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Editorial

Information Management and Business Review (IMBR) provides a unique platform to scholars around the world to share their knowledge and publish research work in the fields of information management, business, management and related disciplines. The work submitted for publication consideration in IMBR should address empirical and theoretical developments in the subjects related to the scope of the journal in particular and allied theories and practices in general. Scope of IMBR includes: subjects of finance, accounting, auditing, cost & management accounting, financial psychology, financial literacy, marketing, information management, human resource management, knowledge management, innovation, change management, enterprise management, e-commerce and information system. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal, and that all listed authors approve its submission to IMBR. It is IMBR policy to welcome submissions for consideration, which are original, and not under consideration for publication by another journal at the same time. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. The current issue of IMBR comprises of papers of scholars from Malaysia, Pakistan, UK, China, India, USA and Saudi Arabia. Infollution (information pollution) management, filtering strategy, scalable workforce, and organizational learning, what is brand? some insights in the historical development, interaction between dividend policy and firm performance, influencing the relationship between job clarity and turnover intention, mediating role of employee performance on the relationship between delegation of authority and decision making and e-entrepreneurship for e-startups are some of the major practices and concepts examined in these studies. Journal received research submission related to all aspects of major themes and tracks. All the submitted papers were first assessed by the editorial team for relevance and originality of the work and blindly peer-reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. The current issue will therefore be a unique offer, where scholars will be able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other relevant fields.

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PAPERS

Information Management and Business Review (IMBR)
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Infollution (Information Pollution) Management, Filtering Strategy, Scalable Workforce, and Organizational Learning: A Conceptual Study

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Abstract: Information generation is increasing rapidly on a global scale. The exponential advancement in information technology and communication has accentuated the problem of effective information management. Yet, employees' cognitive ability to process information has not increased in parallel with information generation. With the exponential rise of information, information pollution (infollution) emerges as a problem on an exponential basis. Infollution is among the greatest challenges of the 21st century. Nevertheless, based on information processing theory and dynamic capability, researchers have conceptualised that agile organisations can cope with information pollution by promoting scalable workforce and organisational learning. By employing coping strategies, filtering has been hypothesised as moderating the association of scalable workplace and organisational learning with infollution management. This research will extend the literature in the domain of information management and agile organisations. It will be particularly useful for information processors to identify quality information for improved decision-making.

Keywords: *Scalable workforces, organisational learning, information pollution, infollution management*

1. Introduction

The world is quickly becoming an information society which is characterised by an exponential increase in formal and informal information. The average quantity of generated information in two days is akin to the total information produced from the birth of civilisation until the year 2003. This is an age of unprecedented information production. Individuals can and do create excessive information at low costs. Individuals are free to collect and share information both consciously and unconsciously. This scenario generates a new problem known as information pollution or infollution. The literature is lacking regarding infollution management (Bawden, 2008). Researchers have concluded that excessive information generation challenges people to deal with infollution (Iqbal, Hassan, & Ahmad, 2018; Ozdemir, 2016). Infollution is linked to a dynamic environment (Watts, Shankaranarayanan, & Even, 2009). Organisations can achieve a competitive edge through dynamic capabilities in a dynamic environment (Teece, 2010). Organisational agility is considered a competitive advantage on the basis of three competencies (scalable workforce, organisational learning, and organisational infrastructure) (Nijssen & Paauwe, 2012). There is limited literature on organisational agility as a dynamic capability especially in the context of organisational behaviour (Nijssen & Paauwe, 2012). With ongoing advances in information and communication technologies, organisations need to be agile to deal with such a dynamic environment.

Agility has become a hot topic in current research because the environment is changing faster than organisations which are struggling to keep up (Gligor & Holcomb, 2012). Infollution contributes to a dynamic environment. Collaborative investigations emphasised the reliance of change and learning (Gligor & Holcomb, 2012). Knowledge management is associated with learning (Kamhawi, 2012). As such, organisational agility regarding organisational learning and a scalable workforce is critical for dealing with infollution. Researchers have suggested exploring infollution in terms of coping strategies and its impact on organisations (Fırat & Kurt, 2008). Moreover, to the best of our knowledge, no empirical evidence is available about the relationship between the scalable workforce and organisational learning with infollution management. With the exponential advancement in information technology and communication, effective information management has become a more pronounced problem (Wang, Jiang, Meier, & Zeng, 2012). The vast volume of information impedes the employee's ability to be selective in seeking and accessing information (Blummer & M. Kenton,

2014). Employees can use certain standards to block the information they do not need and retrieve relevant information (Ghauth & Sukhur, 2015).

The current research introduces information withdrawal and filtering strategies as moderating variables in the relationship between agile organisations (scalable workforce) and organisational learning. The literature is silent regarding the moderating role of filtering and withdrawal strategies on the relationship of the agile workforce and infollution management. This research explores the relationship between the scalable workforce and organisational learning with infollution management. It also considers the moderating role of filtering strategy in this context of rife infollution.

2. Literature Review

Infollution Management: Infollution is defined as contaminated information which is of less importance, irrelevant, unauthentic, and unreliable, and lacks accuracy and precision (Wang et al., 2012). Similarly, Iqbal and Nawaz (2019) have defined information pollution as the overabundance of irrelevant, unsolicited, unwanted messages. Employees should realise the detrimental effects of infollution or risk adversely affecting the organisation. Infollution is ultimately concerned with the quality of information to enhance organisational performance (Iqbal et al., 2018). It will fundamentally change the way businesses compete and operate. Organisations that invest in and successfully derive value from their information will have a distinct advantage over their competitors. A performance gap will grow with the generation of relevant data. While the ability to capture and store vast amounts of information has grown at an exponential rate, the technical capacity to aggregate and analyse these disparate volumes of information is only now catching up (Iqbal et al., 2018). The information revolution has brought substantial benefits to businesses and consumers, but there are commensurate drawbacks of using big information. The availability of relevant information at the right time contributes substantially to the success of organisations. Traditional systems and approaches are slow, inflexible and face difficulty handling information generated at an exponential rate (Iqbal et al., 2018). Organisational information is typically inaccurate, historical and incomplete. To get a competitive edge, organisations need to have effective strategies to gather and manage information.

The world is experiencing an exponential rise in information generation because of advances in information and communication technologies. Information and computer scientists have exercised a systematic effort to overcome infollution with limited success (Iqbal & Nawaz, 2019). Continuous advances in research and development enhance the detrimental effects of infollution. With the proliferation of information and communication technology, the rate of information production has increased rapidly. This infollution makes it difficult for employees to collect quality information efficiently from diverse information sources. Information professionals, academics and computer scientists have suggested devising techniques and technologies for countering the effects of infollution. Infollution manifests differently. It results in disruptions along with the deteriorating quality of information (Iqbal et al., 2018; Ozdemir, 2016). Disruption refers to unsolicited and irrelevant messages especially in the workplace (Nielsen, 2003). Mobile phones have also deemed a source of distraction. Such infollution does not always emerge because of information technology (Frías, Rodriguez, & Castaneda, 2008). Superfluous messages also create unnecessary distractions (Nielsen, 2003). On the other side, with the reduction in the quality of information, the information supply becomes polluted. Such infollution emerge because of low accuracy and out of date information (García-Marco, 2011). The way information is presented could also reduce its quality (Iqbal et al., 2018). Likewise, wordy, unclear, unsolicited information in cluttered forms is difficult to understand (Coult, 2008). All this means that infollution is a problem that needs to be addressed in parallel with information quality.

Organisational Agility (Scalable Workforce and Organisational Learning): The study of organisational agility from the perspective of dynamic capabilities is a new area especially in terms of human resource management (Nijssen & Paauwe, 2012). Organisational agility is based on the concept of a configuration approach. The configurational approach claims that patterns of multiple practices provide the required results. The dynamic capability framework emphasises the combinations of competencies and resources that can be developed, adapted and deployed as a source of competitive advantage (Teece, 2010). Based on the configurational approach, multiple patterns of practices associated with workforce scalability, fast organisational learning, and highly adaptable organisational infrastructure drive organisations to succeed in

a dynamic environment (Nijssen & Paauwe, 2012). Nijssen and Paauwe (2012) elaborated three competencies of an agile organisation as possessing a scalable workforce, organisational learning, and organisational infrastructure. Before elaborating these competencies, it is better to understand the configurational character of agile organisations. Under the configurational approach, multiple practices generate the desired results.

Scalable Workforce: Employees/human resource is an important asset for any organisation. Researchers emphasise the reconfiguration and transformation of a workforce. Nijssen and Paauwe (2012) elaborated the required role of workforce scalability for organisations working in a dynamic environment. A scalable workforce is considered the first competency of an agile organisation. Workforce scalability enables organisations to align and reconfigure their human resources on an efficient basis (Dyer & Ericksen, 2006). These human resource configurations comprise four dimensions: competence mix, headcount, employee contribution and deployment pattern (Nijssen & Paauwe, 2012). Headcount is concerned with the number of permanent employees, while competence mix explains the employee's knowledge and skills. Deployment patterns offer insights into the employee's assignment across organisational and/or physical location. Employee contribution is concerned with the output of their job tasks. Under dynamic capability, a combination of competencies and resources is developed, employed and protected to gain competitive advantage (Teece, 2010). Multiple practices linked with scalable workforce and organisational learning lead to competing in a dynamic environment under the configurational approach (Nijssen & Paauwe, 2012).

Organisational Learning: Learning is a process by which employees can perform their tasks better and quicker through repetition and experimentation (Teece, 2010). Organisations deal with two different types of organisational learning in a dynamic environment. First, organisations are required to constantly monitor the external environment in order to be updated in the dynamic market under the umbrella of knowledge alignment (Nijssen & Paauwe, 2012). Knowledge alignment emphasises the right information at the right time to cope with market changes. Second, organisational agility shows concern about absorptive capacity where creation, adaptability, and application of information are considered (Volberda, Foss, & Lyles, 2010). Organisations deal with dynamic environments through efficient information creation and processing (Su & Chen, 2013). Based on organisational and proactive approaches, Nonaka and Von Krogh (2009) elaborated organisational knowledge creation as a process where individuals create, adapt, and apply information as required within their organisations. An organisation's knowledge creation has three building blocks, namely explicit knowledge, tacit knowledge, and knowledge conversion. Tacit knowledge is unarticulated with an application of an implicit rule of thumb. Knowledge conversion emerges because of interaction between tacit and explicit knowledge (Su & Chen, 2013). It comprises several organisational practices which have been categorised into four phases, namely creating, adapting, distributing and applying knowledge.

Firstly, employees share tacit knowledge among themselves where explicit knowledge is created. The combination phase involves the combination of newly formed explicit knowledge with existing explicit knowledge within an organisation. In the end, this explicit knowledge is embodied by employees in their tacit knowledge. These practices are applicable to the inter- and intra-organisational level either formally or informally (Su & Chen, 2013). Knowledge becomes quickly outdated in this dynamic environment. Thus, creating new knowledge in a dynamic environment is more important than processing obsolete knowledge. Constantly creating and obtaining organisational knowledge is crucial for agile organisations. In the absence of agile practices, organisational knowledge would become more rapidly outdated. Nijssen and Paauwe (2012) suggested organisational competencies such as rapid response, exploiting the temporary advantage, sensing the market, and organisational learning because of their substantial influence on knowledge creation within agile firms. Fast organisational learning is also recommended as the second competency of an agile organisation (Nijssen & Paauwe, 2012).

Filtering Strategy: The unabated nature of information pollution has made it a tiresome job for employees to collect quality information. The information materials and media are increasing day by day. Information is being presented to several large audiences with new techniques and approaches. The old information resources are going nowhere while at the same time there is the inclusion of new information and communication technologies (Gantz, Boyd, & Dowling, 2009). Coping strategies are useful in handling information pollution, i.e. filtering strategy and withdrawal strategy (Huvila, 2012). The filtering strategy is

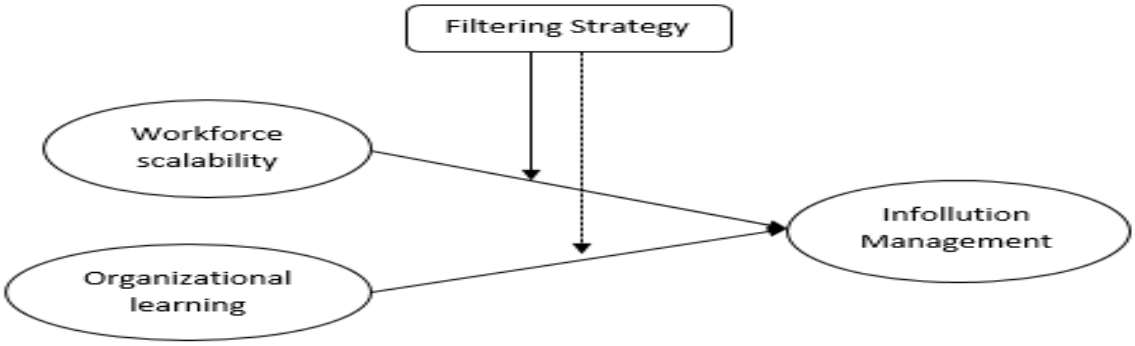
used to expel polluted information from the selected information sources. The filtering strategy is concerned to the information content (Savolainen, 2007a). The filtering and pull strategy have employee's interest in common by focusing only on a few relevant sources of information. Similarly, the push approach works in parallel to the filtering strategy by reducing the number of information sources based on accurate search criteria (Morrison & Gomez, 2014). As pull and push models are silent about the usage of a number of information sources, the filtering strategy is considered a major coping strategy.

Pull and push approaches to rely heavily on the application of electronic information sources although filtering takes into account a broader repertoire of information sources (Melinat, Kreuzkam, & Stamer, 2014). Researchers affirm usage of pull or push approaches or technologies dealing with information explosion (Edmunds & Morris, 2000; Eppler & Mengis, 2004). The pull approach focuses on the standard method of archiving quality information with an emphasis on the refined search strategies. The push strategy is concerned with the automatic delivery of information to the employees based on predefined information criteria to fulfil the current requirements. Both strategies have their advantages and disadvantages (Savolainen, 2007b). The pull strategy reduces information explosion through effective filtering of information. Timely information with easy access plays a vital role in enhancing information quality.

