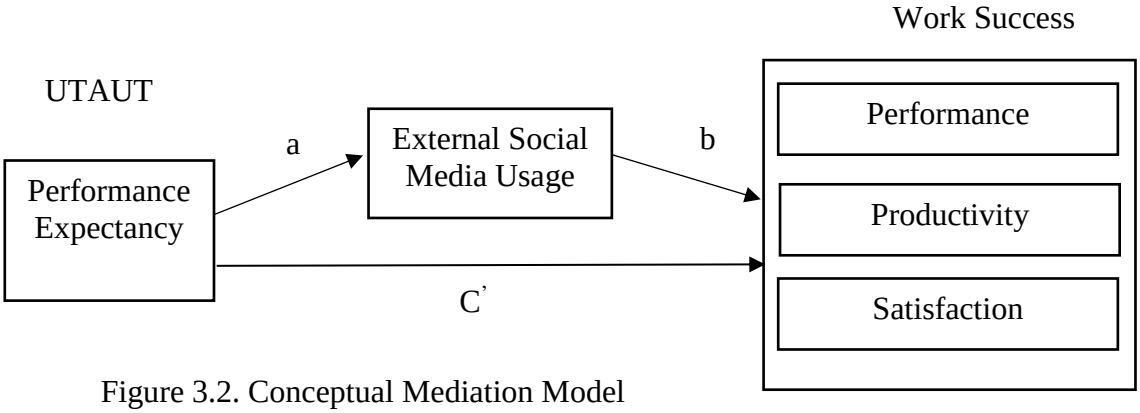

Figure 3.2. Conceptual Mediation Model

For external social media tools, the model representing the relationship between performance expectancy and external social media usage (ESMU) was significant, F (1,189) = 71.099, p = .000, R^2 = .273. The positive coefficient for the pathway from performance expectancy to use of external social media tools was a = .275., p = .000, which shows the estimated difference in social media usage between two employees in the sample who differ by one unit of their reported performance expectancy.

The model representing the indirect relationship between performance expectancy and work success through ESMU was significant as well. F (2,188) = 122.354, p = .000, R^2 = .565. Therefore, performance expectancy and ESMU together explained approximately 56 percent of the variability in the work success. For employees differing in one unit of external social media usage in the sample, there would be on average .449 units higher level in work success, given that performance expectancy is held fixed (b = .449, p = .000). The coefficient for the direct effect of performance expectancy on work success was c' = .774, p = .000, which means for two employees who reported the same level of using

external social media tools but differed in one unit in their reported performance expectancy, the person experiencing higher performance expectancy is estimated to experience .774 units higher of work success.

The coefficient for the indirect effect of performance expectancy on work success through use of external social media tool was .124. The coefficient fell within a bootstrapped confidence interval of BootLLCI = .055 to BootULCI = .205, which was above zero. The indirect effect of .1236 means that two employees who differ by one unit in their reported performance expectancy are estimated to differ by .124 units in their reported work success as a result of experiencing higher levels of external social media usage. Therefore, hypothesis 1-a was supported.

The results from the test of hypotheses 1 to 4 are shown in Table 3.4 to 3.7. The interpretation for hypotheses 2,3, and 4 follow the same patterns. According to the results hypotheses 1 to 4 were supported.

Table 3.4. Model Coefficient for Hypothesis 1-a

		M (ESMU)				**Y (Work Success)**		
Antecedent		Coeff.	SE	p		Coeff.	SE	p
X (Performance Expectancy)	a	.275	.033	.000	C'	.774	.069	.000
M (ESMU)		-	-	-	b	.449	.131	.000
Constant	i_1	1.125	.091	.000	i_2	.549	.221	.000
		$R^2 = .273$				$R^2 = .565$		
		F (1,189) = 71.099, p<.05				F (2,188) = 122.354, p<.05		

AS shown in Table 3.4 The coefficient for the indirect effect of performance expectancy on work success through use of external social media tool was .1236. The coefficient fell within a bootstrapped confidence interval of BootLLCI = .055 to BootULCI = .205, which was above zero. The indirect effect of .124 means that two employees who differ by one unit in their reported performance expectancy are estimated to differ by .124

units in their reported work success as a result of experiencing higher levels of internal social media usage. Therefore, hypothesis 1-b was supported.

As shown in Table 3.5 for internal social media tools, the model representing the relationship between performance expectancy and internal social media usage (ISMU) was significant, F (1,160) = 60.381, p = .000, R2 = .274. The positive coefficient for the pathway from performance expectancy to use of internal social media tools was a = .346, p = .000, which shows the estimated difference in social media usage between two employees in the sample who differ by one unit of their reported performance expectancy.

The model representing the indirect relationship between performance expectancy and work success through ISMU was significant as well. F (2,159) = 166.449, p = .000, R2 = .678. Therefore, performance expectancy and use of internal social media together explained approximately 68 percent of the variability in the work success. For employees differing in one unit of internal social media usage in the sample, there would be on average .278 units higher level in work success, given that performance expectancy is held fixed (b = .278, p = .007). The coefficient for the direct effect of performance expectancy on work success was c' = .939, p = .000, which means for two employees who reported the same level of using internal social media tools but differed in one unit in their reported performance expectancy, the person experiencing higher performance expectancy is estimated to experience .939 units higher of work success.

Table 3.5. Model Coefficient for Hypothesis 1-b

		M (ISMU)				Y (Work Success)		
Antecedent		Coeff.	SE	p		Coeff.	SE	p
X (Performance Expectancy)	a	.3457	.044	.000	C'	.939	.067	.000
M (ISMU)		-	-	-	b	.2782	.102	.007
Constant	i_1	1.516	.142	.000	i_2	.403	.240	.09
			$R^2 = .274$				$R^2 = 166.449$	
		F (1, 160) = 60.381, p<.05				F (2,159) = 166.450, p<.05		

The coefficient for the indirect effect of performance expectancy on work success through use of internal social media tool was .096. The coefficient fell within a bootstrapped confidence interval of BootLLCI = .031 to BootULCI = .175, which was above zero. The indirect effect of .096 means that two employees who differ by one unit in their reported performance expectancy are estimated to differ by .096 units in their reported work success as a result of experiencing higher levels of internal social media usage. Therefore, hypothesis 1-b was supported.

Table 3.6. Model Coefficient for Hypothesis 2-a

		M (ESMU)				Y (Work Success)		
Antecedent		Coeff.	SE	p		Coeff.	SE	p
X (Effort Expectancy)	a	246	.0419	.000	C'	.442	.093	.000
M (ESMU)		-	-	-	b	.942	.148	.000
Constant	i_1	.880	.167	.000	i_2	-.684	.365	.000
			$R^2 = .155$				$R^2 = .352$	
		F (1,189) = 34.592, p<.05				F (2,188) = 51.172, p<.05		

As shown in Table 3.6, the coefficient for the indirect effect of effort expectancy on work success through use of external social media tool was .232. The coefficient fell within a bootstrapped confidence interval of BootLLCI = .144 to BootULCI = .344, which was above zero. The indirect effect of .232 means that two employees who differ by one

unit in their reported effort expectancy are estimated to differ by .232 units in their reported work success as a result of experiencing higher levels of external social media usage. Therefore, hypothesis 2-a was supported.

Table 3.7. Model Coefficient for Hypothesis 2-b

		M (ISMU)				Y (Work Success)		
Antecedent		Coeff.	SE	p		Coeff.	SE	p
X (Effort Expectancy)	a	.314	.061	.000	C'	.391	.112	.000
M (ISMU)		-	-	-	b	.844	.135	.000
Constant	i_1	1.321	.244	.000	i_2	.240	.452	.596
		$R^2 = .143$				$R^2 = .333$		
		F (1,160) = 26.797, p<.05				F (2, 159) = 39.644, p<.05		

As shown in Table 3.7, the coefficient for the indirect effect of effort expectancy on work success through use of internal social media tool was .265. The coefficient fell within a bootstrapped confidence interval of BootLLCI = .1698 to BootULCI = .612, which was above zero. The indirect effect of .265 means that two employees who differ by one unit in their reported effort expectancy are estimated to differ by .265 units in their reported work success as a result of experiencing higher levels of internal social media usage. Therefore, hypothesis 2-b was supported.

Table 3.8. Model Coefficient for Hypothesis 3-a

		M (ESMU)				Y (Work Success)		
Antecedent		Coeff.	SE	p		Coeff.	SE	p
X (Facilitating Condition)	a	.237	.048	.000	C'	.439	.102	.000
M (ESMU)		-	-	-	b	1.005	.147	.000
Constant	i_1	.990	.174	.000	i_2	-.034	.381	.928
		$R^2 = .116$				$R^2 = .334$		
		F (1,189) = 24.73, p<.05				F (2,188) = 48.268, p<.05		

As shown in Table 3.8, the coefficient for the indirect effect of facilitating condition on work success through use of external social media tool was .239. The coefficient fell within a bootstrapped confidence interval of BootLLCI = .135 to BootULCI

= .369, which was above zero. The indirect effect of .239 means that two employees who differ by one unit in their reported facilitating condition availability are estimated to differ by .239 units in their reported work success as a result of experiencing higher levels of external social media usage. Therefore, hypothesis 3-a was supported.

Table 3.9. Model Coefficient for Hypothesis 3-b

		M (ISMU)				**Y (Work Success)**		
Antecedent		Coeff.	SE	p		Coeff.	SE	p
X (Facilitating Condition)	a	.295	.066	.000	C'	.704	.108	.000
M (ISMU)		-	-	-	b	.759	.122	.000
Constant	i_1	1.246	.252	.000	i_2	-.627	.4278	.149
		R^2 = .1107				R^2 = .432		
		F (1,160) = 19.923, p<.05				F (2,159) = 60.473, p<.05		

As shown in Table 3.9, the coefficient for the indirect effect of facilitating condition on work success through use of internal social media tool was .224. The coefficient fell within a bootstrapped confidence interval of BootLLCI = .113 to BootULCI = .367, which was above zero. The indirect effect of .224 means that two employees who differ by one unit in their reported facilitating condition availability are estimated to differ by .224 units in their reported work success as a result of experiencing higher levels of internal social media usage. Therefore, hypothesis 3-b was supported.

Table 3.10. Model Coefficient for Hypothesis 4-a

		M (ESMU)				**Y (Work Success)**		
Antecedent		Coeff.	SE	p		Coeff.	SE	p
X (Social Influence)	a	.197	.0414	.000	C'	.5641	.082	.000
M (ESMU)		-	-	-	b	.913	.137	.000
Constant	i_1	1.263	.126	.000	i_2	.062	.294	.834
		R^2 = .107				R^2 = .419		
		F (1,189) = 22.69, p<.05				F (2,188) = 67.905, p<.05		

As shown in Table 3.10, the coefficient for the indirect effect of facilitating condition on work success through use of external social media tool was .179. The coefficient fell within a bootstrapped confidence interval of BootLLCI = .099 to BootULCI = .286, which was above zero. The indirect effect of .179 means that two employees who differ by one unit in their reported social influence are estimated to differ by .179 units in their reported work success as a result of experiencing higher levels of external social media usage. Therefore, hypothesis 4-a was supported.