3. Theoretical Framework

According to the information processing theory, human beings have limited cognitive capacity in short-term memory, but with literacy and learning, the information processing capacity of organisations can be increased. A scalable workforce and organisational learning support better organisational memory for improved infollution management. Figure 1.1 depicts the framework of this study which demonstrates the conceptualisation of an agile organisation (scalable workforce, and organisational learning), infollution coping strategies (filtering) and infollution management. The framework is similar to that of Selmer, Jonasson, and Lauring (2013) and Nijssen and Paauwe (2012). Infollution management is the dependent variable. Finally, this study elaborates the moderating role of filtering strategy on the relationship of the scalable workforce and organisational learning with infollution management.

Figure: 1 Research Framework



Hypotheses Development

Scalable Workforce and Organisational Learning Improve Infollution Management Significantly: With the proliferation of infollution, organisational agility is key to success. According to Whitehurst (2015), organisations must adopt "open organisation" practices to survive in the digital and social age. With the diversity of deployment patterns, employees experience cross-functional training, inter-disciplinary team, work-based training, coaching and monitoring (Girard & Girard, 2015). These are increasingly seen as business-driven and technology-enabled training (Holbeche, 2015). Diverse deployment patterns enhance not only the efficiency and performance of employees but also has a positive impact on the productivity of an organisation (Kirkman, Rosen, Gibson, Tesluk, & McPherson, 2002). Therefore, it is assumed that employees with diverse deployment experience would provide quality information. Higher autonomy and control in a job enhances the employee's ability to deal with problems effectively and efficiently (Jain & Kaur, 2014). A high level of autonomy enables employees to simultaneously focus on multiple dimensions which direct them

to a creative solution within a complex job. Autonomous jobs make employees work with flexibility and adaptability for high productivity (Wu, Griffin, & Parker, 2015). High demands, skills variety, and job control develop an employee's skill and knowledge and are useful in building new behaviours (Melnikas, 2010). Job autonomy improves the employee's capacity to decide on issues related to their job tasks. Such attributes make it easy for employees to deal with infollution. A scalable workforce is useful in securing customer satisfaction, quality improvements, learning curve, and economy of scope (Yang & Lin, 2009).

Information management is key to organisational success. Managers manage human resources, finance, material, machines, and information. The first four resources are known as physical resources, while the last is intangible or a conceptual resource. Managers use conceptual resources to manage physical resources. Management theory and practices are equally applicable to information management. The information manager ensures that the right employee or unit within an organisation receives the right information at the right time and makes the best use of it. Scalable employees experience human resource configuration which enhances their expertise, knowledge about processing, and competency (Armstrong & Taylor, 2014). Scalable employees are involved with a competence mix and are employed based on different deployment pattern (Dyer & Ericksen, 2006). Therefore, the scalable workforce can handle, process, and disseminate information efficiently and effectively. A scalable workforce remains updated with both internal and external changes of the organisation. As such, it is better at dealing with infollution management. Organisational learning involves knowledge creation and knowledge alignment. Employees prefer to collect real-time information and constantly monitor the outside world. So, employees can collect information which is good in terms of objectivity, accuracy, relevant, concise, and ease of understanding. Employees can identify information sources with a good reputation, value-addition, information security, and timeliness. They generously share, discuss and document information. The workforce is used to experimentation and simulation for knowledge creation purposes.

From the Above Discussion, it is Hypothesised:

H1a: A scalable workforce performs better infollution management.
H1b: Organisational learning has a significant positive influence on infollution management.

The Relationship of a Scalable Workforce and Organisational Learning with Infollution Management Becomes Stronger in the Presence of a Filtering Strategy: There is an explosion of information, but an employee's ability to process such information has not grown in tandem (Blummer & M. Kenton, 2014). Excessive availability of information results in less systematic information search strategies. Employees find it difficult to discriminate relevant information from the large volumes of information (Eppler & Mengis, 2004). Empirical evidence considers information seekers as "satisficers". These "satisficers" employ certain criteria to judge when they have accumulated information 'good enough' for their tasks or decision-making (Karr-Wisniewski & Lu, 2010). This criterion is built on the basis of cognitive constraint, personal preferences or contextual constraints (Iqbal et al., 2018). Researchers claim significant influence of a filtering strategy on infollution management. Infollution is considered a subjective experience of the insufficiency of time required to make optimal use of available information resources in certain conditions (Iqbal et al., 2018). Organisational learning is based on knowledge creation and knowledge alignment. Knowledge creation is not relevant to specific knowledge but seeks pertinent information and where to find it quickly (Su & Chen, 2013). The filtering approach is based on prior schemata and resulting expectation (Sannino & Engeström, 2017). Such pre-existing schemata are part of knowledge creation. Therefore, it is claimed that a filtering strategy is beneficial for enhancing organisational learning. Employees focus on certain information sources available to them. Thus, filtering strategy (coping strategy) works based on the idea of satisficing. Reduction in the number of information sources and seeking information based on certain criteria makes it easy for employees to manage infollution and enhances the efficiency and effectiveness of the organisation.

Therefore, it is hypothesised:
H2a: The positive effects of a scalable workforce on infollution management will be enhanced as the filtering strategy is applied.
H2b: The positive effects of fast organisational learning on infollution management will be enhanced as the filtering strategy is applied.

4. Conclusion

With rapid and continuous changes in a dynamic environment, decisions are made based on inaccurate, obsolete or unavailable information. However, organisations that permanently keep themselves updated about market changes and knowledge make quick and efficient strategic decisions. Organisations need real-time information for strategic decision-making. The universalistic approach emphasises the importance of best practice while a contingency approach deals with the strategic fit of employees HR practices (Fiss, 2011). Organisational agility is assumed to be a dynamic capability. Real-time information is concerned with the information with the zero-time lag between its generations and reporting. Employees are good at fulfilling organisational needs based on the relevant and updated information. Access and monitoring of real-time updated information about the dynamic factors of the market enable organisations to respond to such transformation efficiently. In another case, management would remain silent about new required alignments and configuration in the dynamic environment. Agile organisations are capable of accumulating real-time information and monitor the external environment to remain aligned with respect to the dynamic market. Based on this, the authors find it useful to tackle the problem of infollution. Authors recommend empirically checking this proposed research model in diverse sectors to deal with the issue of generalisability. Furthermore, Iqbal and Nawaz (2019) have suggested a pivotal role of virtual organization coping with rife information pollution.

References

Armstrong, M. & Taylor, S. (2014). Armstrong's handbook of human resource management practice: Kogan Page Publishers.

Bawden, D. (2008). Origins and concepts of digital literacy. *Digital Literacies: Concepts, policies and practices,* 30, 17-32.

Blummer, B. & M. Kenton, J. (2014). Reducing patron information overload in academic libraries. *College & Undergraduate Libraries,* 21(2), 115-135.

Coult, G. (2008). Managing The'information Pollution'. *Managing information,* 14(10), 10-12.

Dyer, L. & Ericksen, J. (2006). Dynamic organizations: Achieving marketplace agility through workforce scalability.

Edmunds, A. & Morris, A. (2000). The problem of information overload in business organisations: a review of the literature. *International journal of information management,* 20(1), 17-28.

Eppler, M. J. & Mengis, J. (2004). The concept of information overload: A review of literature from organization science, accounting, marketing, MIS, and related disciplines. *The information society,* 20(5), 325-344.

Fırat, M. & Kurt, A. (2008). The views of candidate teachers of information technologies about information pollution on the ınternet. Paper presented at the 7th WSEAS International Conference on Educatıon And Educatıonal Technology-Edu.

Fiss, P. C. (2011). Building better causal theories: A fuzzy set approach to typologies in organization research. *Academy of Management Journal,* 54(2), 393-420.

Frías, D. M., Rodriguez, M. A. & Castaneda, J. A. (2008). Internet vs. travel agencies on pre-visit destination image formation: An information processing view. *Tourism Management,* 29(1), 163-179.

Gantz, J., Boyd, A. & Dowling, S. (2009). Tackling Information Overload At the Source. IDC White Papers.

García-Marco, F. J. (2011). Libraries in the digital ecology: reflections and trends. *The electronic library,* 29(1), 105-120.

Ghauth, K. I. & Sukhur, M. S. (2015). Text Censoring System for Filtering Malicious Content Using Approximate String Matching and Bayesian Filtering Computational Intelligence in Information Systems (pp. 149-158): Springer.

Girard, J. & Girard, J. (2015). Defining knowledge management: Toward an applied compendium. *Online Journal of Applied Knowledge Management,* 3(1), 1-20.

Gligor, D. M. & Holcomb, M. C. (2012). Understanding the role of logistics capabilities in achieving supply chain agility: a systematic literature review. *Supply Chain Management: An International Journal,* 17(4), 438-453.

Holbeche, L. (2015). The Agile Organization: How to build an innovative, sustainable and resilient business: Kogan Page Publishers.

Huvila, I. (2012). Information Services and Digital Literacy: In search of the boundaries of knowing: Elsevier.

Iqbal, Q., Hassan, S. H. & Ahmad, N. H. (2018). The assessment of perceived information pollution in banking sector: A scale development and validation study. *Business Information Review,* 35(2), 68-76.

Iqbal, Q., & Nawaz, R. (2019). Rife Information Pollution (Infollution) and Virtual Organizations in Industry 4.0: Within Reality Causes and Consequences. In Big Data and Knowledge Sharing in Virtual Organizations (pp. 117-135). IGI Global.

Jain, R. & Kaur, S. (2014). Impact of work environment on job satisfaction. *International Journal of Scientific and Research Publications,* 4(1), 1-8.

Kamhawi, E. M. (2012). Knowledge management fishbone: a standard framework of organizational enablers. *Journal of Knowledge Management,* 16(5), 808-828.

Karr-Wisniewski, P. & Lu, Y. (2010). When more is too much: Operationalizing technology overload and exploring its impact on knowledge worker productivity. *Computers in Human Behavior,* 26(5), 1061-1072.

Kirkman, B. L., Rosen, B., Gibson, C. B., Tesluk, P. E. & McPherson, S. O. (2002). Five challenges to virtual team success: Lessons from Sabre, Inc. *Academy of Management Perspectives,* 16(3), 67-79.

Melinat, P., Kreuzkam, T. & Stamer, D. (2014). Information Overload: A Systematic Literature Review. Paper presented at the International Conference on Business Informatics Research.

Melnikas, B. (2010). Sustainable development and creation of the knowledge economy: the new theoretical approach. *Technological and Economic Development of Economy,* 16(3), 516-540.

Morrison, S. L. & Gomez, R. (2014). Pushback: Expressions of resistance to the "evertime" of constant online connectivity. *First Monday,* 19(8).

Nielsen, J. (2003). IM, not IP (information pollution). *Queue,* 1(8), 76-75.

Nijssen, M. & Paauwe, J. (2012). HRM in turbulent times: how to achieve organizational agility? *The International Journal of Human Resource Management*, 23(16), 3315-3335.

Nonaka, I. & Von Krogh, G. (2009). Perspective—Tacit knowledge and knowledge conversion: Controversy and advancement in organizational knowledge creation theory. *Organization Science,* 20(3), 635-652.

Ozdemir, Ş. (2016). Individual contributions to infollution (information pollution): trust and share. *International Journal on New Trends in Education and Their Implications,* 7(3), 23-33.

Sannino, A. & Engeström, Y. (2017). Studies of expansive learning: Foundations, findings and future challenges Introduction to Vygotsky (pp. 100-146): Routledge.

Savolainen, R. (2007a). Filtering and withdrawing: strategies for coping with information overload in everyday contexts. *Journal of information science,* 33(5), 611-621.

Savolainen, R. (2007b). Information behavior and information practice: Reviewing the "umbrella concepts" of information-seeking studies. *The Library Quarterly,* 77(2), 109-132.

Selmer, J., Jonasson, C. & Lauring, J. (2013). Group conflict and faculty engagement: is there a moderating effect of group trust? *Journal of Higher Education Policy and Management,* 35(1), 95-109.

Su, H. C. & Chen, Y. S. (2013). Unpacking the relationships between learning mechanisms, culture types, and plant performance. *International Journal of Production Economics,* 146(2), 728-737.

Teece, D. J. (2010). Business models, business strategy and innovation. *Long range planning,* 43(2-3), 172-194.

Volberda, H. W., Foss, N. J. & Lyles, M. A. (2010). Perspective—Absorbing the concept of absorptive capacity: How to realize its potential in the organization field. *Organization Science,* 21(4), 931-951.

Wang, N., Jiang, K., Meier, R. & Zeng, H. (2012). Information filtering against information pollution and crime. Paper presented at the Computing, Measurement, Control and Sensor Network (CMCSN), 2012 International Conference on.

Watts, S., Shankaranarayanan, G. & Even, A. (2009). Data quality assessment in context: A cognitive perspective. *Decision Support Systems,* 48(1), 202-211.

Whitehurst, J. (2015). The open organization: Igniting passion and performance: Harvard Business Review Press.

Wu, C. H., Griffin, M. A. & Parker, S. K. (2015). Developing agency through good work: Longitudinal effects of job autonomy and skill utilization on the locus of control. *Journal of Vocational Behavior,* 89, 102-108.

Yang, C. C. & Lin, C. Y. Y. (2009). Does intellectual capital mediate the relationship between HRM and organizational performance? The perspective of the healthcare industry in Taiwan. *The International Journal of Human Resource Management,* 20(9), 1965-1984.

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What is Brand? Some Insights in the Historical Development

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Abstract: The aim of this study is to enhance understanding in the philosophy of the brand along with its historical development around the world. Its main purpose is to clarify the nature of the brand, its origination, ancient phase, digital phase and the future of branding. This study is based on the secondary source to clarify the gap of knowledge, understand the thought of branding and review the literature in regard to its historical development and evaluation around the world. It has found that brand is a tangible and non-tangible asset of a business that presents a unique identity and reputation among a wide set of competitors, and is perceived as a market leader in a particular industry. The study has found that branding is the best practice to enhance the image and value of business among targeted consumers. It has anticipated that branding is the technique to gain competitive advantage and accomplish the objectives of a business. This study presents a comprehensive overview of the nature of branding along with its wide historical development (origin, ancient phase, digital phase, future phase) around the world.

Keywords: *Branding, History of Branding, Forms of Branding*

1. Introduction

This study sheds light on the philosophical conception of branding and provides a review of its historical development in a short conclusion around the world. Notably, this study presents the definitions of a brand, its origin, ancient phase, digital phase and sheds light on the future of branding to increase understanding in its historical evaluation. The term brand has very old and sound history around the world and researchers have defined it in a different context over the passage of time. However, in the first stage, this study highlights the views and thoughts of various researchers about the philosophical conception of the brand, followed by its historical origin where literature has mentioned the birth of branding, packaging and labelling in ancient time (Maran and Stockhammer, 2012; Demirdjian, 2005). Literature has mentioned the evidence of potter stamps usage during the period of the Roman Empire and ancient Greece in past back around 6th century BCE, on the bricks, pottery, storage containers and fine ceramics (Peacock, 1982), and still is a necessary part of every business to support their trade in a wide range. However, the prime objective of this study is to enhance understanding in the conception of branding and summarize its wide historical development in a short conclusion. This study is vital to highlight the current digital trend of branding in an economic, cultural and social context and the future of smart branding to compete in the modern era. Therefore, in the next section, it discusses the digital phase of branding followed by the future of branding, while, the conclusion is the last part of this study.

The Nature of Brand: The term brand is the value, position and image of a name, design, symbol, product and service that keeps it apart from the rest due to its uniqueness in the target market (Fahy and Jobber, 2015), and consumers perceive it superior to other. The conception and practice of brand has been widely used in the field of marketing and advertising around the world. Precisely, it may be a series of marketing communication that apart it from competitors in an industry, and creating a good impression on the mind of consumers in the target market. Concisely, the brand is a set of tangible and non-tangible attributes of a person, service, product, place, or a business to create awareness in the target market, avail a unique identity, reputation, and a wide set of activities starts from product innovation and invention to final marketing communication (Sammut-Bonnici, 2014). "A brand is a distinguish identity and unique name and/or symbol (such as logo, trademark, or package design) intended to recognize the goods or services of either one seller or a group of sellers, and to differentiate those goods or services from those of competitors. A brand thus give signals to the customer, is the source of the product, and protects both the customer and the producer from competitors who would attempt to provide products that appear to be identical" (Aaker, 1991).

In brief "brand is a name, term, sign, symbol or design, or a combination of these, intended to identify the goods or services of one seller or a group of sellers to differentiate them from those of competitors" (Tasci and Kozak, 2006). The brand is "the company's promise to deliver a specific set of features, benefits, services, and experiences consistently to the buyers" (Kotler 2005 p. 250). However, literature has mentioned brand identity, brand communication which consists logos and trademarks, brand awareness, brand loyalty and different branding strategies to build a brand in the target market (Ghodeswar and Bhimrao, 2008), and branding is the most valuable thing to differentiate the business process and product from competitors in the 21th century. Notably, a brand name is a memory heuristic, a word, phrase, sign, symbol, design and a convenient way to get preference among products while purchasing, and keep it apart from competitors (Franzen, Giep, Moriarty, and Sandra, 2015), whereas trademark is a type of brand that is legally protected. In addition, brand identity is the set of a name, design, image, slogan, vision, written style, and a particular front image etc. That keep it separate from other brands in a market (Kotler and Philip, 2009; Franzen, Giep, Moriarty, and Sandra, 2015), and possess four levels of meaning such as attributes, benefits, values and personality.

Whereas brand attributes are the set of labels, while benefits are the translation of emotions that communicate an attribute among consumers. Values are the features that can attract consumers toward product and personality is the social or emotional attachment, and association of a specific person with a brand (Kotler and Philip, 2009). Brand identity includes trademark, communication and visual appearance of a brand (Neumeier and Marty, 2004), while, brand trust is the inherent believability that creates a strong foundation to connect all stakeholders and building commitment with them (Chaudhuri and Arjun, 2002). However, name, logo, tagline or catchphrase, graphics, shapes, colors, sounds, scents and tastes, movements are the popular elements of the brand (Pearce, 2013), and initialism, descriptive, alliteration and rhyme, evocative, neologisms, foreign word, founders name, geography, personification, punny, and combination are the popular styles of brand names (MerriamAssociates.com, 2018). In addition, "brand equity is the value of brand in marketplace both for branding company and the users" (Keller and Lane, 2003), and "brand equity provides a common denominator for interpreting marketing strategies and assessing the value of a brand; and that there exist many different ways in which the value of a brand can be manifested or exploited to benefit the firm" (Keller 1993; Keller 1998). Likewise, brand image is the perception, value and emotional attachment of consumers with a particular product. Such as "brand image is the reasoned and emotional perceptions of consumers attached to specific brands" (Low & Lamb, 2000), "the set of beliefs, ideas, and impression that a person holds regarding an object" (Kotler, 2001).

It is the "consumer's perception and feeling towards a brand shaped by direct/indirect brand experiences, which captures cognitive, sensory, and emotional aspects. These are reflected by the three dimensions of mystery, sensuality, and intimacy" (Roberts, 2004, 2006). Moreover, "Brand awareness is related to the strength of the brand node in memory, as reflected by consumers' ability to identify the brand under different conditions. Brand awareness consists of; 1) brand recognition is reflecting the ability of consumers to confirm prior exposure to the brand and 2) brand recall is reflecting the ability of consumers to retrieve the brand, when give the product category, the needs fulfilled by the category, or some other type probe as a cue. Brand awareness can be characterized according to depth and breadth. The depth of brand awareness concerns with the likelihood that the brand can be recognized or recalled and the breadth of brand awareness relates to the variety of purchase and consumption situations in which the brand comes to mind" (Keller 1993; Keller 1998; Tuominen, 1999), while brand association is the consumers psychological and emotional connection with the brand.

Origin of Brand: The word brand has originated from the Old High German word "Brinnan", someone believes it has originated from the old English word "Byrnan or Biernan," or Middle English word such as "Birnan or Brond" and perceived its meaning as firebrand or a burning piece of wood (Merriam-Webster, 1983). In the same way, a study has explained that "the word brand comes from the 'Old Norse brandr', meaning to burn, and from these origins made its way into Anglo-Saxon countries and adopted the meaning of 'to be hot'. It was by burning that early man stamped ownership on his livestock, and with the development of trade buyers would use brands as a mean to distinguish between the cattle of one farmer from another" (Khan and Mufti, 2007). As in the very beginning and ancient age, torches were used to mark things such as

livestock, furniture, pottery etc. to permanently burn the sign or symbol marks into the skin to show the association with a specific business group or brand (Simon and Schuster, 1997).

Likewise, Aaker (1991) has presented his views that the conception of the brand has originated from the practice to use a hot iron to make marks on the skin of livestock and other goods to affiliate the possession and declare its quality. However, branding and labelling have very ancient history and it is believed that the idea of branding took place 2700 BCE, when the ancient Egyptians started livestock branding to differentiate their cattle from other by burning the animal's skin with a hot iron to make sign or symbol on it (Wheeler, 1946). In addition, the ancient Egyptians used identity marks such as stamps on ceramics to practice the branding. Gradually, the people at that time realized the association of brands with the origin and ownership of products, and observed it as a guide toward quality. Different forms of branding had emerged in farming, pottery, and trade with the passage of time throughout Africa, Asia and Europe. Seals were used as quasi-brands in Chinese culture (221-206 BCE), and in Harappan civilization at Indus Valley (3300-1300 BCE), and cylinder seals in ancient Greece and Rome around (3,000 BCE) for labelling of goods and property.

Ancient Phase: In the ancient civilization, the use of maker's marks was a famous tradition to recognize the business in Indian history dating back 1,300 BCE (Khan and Mufti, 2007), and the period is also known as Vedic period and Chyawanprash. The conception of the brand was also found in old Chinese civilization dating back 960 to 1127 CE and at that time "White Rabbits" was a famous brand of sewing needles in China (Eckhardt and Anders, 2008). During the period of cavemen, the painting of walls was one of the sources of branding in the history of France dating back 15,000 BC (Yenicioglu and Christodoulides, 2014), where Lascaux Caves is the famous wall in the French history. The marking and stamp of craftwork with the seals to declare the identity and ownership of products was a common practice in ancient civilization. Likewise, in the ancient Roman civilization, the inscriptions called titulus pictus was applied to indicate the place of origin, name of producers for goods such as pots, ceramics, amphorae, oil-lamps etc. for the recognition of products and to be perceived as a brand in the community at that time (Johnson, 2015), and Ennion was the famous brand of glasses at that time. During the period of 13th century, the conception of maker's marks become evident of goods on a wide range in Europe. For instance, 1266 (England passed the Bakers Marking Law) maker's marks were the famous law to brand the bread in England (Martino, 1996), and Hallmarks was the famous brand of silver at that time. Many brands of old British civilization are still popular around the word such as Bass & Company (brewery brand) and Twinings Tea (Colette, 2008). In the 18th century, the Wedgwood & Bentley was the famous luxury brand in China during the era of industrialization (Arvidsson, 2006).

Digital Phase: The development of the internet has upended and transformed consumers from the traditional economic and marketing functions into a more structured and standard way of buying and selling. Due to the advancement in information and communication technology, the significance of branding has been proliferating around the world (Askegaard, 2006). In the digital world, the concept of branding has become a part of culture and social statues among individuals as well as institutions (Smith, 2011), is perceived as a powerful ideoscapes and medias capes around the world (Cayla and Arnould, 2008; Askegaard, 2006), possess power to influence consumers personal and social relations in a significant way. In the age of industrial revolution, many companies are now increasingly streamline their efforts to specialize the activities of business and building brand to get the position (Lipiainen and Karjaluoto, 2015), as branding is perceived as a key factor of success in the digital era as compared to previous years. However, the knowledge of branding is limited in the digital era and a comprehensive understanding is required to provide a guideline for integrated communication practice (Keller, 2009; Lipiainen and Karjaluoto, 2015). In the digital era, building a brand has become more complex and multidirectional task due to availability of multiple option for consumers to create linkage, discuss and talk with other about a brand and has reduced the control of a business on its consumers (Lipiainen and Karjaluoto, 2015; Hennig-Thurau et al., 2010; Kaplan and Haenlein, 2010), and now businesses need to implement the more advanced branding strategies both in online and offline environment. Brand also required some unique branding strategies in the fragmented media environment to build a theoretical foundation, creating value in the digital era, and to establish a valuable relationship with different stakeholders (Lipiainen and Karjaluoto, 2015).

Future Phase: The future of branding seems a more complex challenge for the companies due to rapid advancement in information, manufacturing, packaging, designing, processing and communication technology, and intense competition among brands around the world. Due to advancement in technology, the consumers are now able to get wide access to multiple brands, understand its features, share its information, and can get feedback about a brand from other users. In the future, the emergence of stronger consumers, the act of civil right movement, supervision of companies' commitment, the faster flow of information's, continues innovation, and the wide range of customers' social responsibilities may the greater challenges for brands in coming future (Hampf and Lindberg-Repo, 2011). The smart packaging of the brand will also be the crucial element of marketing strategies to catch the sight of buyers in stores (Faganel and Janes, 2015), and marketers will need to understand the buying process and experience of targeted consumers. It is also believed that some other factors such as; perpetual adaptation, radical rebranding, smart selling, advertising, instant entrepreneurship, artistic selling, convenience, and discreet consumerism might affect branding in coming future (Trendreports, 2015; Faganel and Janes, 2015).

2. Methodology

This study is based on the secondary source to clarify the philosophy of branding and review its literature in regard to historical development and evaluation around the world. This study has applied the techniques of unsystematic methods to present a comprehensive literature review of branding and its historical development. As the concept of branding has a sound history but seems scattered and needs to enhance the conception of smart branding. It has been widely used in the field of marketing, advertising and researchers have presented different views about the conception of branding with the passage of time. Therefore, this study has to search various databases using keywords such as; what is brand, the historical development of branding, the origin of branding, the ancient phase of branding, the digital phase of branding, future of branding, smart branding etc. However, the result of smart branding and the future of branding was quite small. Some articles were selected on the bases of citations and most relevant to the current study. Some previous theses were thoroughly studied to present the sound and pivotal literature on branding. This study has also widely searched about branding through google to reach the important sites and collect necessary information. However, all the relevant articles are listed in references in the last section of this study.

3. Results and Discussion

This study has found that brand is a tangible and non-tangible asset of a business that presents a unique identity, reputation among a wide set of competitors, and is perceived as a market leader in a particular industry. The study has found that branding is the best practice to enhance the image, value of a business, and sustain its position among targeted consumers. It has anticipated that branding is the technique to gain a competitive advantage, increasing market shares, add value to products and services, and accomplish the objectives of the business. It is the name, symbol, sign or design that associates with a particular product or service. However, the concept of branding took place 2700 BCE in Egypt when the owners of cattle and animals had started burning the skin with a hot iron to make a sign for differentiation, and gradually shown magnificent growth around the world. In the ancient civilization, Chinese, French, Roman, Indian and British have significant contribution in the development of branding. While in the current digital world, branding is perceived as a powerful device to influence the social and personal relations of consumers, and become a part of statues for every institution.

However, the future of branding seems complex due to rapid innovation, changes in market trend, and the conception of smart branding, advertising might be effective sources in coming years. This study is in line with Khan and Mufti (2007), who presented a comprehensive review to the historical development of branding and brand management practices but could not highlight the pivotal usage of branding in the digital world, and the concept of smart branding. However, this study is inline in the context of branding and its historical development. This study is also in line with Starcevic (2015) who highlighted the origin and historical development of branding in Africa, Asia and European civilization, and linked it with advertisement but could not provide any future direction. This study is inline in the context of branding, its origin and historical development. This study is also in line with Briciu and Briciu (2016) who presented a brief history of branding and highlighted it as a useful mechanism to spread business informations. However, this study is

inline in the context of history of brand. The findings of this study imply that branding is a useful source to enhance the buying behavior and involvement of consumers in business practices, share interesting information's, and catch the attention of consumers. It is used as an instrument to improve the image of a business, positioning, add value, and convince consumers toward business. This study has presented a comprehensive overview of the nature and evaluation of branding around the world.