Table 3.11. Model Coefficient for Hypothesis 4-b

		M (ESMU)				**Y (Work Success)**		
Antecedent		Coeff.	SE	p		Coeff.	SE	p
X (Social Influence)	a	.331	.053	.000	C'	.725	.091	.000
M (ISMU)		-	-	-	b	.592	.122	.000
Constant	i_1	1.489	.177	.000	i_2	.088	.329	. 791
			R^2 = .197				R^2 = .485	
			F (1,160) = 39.146, p<.05				F (2,159) = 75.08, p<.05	

As shown in Table 3.11, the coefficient for the indirect effect of facilitating condition on work success through use of external social media tool was .196. The coefficient fell within a bootstrapped confidence interval of BootLLCI = .109 to BootULCI = .314, which was above zero. The indirect effect of .196 means that two employees who differ by one unit in their reported social influence are estimated to differ by .196 units in their reported work success as a result of experiencing higher levels of external social media usage. Therefore, hypothesis 4-b was supported.

Mediation Analysis Using SAS Software

I used another statistical method to analyze the mediation models for testing my hypotheses. Mediation analysis when missing values are high in percentage might not lead to reliable results when using software such as SPSS, or PROCESS. One way to overcome

the issue of missing data is to use multiple imputation mechanism to estimate missing values. This mechanism creates a set of plausible values for each missing value (Little & Rubin, 2002). Wang, Zhang, and Tong (2015) introduced a method in SAS software which applies multiple imputation and bootstrap techniques together to produce parameter estimates for the mediation model parameters such as a, b, $c^{'}$, i_M, i_Y, σ^2_{eM}, σ^2_{eY}, standard errors of mediation effect estimates, and confidence interval with missing data. The authors suggested to conduct 100 imputations when missing data are more than 40% to gain more adequate results. This method has no assumption about the distribution of data (Wang, Zhang, and Tong, 2015).

The results from mediation analyses using SAS are demonstrated in Table 3.12. Proximity of the outputs when comparing the results from PROCESS and SAS shows that the results from the PROCESS can be considered reliable. All pass ways contain statistically significant coefficients. Confidence intervals for a,b,$c^{'}$, and ab pathways does not contain zero. It means H_1 to H_4 are supported by the results of mediation analysis through SAS software.

Table 3.12. Model Parameters for H1-H4

Parameter (H_1-a)	**Estimate**	**S.E.**	**95% BC**	
a	0.296	0.035	0.228	0.367
b	0.440	0.123	0.191	0.688
$c^{'}$	0.782	0.065	0.659	0.912
ab	0.130	0.039	0.061	0.220
i_M	1.066	0.080	0.913	1.234
i_Y	0.525	0.202	0.102	0.892
σ^2_{eM}	0.548	0.035	0.487	0.631
σ^2_{eY}	0.866	0.049	0.785	0.975
Parameter (H_1-b)	**Estimate**	**S.E.**	**95% BC**	
a	0.336	0.042	0.249	0.419
b	0.309	0.101	0.099	0.510
$c^{'}$	0.855	0.065	0.732	0.972
ab	0.103	0.036	0.035	0.182
i_M	1.563	0.136	1.297	1.838

Table 3.12. Continued

Parameter (H_1-a)	**Estimate**	**S.E.**	**95% BC**	
i_Y	0.572	0.255	0.095	1.117
σ^2_{eM}	0.639	0.044	0.557	0.727
σ^2_{eY}	0.829	0.051	0.734	0.932
Parameter (H_2-a)	**Estimate**	**S.E.**	**95% BC**	
a	0.260	0.038	0.187	0.338
b	0.929	0.133	0.661	1.201
c'	0.445	0.091	0.264	0.624
ab	0.242	0.051	0.155	0.369
i_M	0.806	0.144	0.505	1.099
i_Y	-0.116	0.331	-0.792	0.524
σ^2_{eM}	0.591	0.040	0.525	0.683
σ^2_{eY}	1.075	0.043	0.999	1.170
Parameter (H_2-b)	**Estimate**	**S.E.**	**95% BC**	
a	0.319	0.051	0.219	0.424
b	0.794	0.128	0.549	1.054
c'	0.412	0.110	0.198	0.633
ab	0.253	0.055	0.155	0.375
i_M	1.319	0.199	0.931	1.742
i_Y	0.259	0.444	-0.594	1.213
σ^2_{eM}	0.687	0.039	0.620	0.771
σ^2_{eY}	1.119	0.063	1.002	1.249
Parameter (H_3-a)	**Estimate**	**S.E.**	**95% BC**	
a	0.234	0.045	0.130	0.315
b	1.016	0.131	0.780	1.310
c'	0.426	0.093	0.254	0.613
ab	0.238	0.057	0.137	0.363
i_M	0.984	0.161	0.694	1.342
i_Y	-0.050	0.328	-0.785	0.547
σ^2_{eM}	0.602	0.0412	0.529	0.698
σ^2_{eY}	1.086	0.045	1.003	1.179
Parameter (H_3-b)	**Estimate**	**S.E.**	**95% BC**	
a	0.278	0.068	0.145	0.399
b	0.716	0.112	0.481	0.933
c'	0.672	0.086	0.515	0.850
ab	0.199	0.059	0.095	0.327
i_M	1.545	0.261	1.077	2.062
i_Y	-0.419	0.354	-1.069	0.296
σ^2_{eM}	0.708	0.043	0.634	0.802
σ^2_{eY}	1.045	0.060	0.932	1.168

Table 3.12. Continued

Parameter (H_4-a)	Estimate	S.E.	95% BC	
a	0.220	0.045	0.131	0.302
b	0.914	0.121	0.690	1.177
c'	0.549	0.077	0.381	0.690
ab	0.201	0.048	0.122	0.309
i_M	1.194	0.126	0.978	1.473
i_Y	0.105	0.271	-0.475	0.624
σ^2_{eM}	0.596	0.039	0.527	0.681
σ^2_{eY}	1.024	0.044	0.946	1.118
Parameter (H_4-b)	**Estimate**	**S.E.**	**95% BC**	
a	0.330	0.050	0.227	0.429
b	0.567	0.124	0.341	0.810
c'	0.680	0.084	0.505	0.837
ab	0.187	0.049	0.103	0.293
i_M	1.519	0.165	1.185	1.833
i_Y	0.283	0.303	-0.302	0.922
σ^2_{eM}	0.676	0.040	0.604	0.766
σ^2_{eY}	1.006	0.052	0.908	1.118

Note. S.E.: bootstrap standard error. BC: bias-corrected confidence interval

H5: Use of social media would be different between gender, age, education, and position type.

According to the results shown in Table 3.13, p-value across all categories are higher than .05. It demonstrates that there is no significant difference in using social media tools between groups. Therefore, Hypothesis 5 is rejected.

Table 3.13. Mean Differences in Usage of ESMU and ISMU between Categories

External SM	Sum of Squares	df	Mean Square	F	Sig.
Age	135.327	137	.988	1.100	.332
Gender	35.749	136	.263	1.029	.453
Education	98.657	136	.725	1.008	.494
Position	32.799	135	.243	.997	.514
Internal SM	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Age	94.488	102	.926	1.214	.201
Gender	25.984	102	.255	1.069	.391
Education	76.036	102	.745	.936	.622
Position	25.536	102	.250	1.099	.346

H6: Reported work success resulting from the use of social media within the organization is different between gender, age, education, and position type categories.

According to the results shown in Table 3.14, p-values across all categories are higher than .05. It demonstrates that there is no significant difference between groups according to their reported work success. Therefore, Hypothesis 6 is rejected.

Table 3.14. Mean Differences in Reported Work Success Across Categories

External SM	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Age	131.055	148	.886	.776	.917
Gender	40.874	148	.276	1.036	.430
Education	101.509	148	.686	.912	.695
Position	31.955	148	.216	.775	.919
Internal SM	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
Age	135.309	129	1.049	1.233	.164
Gender	32.400	129	.251	1.009	.490
Education	96.257	129	.746	1.091	.346
Position	30.496	129	.236	.925	.653

The importance of social media tools in relation to employees' reported work success

In order to find out which social medias have been perceived as the most important ones to predict work success, I used linear regression analysis. For external social media, the model including the variables was significant, F (8) = 14.171, p= .000). Public video sharing, public Microblogs, virtual worlds, public online chatting, public blogs, public document sharing, public Wikies, and public professional networking together explain 43 percent of the variance in perceived work success through using external social media tools.

According to the coefficients shown in Table 3.15, only public professional networking websites such as LinkedIn and Facebook, and microblogging tools such as Twitter have significant coefficient (p-value<.05). Use of external professional networking website have a stronger positive relationship with work success (B=.503) in compare to microblogging (B=.241).

Table 3.15. Standardized Coefficients for External SM and WS

	Standardized Coefficients Beta	t	Sig.
Public Professional networking	0.503*	5.636	0.000
Public Blogs	-0.049	-0.584	0.560
Public Microblogs	0.241*	2.857	0.005
Public Wikies	-0.008	-0.094	0.925
Virtual worlds	-0.111	-1.583	00.116
Public Document sharing	-0.093	-1.087	.279
Public online chatting	0.066	0.827	0.410

*p-value <.05

The model including the variables in significant, F (4) = 19.326, p= .000. Internal online chatting, internal video sharing, internal professional networking, and internal learning platforms together explain 33 percent of the variance in perceived work success through using internal social media tools.

As shown in Table 3.16, only internal professional networking websites such as Yammer, and online chatting tools have significant coefficient with work success (p-value<.05). Between these two, use of internal professional networking website have a stronger positive relationship with work success (B=.437) in compare to online chatting tools (B=.165).

Table 3.16. Standardized Coefficients for Internal SM and WS

	Standardized Coefficients Beta	**t**	**Sig.**
Internal professional networking		2.496	.014
Internal Video sharing	.437*	4.668	.000
Internal Learning platforms	.010	.123	.902
Internal Online chatting	.036	.372	.710
Internal professional networking	.165*	2.030	.044

*p-value <.05

To sum up, according to the standardized coefficient use of public professional networking is the most important predictor in reported work success by employees. The next important tool is internal professional networking, followed by microblogging, and online chatting tools. Other social media tools do not have significant relationship with reported work success.

Table 3.17 shows the mean values of the social media tools used across the organization for several learning and development purposes. For instance, employees used professional networking tools such as LinkedIn and Facebook mostly for informal learning and communication purposes. The highest means are associated with using internal online chatting tools for online chatting purposes and internal communication (mean= 4.18 and 4.16 respectively).

Table 3.17. Mean Values of SM Usage for Different T&D Activities

Public SM	Building personal relationships	Self-development	Informal Learning	Exchanging feedback	Communication	Knowledge sharing	Document collaboration	Team working/ building	On-line chatting
Professional Networking (e.g. LinkedIn)	2.88	2.8	3.01	2.35	3.01	2.79	1.8	2.14	2.44
Blogs (e.g. bloggers)	1.63	2.28	2.44	1.62	1.65	2.14	1.51	1.53	1.42
micro-blogs (e.g.Twitter)	1.68	1.76	1.82	1.65	1.84	1.82	1.38	1.52	1.6
Wikies (e.g. Wikipedia)	1.69	2.95	3.22	1.53	1.54	2.33	1.52	1.47	1.35
Virtual worlds/ games (e.g. World of Warcraft)	1.14	1.12	1.13	1.11	1.13	1.12	1.09	1.15	1.1
document sharing (e.g. Google doc)	1.59	1.73	1.84	1.66	1.71	1.93	2	1.54	1.32
Online chatting (e.g. IM, Telegram)	2.01	1.47	1.58	1.83	2.15	1.82	1.5	1.71	2.24
video sharing (e.g. Youtube)	1.52	2.62	2.81	1.39	1.47	2.05	1.32	1.51	1.23
Internal SM									
Professional Networking (e.g. Yammer)	2.86	3.02	3.23	2.71	3.04	3.24	2.24	2.46	2.17
video sharing (e.g.VideoCentral)	1.8	2.17	2.35	1.65	1.94	2.23	1.71	1.78	1.46
Learning platforms (e.g.BrilliantYOU)	1.97	3.57	3.56	1.85	1.84	2.59	1.66	1.79	1.51
Online chatting (e.g. Jabber)	3.67	2.41	2.62	3.42	4.16	3.3	2.52	3.12	4.18

Discussion

This study examined the relationships between factors influencing use of social media including performance expectancy, effort expectancy, facilitating condition, and social influence and employees' perceived work success. The relationships were tested through the mediation effect of the extent of social media usage. Through that, it was examined if the relationship between perceived antecedents will influence the extent to which employees choose to actually use social media. Hence, by using social media more, employees will eventually report higher perceived work success.