4. Conclusion and Recommendations

The aim of this study was to increase understanding in the conception of branding along with its historical evaluation and development such as its origin, ancient phase, digital phase, and the future of branding. The study has clarified that branding is the tangible and non-tangible uniqueness of a name, design, product or service that keeps it away from competitors and possess its own identity. The study has found that the conception of branding took place thousands year ago in Indian, Egyptian, Chinese, Roman and Greece, British, and German civilization in the form of burning skins, torches, stamps, walls painting, makers marks, and titulus pictus with the passage of time. The study has noted that in the digital era, now many companies are streamlining their efforts to specialize their manufacturing, and need more advanced branding strategies in an online and offline environment, and importance of relations with various stakeholders, while, the future of branding seems a complex challenge for many companies due to rapid innovation. It is recommended that future studies should be conducted through interviews based qualitative method to further explore the digital phase and future of branding.

References

Aaker, D. A. (1991). Managing Brand Equity. The Free Press, New York.

Arvidsson, A. (2006). Brands: Meaning and Value in Media Culture. London: Routledge.

Askegaard, S. (2006). Brands as a Global Ideoscape, in J. Schroeder and M. Salzer-Mörling (Eds.), Brand Culture, London: Routledge, 91-102.

Briciu, V. A. & Briciu, A. (2016), A Brief History of Brands and the Evaluation of Place Branding, *Bulletin of the Transilvania University of Brașov*, 9(58), 137-142.

Cayla, J. & Arnould, E. J. (2008). A Cultural Approach to Branding in the Global Marketplace. *Journal of International Marketing*, 16(4), 86–112.

Chaudhuri, A. (2002). Product class effects on brand commitment and brand outcomes: The role of brand trust and brand effect. *Brand management*, 10(1), 33–58.

Colette, H. (2008). Golden celebration for 'oldest brand. BBC News UK.

Demirdjian, Z. S. (2005). Rise and Fall of Marketing in Mesopotamia: A Conundrum in the Cradle of Civilization. In The Future of Marketing's Past: Proceedings of the 12th Annual Conference on Historical Analysis and Research in Marketing, Leighton Neilson (ed.), CA, Longman, Association for Analysis and Research in Marketing.

Dodd, E. C. (1961). Byzantine Silver Stamps, Dumbarton Oaks Studies, Washington, *Dumbarton Oaks Research Library and Collection*, 7, 23–35.

Eckhardt, G. & Anders, B. (2008). Pulling the white rabbit out of the hat: consuming brands in imperial China. *European Advances in Consumer Research*, 8, 221.

Fahy, J. & Jobber, D. (2015). Foundations of Marketing, 4th Edition, McGraw-Hill's.

Faganel, A. & Janes, A. (2015). Branding Trends 2020, Management International Conference, Slovenia, 2015.

Franzen, G., Moriarty, S. E. (2015). The Brand as a System. The Science and Art of Branding. 1ST Edition, London: Routledge, 19.

Ghodeswar, B. M. (2008). Building brand identity in competitive markets: a Conceptual Model. *Journal of Product & Brand Management,* 17(1), 4-12.

Hampf, A. & Lindberg-Repo, K. (2011). Branding: The Past, Present, and Future: A Study of the Evolution and Future of Branding, Hanken School of Economics, Department of Marketing.

Hennig-Thurau, T., Malthouse, E. C., Friege, C., Gensler, S., Lobschat, L., Rangaswamy, A. & Skiera, B. (2010). The impact of new media on customer relationships. *Journal of Service Research*, 13(3), 311–330.

Johnson, K. (2015). Review Ennion,' at the Met, Profiles an Ancient Glassmaker, The New York Times. Retrieved on 9/29/2018.

Kaplan, A. M. & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media, *Business Horizons*, 53(1), 59–68.

Keller, K. L. (2009). Building strong brands in a modern marketing communications environment, *Journal of Marketing Communications*, 15(2/3), 139– 155.

Keller Kevin, L. (2003). Strategic Brand Management: Building, Measuring, and Managing Brand Equity, 2nd Edition. Upper Saddle River, New Jersey: Prentice Hall.

Keller Kevin, L. (1993). Conceptualizing, Measuring and Managing Customer-Based Brand Equity, *Journal of Marketing*, 1, 1–22.

Keller Kevin, L. (1998). Strategic Brand Management Building, Measuring, and Managing Brand Equity, Prentice Hall: Upper Saddle River.

Khan, S. & Mufti, O. (2007). The Hot History & Cold Future of Brands, *Journal of Managerial Sciences*, 1(1), 75–87.

Kotler, P. & Armstrong, G. (2005). Principles of Marketing, 4th European edition, Essex, Pearson Education Limited.

Kotler, P. (2009). Principles of marketing, Pearson Education Australia. ISBN 9781442500419.

Kotler, P. (2001). A Framework for Marketing Management. Upper Saddle River, NJ: Prentice- Hall.

Lipiainen, H. & Karjaluoto, H. (2015). Industrial branding in the digital age, *Journal of Business and Industrial Marketing*, 30(6), 733-741.

Low, G. S. & Lamb, C. W. (2000). The Measurement and Dimensionality of Brand Associations, *Journal of Product and Brand Management*, 9(6), 350-370.

Maran, J. & Stockhammer, P. W. (2012). Materiality and Social Practice: Transformative Capacities of Intercultural Encounters, Oxford, UK, Oxbow, 2012

Martino, T. (1996). Trademark Dilution, Clarendon Press, p. 21.

Marty, N. (2004). The Dictionary of Brand. pp.20.

Merriam-Webster. (1983). Webster's ninth new collegiate dictionary, Springfield.

Simon. & Schuster. (1997). The branding of slaves, The review of Arts Literature, Philosophy and the Humanities.

Merriam Associates. (2018). Beyond Name and Logo: Other Elements of Your Brand. Retrieved on 9/30/2018.

Peacock, D. C. S. (1982). Pottery in the Roman World: An Ethnoarchaeological Approach, Longman, 121-25.

Roberts, K. (2004). Love marks: The future beyond brands, 1st ed. New York: Powerhouse Books.

Roberts, K. (2006). The love marks effect: Winning in the consumer revolution. New York: Powerhouse Books.

Smith, T. (2011). Brand Salience Not Brand Science: A Brand Narrative Approach to Sustaining Brand Longevity, *The Marketing Review*, 11(1), 25-40.

Starcevic, S. (2015). The Origin and Historical Development of Branding and Advertising in the Old civilizations of Africa, *Asia and Europe. Marketing*, 46(3), 179.

Sammut-Bonnici, T. (2014). Brand and Branding, Wiley Encyclopedia of Management, John Wiley & Sons, Ltd.

Tasci, A. & Kozak, M. (2006). Destination brands vs destination images: Do we know what we mean? *Journal of Vacation Marketing*, 12(4), 299-317.

Trendreports. (2015). Branding Trend Report.

Tuominen, P. (1999). Managing Brand Equity, Turku School of Economics and Business Administration.

Wheeler, H. (1946). The Miracle of Man, London, Longacre.

Yenicioglu, B. & Christodoulides, G. (2014). Branding in the age of digital connectivity, Henley Business School, University of Reading.

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Analysis of the Interaction between Dividend Policy and Firm Performance in Manufacturing Sector

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Abstract: The purpose of this study is to investigate internal determinant factors of dividend policy in manufacturing firms. The study considers the impact of dividend payout ratio, signalling, earnings per share and risk on firm performance. This research also tries to create a link between dividend policy and firm performance. In the same way, the research is also aimed to create a link between these factors. Such as, the current link between the dividend policy and firm performance. It will elaborate this through current and previous studies as a whole. This study used primary data from the listed manufacturing firms in order to check the effects of dividend policy on firm performance. Data was collected from the primary source. The survey questionnaire was used to collect data from top management in order to highlight the impact of dividend policy on firm performance. Multi-regression analyses were undertaken to identify attributes that influence dividend policy. The results of the study demonstrate that all the variables are significant thus they have a positive impact on firm performance. The study established the findings that dividend payout, earning per share, signalling and risk positively and significantly influence the firm's value. Moreover, companies should consider dividend policy in order to make the financial decision more efficiently. This study tells us that decisions about dividend policy should be made by considering other variables. The study has both practical and theoretical implication for top management in order to consider the dividend policy and its impact on firm performance.

Keywords: *Dividend policy, payout ratio, signalling, risk, earning per share*

1. Introduction

Dividend policy is a return to investors and is also a mechanism worn to alleviate organization problems in a manufacturing company, usually through bulky possession (Useem, 1993). Dividend policy is claimed to be one amongst the crucial apparatus of a firm's policies and has been viewed as an important matter in the literature (Myers, 1977). Dividend policy is one amongst the companies' choices that area unit originated to be prejudiced by ownership structure (Jensen, 1993). When countries have deficient funds, they may route to internal and external borrow to attain unsure goals (Krugman, 1999) (financing public expenditures, preventing inflation, etc.). Developing countries, in particular, are facing deficiencies to achieve economic growth in order to boost up their income and production (Korkmaz, 2015). Dividends are often used to solve agency issues in the corporation. On the opposite hand, large shareholders may use their power to steal community resources for their own personal use. The corporation earns the yield to assign among stockholder what is more on an annual basis, seminally basis or quarterly basis or no dividend, it depends upon the corporate management choices. Its altogether depends upon the management of the corporate. Dividend is understood as a puzzle within the field of finance for quite half a century. Ranging from the (Miller and Modigliani 1961) discussion on the dividend connectedness to the firm's performance.

Numerous arguments are offered within the connection of dividends to the firm performance and lack of it as well. However there's still discussion among the researchers (Sakr, & Youssef, 2016). The dividend policy has been a controversial subject since the introduction of the theory of the irrelevance by (Miller and Modigliani 1961). In spite of several decades of research on the thought of dividend, questions stay without an answer. "Although a number of theories have been put forward in the literature to explain their pervasive presence, dividends remain one of the thorniest puzzles in corporate finance" (Dalton, Janes et al. 2002). Dividend policies are claimed to be one in all the foremost vital subjects and analysis topics of finance. Yet, the question of what are the determinants of the dividend policy seems to be unsolved. In Pakistan, Karachi Stock Exchange (KSE) is the major and the most seasoned stock trade, which is computed through KSE-100 record. KSE has made numerous accomplishments and is considered as a top exchange in the term of performance around the world. But its performance is not good over the last few years (IMF Country Report, 2013).

Delisting of 110 companies is done by KSE for last few years because they are not paying a dividend on a regular basis (Muneer, 2015).

Dividend policy is a serious issue from many decades, but no generally accepted explanation from the companies about dividend policy has been observed (Peggs, et al. 2011). Dividend policy has been determined for various decades, however not a solid argument put together to the established description for companies' experimental dividend performance has been recognized (Peggs, et al. 2011). Objectives of the study are to find out how the dividend policy is being practiced among the manufacturing firms of the Faisalabad. This is also focused on factors used to find out the effect of dividend policy on firm performance. This study focuses on the impact of payout ratio, signalling, earning per share and the impact of risk on firm performance (Hunjra, et al, 2011). The main focus of this study is to find out the factors that what are the policies of dividend policy is being followed by manufacturing companies (Miller & Rock, 1985). It also studies that what is the empirical relationship between dividend policy and firm performance is being perceived (Aupperle, et al, 1985). The last but not the least factor is that is there any effect of earning per share, signalling, dividend payout ratio and risk on dividend policy that affects the firm performance. While studying about the dividend policy we are focusing on the issue that is there any connection between dividend policy and firm execution in manufacturing companies (Bhattacharya 1979). As we realize that profit approach is first perceived as a substantial angle in an organization's stock esteem (Brav, et al, 2005). However, numerous analysts are in a view that in the corporate sector, dividend policy should not matter in a firm's stock value.

2. Literature Review

Dividend policy belongs to a set of rules or norms which the firm follows in order to decide how much of profit it will pay-out to shareholders (Gamba & Triantis, 2008). The foremost objective of any organization is to boost up the values of its shares and its investors (Lazonick & O'sullivan, 2000). Here we are going to study the effect of dividend policy on firm performance with respect to other factors like the dividend payout ratio, earning per share, signalling and risk. "The harder we try to understand the dividend decisions by the firm, the more it seems like a puzzle, with pieces that just do not fit together" (Lamyaa and Karima).

Agency Theory: Exists when the standards which are unable to supervise his business on his/her delegates the authority to the negotiator (Jensen & Meckling, 1976). Dividends may be used in order to minimize the organizational cost. Agency problem merely refers to the principal-agent problem where the holder of the stock is principle or shareholder and agent is the manager. The theory of agency is helpful in solving the principle and agent issues with the aim of ensuring a better relationship between them (Nwidobie, 2013).

Bird-In-Hand Theory: Developed this theory, stating dividends are associated with companies' price (Gordon, 1962). The model developed by the Gordon is determinants of the price of equity are a future dividend, this share value and therefore the rate of growth. Consequently, dividend yield and growth provide a return to holders of equity. This whole development comes with a theory of dividend called bird-in-hand theory (Nizar Al-Malkawi, 2007).

Tax-Preference Theory: Shows that in the long-standing time, preserved earnings end up in capital gains, Capital gains are taxed at a lower rate than the dividend. Hence, taxation is a vital thought for investors. Thus investors could like capital gains to dividends. This can be remarked because of the "Tax-Preference theory" (Litzenberger and Ramaswamy, 1979).

Dividend Signaling Theory: Is predicated on the particular data whom managers have higher approach than that of outer shareholders, to the inner data of the corporate (Eckbo & Verma, 1994). They'll signal such data with the shareholders and potential investors through their dividend policy so as to cut back asymmetries.

Dividends Irrelevance Theory: Miller and Modigliani (1961) indicate that dividend policy is irrelevant in deciding the worth of the firm. The idea is advocated by a bunch of economic theorists (Holder, et al. 1998). A firm's dividend policy may minimize problems among shareholders and managers in order to boost up firms' value towards shareholders. Dividends are a way to mitigate the organizational performance where

managers may use the extra cash in order to chase their own interest. Dividend costs convince the organization to enhance funds externally for new opportunities, resulting in this the level of monitoring external activities remains in focus (Jiraporn, et al. 2011).

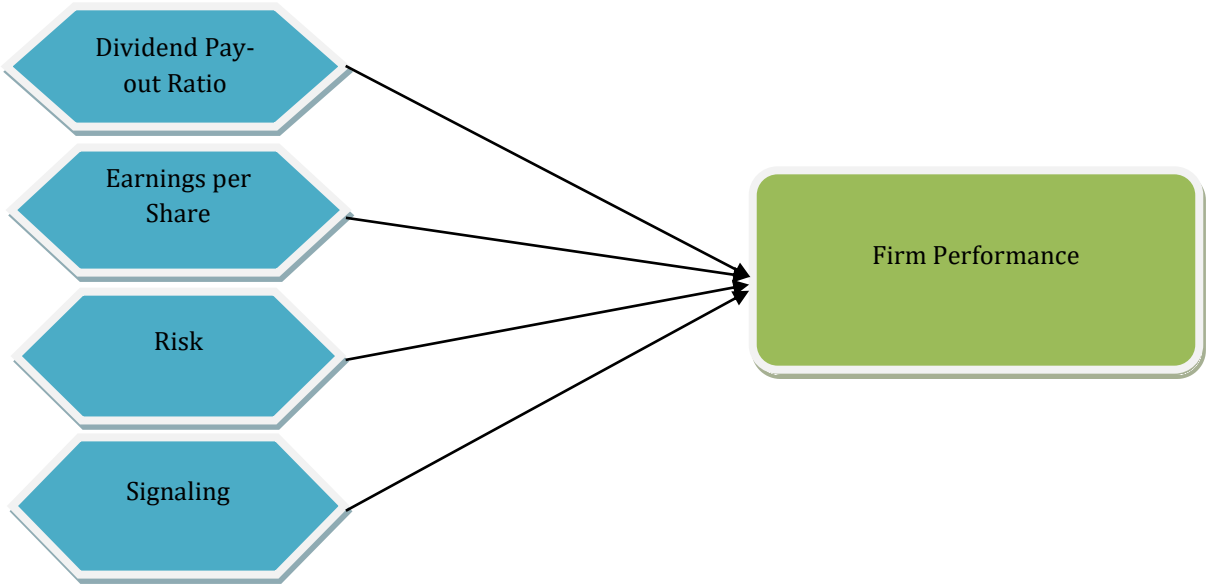
H1: There is a significant effect of dividend payout ratio on the firm performance. Earnings per share are the part of company's surplus to be paid to every outstanding share. Company's profit divided by its variety of common outstanding shares is solely outlined as earning per shares. Earnings per share are a suggestive financial gain that earns every usual share and often wont to measure the productivity and risk coupled with profit. The study shows that there's a vital relationship between earning per share and firm performance. Analysis hypothesis investigates the effects of return on equity and earnings per share (Yazdanfar, & Öhman, 2015).

H2: There is a significant effect of earning per share on firm performance. The risk is outlined as something which will produce hindrances in order to achieve some objectives. Organization performance has been the foremost vital issue for each organization. It's important for managers to understand what factors influence an organization's performance so as to require applicable steps to initiate those factors. The risk and revisit are directly linked with one another, it means that if one will increase than other will obviously increase. And, effective risk management results in a lot of balanced trade-off between risk and reward, to understand an improved position within the future. Globalization and internationalization have increased the risk of firms in developing countries. This is due to competition from within and outside the countries by either directly from other or indirectly through access to International trade (Klassen & McLaughlin, 1996). Lots of work done in the field of pay-out ratio but still there are lots of flaws in this sector so we did research in order to have a deep study of these factors. The hypotheses of dividend payout ratio are to check its relation with firm performance.

H3: There is a significant effect of risk on firm performance. The dividend-signalling is one among the key problems with the sector of company finance; maybe no alternative space of finance has been subject to most empirical investigation throughout the last 5 decades because the behavior of stock costs in reference to dividend announcement. Therefore, an effort has been made to review previous studies conducted in developed countries of the globe also as in rising markets. Once a corporation announces a rise in dividend payouts, it's a sign it possesses positive future prospects this is often referred to as signalling. The number received as dividends depends upon the number of shares one holds. Dividend signalling features a nice impact on firm performance. Managers of the firm will amend the expectations of individuals with regards to its future earnings through dividends Gilley & Rasheed, 2000).

H4: There is a significant effect of signalling on firm performance. The overview of dividend policy is presented in this chapter. It provides the differences of relevance and irrelevance theory based on the dividend. Dividend policies adopted in practice are also discussed in this chapter. As in the start it has been elaborated that the main objectives are to identify the effect of dividend policy on firm performance. In start review of the literature was presented based on firm performance and find out the gap to support the hypothesis as well as a model of the study was developed. The summary of this study is to view again the existing theories supported dividend policy and their findings.

Figure 1: Framework



3. Methodology

This section concentrates on the different parts of research philosophy. Reconsider the applicable writing on dividend policy. The discussion is that whether shareholders want to invest in the organization with those dividend payments or to whom those who never pay the dividend. Researchers put forward the studies and come with complete diverse markets. Management of the company decides whether to pay a dividend in the form of cash or in the form of capital gains. This depends upon the company's repute in the market. Essential information is utilized to shape the reason for examination. The yearly money related report together with organizations' profiles and points of interest of greater part investors are altogether shown on the site of organizations. The assembling organizations incorporate Textile, Automobile, Cement, Chemical, Engineering, Food and Telecom. Top management of the organization is the target population. We use to gather information from the best administration which consists of Executive director finance, senior chief Manager Finance, AVP finance and Manager Share. Sample size of our research is manufacturing firms from where we used to take feedback in the form of a questionnaire. We sent a questionnaire towards 350 listed firms. This sample size is supported by (Comrey & Lee, 1992) which suggested a criterion about sample size: 100=poor, 200=fair, 300=good, 500=very good & 1,000 or more=excellent. Coming about to that we got 130 filled questionnaires. Identification of variable is evidence that somewhat doubtful step utilized as a part of the research. In any case, once you acknowledge it, you will be on the safe side. Here we used to distinguish our variable in view of research profit strategy having its consequences for firm execution in general. Our dependent variable (DV) is Firm performance and Independent factors (IVs) are Target payout ratio, Signaling, Risk and Earning per share.

Dependent Variable: A variable that will be clarified or expected. As, this examination explores the connection between money related practices and execution of the firm, and by large the execution accepted as a dependent variable. Eventually, it is impractical to measure implementation simply since it is an inactive word. This is a kind of variable that has its great impact on independent variables. Dependent variable has its impact on firm performance the norms and policies of the organization very much affected by the dependent variable.

Independent Variables: which are included in this study, related to firm performance independent variables are directly related to Dependent variables. They have deep effects on firm performance with respect to dependent variables. The independent variable is a variable that has an effect on the dependent variable (Kroupa, et al. 1997).

Table 1: Sample Description

S. No.	Industry Name	Response Rate
1	CEMENT	13
2	AUTOMOBILE	7
3	SERVICE	2
4	CHEMICAL	18
5	FOOD PRODUCTS	12
6	OIL & GAS COMPANIES	1
7	TEXTILE	79
8	FERTILIZER	43
9	PHARMACEUTICALS	34
10	TELECOM	21
11	SUGAR	2
12	ENGINEERING	6

4. Results and Discussion

The main objective of the current study is to identify factors that influence dividend policy in a sample of manufacturing companies listed on KSE. Next step was to find out dividend payout ratio of list firms in Exchange. The next step was to calculate the dividend of the listed manufacturing firms. This can be calculated in two main ways. The first step relates to the dividend paid during the specific period of time. The second step based on dividend income and its distribution. Several variables used in this in this study like dividend payout ratio, earning per share, signalling and risk. This chapter will give details of all variables employed in the current study together with regression analysis. The data collected through a questionnaire. Then different statistics have been applied to analyze the data. The descriptive statistics used to evaluate major indices and demographic indicators of the questionnaires included frequency distributions, percentages, and charting inferential statistics calculate data after it coded to determine the descriptive indicators.

To answer the study and checking the hypotheses of the study, parametric statistical tests employed. Research questions and objectives linked with the findings of the study, which presented in this chapter. This is a basic assumption that the model of the equation and structural analysis should be normalized (Hooper, Coughlan et al. 2008). There are many ways to check data are normal or not, but here in this study P-P plots are used as this is considered as the best method in order to have research of large sample size (Hair, Sarstedt et al. 2012). Figure 4.1 shows the residual histogram for dividend policy and firm performance. Figure 4.1 is just like the bell-shaped curve and major frequency scores fall within this bell. This shows that the data is

normally disbursed. Beside this, P-Plots used to check outlines of multivariate analysis with the help of observed outcomes. In this P-Plot higher and lower residual is being checked. Figure 4.2 identifies that the variable's standardized residual is normal.

The researcher used PLS-SEM, a non-parametric approach (Eagly and Chin 2010). While, the non-parametric approach of statistics is not in a position to demand that should be normal data yet normality test is implemented in order to capture the more accurate results. The explanation subsequent to this is that normality is measured as the base for descriptive information, whether the approach is both non-parametric or parametric (Yu, Goh et al. 2014). Normality is the belief that explains each variable that is based on combinations of variables are commonly distributed. The Statistic value of kurtosis and Skewness should be fall within ± 2.00 (Bolker, Brooks et al. 2009). The subsequent table demonstrates the Skewness and kurtosis values of the study variables. The final model of the research shows the summary of calculated values of data from SPSS software. The value of R is being calculated which is .868, and the value of R Square is .754. As we know that the value of R Square should be in between 0.5 to 0.8 then it will consider as an acceptable value.

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. error of the Estimate
1	.868[a]	.754	.746	.23768

a. Predictors: (Constant), Earning PS, Target PR, Signaling T, Dividend MS

Table 3: ANOVA[A]

Model		Sum of Squares	DF	Mean Square	F	Sig.
	Regression	21.490	4	5.373	95.103	.000[b]
1	Residual	7.005	124	.056		
	Total	28.495	128			

a. Dependent Variable: Firm P
b. Predictors: (Constant), Earning PS, Target PR, Signaling T, Dividend MS

The ANOVA findings on table 4.10 show that the regression model is significant and is considered as a good predictor of the relation between dividend policy and firms' performance. This is because the F statistics value of 95.103 is significant at 5% level of significance as P value 0.000<0.05. Examining the effect of dividend policy on firm performance using a multivariate regression model, that illustrates the relationship of dividend policy and firm performance. The result shows that attention should be paid to the factors of dividend policy in order to check the effect of it on firm performance. Here we have Adjusted R Square that is 746 and standard error of estimate is 0.23678. So this shows the validity of the Model. The study suggested that the performance of listed firms in KSE can be boosted up by using the dividend policy effectively. To check the effects of indirect variables on direct variables, a method of linear regression is being used here.

5. Conclusion

Chapter five is based on a summary of this research, conclusion, recommendations, limitations and suggestions of the study. This is basically based on the area that is required for more concern for further study. This chapter presents the outline of findings of this analysis, conclusions, recommendations, and limitations of the study with the suggestion of areas which can need more thought. Dividend policy is considered as the important part of corporate financing. As we know that the dividend policy influences the financing decisions. This study is based on the dividend policy and its impact on manufacturing firms of Faisalabad listed on KSE. This study has some kinds of limitations that must be overcome in order to make the research better in future. Access to some important aspect of the research must be the focus in near future. Lack of funds, information and other important resources are the certain limitations of the research that must be the focus in order to make the research better in future. Similarly, due to insufficient resources, the study uses the non-probability (purposive sampling) sampling technique and select 350 firm for the survey based on the dividend payment.

More time and funds are given because this population would increase to 600.Lacks of necessary things are the main limitations of the research. In consequence, data collection was only provided from primary data related to firm performance while the secondary data was not obtainable for this research study. This study has shown the effect of dividend policy on firm performance. This study recommends some points for further research for the researcher. This study is based on firm performance and dividend policy only, might lead to extended research to the huge businesses, state and overseas companies in Pakistan. The factors that are affecting the firm performance are of great importance. The researcher should focus on the vast area not only some specific manufacturing firms in order to go through better results in future. Impact of the relationship between capital structure decisions and firm performance could be tested in different industries or in a large sample size. The researcher should go and have research in developed countries like USA, Russia and China etc. in order to fetch the better results in future.

References

Aupperle, K. E., Carroll, A. B. & Hatfield, J. D. (1985). An empirical examination of the relationship between corporate social responsibility and profitability. *Academy of Management Journal*, 28(2), 446-463.

Bhattacharya, S. (1979). Imperfect information, dividend policy, and" the bird in the hand fallacy. The Bell Journal of Economics, 259-270.

Bolker, B. M., Brooks, M. E., Clark, C. J., Geange, S. W., Poulsen, J. R., Stevens, M. H. H. & White, J. S. S. (2009). Generalized linear mixed models: a practical guide for ecology and evolution. *Trends in ecology & evolution*, 24(3), 127-135.

Brav, A., Graham, J. R., Harvey, C. R. & Michaely, R. (2005). Payout policy in the 21st century. *Journal of financial economics*, 77(3), 483-527.

Comrey, A. L. & Lee, H. B. (1992). Interpretation and application of factor analytic results. Comrey AL, Lee HB. A first course in factor analysis, 2.

Dalton, J. S., Janes, P. A., Jones, N. G., Nicholson, J. A., Hallam, K. R. & Allen, G. C. (2002). Photocatalytic oxidation of NOx gases using TiO2: a surface spectroscopic approach. *Environmental Pollution*, 120(2), 415-422.

Eckbo, B. E. & Verma, S. (1994). Managerial share ownership, voting power, and cash dividend policy.

Gamba, A. & Triantis, A. (2008). The value of financial flexibility. *The Journal of Finance*, 63(5), 2263-2296.

Gilley, K. M. & Rasheed, A. (2000). Making more by doing less: an analysis of outsourcing and its effects on firm performance. *Journal of management*, 26(4), 763-790.

Gordon, M. J. (1962). The savings-investment and valuation of a corporation. The Review of Economics and Statistics, 37-51.

Holder, M. E., Langrehr, F. W. & Hexter, J. L. (1998). Dividend policy determinants: An investigation of the influences of stakeholder theory. Financial management, 73-82.