The findings indicate that usage of social media tools for various talent development activities such as building personal relationships, self-development activities, informal learning, exchanging feedback, communication with others, knowledge sharing, document collaboration, team working/building, on-line chatting play a mediation role between antecedent's variables and perceived work success. Employees who expected a higher level of performance as a result of using social media, thought that use of social media was easy, reported the level of facilitating conditions were appropriate, or were surrounded by people who used social media tools, were more likely to use social media for different developmental activities. Previous research supports the results of this study. Krause (2010) found that performance expectancy, effort expectancy, and social influence have positive statistically significant correlation with individuals' intention to use technologies. Cody-Allen and Kishore (2006) claimed that perceived usefulness, and ease of use influence individuals' intention technologies.

Results showed that employees who use social media at a higher extent, reported higher level of perceived work success (performance, productivity, and job satisfaction).

Consistent with the results of this study, Carlson, Zivnuska, Harris, Harris, and Carlson (2016) stated that social media can help employees to increase their performance. Hanna, Kee, and Robertson (2017) indicated that the Facebook's intensity of use for making connection with co-workers is correlated with job satisfaction. Lee and Kwahk (2010) found that employees engage in knowledge sharing and decision making through use of social media by which their job performance will be increased.

According to the findings, there is no difference between different demographic groups in use of social media and the consequent perceived work success. Employees of different age, gender, education, and position categories demonstrated no statistically significance difference in their answers. Through that, it can be concluded that regardless of mentioned demographic characteristics, if employees report higher scores in antecedents of social media usage, they are expected to use social media more, thus, are expected to report higher level of work success. The role of such demographics has been always controversial. Several studies advocate the similar results (Cameron, 2006; Guo, 2009; Kriegel, 2013). According to these supportive studies, age, gender, or position do not make statistical differences in employees use of technology or reported productivity, job satisfaction, and productivity. On the contrary, Rice and Shook (1990) stated that use of different

technologies was related to individuals' organization level and job categories**.** They also found that gender differences influence the use of social media in the workplace.

Moreover, employees demonstrated differences in their preferred platforms. Public professional networking (e.g. LinkedIn and Facebook) was the most important predictor in reported work success by employees. The next important tool was internal professional networking (e.g. Yammer), followed by microblogging (e.g. Twitter), and online chatting tools (e.g. Jabber). Other social media tools did not have significant relationships with the reported work success. In several studies, Twitter was shown to be an important social media platform for In several studies, Twitter was shown to be an important social media platform for communication, and resource sharing purposes (Childs, 2015; Collins, Shiffman, & Rock, 2016; Hanna, Kee, & Robertson, 2017). Hanna, Kee, and Robertson (2017) reported that Participants use Twitter as a way to share their research within the field and stay updated about their favorite activities. YouTube was reported as one of the important social media tools in the several previous studies (e.g. Childs, 2015), whereas in the current research no statistical correlation was found between using YouTube and any L&D activities.

According to media-rich theory (MRT), various media used in communication could be placed in a continuum from lean to rich media. The more a medium provides rapid mutual feedback, variety of communication channels, and personal contacts, the richer it is. MRT advocates that rich media are appropriate to communicate more complex issues such as conflict management, problem solving, etc; whereas, leaner media works better when discussing simpler and more routine

activities. Social media could be considered more of a rich medium, since it makes a balance between high-tech and high touch technologies (Wang, 2012). However, different social media platforms offer different benefits. The results show that employees preferred internal and external professional networking as the two most common social media they use. The reason can be explained by MRT. They allow individuals to engage in knowledge sharing and other learning activities, while providing them the opportunity to expand their networks and benefit from personal touches besides just performing their professional duties. Microblogging and online chatting are also preferred because they provide the most real-time communication in an optimum period.

Implication and Future Trends for Research and Practice

My study has practical implication for talent development professionals who are looking to find new and cost-effective tools to develop their employees. Recognizing the factors that influence employees' use of social media provide the basis to design an efficient and tailored environment to implement social media related intervention more effectively. As a result of the study's findings, talent development professionals would understand what types of social media tools are the most preferred one by employees. Knowing the most effective tools enables HRD practitioners to invest in the right interventions, help them to improve employees' work success, and cause them to save the time and money they would spend to explore the ways to encourage employees to use social media.

The results demonstrated that when employees think social media increase their performance, use of social media would be easy, and in the presence of proper

facilitating conditions and social support, employees' use of social media is expected to be increased, and through the increased usage employees would report higher levels of work success. However, not all social media tools have the same influence. According to the result, external and internal professional networking such as LinkedIn and Yammer and Microblogging tools like Twitter and instant chatting tools are the most preferred tools. Paying attention to these findings, HRD professionals can help to reduce the cost of implementing ineffective tools while providing the supporting environment for employees.

The model proposed in this study would be a helpful guide for practitioners to know how they can facilitate employees' use of social media tools. By providing necessary things for employees they will have a higher chance of getting employees engaged in TD activities. Additionally, the study provides practitioner with the most useful social media tools according the employees. By knowing that, organizations have a better idea about which social media employees prefer and invest on the best options instead of trying out all the tools in the market.

Academically, the current study provides predictor factors that influence employees' use of social media tools within the organizations for different developmental activities. Additionally, it helps to understand what employees' perception of their work success is when they use social media.

The results of this study extend the current knowledge about what factors influence employees' use of social media and what individual level outcomes employees expect to receive as a result of utilizing social media in their everyday work. The proposed model consists of antecedents and outcomes of social media

usage within the organization guide researchers to examine the different elements of model in their studies, in different industries or contexts. Since few studies have been conducted in this area, this study would be a starting point for scholars to find out how employees would perceive social media interventions in their knowledge sharing and learning activities and what other factors might have influenced their intention to use, perceived performance, productivity, or job satisfaction.

Conducting more qualitative research would help to shed lights on the factors influencing social media tools by employees and help more to understand what positive outcome organization can receive from implementing such tools in their talent development activities. Conducting qualitative research helps to understand about why predictor factors are important, how they will affect employees' intention use, what are the factors we might overlooked, what outcomes employees expect to have from using social media, or how employees feel about the changes they faced as a result of utilizing social media in their work place.

Although my study suggests the predictor factors and outcome to and from utilizing social media tools, future research should explore the other combinations of factors and outcomes. Finding other ways to encourage employees to use social media such as motivational factors can be add to the knowledge. Further examination of the extent of use and outcomes resulting from use of social media tools in a more measurable way might be helpful to demonstrate more tangible positive results of social media to address the concerns on organization regarding employees' productivity and costs while using social media during work.

Limitations

Despite the effort to collect data from different industries, the collected data comes from one company in the electrical industry with employees who were exposed to extensive use of social media tools. Therefore, the results might not be generalizable to other industries or smaller companies that are not familiar with the use of social media as a learning and development tool.

Receiving a low response rate regardless of many attempts to reach out to the sample participants is another limitation of the study. It affected the sample size of the study and consequently the power of the predictions.

Another limitation comes from applying the simple mediation model which is the most basic mediation model that can be estimated from the data. It oversimplifies the complex relationships and possible pathways through which one variable influences another variable (Hayes, 2013) and overlook the other possible factors that might affect the relationship.

Last but not least is the concern associated with the results of self-report research especially when the measures of variables are collected from the same participants and the goal is to investigate any correlations. Additionally, in self-reported research there is “no direct means of cross-validating people’s description of their feeling of intention” (Podsakoff & Organ, 1986, p. 533).

CHAPTER IV

SOCIAL MEDIA IN ACTION: THE POTENTIALS FOR DEVELOPING TALENTED EMPLOYEES

Social media platforms are changing the way people communicate around the globe, including your employees. With the new generation of employees entering the workforce and ever-changing technological advancements, you probably do not expect to use the old pathways you used to follow to manage your employees in almost all areas. It will neither be effective nor give you the competitive advantages you are always looking for.

According to the 2017 report released by Deloitte Consulting Company, careers, learning and development is the second important issue CEOs and leaders are dealing with after organization of the future trend. There might be several reasons to make L&D one the biggest challenges for the organizations, but changes in technology is definitely one of the most significant ones. In the digital era we are living in, new technologies are being pushed in to our lives every day and the question is which one can benefit our employees and organizations. In many instances, employees themselves are pushing for continuous skill development and dynamic careers. Glassdoor data reveal that among Millennials, the "ability to learn and progress" is now the principal driver of a company's employment brand. Yet only 42 percent say they are likely to leave because they are not learning fast enough.

Another rising issue identified in the report is talent acquisition: how to attract and retain talent. Talent deficiency both in the US and international labor markets is an issue that highlights the need for paying more attention to this important matter

(Kim & McLean, 2014). Several reports discussed a rapid declining trend in working populations in most developed countries as a result of retiring baby boomers and decreasing birth rate, as well as entering new generation of employees with different work styles and needs. All those ups and downs make it difficult for organizations to find the right employees at the right time for the right job (e.g. Kim & McLean, 2014). Consequently, effective traditional talent development systems need to be adequately modified for addressing the new issues such as shortage of labor forces. One of the biggest challenges for organizations in attracting and retaining their talented employees is incorporate technologies and keep up with their advancement in the area of learning and development.

Social media platforms are being broadly used and valued by new generations, if not by the majority of people. There is an opportunity to learn how to utilize these desired, useful platforms with almost no upfront costs in the favor of the company's learning and talent development, instead of being always concerned about the downsides of social media at the workplace.

In the following sections, I first explain what it means to use social media for L&D purposes; then, elaborate some benefits of social media for organizations, followed by the applications of social media in the organizations' learning and talent development practices.

Social Media Learning

Conte and Paolucci (2001) defined social learning as a process of learning caused or created by people being placed in a common environment and learning from observing others' behaviors and its positive or negative consequences. In a

global world were people communicate and interact with each other via technologies and tele-communication tools rather than meeting in person, social media provides the common place for individuals where social learning can occur. Social media, which can be defined as a many-to-many model of communication tools, allows users to create, modify, and/or distribute content in a conversational format. Learning through social media is a type of on-demand social learning. It leverages experts, contents, and materials located and recommended by external communities as well as by other employees and internal experts to show employees what they can learn for doing their jobs more effectively and building their careers. Compared to other methods of learning, which are designated as being the responsibility of the HR department, learning through social media is considered a company-wide responsibility. In social media learning, in a cycle of knowledge sharing and creation, individual knowledge feeds in organization knowledges which feeds back to the network knowledge which pours a continuous, updated resource into individual knowledge. Trainers or facilitators are curators of "learning playlists" by mixing and matching internal and external information. Formal social media learning could be done through integration of social networking tools and applications to any training programs.