Hunjra, A. I., Bilal, M., Shafi, H., Khokhar, I. U. & Rehman, K. U. (2011). Patterns of capital structure and dividend policy in Pakistani corporate sector and their impact on organization performance.

Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. *The Journal of Finance*, 48(3), 831-880.

Jiraporn, P., Kim, J. C. & Kim, Y. S. (2011). Dividend payouts and corporate governance quality: An empirical investigation. *Financial Review*, 46(2), 251-279.

Klassen, R. D. & McLaughlin, C. P. (1996). The impact of environmental management on firm performance. *Management Science*, 42(8), 1199-1214.

Korkmaz, S. (2015). The relationship between external debt and economic growth in Turkey. Proceedings of the Second European Academic Research Conference on Global Business, Economics, Finance and Banking (EAR15Swiss Conference) ISBN.

Krugman, P. (1999). Balance sheets, the transfer problem, and financial crises. In International finance and financial crises (pp. 31-55), Springer, Dordrecht.

Kroupa, J., Vaněk, P., Krupková, R. & Zikmund, Z. (1997). Dielectric and optical properties of weak ferroelectric cyclohexan-1, 1′-diacetic acid. *Ferroelectrics*, 202(1), 229-234.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny, R. W. (2000). Agency problems and dividend policies around the world. *The journal of finance*, 55(1), 1-33.

Lazonick, W. & O'sullivan, M. (2000). Maximizing shareholder value: a new ideology for corporate governance. *Economy and society*, 29(1), 13-35.

Miller, M. H. & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411-433.

Miller, M. H. & Rock, K. (1985). Dividend policy under asymmetric information. *The Journal of finance*, 40(4), 1031-1051.

Muneer, S. (2015). An Interaction Between Financial Practices and Firm Performance with Moderating Effect of Agency Cost in Pakistani Corporate Sector, Universiti Teknologi Malaysia.

Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of financial economics*, 5(2), 147-175.

Nenova, T. (2003). The value of corporate voting rights and control: A cross-country analysis. *Journal of Financial Economics*, 68(3), 325-351.

Nizar Al-Malkawi, H. A. (2007). Determinants of corporate dividend policy in Jordan: an application of the Tobit model. *Journal of Economic and Administrative Sciences*, 23(2), 44-70.

Nwidobie, B. M. (2013). Bank mergers and acquisitions and shareholders' wealth maximization in Nigeria *Journal of Applied Finance and Banking*, 3(3), 255-270.

Peggs, K. S., Thomson, K., Samuel, E., Dyer, G., Armoogum, J., Chakraverty, R. & Lowdell, M. W. (2011). Directly selected cytomegalovirus-reactive donor T cells confer rapid and safe systemic reconstitution of virus-specific immunity following stem cell transplantation. *Clinical infectious diseases*, 52(1), 49-57.

Sakr, A. & Youssef, N. (2016). The Effect of Corporate Governance on Mutual Fund Dividend Policy: Evidence from Egypt.

Useem, M. (1993). Executive defense: Shareholder power and corporate reorganization. Harvard University Press.

Yazdanfar, D. & Öhman, P. (2015). Debt financing and firm performance: an empirical study based on Swedish data. *The Journal of Risk Finance*, 16(1), 102-118.

Yu, D., Goh, K., Wang, H., Wei, L., Jiang, W., Zhang, Q. & Chen, Y. (2014). Scalable synthesis of hierarchically structured carbon nanotube-graphene fibres for capacitive energy storage. *Nature Nanotechnology*, 9(7), 555.

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Influencing the Relationship between Job Clarity and Turnover Intention through User Training During Enterprise System Implementation

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Abstract: Enterprise system (ES) implementations introduce pervasive and disruptive change to organizations. End-users struggling to cope with such change often develop an internal self-preservation narrative that, if not managed, can lead to employee turnover. Turnover is a visibly-assertive response to ES implementations that has lasting negative effects on organizations. The job role literature suggests that an individual's intention to leave an organization is greater when they lack clarity concerning their own work tasks and their role in achieving broader organizational goals. These clarity perceptions evolve during ES implementations as individuals become aware that their existing job context is no longer relevant to the post-implementation organization. It seems likely that the strength of relationship between job clarity and turnover intention will also evolve during this time. Accordingly, this study uses PLS-SEM multi-group analysis to examine changes in this relationship during an ES implementation at a Fortune 100 manufacturer and finds a significant increase in the influence of job clarity deficiencies on turnover intention following end-user training. These results suggest that ES implementation teams should focus their efforts on building job clarity of the post-implementation work context.

Keywords: *Enterprise System Implementation, End-User Training, Job Clarity, Turnover Intention, PLS-SEM*

1. Introduction

In a recent forecast of worldwide IT spending (January 16, 2018), Gartner, Inc., a leading IT research and advisory company, projects 2019 spending on enterprise software at $421B USD. Enterprise system (ES) implementations allow organizations to institute new business processes, procedures, and practices which might not otherwise be possible without large integrated technology solutions (Ojiako, Chipulu, Maguire, Akinyemi, & Johnson, 2012; Amani & Fadlalla, 2016). While such implementations can enhance organizational performance, increase competitive advantages, and position firms for future growth, the toll on organizational members can be quite high. One concern is that individuals often view pervasive disruption to traditional routines and technologies as threats to their own organizational status or to their ability to meet perceived performance expectations (Shang, 2012). Threatened individuals exhibit resistant behaviors meant to push back against the threat source (e.g., the ES), thereby jeopardizing ES implementation success (Kim & Kankanhalli, 2009; Rivard & Lapointe, 2012). Voluntary turnover is a visibly-assertive and self-preserving behavior often employed as a last resort by individuals who feel unable to adapt to a disruptive event such as an ES implementation (Beaudry & Pinsonneault, 2005; Fadel, 2012). Turnover intentions, which form in the time leading up to voluntary turnover, are shaped by the success or failure of an individual's own coping strategies enacted to neutralize these threats (Mai, Ellis, Christian, & Porter, 2016).

Organizations must effectively manage this perilous time of turnover intention formation in order to achieve ES implementation success (Kim & Kankanhalli, 2009). Organizations find user training an effective tool for managing turnover intention formation and a variety of other resistance behaviors that undermine ES implementations (Nah & Delgado, 2006; Rivard & Lapointe, 2012; Shang, 2012; Esteves, 2014; Amani & Fadlalla, 2016). User training provides hands-on experience with the new ES, helping individuals to form accurate mental models concerning new work situations and the technologies that will enable their work (Markus & Tanis, 2000; Abdinnour & Saeed, 2015; Sykes, 2015). This, in turn, leads individuals to produce higher quality work, reduce work duration, and limit the variety of errors made within their work tasks (Karuppan & Karuppan, 2008). User training provides clarity of work expectations, thereby lowering an individual's stress caused from a lack of understanding of future performance expectations. Interestingly however, prior research within the broader job role context finds only mixed support for the influence of job clarity on turnover intention (Fisher & Gitelson, 1983; Fried, Shirom, Gilboa, & Cooper, 2008).

Possible explanations for the discrepancy are that 1) the influence of job clarity on turnover intention dissipates over protracted periods of time as an individual applies coping strategies (Burris, Detert, & Chiaburu, 2008), and 2) ES user training results in substantial changes to the individual's mental model of their work context, rendering past coping efforts less effective. In other words, it is possible that ES user training effectively alters the strength of the relationship of job clarity on turnover intention. While we understand that turnover intentions form when individuals perceive an ES implementation will lead to untenable work situations (Klaus, 2011), surprisingly little research has explored the effect of ES user training on job clarity's influence in the relationship. Based on this discussion, the current study builds upon recent ES implementation and training research (Maditinos, Chatzoudes, & Tsairidis, 2012; Sudhakar, 2012; Almajali, Masa'deh, & Tarhini, 2016) by investigating the influence of job clarity on turnover intention both prior to and following an ES user training intervention. Drawing from the job role literature's rich history concerning job clarity (e.g., Sawyer, 1992; Hu & Liden, 2011; Chiocchio, Rabbat, & Lebel, 2015; Caillier, 2016), we develop a research model which positions job clarity as two separate sub-constructs to align with process-oriented and goal-oriented aspects of ES knowledge (Coulson, Olfman, Ryan, & Shayo, 2010; Cronan & Douglas, 2013).

Within the context of ES implementations, turnover intentions form through a process of threat assessment and adaptation attempts (Beaudry & Pinsonneault, 2005), and through observation of social cues from others impacted by the ES (Felps et al., 2009). Data was collected via a longitudinal field experiment as part of an ES implementation at a subsidiary of a Fortune 100 manufacturer located in the United States. Pre- and post-training models are statistically compared to determine if the influence of job clarity on turnover intention is greater after the user training intervention. In the sections that follow, we lay out the conceptual background of this research, develop hypotheses, and present the research model. Results are then discussed along with research and practical implications. Overall, this study is driven by the following research question, RQ1: Does user training affect the influence of job clarity on turnover intention during ES implementations?

2. Turnover and Turnover Intention

Voluntary turnover occurs when an employee willingly chooses to sever employment ties with their organization (Hom, Lee, Shaw, & Hausknecht, 2017). A recent Bureau of Labor Statistics press release (2017) suggests that U.S. employees voluntarily leave their organizations at a rate of 2.2 percent per month. Turnover results in substantial impact to the organization in terms of cost (possibly exceeding 100% of salary for the position), work disruptions, and loss of organizational memory (Allen, Bryant, & Vardaman, 2010). Turnover is found to disrupt operational outcomes (Hausknecht, Trevor, & Howard, 2009), to reduce financial performance (Heavey, Holwerda, & Hausknecht, 2013), and to undermine competitive advantage by way of knowledge spillover to competitors (Agarwal, Ganco, & Ziedonis, 2009). The time leading up to a voluntary turnover event involves a cognitive shift for an individual as they detach from the organization (Burris et al., 2008).

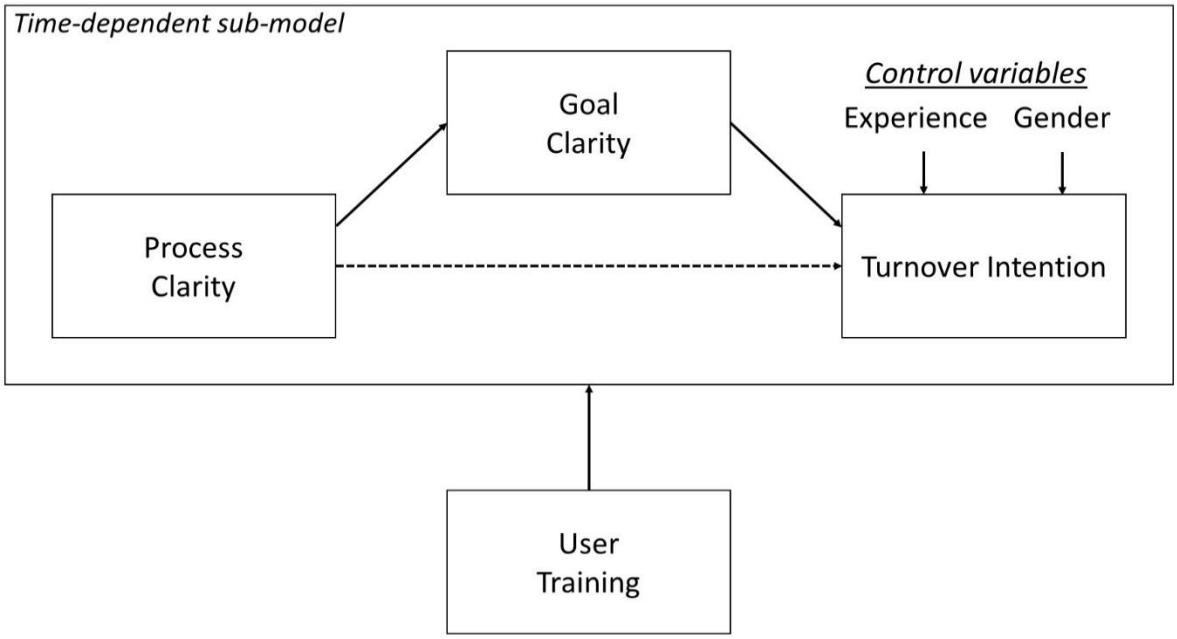
Turnover intentions can lead to deviant work place behaviors (Bennett & Robinson, 2000), thereby explaining the emergence of visibly assertive resistance by those struggling to cope with changes imposed by the ES (Fadel, 2012). While generally considered the most proximate predictor of the turnover event itself, turnover intention is recognized at a malleable construct with its relationship to turnover subject to intervening factors (Hom & Kinicki, 2001; Hom, Mitchell, Lee, & Griffeth, 2012). If turnover intentions are not managed then visibly assertive resistance behaviors, including turnover, often spread contagiously to others in the organization who are also impacted by the ES (Felps et al., 2009). Surprisingly however, past meta-analytic studies acknowledge only equivocal support for the relationship between job clarity and turnover intention (e.g., Fisher & Gitelson, 1983; Fried et al., 2008). Inconsistency is found across multiple disciplines such as marketing, management, and human resources. Even among studies using the same instrument, such as Rizzo, et al. (1970), some find support (Brown & Peterson, 1993; Low, Cravens, Grant, & Moncrief, 2001; Jaramillo, Mulki, & Solomon, 2006; De Clercq & Belausteguigoitia, 2017), while others do not (Bedeian & Armenakis, 1981; Kemery, Bedeian, Mossholder, & Touliatos, 1985; Singh, Goolsby, & Rhoads, 1994; Netemeyer, Brashear-Alejandro, & Boles, 2004). This discrepancy is at odds with ES implementation research, which provides strong support for the role user training plays managing turnover intentions (Nah & Delgado, 2006; Rivard & Lapointe, 2012; Shang, 2012; Esteves, 2014).

Process Clarity and Goal Clarity: The job role literature explores job activities, effort expectancies, and the congruence thereof among individuals and their employers (Parker, Morgeson, & Johns, 2017). According to role theory, organizations must provide a clear set of responsibilities for each organizational position, thus enabling managers to effectively evaluate the performance of individuals holding those positions (Kahn, Wolfe, Quinn, & Snoek, 1964; Fields, 2002). Moreover, individuals lacking clarity of job-related expectancies over prolonged periods of time may expend valuable and finite cognitive resources in an effort to cope with and neutralize resulting stress (Fields, 2002). Role ambiguity, an early and well-studied job clarity construct, is defined as a lack of necessary information regarding role expectations for a given organizational position, (Rizzo et al., 1970). When cognitive demand resulting from role ambiguity exceeds an individual's cognitive capacity, work attitudes and performance will likely suffer (Erera-Weatherley, 1996). Role ambiguity is generally found to correlate positively with stress-aligned constructs (e.g., job-induced psychological strain, exhaustion, depersonalization, reduced accomplishment) and to correlate negatively with positive job constructs (e.g., job satisfaction, job performance, employee engagement).

The Rizzo, et al. (1970) role ambiguity scale is arguably the most used within the literature. It has evolved through a substantial amount of work dedicated to addressing shortcomings such as criticisms of content validity (King & King, 1990; Smith, Tisak, & Schmieder, 1993), over reliance on measurement items with comfort wording vs. stress wording (House, Schuler, & Levanoni, 1983), and translational issues of cross-national studies (Peterson et al., 1995). Sawyer (1992), developed and tested a two-subscale version of the role ambiguity construct in response to calls to explain inconsistent and contradictory findings. Building upon components of the Kahn et al. (1964) definition of role ambiguity, Sawyer defined a process-oriented construct representing means-end knowledge, and a goal-oriented construct representing an individual's understanding of their rights, duties, and responsibilities within their organization. Items for both constructs were measured on a response scale ranging from very uncertain to very certain, and thus were termed clarity as opposed to ambiguity. Process clarity and goal clarity have subsequently been shown as important antecedents to many work-related contexts (Hu & Liden, 2011; Chiocchio et al., 2015; Caillier, 2016).

Hypothesis Development: The research framework is shown in Figure 1. The box labeled "Time-dependent sub-model" depicts constructs and relationships under consideration both prior to and after user training. We define turnover intention as an employee's belief they will voluntarily leave their current employer (Mai et al., 2016). The antecedents of turnover intention in the model reflect an individual's perceived understanding work task enablement via the ES, and the consequences of their work in relation to the broader organization. Within this context, work tasks are particular items of work which, when performed, have a recognizable beginning and end (Byström & Hansen, 2005). Individuals require knowledge of ES tools and procedures that enable work tasks execution, and of the necessary sequencing among multiple work tasks within a larger work stream (Coulson et al., 2010). We therefore define process clarity as the extent to which an individual is certain about how and when to perform their work tasks. Furthermore, individuals perform work tasks pursuant to organizational goals and objectives (Byström & Hansen, 2005). Accordingly, individuals require knowledge concerning goal attainment within their own role and with respect to broader organizational processes (Coulson et al., 2010). We define goal clarity as the extent to which an individual is certain about their work tasks with respect to organizational goals and objectives. Goal clarity, as presented here, closely aligns with the Rizzo, et al. (1970) role ambiguity construct used in many prior job clarity studies. Sawyer (1992, p. 130) elaborated this point by suggesting, five of the six items Rizzo, et al. (1970) chose to represent role ambiguity concern rights, duties, and responsibilities". High role ambiguity (i.e., low goal clarity) intensifies one's turnover intention due to stress resulting from low understanding of organizational expectations (Brown & Peterson, 1993; De Clercq & Belausteguigoitia, 2017; Jaramillo et al., 2006; Low et al., 2001). We therefore expect goal clarity to negatively influence turnover intention. Process clarity reflects an individual's understanding of how and when to perform their work tasks. This type of clarity is commonly referred as "means-end knowledge" and refers to an individual's tactical understanding of how and when to perform work tasks in order to achieve work-related expectations (Kahn et al., 1964).

Figure 1: Research Framework



The dashed line represents the direct path necessary to test mediation: PCL → GCL → TIN

Sawyer (1992) argued for (and found support for) a causal path from process clarity to goal clarity on the basis that individuals may infer knowledge of work goals directly from exposure to work tasks. In contrast, simply understanding one's goals may not provide insight to the tasks that allow one to achieve those goals. We therefore expect process clarity to positively influence goal clarity. Finally, it seems likely that an individual will feel more threatened by not understanding their work tasks with respect to organizational goals and objectives than with respect to how and when the work tasks should be performed. Sawyer (1992) found a similar mediated relationship of process clarity to antecedents of goal clarity. Therefore, we expect process clarity to negatively influence turnover intention, but only indirectly through goal clarity. User training is a common support structure offered during ES implementations to help individuals comprehend the new ES and the role it will play in their daily work (Markus & Tanis, 2000; Sykes, 2015). It provides in-depth exposure to new work tasks and goals, accelerating the formation of process clarity and goal clarity of the post-implementation work context (Coulson et al., 2010; Cronan & Douglas, 2013; Karuppan & Karuppan, 2008). In this study we consider user training a pivotal, and possibly stress-inducing, event where the post-implementation work context becomes salient and stress-related cognitions and behaviors begin to materialize. It is likely here when the focal concerns of process clarity and goal clarity shift from existing work tasks and goals to post-implementation work tasks and goals. We therefore expect the influence of process clarity and goal clarity on turnover intention to be greater after user training. We offer the following hypotheses:

H1: The negative influence of goal clarity on turnover intention will be stronger after user training than before user training.

H2: The negative influence of process clarity on turnover intention (mediated by goal clarity) will be stronger after user training than before user training.

As already described, we expect process clarity to exert a positive influence on goal clarity prior to user training. This is because knowledge of one's work tasks should to some extent provide insight of how those work tasks impact larger organizational processes (Sawyer, 1992). There is evidence to support that ES user training similarly promotes understanding of higher-level work goals and objectives (Cronan & Douglas,

2013). It therefore seems likely that process-clarity positively influences goal clarity regardless of the focal work context. We offer the following hypothesis:

H3: The positive influence of process clarity on goal clarity will be of similar strength before and after user trainings.

3. Research Method

Research Site and Participants: A field study was conducted as part of a market-leading ES implementation at a wholly owned subsidiary of a Fortune 100 food manufacturing firm located in the United States. The parent organization has owned the subsidiary for approximately 25 years, though the subsidiary has been in operation for nearly 100 years. A major goal of the ES implementation is to standardize informal and inefficient business processes, particularly those involving the procurement of supplies and materials for both operational and administrative functions. These processes were allowed to evolve over many years according to individual departmental needs, resulting in considerable losses in terms of redundancies, lack of visibility, and inconsistencies. The ES implementation imposed new and integrated procurement processes with the organizational goals of increasing purchasing power, reducing holding costs through inventory optimization, and improving supplier management. A considerable number of work tasks and goals changed as the subsidiary transitioned from a reactionary, needs-based approach to a centrally managed procurement operation focused on managing organizational risks and costs.

In coordination with the new ES rollout, the implementation team conducted a hands-on system training session (duration: 8 hours) for employees whose work tasks and goals fell within the scope of new procurement processes. Approximately four weeks prior to training (T1), each trainee was asked to complete a survey including demographic and construct assessment items. As part of the survey, participants were informed that the study was part of an academic research project and that participation was voluntary and confidential. Immediately following the training session (T2) each trainee was asked to complete a follow-up survey, again voluntary and confidential. The 57 participants (26 males, 31 females) who returned both surveys averaged 11.1 years (SD = 8.1) of experience with the subsidiary. The result is 114 observations available for analysis. This is well within the sample size guidelines of at least ten times the largest number of structural paths directed at a particular construct, and the number needed to achieve a statistical power of 80% for detecting R^2 values of at least 0.25 (Hair, Hult, Ringle, & Sarstedt, 2017).

Measures: The questionnaire items were adapted from validated instruments from the job role and ES implementation literatures. All items were measured on a seven-point Likert-type scale (1 = strongly disagree to 7 = strongly agree). Table A.1 in appendix A provides the constructs, items and sources of the measures used in this study. Turnover intention was measured with the four-item scale used. Goal clarity and process clarity were each measured with the five item scales developed by Sawyer (1992). User training is a dummy variable coded "0" for pre-training (T1) and "1" for post-training (T2). The dummy variable allowed us to examine the moderating effect of user training on the relationships between process clarity, goal clarity, and turnover intention. Months of company experience and gender were treated as control variables. Participants were asked to specify their time of service with the company in years and months. The years were then divided by twelve and added to the months to arrive a total company experience measured in months. A single item captured gender (0 = male; 1 = female).

Research Method: This study explores moderating influence of user training on the relationship between job clarity and turnover intention. Accordingly, we conduct a multi-group analysis (MGA) of time-dependent sub-model of Figure 1 using the user training dummy variable as a moderator. MGA is appropriate when path coefficients and other model parameters must be statistically compared between the subsamples formed by a categorical moderator (Hair et al., 2017). Specifically, MGA tests the null hypothesis that path coefficients between two groups (e.g., before training and after training) are not significantly different (Hair, Sarstedt, Ringle, & Gudergan, 2018).

4. Results

We start by attempting to rule out potential confounding influences on the model results. First, we established that participants perceive a substantial transformation to their post-implementation job context after user training. A low transformation condition will likely result in limited change to the influence of the clarity constructs on turnover intention. As detailed in Appendix B, two manipulation checks indicate that these individuals strongly believe the ES implementation will change their work tasks and goals. Next, we look for differences in each construct values at T1 and T2 as these might introduce additional influence on path coefficients. Descriptive statistics are reported for T1 and T2 in Table 1. Independent samples t-tests of find non-significant differences between constructs at T1 a T2 (goal clarity: t (112) = .647; process clarity: t (112) = .688; turnover intention: t (112) = -1.308). Finally, we compare correlations among constructs at T1 and T2 using Fisher's Z-tests. As expected, we find the only change to correlational strength from T1 to T2 is between goal clarity and turnover intention.

Table 1: Descriptive Statistics

Construct	**Mean**	**SD**	**1**	**2**	**3**	**4**	**5**
Prior to training (T1)							
1. Company experience	133.49	97.22	n/a				
2. Gender	n/a	n/a	.132	n/a			
3. Goal clarity	5.75	1.02	-.150	.072	.863		
4. Process clarity	5.26	1.12	-.259	.259	.652**	.859	
5. Turnover intention	2.10	1.22	-.173	-.012	-.225	-.129	.861
After training (T2)							
Construct	**Mean**	**SD**	**1**	**2**	**3**	**4**	**5**
1. Company experience	133.49	97.22	n/a				
2. Gender	n/a	n/a	.132	n/a			
3. Goal clarity	5.63	1.01	-.120	.131	.887		
4. Process clarity	5.12	1.17	-.127	.016	.759**	.870	
5. Turnover intention	2.41	1.32	-.142	-.059	-.565**	-.386**	.847
Absolute differences (T2 – T1)							
Construct	**Mean**	**SD**	**1**	**2**	**3**	**4**	**5**
1. Company experience	n/a	n/a					
2. Gender	n/a	n/a	.000				
3. Goal clarity	0.12	0.29	.030	.059			
4. Process clarity	0.14	0.20	.132	.240	.107		
5. Turnover intention	0.31	0.24	.031	.047	.340*	.257	

Square root of the average variances extracted (AVE) are found on diagonal of the correlation matrices
* p < .05; ** p < .01

We conducted a multi-group analysis (MGA) of the path model depicted in Figure 1 using partial least squares structural equation modeling (PLS-SEM) with Smart PLS 3, a component-based path modeling software (Ringle, Wende, & Becker, 2015). The PLS approach to SEM has higher statistical power than covariance-based SEM methods (e.g. LISREL) for small sample sizes (Reinartz, Haenlein, & Henseler, 2009). We compute significance levels within the MGA by bootstrapping to 500 iterations. As detailed in Appendix B, the measurement model was assessed as follows at both T1 and T2. All measurement items loaded at 0.70 or higher on their respective constructs except one (Hulland, 1999). That item was subsequently removed from analysis. All constructs demonstrate high internal consistency well above the recommended threshold of 0.70 (Bagozzi & Yi, 1988; Hair, Black, Babin, Anderson, & Tatham, 2006). MGA indicates no difference in internal consistency measured at T1 and T2. The average variance extracted (AVE) of all constructs measured 0.847 or greater, far exceeding the requirement for convergent validity of 0.50 (Bagozzi & Yi, 1988; Hair et al., 2017). Finally, all constructs satisfy three separate criteria for discriminant validity: A) item loadings for each construct are greater than cross-loadings on other constructs (Chin, 1998); B) the square root of each constructs AVE is greater than its correlation with other constructs (Fornell & Larcker, 1981), and C) The

heterotrait-monotrait ratios (HTMT) of the correlations fall well below the threshold of 0.90 (Jörg Henseler, Ringle, & Sarstedt, 2015).

The structural model is assessed by examining predictive capabilities and the relationships between constructs. All variance inflation factors (VIF) are well below thresholds for multicollinearity concerns (Hair, Ringle, & Sarstedt, 2011). The single significant influence among the control variables was company experience on turnover intention at T2 (β = -0.217, $p < .05$). Assessments of predictive accuracy and predictive power fall within desired guidelines (Geisser, 1974; Cohen, 1988; Chin, 1998; Jorg Henseler, Ringle, & Sinkovics, 2009). The standardized path coefficients appear in Table 2 and Figure 2 presents the full path model results. At T1 the effect of goal clarity on turnover intention was non-significant. At T2 goal clarity exhibits a strong negative influence on turnover intention (β = -0.671, $p < .001$). MGA indicates that the relationship is much stronger at T2 (difference = 0.441, $p < .05$), thus supporting H1. Next, we test the relationship of process clarity to turnover intention mediated by goal clarity according to guidelines offered. At T1 both the indirect and direct effects of process clarity on turnover intention are non-significant, indicating no influence. At T2 however, the indirect effect of process clarity on turnover intention is significant (β = -0.509, $p < .001$) and the direct effect is non-significant. This indicates the relationship is fully mediated by goal clarity at T2. MGA finds the indirect effect much stronger at T2 (difference = 0.359, $p < .05$) and the difference in direct effects non-significant, thus supporting H2. Finally, we test the direct influence of process clarity on goal clarity. The relationship is strong and significant at both T1 (β = 0.652, $p < .001$) and T2 (β = 0.759, $p < .001$). MGA finds the difference in strength between T1 and T2 to be non-significant, thus supporting H3.