Steps to Incorporate Social Media in Organizations' Learning and Development

To utilize social media platforms in organizations' learning and development, first you need to assess the organization's learning culture. It is essential to have management who believes in social learning and value the kind of continuous, on-

demand, smart learning that social media provides. Recognizing that employees are the center of learning and they are the ones who create or demand the knowledge is a key difference between traditional learning classrooms and social media learning. Switching from a content-centric "push" approach to a learner-centric "pull" approach requires a cultural shift within learning organizations. Giving up full control over learning content, schedules, and platforms may not be easy, but learning organizations that embrace this shift can deliver more effective learning.

If you want to take full advantage of social media and avoid creating more ambiguity and confusion for employees, there are some important matters to follow for effective utilization of social media within the organizations. First, social media platforms that you intend to use must align the learning and development functions with the business needs. Otherwise, you will be immersed in the enormous numbers of available platforms and functions you really do not need. Second, all social media tools need to be simplify, standardize, and integrate in a single learning and development technology.

Social Media Learning Pros and Cons

Social media learning provides several advantages for both individual and organizations. It allows learners to get actively involved and participate in knowledge creation and sharing rather than passively be the consumer of content developed by others. Since, many of social media tools are collaborative in nature, employees practice team work and communication skills. Social media provides open space for tailored learning for individuals that support innovation, flexibility, and continuously refreshed content. One of the biggest advantage of social media learning is

decreasing corporate hierarchy in making decisions for employees' learning needs. By involving employees to demand and explore the knowledge they need, organizations can create continuous learning platform by their employees and encourage more attainable communication, idea exchange, and engagement.

Employers may have concern for the potential loss of productivity, performance, or job satisfaction but recent studies have shown that by providing influencing factors that create positive perception about ease of use and usefulness of social media, and supporting employees technically and emotionally, social media interaction during the workday will be increase. Hence, it helps to boost productivity, performance, and satisfaction.

Social media learning targets a wider range of audiences compare to traditional learning. While this promotes diversity and inclusion in the learning environment, it can be the source of confusion and losing the track of learners. However, with current analytics technology employers have the ability to analyze internal company trends, consolidate employee skill sets, and find potential leaders that may have been hidden behind the scenes. Having this additional information can help shape internal programs and individualize them to align with employee goals.

Other factors that should be considered as advantages of social media learning includes but not limited to saving money as a result of deceased fees for room set-up, equipment, trainer, professional speakers, and travel; saving time spent in classrooms, creating content from the scratch, modify each learning from program every time for different groups of participants, and traveling time; Increasing managers and employee satisfaction by answering their learning needs promptly and

to the point, and helping them to reach more work family balance when they do not have to spend long hours in training sessions.

Despite all the benefits of incorporating social media platform in organizations' L&D systems, decision makers and program directors should be aware of issues resulting from cybersecurity, frauds, information leakage, etc. It is important to protect organizations social media network by providing clear policies and guidelines to monitor social media activities and appropriate use.

Information overload can be a challenge to organizations as well, as it becomes difficult for users to find specific pieces of information among the overwhelming wealth of knowledge. Providing community support for learning through social media can help overcome this problem, with the power of such applications to amplify the most relevant content, highlighting the most useful resources. This in turn drives a higher level of productivity, because employees don't waste time searching for the proverbial needle in the haystack of information.

Make Social Media Part of Your Talent Learning and Development Strategy

According to a systematic literature review on talent development, organizations have different perspective toward their talent from fully exclusive to fully inclusive. It is time to review our organizations standpoint and move toward to being more inclusive. There are also challenges at personal, managerial, procedural, cultural, and interpersonal level when it comes to implement talent development interventions. For example, work-life balance, unwillingness of mangers to include employees in decision-making, non-effective data management systems, weak

connections and conflicting principles across the organization, little opportunities for asking questions, relationship-based commitments and opportunities.

Based on the scope you identify your talent in and the issues or challenges your organization might face, you need to choose proper talent development interventions to be effective and engage your employees. These interventions should be aligned with your organizations' value, mission, vision, and objectives, with considering all the limitation you might have.

In here, I focus on one specific tool that can be incorporated in every organizations talent learning and development systems and lead to positive outcomes for employees and business. When looking at the mentioned issues organizations encounter in implanting talent development interventions, leveraging social media can address majority of the issues because of its features and functions. For instance, it includes employees in decision making, provides a room for more connection and collaboration among individuals who are physically dispersed, give more work life balance because of the time and place flexibility, decrease hierarchy in knowledge management process; hence, decrease the role of seniority and relationship-based performance management.

Social media can increase employee participation in many learning and development activities; thus, influence employees work success (performance, productivity, and job satisfaction) especially if the programs provide the proper support from the organizations. Learners are more likely to stay engaged and use social media if they expect a higher level of performance as a result of using social media, think that use of social media is easy, experience appropriate level of

facilitating conditions, or be surrounded by people who value social media use. Leveraging social media tools for various talent development activity such as building personal relationships, self-development activities, informal learning, exchanging feedback, communication with others, knowledge sharing, document collaboration, team working/building, on-line chatting play a mediation role between availability of appropriate infusing factors mentioned above and perceived work success by employees.

Although it is shown that employees' use behavior in the presence of favorable factors would be increased, employees demonstrate differences in their preferred platforms. public professional networking (e.g. LinkedIn and Facebook) is the most important predictor in reported work success by employees. The next important tool is internal professional networking (e.g. Yammer), followed by microblogging (e.g. Twitter), and internarial online chatting tools (e.g. Jabber). Other social media tools seem not to have significant effect on employees' reported work success.

When employees think social media increase their performance, use of social media would be easy, and in the existence of proper facilitating condition and social supports, employee's use of social media is expected to be increased, and through the increased usage employees would report higher level of work success. Paying attention to these findings, HR professionals and mangers can help to reduce the cost of implementing ineffective tools while providing the supporting environment for employees.

Figure 4.1 illustrates talent development model by presenting the possible antecedents and outcomes of implementing talent development practices within the organizations; then, Figure 4.2 shows that how social media is being incorporated in increasing employees' learning and development and what factors affects or being affected by the social media usage as TD tool in the organizations.

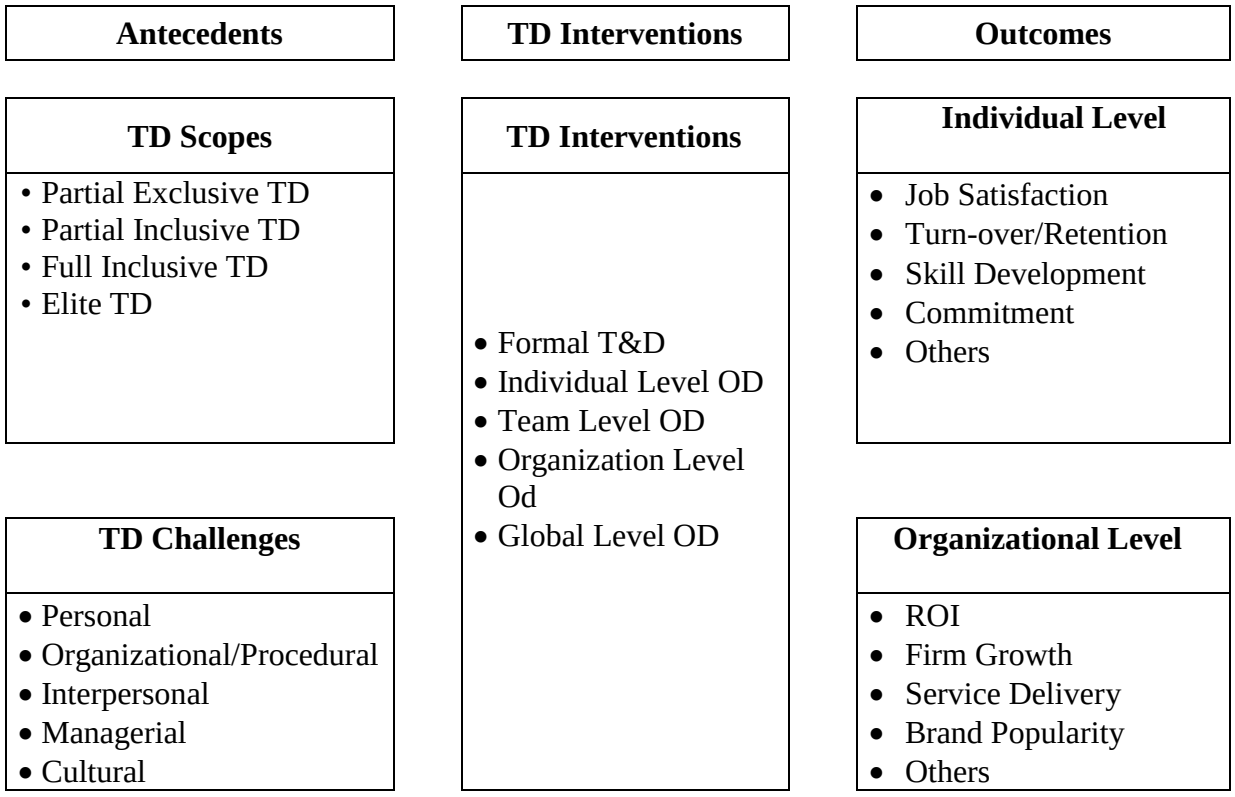

Figure 4.1. Talent Development (TD) Model (Beyerlein & Rezaei, 2018)

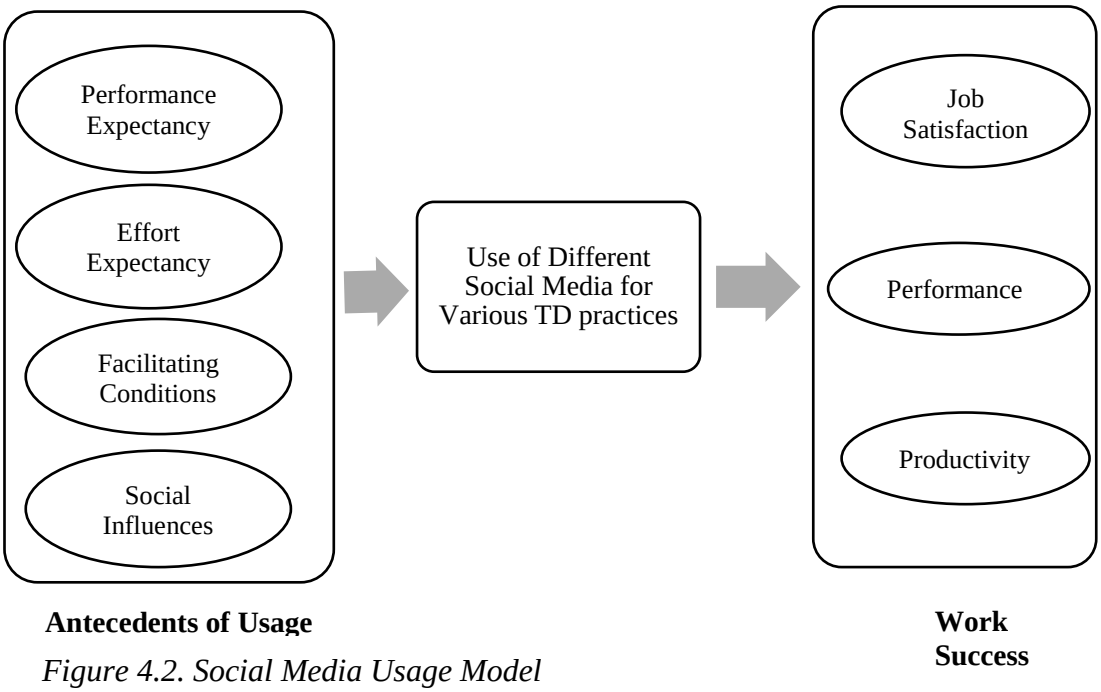

Figure 4.2. Social Media Usage Model

CHAPTER V

CONCLUSIONS

This chapter provides a summary of the two dissertation studies and one practitioner guide. The purpose of my dissertation was to explore the current talent development practices within organizations and investigate how incorporating social media as a talent development tool would serve the organizations. To fulfill the purpose of my dissertation, I conducted two studies and provided one practitioner guide that collectively answer my dissertation' questions as follows: (a) identifying talent development strategies, outcomes, and challenges discussed in the literature, (b) identifying the different applications of social media by organizations for developing talented employees, (c) examining the effects of social media interventions on employees' work success when interventions are applied in the presence of different antecedents, and (d) proposing a practical guideline on how to position social media as a talent development tool within the organization.

In the second chapter, I presented the results of a systematic literature review on 33 empirical studies on talent development and proposed a model that demonstrated the organizational perspective toward talent development, the issues and challenges in implementing talent development practices, the different talent development intervention used by organizations, and the possible individual and organizational outcomes from implementing talent development interventions reported by the studies. The third chapter was a quantitative study that examined the mediation effect of social media usage as a talent development tool on the relationship between influencing factors and employees' work success. Chapter 3

proposed a model that illustrated how individuals' belief toward usefulness of social media in performance, ease of use, social influences, and facilitating conditions affect employees' use of social media for developmental purposes; and then, how developmental activities for talented employees influence employee's work success. The fourth chapter was a practitioner guide that highlighted the importance of social media for talent learning and development purposes, and provided useful recommendations and frameworks for professional in HRD field to implement talent development interventions and social media for the organizations.

In the following, I will summarize my dissertation studies and their findings. Then, I will discuss recommendations for future research and practice.

Study One: Talent Development: A Systematic Literature Review of Empirical Studies

The purpose of the current study was to identify and examine findings from empirical research regarding organizations' talent development (TD) strategies, taking into consideration the countries in which the studies were conducted, and to identify the positive outcomes of TD implementation as well as potential issues and challenges. The study aimed to contribute to the field of human resource development (HRD) by summarizing the current status of empirical studies in the TD literature and proposing a model that captures the relationships among the study's findings.

Method

The primary method used to answer this study's questions was a systematic literature review. To find as many article as possible, a broad multidisciplinary search

in various databases including Human Resource Abstract, Business Source Complete, PsycInfo, and Academic Search Complete was conducted. The time frame for the search included all published peer-reviewed studies through May 2017. Talent development, talent management, developing or managing talent, human resource development and talent, and combinations of these were used to generate as many publications as possible for the literature review. The database and journal searches generated 550 publications. After reviewing the abstracts of the identified studies in the first-round abstract screening, 242 of the 550 articles were found to meet the inclusion criteria. In a secondary screening, the full texts of the 242 studies were reviewed. Thirty-three of the 242 studies were identified as the most relevant articles for the final analyses, based on the inclusion/exclusion criteria. The findings regarding the current study's questions are discussed in the following sections.

Findings

The systematic review of publications labeled as TM/TD indicated the current status of research that is explicitly in the TD area. A few articles on TD highlighted the need for researchers to thoroughly examine workplace practices while thinking about building appropriate research-based frameworks and models for developing talent and not for other HRD practices. This systematic literature review revealed the following important findings regarding TD interventions, literature trends, issues, challenges, and outcomes.

From the perspective of the current study, TD interventions in the workplace can be classified into five groups: T&D, and individual-, organization-, team-, and global-level OD interventions. Individual- and organizational-level OD along with

T&D interventions were cited as the most common practices; the researchers mention few team- and global-level OD interventions.

Issues and challenges regarding the implementation of TD interventions can be examined from personal, managerial, organizational, procedural, cultural, and interpersonal perspectives. For example, unhappiness about mobility and the work–life balance are personal issues affecting the execution of TD interventions and their outcomes. Table 3 displays various issues/challenges along with examples identified by this study. According to the findings, most challenges and issues have been driven by the managerial perspective, as managers do not have a thorough and correct understanding of TD systems and tend not to value the importance of developing talented employees for their organizations. Additionally, organizational and cultural issues seem to have noticeable impacts on implementing TD interventions.

Several positive organizational and individual outcomes associated with implementing TD interventions were identified by the researchers such as firm growth, ROI, service delivery, brand popularity, job satisfaction, turn-over rate, skill development, commitment.

Conclusion

The need for a TD model to demonstrate TD's intervention antecedents and outcomes within the organization inspired this study's development of a TD model derived from the current literature review findings. Therefore, this study proposed a model of talent development that advocates an organizational perspective on the scope of TD, along with challenges/issues regarding the implementation of TD interventions that would predict organizations' choices of which types of TD

interventions to implement. These antecedents would influence how organizations approach TD (which intervention is used and to what extent the intervention affects employees) and how successful interventions are if they are applied. The model also indicates that organizations have various choices of interventions from the T&D, CD, and OD areas; they need to realize the one that fits their needs and aligns with the organization's objectives and mission.

According to the model, the outcomes from implementing TD interventions can be divided into two groups: individual-level and organizational-level outcomes. Any TD intervention with the described antecedents may yield different outcomes. Therefore, several might be used in combination to examine the relationship between different elements of the TD model.

Study Two: Mediating Effect of Social Media Use Behavior on the Relationship between Predictor Factors and Work Success: A Conceptual Model for Talent Learning and Development

This study examined the influence of factors such as performance expectancy, effort expectancy, facilitation condition, and social influence on the use of social media tools for different learning and development activities. Additionally, the study investigated the work success outcomes including performance, productivity, and job satisfaction as a result of using social media. The primary goals of this quantitative study were to investigate (a) the extent and types of social media tools used by organizations for developing talented employees, (b) the effects of using social media tools in TD practices on individual level outcomes such as work success, (c) The influence of factors including performance expectancy, effort expectancy, facilitating

conditions, and social influence on employees' use behavior, and (d) the role of demographic characteristics such as age, gender, education, and position in use of social media and perceived work success.

Method

The study used a quantitative approach to research. It employed a relational quantitative design to test the relationship between variables through several mediation analyses. The pilot study population consisted of 45 employees within the HR department of a huge publicly traded internet domain registrar and web hosting company. The main sample included 435 employees of a huge digital industrial company.

This study used a 4-part questionnaire. The first part asked for demographic characteristics. The second part used a modified version of UTAUT instrument to ask for the antecedent variables. The third part used the modified version of work success instrument to measure the outcomes of the social media usage. The fourth part measured the employees' use of several social media tools for different learning and development activities.

PROCESS software (Hayes, 2013) was used in conjunction with SPSS software to analyze the data and test the first eight hypotheses. To minimize the variations in the estimation of the limits of a confidence interval, we relied on 10,000 bootstrapped samples, using 95% bias corrected bootstrapped confidence intervals (CIs).

ANOVA tests was conducted to answer the last two hypotheses in order to explore the mean differences among different demographic categories. A

correlational analysis was run to explore which social media tools have the greatest influence on work success.

I used another statistical method to analyze the mediation models for testing eight hypotheses. Mediation analysis when missing values are high in percentage might not lead to reliable results when using software such as SPSS, or PROCESS. One way to overcome the issue of missing data is a method in SAS software which applies multiple imputation and bootstrap techniques together to produce parameter estimates for the mediation model parameters

Findings

The findings indicate usage of social media tools for various talent development activity such as building personal relationships, self-development activities, informal learning, exchanging feedback, communication with others, knowledge sharing, document collaboration, team working/building, on-line chatting play a mediation role between antecedent's variables and perceived work success. Employees who expected a higher level of performance as a result of using social media, thought that use of social media is easy, reported the level of facilitating conditions are appropriate, or were surrounded by people who use social media tools were more likely to use social media for different developmental activities.

Results showed that employees who use social media at a higher extent, reported higher level of perceived work success consists of performance, productivity, and job satisfaction. According to the findings, there is no difference between different demographic groups in use of social media and the consequent perceived work success. Employees in different age, gender, education, and position

categories demonstrated no statistically significance difference in their answers. By that, it can be concluded that regardless of mentioned demographic characteristics, if employees report higher scores in antecedents of social media usage, they will be expected to use social media more, thus, are expected to report higher level of work success.

Moreover, employees demonstrated differences in their preferred platforms. Public professional networking (e.g. LinkedIn and Facebook) was the most important predictor in reported work success by employees. The next important tool was internal professional networking (e.g. Yammer), followed by microblogging (e.g. Twitter), and online chatting tools (e.g. Jabber).

Conclusion

The need for a conceptual model that demonstrate the relationship between influencing factors on the social media use behavior and work success was met by the results of this study. The proposed model presented how expectations of social media users about usefulness and easiness of social media tools, as well as availability of different facilitating conditions or influence of others would determine the actual use of social media in their work. Then, the model showed to what extent social media usage for different learning and development activities influence employees' perceived work success.

Study Three: Social Media in Action: The Potentials for Developing Talented Employees

This study was a practitioner guides and sought to provide a practical framework for professional in the HRD field to assist them in choosing the right

social media tools in different learning and development activities to maximize the results.

The study first explained what it means to use social media for L&D purposes; then, provided some benefits of social media for organization, followed by the applications of social media in organizations' learning and talent development practices, and useful recommendations.

Conclusion

Social media can increase employee participation in many learning and development activities, and thus, influence employees work success (performance, productivity, and job satisfaction) especially if the programs provide the proper support from the organizations. Learners are more likely to stay engaged and use social media if they expect a higher level of performance as a result of using social media, think that use of social media is easy, experience appropriate level of facilitating conditions, or be surrounded by people who value social media use. Leveraging social media tools for various talent development activity such as building personal relationships, self-development activities, informal learning, exchanging feedback, communication with others, knowledge sharing, document collaboration, team working/building, on-line chatting play a mediation role between availability of appropriate infusing factors mentioned above and perceived work success by employees.

Recommendations for Future Study

Based on the findings of the first two studies, I suggest the following possibilities for scholars and practitioners.

The first future recommendation for scholars is conducting studies to investigate the results of implementing different talent development interventions: there seems to be no theoretical framework or model in HRD publications to demonstrate the relationship between the use of different TD interventions and organizational outcomes. Therefore, there is a need to conduct extensive research that focuses on the relationship between various TD interventions that have been implemented, such as succession planning, mentoring, global assignments, and culture change, and individual, group, global, and organization level outcomes, such as performance, Return on Investment (ROI), knowledge sharing, brand awareness, satisfaction, commitment, tendency to leave, and many others.

Second, the results of examining the TD literature showed that the most common interventions that have been implemented were at the individual level and have been designed to benefit individuals, followed by training -related interventions. Researchers looking further at other levels of OD interventions such as team, global, and organizational level researchers will be able to provide useful information about the value of these interventions and identify the possible implementation barriers for further considerations.

Third, since few studies have been conducted in the area of social media as a learning and development tool, this study would be a starting point for scholars to find out how employees would perceive social media interventions in their knowledge sharing and learning activities and what other factors might have influence their intention to use of perceive performance, productivity, or job satisfaction.

Conducting more qualitative research would help to shed light on the factors influencing social media tools by employees and help more to understand what positive outcome organization can receive from implementing such tools in their talent development activities. Conducting qualitative research help to understand about why predictor factors are important, how they will affect employees' intention use, what factors we might have overlooked, what outcomes employees expect to have from using social media, or how employees feel about the changes they faced as a result of utilizing social media in their work place.

For the HRD professional I suggest to use the frameworks presented in this dissertation and explore how implementing different talent development interventions would bring value to their organizations.

Second, recognizing the factors that influence employees' use of social media can provide the basis to design an efficient and tailored environment to implement social media related intervention more effectively. It helps HRD professionals can help to reduce the cost of implementing ineffective tools while providing the supporting environment for employees.

The models proposed in this study would serve as a helpful guide for practitioners who want to know how they can choose the most effective option from various learning and development tools, and provide necessary factors to facilitate employee' use of social media in different learning and development practices.

REFERENCES

Aggestam, L. (2015). Learning Organization or Knowledge Management–Which Came First, The Chicken or the Egg?. *Information technology and control*, *35*(3), 295-302.

Aral, S., Dellarocas, C, & Godes, D. (2013). Introduction to the special issue-Social media and business transformation: A framework for research. *Information Systems Research 24*(1), 3-13.

Bedell, J. (2010). *What is the difference between social media and social networking?* Retrieved from JTB Consulting: http://jasontbedell.com/whatis-the-difference-between-social-media-and-social-networking.

Belanger, F., Collins, R. W., & Cheney, P. H. (2001). Technology requirements and work group communication for telecommuters. *Information Systems Research*, *12*(2), 155-176.

Bennett, E. E. (2009). Virtual HRD: The intersection of knowledge management, culture, and intranets. *Advances in Developing Human Resources*, 11, 362-374.

Boyd, d. (2006b, March 21). Friendster lost steam. Is MySpace just a fad? Apophenia Blog. Retrieved from http://www.danah.org/papers/FriendsterMySpaceEssay.html

Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication, 13*(1), 210-230.\

Bradley, J. (2010). *A new definition of social media*. Retrieved from http://blogs.gartner.com/anthony_bradley/2010/01/07/a-new-definition-of-social-media.

Bughin, J., Chui, M., & Miller, A. (2009). How companies are benefitting from Web 2.0: McKinsey global survey results. *McKinsey Quarterly*. Retrieved from https://www.mckinseyquarterly.com.

Burbach, R., & Royle, T. (2010). Talent on demand? Talent management in the German and Irish subsidiaries of a US multinational corporation. *Personnel Review, 39*(4), 414-431.

Burke, F. (2013). *Social media vs. social networking.* Retrieved from http://www.huffingtonpost.com/fauzia-burke/social-media-vs-social-ne_b_4017305.html

Cameron, C. A. (2006). Examining the relationship that age, gender, experience and communication technology has on acceptance and use of information technology: Using the Unified Theory of Acceptance and Use of Technology (UTAUT) model (Unpublished Dissertation), Touro University International, Cypress, CA.

Cappelli, P. (2009). Talent on Demand–Managing Talent in an Age of Uncertainty. *Strategic Direction*, 25(3), 22-24.

Carlson, J. R., Zivnuska, S., Harris, R. B., Harris, K. J., & Carlson, D. S. (2016). Social Media Use in the Workplace: A Study of Dual Effects. *Journal of Organizational and End User Computing*, *28*(1), 15-31.

Chadee, D., & Raman, R. (2012). External knowledge and performance of offshore IT service providers in India: The mediating role of talent management. *Asia Pacific Journal of Human Resources,50*(4), 459-482.

Chapman, C. N., & Lahav, M. (2008). International ethnographic observation of social networking sites. *Proceedings from CHI 2008* (pp. 3123-3128), Florence, Italy.

Childs, A. (2015). An exploratory multiple-case study of social media in training and development (Doctoral dissertation). Retrieved from ProQuest.

Cho, Y., & McLean, G. N. (2009). Leading Asian countries' HRD practices in the IT industry: a comparative study of South Korea and India. *Human Resource Development International,12*(3), 313-331.

Cody-Allen, E., & Kishore, R. (2006). An extension of the UTAUT model with e-quality, trust, and satisfaction constructs. Proceedings from ACM SIGMIS CPR conference on computer personnel research: Forty four years of computer personnel research: achievements, challenges & the future (pp. 82-89). ACM

Collings, D., & Mellahi, K. (2009). Strategic talent management: A review and research agenda. *Human Resource Management Review, 19* (4), 304-313. doi: 10.1016/j.hrmr.2009.04.001.

Collins, K., Shiffman, D., & Rock, J. (2016). How are scientists using social media in the workplace?. *PloS one, 11*(10).

D'Annunzio-Green, N. (2008). Managing the talent management pipeline: Towards a greater understanding of senior managers' perspectives in the hospitality and

tourism sector. *International Journal of Contemporary Hospitality Management, 2*(7), 807-819.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology, *MIS Quarterly, 13* (3), 319-339.

DiMicco, J. M., & Millen, D. R. (2007). *Identity management: Multiple presentations of self in Facebook*. In Proceedings of the international ACM conference on supporting group work (pp. 383-386). ACM.

Downes, S. (2005). *An introduction to connective knowledge*. In Innsbruck university press. Retrieved from http://www.downes.ca/cgibib/page.cgi?post.

Dunbar, R. I. M. (1992). Neocortex size as a constraint on group size in primates. *Journal of Human Evolution, 22(*6), 469-493.

Edosomwan, S., Prakasan, S. K., Kouame, D., Watson, J., & Seymour, T. (2011). The history of social media and its impact on business. *Journal of Applied Management and entrepreneurship*, *16*(3), 79.

Ewerlin, D., & Süß, S. (2016). Dissemination of talent management in Germany: Myth, facade or economic necessity? *Personnel Review*, *45*(1), 142-160.

Fajčíková, A., Fejfarová, M., & Urbancová, H. (2016). Employee development by talent management implementation. *Scientific Papers of the University of Pardubice. Series D, Faculty of Economics & Administration,* 22(38), 18-30.

Festing, M., Kornau, A., & Schäfer, L. (2015). "Think talent–think male? A comparative case study analysis of gender inclusion in talent management practices in the German media industry". *The International Journal of Human Resource Management,* Vol. 26 No. 6, pp. 707-732.

Festing, M., Schäfer, L., & Scullion, H. (2013). Talent management in medium-sized German companies: An explorative study and agenda for future research. *The International Journal of Human Resource Management, 24*(9),1872-1893.

Fulk, J., Steinfield, C. W., Schmitz, J., & Power, J. G. (1987). A social information processing model of media use in organizations. *Communication research, 14*(5), 529-552.

Garrard, J. (2013). *Health Sciences Literature Review Made Easy*. Jones & Bartlett Publisher: Burlington, MA.

Garavan, T. N., Carbery, R., & Rock, A. (2012). Mapping talent development: definition, scope and architecture. *European Journal of Training and Development*, *36*(1), 5-24.

Garg, R., & Telang, R. (2012). To be or not to be linked on LinkedIn: Online social networks and job search. Retrieved from http://ssrn.com/abstract=1813532

Gibb, S., & Zhang, S. (2017). Guanxi influence and talent management in Chinese organisations; evidence from the real estate sector. *Human Resource Development International, 20*(1), 79-98.

Goldie, J. G. S. (2016). Connectivism: A knowledge learning theory for the digital age?. *Medical teacher*, 1-6.

Graham, J. C. (2015). An empirical investigation of technology usage, virtual status, organizational justice, need for affiliation, organizational identification and their influence on work success (Doctoral dissertation), Retrieved from ProQuest.

Gregg, M. (2011). Presence bleed: Performing professionalism online. Retrieved fromhttps://www.academia.edu/1513344/Presence_Bleed_Performing_Professionalism_Online.

Guerci, M., & Solari, L. (2012). Talent management practices in Italy–implications for human resource development. *Human Resource Development International*, 15(1), 25-41.

Guo, C. (2009). *A cross cultural validation of perceptions and use of social network service: An exploratory study* (Unpublished doctoral dissertation). Mississippi State University, Starkville, MS.

Hall-Ellis, S. D., & Grealy, D. S. (2013). The Dreyfus model of skill acquisition: A career development framework for succession planning and management in academic libraries. *College & Research Libraries, 74*(6), 587-603.

Hanna, B., Kee, K. F., & Robertson, B. W. (2017). Positive impacts of social media at work: Job satisfaction, job calling, and Facebook use among co-workers. *SHS Web of Conferences*, 33. Retrieved from https://doi.org/10.1051/shsconf/20173300012.

Hana, U., & Lucie, V. (2015). Investigating talent management philosophies. *Journal of Competitiveness,7*(3), 3-18.

Hartmann, E., Feisel, E., & Schober, H. (2010). Talent management of western MNCs in China: Balancing global integration and local responsiveness. *Journal of World Business,45*(2), 169-178.

Hartshorn, S. (2010). 5 *differences between social media and social networking. Retrieved from In Social Media* Today website:

http://www.socialmediatoday.com/content/5-differences-between-social-media-and-social-networking.

Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*. New York: Guilford Press.

Hedayati Mehdiabadi, A., & Li, J. (2016). Understanding Talent Development and Implications for Human Resource Development: An Integrative Literature Review. *Human Resource Development Review,15*(3), 263-294.

Huang, J., & Tansley, C. (2012). Sneaking through the minefield of talent management: the notion of rhetorical obfuscation. *The International Journal of Human Resource Management, 23*(17), 3673-3691.

Iles, P., Chuai, X., & Preece, D. (2010). Talent Management and HRM in Multinational companies in Beijing: Definitions, differences and drivers. *Journal of World Business. 45*(2),179-189.

Jensen, P. E. (2005). A contextual theory of learning and the learning organization. *Knowledge and Process Management*, 12(1), 53-64.

Juhdi, N., Pa'wan, F., & Hansaram, R. (2015). Employers' experience in managing high potential employees in Malaysia. *Journal of Management Development, 34*(2), 187-201.

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business horizons, 54*(3), 241-251.

Kim, S. & McLean, G.N. (2012). Global talent management: Necessity, challenges, and the roles of HRD. *Advances in Developing Human Resources, 14(*4*),*566-585.

Krause, J. A. (2010). Attitudes, perceptions, and behavioral intentions of engineering workers toward Web 2.0 tools in the workplace (Doctoral Dissertation). Retrieved from ProQuest.

Kriegel, J. (2013). Differences in learning preferences by generational cohort: Implications for instructional design in corporate web-based learning (Doctoral Dissertation). Retrieved from ProQuest.

Kunasegaran, M., Kunasegaran, M., Ismail, M., Ismail, M., Mohd Rasdi, R., ... & Ramayah, T. (2016). Talent development environment and workplace adaptation: The mediating effects of organizational support. *European Journal of Training and Development*, *40*(6), 370-389.

Kwak, H., Lee, C., Park, H., & Moon, S. (2010). What is Twitter, a social network or a news media?. *Proceedings from 19th international conference on World wide web* (pp. 591-600*).* ACM.

Lawler, J. (2008). Strategic human resource management. *Handbook of Organization Development*. Sage Publication, Thousand oaks, CA. p. 353.

Lawler E. E. (2008), Strategic talent management: Lessons from corporate world. *Madison, WI: Consortium for Policy Research in Education*. Retrieved from http://www.smhc-cpre.org/wp-content/uploads/2008/06/strategic-talent-management-lawler-paper-may-08.pdf.

Lee, J.& Kwahk, K. (2010). The effects of social media usage on job performance: with a focus on the mediational role of knowledge sharing and decision-making participation. Proceedings from knowledge management conference.

Lehmann, S. (2009). Motivating talents in Thai and Malaysian service firms. *Human Resource Development International, 12*(2), 155-169.

Leonardi, P. M., Huysman, M., & Steinfield, C. (2013). Enterprise social media: Definition, history, and prospects for the study of social technologies in organizations. *Journal of Computer-Mediated Communication, 19*(1), 1-19.

Lin, Y. & Lazer, D. (2013). Watching how ideas spread over social media. *The MIT Press: Leonardo* 46(3), 277-278.

Little, R. J., & Rubin, D. B. (2002). *Statistical Analysis with Missing Data.* New York, N.Y: Wiley-Interscience.

Lunenburg, F. C., & Irby, B. J. (2008). *Writing a successful thesis or dissertation: Tips and strategies for students in the social and behavioral sciences*. Thousand Oaks, CA: Corwin Press.

Lewis, R., & Heckman, R. (2006). Talent management: A critical review. *Human Resource Management Review, 16,* 139-154.

Macfarlane, F., Duberley, J., Fewtrell, C., & Powell, M. (2012). Talent management for NHS managers: Human resources or resourceful humans? *Public Money & Management, 32*(6), 445-452.

Maxwell, G. A., & MacLean, S. (2008). Talent management in hospitality and tourism in Scotland: Operational implications and strategic actions.

International Journal of Contemporary Hospitality Management, 20(7), 820-830.

Mazman, S. G., & Usluel, Y. K. (2010). Modeling educational usage of Facebook. *Computers & Education, 55*(2), 444-453.

McAfee, A. P. (2009a). Shattering the myths about Enterprise 2.0. *Harvard Business Review, 87*(11), 1-6. Retrieved from http://www.hbr.org

McAfee, A. P. (2009b). *Enterprise 2.0: New collaborative tools for your organization's toughest challenges.* Boston, MA: Harvard Business Press.

McDonnell, A., Lamare, R., Gunnigle, P., & Lavelle, J. (2010). Developing tomorrow's leaders—Evidence of global talent management in multinational enterprises. *Journal of World Business, 45*(2), 150-160.

McLean, G. (2006). *Organization development: Principles, processes, performance*. San Francisco, CA: Berrett-Koehler Publishers.

McWhorter, R.R. (2010). Exploring the emergence of virtual human resource development. *Advances in Developing Human Resources*. *12(6),* 623-631.

Mehdiabadi, H. A., & Li, J. (2016). Understanding Talent Development and Implications for Human Resource Development: An Integrative Literature Review. *Human Resource Development Review, 15*(3), 263-294.

Mount, M., & Garcia Martinez, M. (2014). Social media: A tool for open innovation. *California Management Review, 56*(4), 124-143.

Nafukho, F.M., Graham, C. M., & Muyia, H.M.. (2010). Harnessing and optimal utilzation of human capital in virtual workplace environment. *Advances in Developing Human Resources, 12(6),* 648-664.

Oltra, V., & Vivas-López, S. (2013). Boosting organizational learning through team-based talent management: What is the evidence from large Spanish firms? *The International Journal of Human Resource Management, 24*(9), 1853-1871

Oppong, N., & Gold, J. (2016). Developing local managers in the Ghanaian mining industry: An indigenous talent model. *Journal of Management Development, 35*(3), 341-359.

Philpot, E. L. (2013). Social media adoption and use among information technology professionals and implications for leadership (Doctoral dissertation). Retrieved from ProQuest.

Podsakoff, P. & Organ, D. (1986). Self-reports in organizational research: problems and prospects. *Journal of Management, 12* (4), 531-544.

Rashman, L., Withers, E., & Hartley, J. (2009). Organizational learning and knowledge in public service organizations: A systematic review of the literature. *International Journal of Management Reviews, 11*(4), 463-494.

Ready, A. D., Conger, A. J., & Hill, A. L. (2010). Are you a high potential? *Harvard Business Review, 88*(6), 78-84.

Redwood, S. (2016). Transitioning to the future of work and the workplace embracing digital culture, tools, and approaches. Retrieved from https://www2.deloitte.com/us/en/pages/human-capital/articles.

Rezaei, F.& Beyerlein, M. (2018). Talent Development: A Systematic Literature Review of Empirical Studies. *European Journal of Training and Development. 42*(1/2). 75-90.

Rezaei, F. & Chakraborty, M. (2017). *Talent Development and the Global Academy: Perspectives from Special Interest Group* (pp. 145-153). Information Age Publishing, INC, Charlotte, NC.

Rice, R., & Shook, D.E. (1990). Relationships of job categories and organizational levels to use of communication channels, including electronic mail: a meta-analysis and extension. *Journal of Management Studies 27*(2), 195-229.

Roberts. G.,& Sambrook, S. (2014). Social networking and HRD. *Human Resource Development International, 17*(5), 577-587.

Rothwell, W. J. (2011). Replacement planning: A starting point for succession planning and talent management. *International Journal of Training and Development, 15*(1), 87-99.

Simens, G. (2005). Connectvism: A learning theory for the digital age. Retrieved from http://er.dut.ac.za/handle/123456789/69.

Sinclaire, J. K., & Vogus, C. E. (2011). Adoption of social networking sites: An exploratory adaptive structuration perspective for global organizations. *Information Technology and Management, 12*, 293–314.

Skuza, A., Scullion, H., & McDonnell, A. (2013). An analysis of the talent management challenges in a post-communist country: The case of Poland. *The International Journal of Human Resource Management, 24*(3), 453-470.

Sparrow, P., Farndale, E., & Scullion, H. (2013). An empirical study of the role of the corporate HR function in global talent management in professional and

financial service firms in the global financial crisis. *The International Journal of Human Resource Management, 24*(9), 1777-1798.

Ştefanescu, F., & Darabaneanu, D. (2011). The human resources management in the context of the economic crisis. *Romanian Economic Business Review, 6*(1), 104-117.

Swailes, S., & Blackburn, M. (2016). Employee reactions to talent pool membership. *Employee Relations, 38*(1), 112-128.

Swailes, S., Downs, Y., & Orr, K. (2014). Conceptualizing inclusive talent management: Potential, possibilities and practicalities. *Human Resource Development International, 17*(5), 529-544.

Swift, P. E., & Hwang, A. (2013). The impact of affective and cognitive trust on knowledge sharing and organizational learning. *The Learning Organization, 20*(1), 20-37

Tansley, C., & Tietze, S. (2013). Rites of passage through talent management progression stages: An identity work perspective. *The International Journal of Human Resource Management, 24*(9), 1799-1815.

Thomas, K.J., & Akdere, M. (2013). Social media as collaborative media in workplace learning. *Human Resource Development Review,* 12(3), 329-344.

Thunnissen, M. (2016). Talent management: For what, how and how well? An empirical exploration of talent management in practice. *Employee Relations, 38*(1), 57-72.

Torraco, R. J. (2005). Writing integrative literature reviews: Guidelines and examples. *Human resource development review, 4*(3), 356-367.

Tu, C., Blocher, M., & Ntoruru, J. (2008). Integrate Web 2.0 technology to facilitate online professional community: EMI special editing experiences. *Educational Media International, 45*(4), 335–341.

Valverde, M., Scullion, H., & Ryan, G. (2013). Talent management in Spanish medium-sized organisations. *The International Journal of Human Resource Management, 24*(9), 1832-1852.

Venkatesh, V., & Davis, F. D. A (2000). Theoretical extension of the technology acceptance model: Four longitudinal field studies, *Management Science*, 45(2), 186-204.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425-478.

Wacker, J. G. (1998). A definition of theory: research guidelines for different theory-building research methods in operations management. *Journal of operations management, 16*(4), 361-385.

Walden, J. A. (2016). Integrating social media into the workplace: A study of shifting technology Use repertoires. *Journal of Broadcasting & Electronic Media, 60*(2), 347-363.

Walker, J. D., & Jorn, L. (2009). 21st-century students: Technology survey. Retrieved from University of Minnesota Twin Cities, Office of Information Technology website: http://www.oit.umn.edu/prod/groups/oit/@pub/@oit/@web/@evaluationresearch/documents/content/oit_content_177146.pdf

Wang, J. (2012). Human resource development and technology integration, cyclopedia of E-Leadership, Counseling and Training: Vol. 2. Information science reference (pp. 391-407).

Wang-Cowham, C. (2011). Developing talent with an integrated knowledge-sharing mechanism: An exploratory investigation from the Chinese human resource managers' perspective. *Human Resource Development International, 14*(4), 391-407.

Warschauer, M., & Grimes, D. (2007). Audience, authorship, and artifact: The emergent semiotics of web 2.0, *Annual Review of Applied Linguistics*, 27, 1-23.

Watson-Frit, M., Narasimhan, S., & Rhee, H, (1998). Communication and coordination in the virtual office, *Journal of Management Information Systems. 14*(4), 7-28.

Wu, L. (2013). Social network effects on productivity and job security: Evidence from the adoption of a social networking tool. *Information systems research, 24*(1), 30-51.

Yoon, S.W. & Lim, D.H. (2010). Systemizing virtual learning and technologies by managing organizational competency and talents. *Advances in Developing Human Resources, 12*(6), 715-727.

Zheng, C. (2009). Keeping talents for advancing service firms in Asia. *Journal of Service Management, 20*(5), 482-502.

Zhang Z., Wang L., Tong X. (2015). Mediation analysis with missing data through multiple imputation and bootstrap. *Quantitative Psychology Research*. *Springer Proceedings in Mathematics & Statistics*, 140, pp. 342-355.

APPENDIX A

SEARCH HISTORY

Human Resources Abstracts, retrieved 213: ((ZU "talent development") or (ZU "talent management")) OR AB ((develop* or manag*) n3 talent*).

Business Source Complete, retrieved 78, 17 duplications, 61 newly added articles: (DE "Talent management" OR AB (talent w3 (develop* or manag*))) AND (DE "Personnel management" OR AB human resource*).

PsycINFO, retrieved 130, 40 duplications, 90 newly added articles: AB (talent w3 (develop* or manag*))) AND DE "Human Resource Management" OR DE "Career Development" OR DE "Job Analysis" OR DE "Labor Management Relations" OR DE "Personnel Evaluation" OR DE "Personnel Recruitment" OR DE "Personnel Selection" OR DE "Personnel Termination" OR (AB "Personnel management" OR AB human resource*)

Academic Search Complete, retrieved 81 articles. 11 duplications, 70 newly added articles: (DE "TALENT development" OR DE "TALENT management" OR AB (talent w3 (develop* or manag*)))) AND DE "PERSONNEL management" OR DE "career development" OR (AB "Personnel management" OR AB human resource*)

HRD journals: AB (talent w3 (develop* or manag*))) AND title: SO human resource development quarterly 0. SO human resource development review 0, SO human resource development international 6, SO advances in developing human resources 1.

APPENDIX B

RECRUITMENT EMAIL

Fatemeh Rezaei
Texas A&M University
College of Education and Human Development
518 Harrington Tower, 4226
TAMU
College Station, TX 77843-4226

Dear MS,

We formally request the approve of your organization for Dr. Michael Beyerlien, a faculty member at Texas A&M University, and Fatemeh Rezaei, a doctoral student at Texas A&M, to conduct a research at your facility for the study, "The Role of Social Media for Talent Development".

Fatemeh Rezaei will send the link to an electronic survey to you beginning March 15th, 2017. You will be asked to send out the survey to all employees on your organization list serves. Employees who agree to be part of the study will be asked to answer the survey questions.

Fatemeh will have no interaction with employees and has agreed not to interfere with work activities. She will also provide a copy of Texas A&M IRB-approved, stamped consent document before she recruits any employees, and will also provide a copy of her published study.

If there are any questions, please contact the principle investigator, Dr. Michael Beyerlein at beyerlein@tamu.edu. or the protocol director Fatemeh (Dena) Rezaei at faem@tamu.edu .

Thank you for your cooperation.

APPENDIX C

SURVEY

The Role of Social Media in Talent Development

QID8 - Information Sheet Project Title: The Role of Social Media for Talent Development. You are invited to take part in a research study being conducted by Dr. Michael Beyerlein and Fatemeh Rezaei, researchers from the Department of Educational Administration & Human Development at Texas A&M University. The information in this form is provided to help you decide whether or not to take part. If you decide to take part in the study, you will be asked to agree with this information sheet. If you decide you do not want to participate, there will be no penalty to you, and you will not lose any benefits you normally would have. You may choose to withdraw from the study at any time without penalty. Why Is This Study Being Done? This study aims to assess the effects of using social media to develop employees. We have created a survey to assess your perceptions toward the use of social media, usage of social media at work, and your perception of positive outcome because of social media application. Why Am I Being Asked To Be In This Study? You are being asked to be in this study because you are an employee of the organizations that are using social media employee development. How Many People Will Be Asked To Be In This Study? Around 4000 participants will be invited to participate in this study. What Are the Alternatives to being in This Study? The alternative to being in the study is not to participate. What Will I Be Asked To Do In This Study? You will be asked to answer some demographic questions such as age, gender, level of educations, years in the current position, and the current position in the company. You will be asked to answer multiple question: determining the current use of social media tools by you for your job, the extent to which you agree with the usefulness of social media and other factors influencing social media usage, and also the extent to which you agree with the positive outcomes of using social media at your job such as job satisfaction. Will Photos, Video or Audio Recordings Be Made Of Me during the Study? No. Are There Any Risks To Me? The things that you will be doing are no more than risks than you would come across in everyday life. Although the researchers have tried to avoid risks, however, you may feel that some questions that are asked of you are too personal. You do not have to answer or write anything you do not want to, and you may stop taking the survey at any time. Not answering certain questions, or stopping will not affect your job in the company. No follow up questions will be required. Are There Any Benefits To Me? There is no direct benefit for participation. Will There Be Any Costs To Me? Aside from 30 minutes of your time, there are no costs for taking part in the study. Will I Be Paid To Be In This Study? You will not be paid for being in this study Will Information from This Study Be Kept Private? The surveys you complete will be stored in computer files protected with a password. People who have access to your information include the Principal Investigators and research study personnel. Representatives of regulatory agencies such as the Office of Human Research Protections (OHRP) and entities such as the Texas A&M University Human Subjects

Protection Program may access your records to make sure the study is being run correctly and that information is collected properly. Information about you and related to this study will be kept confidential to the extent permitted or required by law. Who may I Contact for More Information? If you have any concern or complain or any question regarding the study, you may contact the principle investigator, Dr. Michael Beyerlein at beyerlein@tamu.edu. You may also contact the protocol director Fatemeh (Dena) Rezaei at faem@tamu.edu . For questions about your rights as a research participant; or if you have questions, complaints, or concerns about the research, you may call the Texas A&M University Human Subjects Protection Program office at (979) 458-4067 or irb@tamu.edu. What if I Change My Mind About Participating? This research is voluntary and you have the choice whether or not to be in this research study. You may decide to not begin or to stop participating at any time. If you choose not to be in this study or stop being in the study, there will be no effect on your employment status, medical care, employment, evaluation, and relationship with the company. STATEMENT OF CONSENT I agree to be in this study and know that I am not giving up any legal rights by signing this form. The procedures, risks, and benefits have been explained to me, and my questions have been answered. I know that new information about this research study will be provided to me as it becomes available and that the researcher will tell me if I must be removed from the study. I can ask more questions if I want, (if applicable) and I can still receive services if I stop participating in this study. An electronic copy of this entire consent form will be given to me. PLEASE SELECT EITHER “I AGREE” OR “I DISAGREE” BELOW.

Q1 How old are you?

- ○ Below 30 (1)
- ○ 30-40 (2)
- ○ 40-50 (3)
- ○ 50-60 (4)
- ○ Above 60 (5)

Q2 What is your gender?

- ○ Male (1)
- ○ Female (2)
- ○ Prefer not to share (3)

Q3 What is your highest level of education?

- ○ Below high school diploma (1)
- ○ High school diploma (2)
- ○ Associate degree (3)
- ○ Bachelor degree (4)
- ○ Master degree (5)
- ○ PhD (6)

Q4 What is your position within your current company?

- ○ Managerial Position (1)
- ○ Non-managerial Position (2)

Q5 How long have you been working in your current position? (In years)

- ○ Less than 1 (1)
- ○ 1-5 (2)
- ○ 5-10 (3)
- ○ More than 10 (4)

On the following screens, you will be asked a series of questions related to your perceptions on 2 types of social media: Internal social media (tools used within the workplace) and public social media. The instructions at the top of each page will indicate the category being surveyed for that set of questions.

Q6
The following questions intent to access your perception toward **External and Internal** social media.
*Please select the extent to which you agree with the following statements.

(Adapted from Venkatesh, Morris, Davis, and Davis, 2003)

	Disagree (1)	Somewhat disagree (2)	Neither agree or disagree (3)	Somewhat agree (4)	Agree (5)
I find social media useful in my job.	○	○	○	○	○
Using social media enables me to accomplish tasks more quickly.	○	○	○	○	○
Using social media increases my productivity.	○	○	○	○	○
If I use social media, I will increase my chance of getting a raise.	○	○	○	○	○
My interaction with social media is clear and understandable.	○	○	○	○	○
It is easy for me to become skillful at using social media tools.	○	○	○	○	○
I find social media easy to use.	○	○	○	○	○
Learning to use social media is easy for me.	○	○	○	○	○
I have the resource necessary to use social media.	○	○	○	○	○
I have the knowledge necessary to use social media.	○	○	○	○	○
Social media tools are compatible with other systems I use.	○	○	○	○	○

	Disagree (1)	Somewhat disagree (2)	Neither agree or disagree (3)	Somewhat agree (4)	Agree (5)
A specific person (group) is available for assistance with social media difficulty.	○	○	○	○	○
People who influence my behavior think that I should use social media.	○	○	○	○	○
People who are important to me think that I should use social media.	○	○	○	○	○
The senior management of my company has been helpful in the use of social media.	○	○	○	○	○
In general, my organization has supported the use of social media.	○	○	○	○	○

Q8 **Work Success Survey-Public Social Media**

The following questions intend to access the outcomes of using **External** and **Internal** social media for employees.

Please select the extent to which you agree with the following statements regarding the use of public social media usage.

(Adapted from Grasham, 2015)

	Disagree completely (1)	Strongly disagree (2)	Disagree (3)	Neither agree or disagree (4)	Agree (5)	Strongly agree (6)	Agree completely (7)
I am very productive while using social media.	○	○	○	○	○	○	○
Using social media in my work environment allows me to work efficiently	○	○	○	○	○	○	○
I feel I am productive in my work when using social media.	○	○	○	○	○	○	○
Using social media in my work environment allows me to complete a large number of tasks each day.	○	○	○	○	○	○	○
Using social media in my work environment allows me to meet the expectations of my supervisors in performing my job.	○	○	○	○	○	○	○
Using social media in my work environment allows me to do high quality work.	○	○	○	○	○	○	○
Using social media in my work environment allows me to complete tasks in a satisfactory manner.	○	○	○	○	○	○	○
Using social media in my work environment allows me to improve my overall work performance.	○	○	○	○	○	○	○
Using social media in my work environment allows me to complete work in a timely and effective manner.	○	○	○	○	○	○	○

	Disagree completely (1)	Strongly disagree (2)	Disagree (3)	Neither agree or disagree (4)	Agree (5)	Strongly agree (6)	Agree completely (7)
I am satisfied with my work environment	○	○	○	○	○	○	○
Using social media in my work environment allows me to get help from coworkers when needed.	○	○	○	○	○	○	○
Using social media in my work environment allows me to get help from my supervisor when needed.	○	○	○	○	○	○	○
Using social media in my work environment allows me to feel as I belong to an office team.	○	○	○	○	○	○	○

10 The following questions determine the current uses of external an internal social media tools in the workplace.

*Please indicate if you use the following social media tools for any of the work-related purposes.

The following questions determine the current uses of internal social media tools in the workplace.
*Please indicate if you use the following social media tools for any of the work-related purposes.

	social and professional networking (e.g. Facebook, LinkedIn, Google+, Instagram)	blogs (e.g. bloggers)	micro-blogs (e.g.Twitter)	Wikies (e.g. Wikipedia)	Virtual worlds or games (e.g. World of Warcraft)	document sharing tools (e.g. Google doc)	online chatting tools (e.g. Telegram)	video sharing (e.g. Youtube)
Building personal relationships with co-workers								
Self-development activities								
Informal learning								
Exchanging Feedback.								
Communicating with others								
Knowledge Sharing								
Document Collaboration								
Team working/building								
On-line Chatting								

	Internal Professional Networking (e.g. Yammer)	Internal video sharing networks (e.g. VideoCentral/Office365)	Internal learning platforms (e.g.BrilliantYOU)	Internal online chatting tools (e.g. Jabber/Skype for Business)
Building personal relationships with co-workers				
Self-development activities				
Informal learning				
Exchanging Feedback				
Communicating with others				
Knowledge Sharing				
Document Collaboration				
Team working/building				
On-line Chatting				

Q13- Please specify if you use any other social media tools that are not mentioned above for any other purposes

APPENDIX D

RELIABILITY TESTS

Scale: Performance Expectancy-External

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.876	.875	4

Scale: Effort Expectancy-External

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.821	.841	4

Scale: Facilitating Condition-External

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.685	.712	4

Scale: Social Influences-External

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.792	.792	4

Scale: Performance Expectancy-Internal

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.880	.877	4

Scale: Effort Expectancy-Internal

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.871	.878	4

Scale: Facilitating Conditions-Internal

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.731	.746	4

Scale: Social Influence-Internal

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.835	.835	4

Scale: Productivity-External

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.960	.960	4

Scale: Performance- External

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.972	.972	4

Scale: Satisfaction- External

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.821	.812	5

Scale: Productivity-Internal

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.968	.968	4

Scale: Performance-Internal

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.964	.965	4

Scale: Job Satisfaction-Internal

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.844	.842	5

Scale: Work Success

	Cronbach's Alpha	N of Items
Internal	.936	3
External	.625	3