Table 2: Standardized Path Coefficients

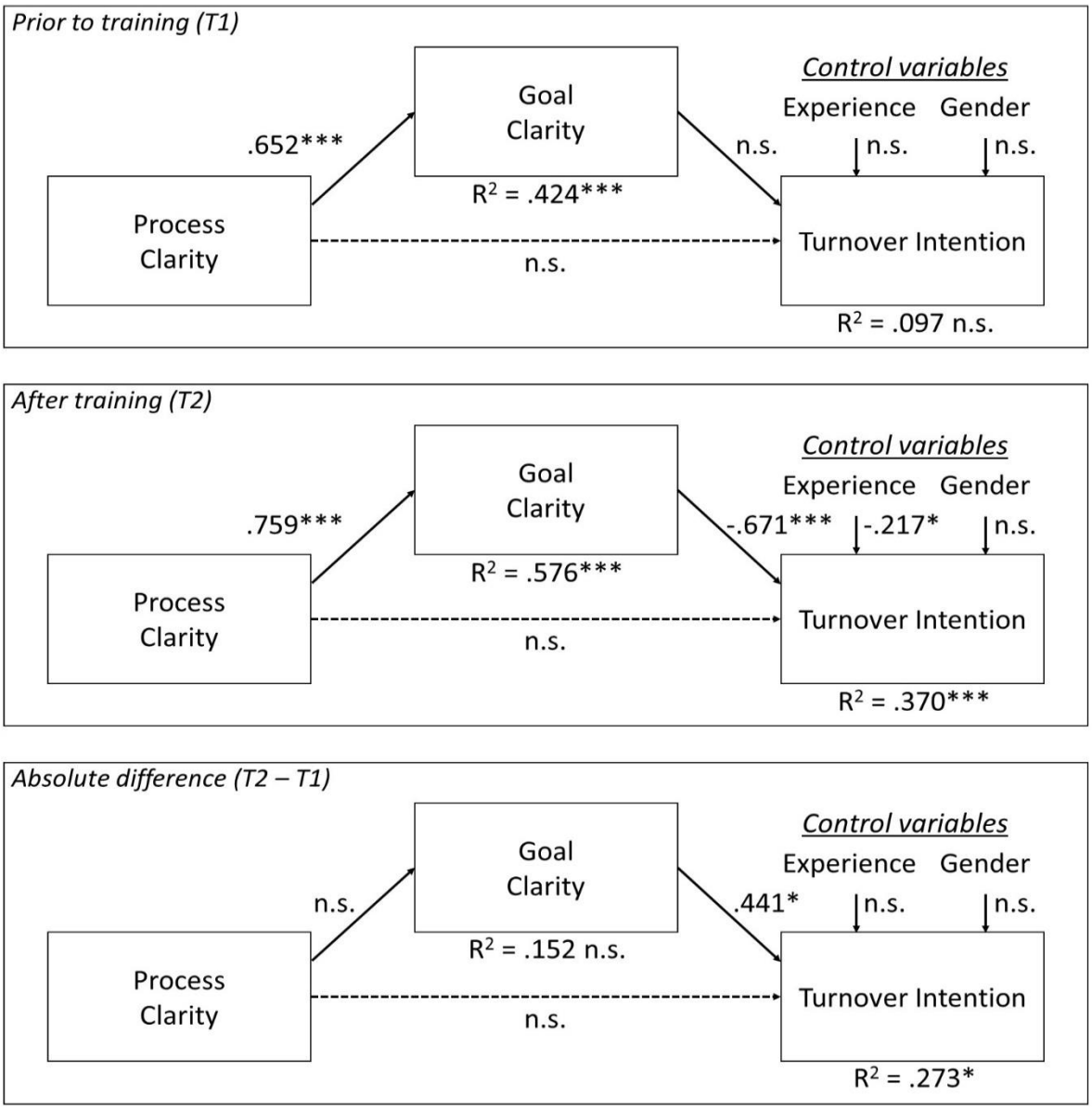
Path	Direct Effect	Indirect Effect	Total Effect
Prior to training (T1)			
Co. experience -> Turnover intention	-0.226		-0.226
Gender -> Turnover intention	0.048		0.048
Goal clarity –> Turnover intention	-0.230		-0.230
Process clarity -> Turnover intention	-0.050	-0.150	-0.200
Process clarity -> Goal clarity	0.652***		0.652***
After training (T2)			
Co. experience -> Turnover intention	-0.217*		-0.217*
Gender -> Turnover intention	0.056		0.056
Goal clarity –> Turnover intention	-0.671***		-0.671***
Process clarity -> Turnover intention	-0.095	-0.509***	-0.414***
Process clarity -> Goal clarity	0.759***		0.759***
Absolute difference (T2 – T1)			
Co. experience -> Turnover intention	0.009		0.009
Gender -> Turnover intention	0.009		0.009
Goal clarity –> Turnover intention	0.441*		0.441*
Process clarity -> Turnover intention	0.145	0.359*	0.145
Process clarity -> Goal clarity	0.108		0.108

* $p < .05$; ** $p < .01$; *** $p < .001$

Overall, the results confirm the hypotheses and shed important light on the interplay among elements of job clarity, training, and turnover intention. Difference testing between pre-training and post-training datasets provides strong support for the moderating influence of ES training on the relationship between goal clarity and turnover intention, supporting H1. Importantly, no significant relationship between goal clarity and turnover intention could be found prior to training, with a strong negative relationship emerging after

training. In addition to finding support for H1, the emergence of an enhanced indirect relationship between process clarity and turnover intention in the post-training results support H2. Finally, as predicted in H3, the results show a consistently strong relationship between process clarity and goal clarity. While training marginally enhanced this relationship, the results generally point to a stable and strong relationship between process clarity and goal clarity that is not significantly altered by training efforts.

Figure 2: Path Model Results



The dashed line represents the direct path necessary to test full mediation: PCL → GCL → TIN

** p < .05; ** p < .01; *** p < .001*

5. Discussion and Conclusion

To date, the job role literature has found only equivocal support for the relationship between job clarity and turnover intention (Fisher & Gitelson, 1983; Fried et al., 2008). Our deconstructed approach to evaluating this relationship contributes new understanding about why. Specifically, we show that the influence on turnover intention is not uniform across both aspects of job clarity—process clarity and goal clarity. Rather, goal clarity mediates the influence of process clarity on turnover intention; a relationship which is moderated by the provision of end-user training. Taken further, this study shows that provision of end-user training plays an important moderating role in the relationship between process clarity, goal clarity, and turnover intention; providing addition explanation regarding inconsistency in past findings. Two important research implications emerge from these findings. For one, the relationship between job clarity and turnover intention is more complex than an aggregate construct like job clarity can capture.

As such, future research on the relationship between job clarity and coping factors like turnover intention should take a deconstructed view of job clarity that separately considers process clarity and job clarity. Second, this relationship needs to be considered in light of relevant contingent variables that are contextualized to the research setting and my moderate the relationship between goal clarity and turnover intention. For managers, the results tell a very compelling story about the relationships among job clarity, turnover intention, and the role of ES training in the implementation context. Specifically, this study shows that the relationship between knowing what tasks to perform (process clarity) and why the tasks matter (goal clarity) is a stable one that is relatively unaffected by training interventions. However, the influence of these two factors on mitigating turnover is nonexistent—until the organization invests in the success of the individual employee. This phenomenon can be understood through the lens of Social Exchange Theory (Cropanzano & Mitchell, 2005), which posits that employees hold long-term views the workplace in terms of the perceived quality of exchange relationships with different organizational foci (e.g., the organization as a whole, the IS department, a direct supervisor, etc.) (Davis, 2013), Guided by the norm of reciprocity, these relationships evolve over time into trusting, loyal commitments guided by reciprocation of beneficial acts (Cropanzano & Mitchell, 2005). The quality of exchange between an individual and the organization plays an important role in turnover intention and is assessed based on the organization's readiness to provide the necessary aid to perform effectively and recognize work effort (Davis, 2013).

In the context of the current study, these theoretical tenets suggest that the value of training as an intervention for mitigating turnover during disruptive change like ES implementation is primarily symbolic and relational in nature. Two important practical implications emerge from this perspective. First, end user training is essential to mitigating turnover during disruptive change involving IT. Beyond any utilitarian value of training (e.g., competence building, self-efficacy development, etc.), the symbolic value of training can help address turnover by actively demonstrating value of the job role and the employee. Building on the first, the second important implication of this perspective relates to what is covered in training. The findings from this study indicate that training programs solely focused on clarifying one's job in terms of the new system may carry important opportunity costs. Training in this context should be views as an opportunity to impart knowledge and clarity of a role and an opportunity to build/reinforce notions of organizational support for employee's whose routines are disrupted by the newly implemented ES. According to theory and the results of this study, those efforts can influence employees' willingness to persevere through the disruption. This work has a few limitations that should be acknowledged, and results interpreted with necessary caution. The study was carried out at a single organization during a single ES project at a certain level of business process change. Future studies should extend this work through investigation across a variety of industries settings. Further, ES projects are often complex undertakings with varying extents of business process change. No attempt was made to assess the influence of project or environmental characteristics on study outcomes.

Conclusion: This study sought to shed new light on the interplay between job clarity, training, and turnover intention in the ES implementation context. Using a deconstructed view of job clarity, we theorized and tested a model that positions goal clarity as a mediating factor between process clarity and turnover intention. Result of model testing before and after end user training provided strong evidence supports user training as an essential intervention during ES implementations, for mitigating turnover intention in the user base. Overall, given the new insights in this study, the doors are open for a fruitful stream of research that builds on

this study and further untangles the complex relationships between job clarity, training, and turnover intention in the ES implementation context.

Appendix A – Constructs and Response Scales

Table A.1. Research Model Constructs and Response Scales

Construct	Source	Items
Turnover Intention	Moore (2000)	How likely is it that you will be working at the same company this time next year (R)
		How likely is it that you will take steps during the next year to secure a job at a different company
		I will be with this company five years from now (R)
		I will probably look for a job at a different company in the next year
Process Clarity	Sawyer (1992)	How to divide my time among the tasks required of my job
		How to schedule my work day
		How to determine the appropriate procedures for each work task
		The procedures I use to do my Job are correct and proper
		Considering all your work tasks, how certain are you that you know the best ways to do these tasks
Goal Clarity	Sawyer (1992)	My duties and responsibilities
		The goals and objective for my job
		How my work relates to the overall objectives of my work unit
		The expected results of my work
		What aspects of my work will lead to a positive evaluation
Seven-point anchors (1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=undecided, 5=slightly agree, 6=moderately agree, 7=strongly agree) used for all		

Table A.2. Manipulation Check Construct and Response Scales (not included in research model)

Construct	Source	Items
Perceived Job Transformation	Morris and Venkatesh (2010)	The new process will change my job significantly
		The new process will alter my job substantially
		The new process will make my job very different
		The new process will transform my job greatly
Work Task Control	Jackson, Wall, Martin, & David (1993)	Will you decide on the order in which you will do things
		Will you decide when to start a piece of work
		Will you decide when to finish a piece of work
		Will you set your own pace of work
		Will you be able to control how much you produce
		Will you be able to vary how you do your work
		Will you plan your own work
		Will you be able to control the quality of what you produce
		Will you be able to decide how to go about getting your work in the new process done
		Will you be able to choose the methods to use in carrying out your work
Seven-point anchors (1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=undecided, 5=slightly agree, 6=moderately agree, 7=strongly agree) used for all		

Appendix B – Model Assessment Details

B.1. Manipulation Check: We include two manipulation checks variables to establish that participants perceived a substantial transformation to their job due to the ES implementation. The response scales are provided in Appendix A, Table A.2. A four-item measure of perceived job transformation (Morris & Venkatesh, 2010) measured at T2 captured the degree to which the individual believes the new ES will alter their job role and expectations. The average perceived job transformation was 5.26 (SD = 1.23) on a 7 point scale, indicating that participants perceive their new job to be substantially different than under the legacy

process. A ten-item measure of work task control (Jackson, Wall, Martin, & Davids, 1993) was measured at both T1 and T2, reflecting degree to which individuals believe they are free to determine how and when to perform their work tasks. Comparing T1 vs. T2 work task control indicates that individuals perceived lower control at T2 (t = 2.44; DF = 112; p = 0.016). Together these two manipulation checks suggest that these participants believe the ES implementation substantially changed their work tasks and goals.

B.2. Measurement Model Estimation: The loadings and cross-loading are shown in Table B.1. Item PCL5 cross-loaded highly both clarity constructs at T2 and was therefore dropped from analysis in both group models. All remaining items loaded at 0.70 or higher on their respective constructs (Hulland, 1999). MGA indicates no difference in item loadings at T1 and T2, except for GCL5 loading significantly higher at T2. As shown in Table B.2, the three multi-item constructs demonstrate high internal consistency with both Cronbach's alpha and composite reliability measuring well above the recommended threshold of 0.70 (Bagozzi & Yi, 1988; Hair, Black, Babin, Anderson, & Tatham, 2006). MGA indicates no difference in internal consistency measured at T1 and T2. The average variance extracted (AVE) of the constructs, which range from 0.847 to 0.887, exceed the threshold of 0.50 required to establish convergent validity at both T1 and T2 (Bagozzi & Yi, 1988; Hair et al., 2017). Finally, discriminant validity is assessed using the following criteria. Item loadings for each construct are greater than cross-loadings on other constructs (Chin, 1998). Per the Fornell-Larker criterion (Fornell & Larcker, 1981), the square root of each construct's AVE is greater than its correlation with other constructs. The heterotrait-monotrait ratios (HTMT) of the correlations fall well below the threshold of 0.90 (see Table B.3) (Jörg Henseler, Ringle, & Sarstedt, 2015), Thus, we find support that all constructs satisfy discriminant validity criteria at both T1 and T2.

Table B.1. Loadings and Cross-Loadings

		Prior to training (T1)				After Training (T2)				Abs
	Item	**GCL**	**PCL**	**TIN**	**t-value**	**GCL**	**PCL**	**TIN**	**t-value**	**Diff**
Goal Clarity (GCL)	GCL1	0.874	0.663	-0.151	17.628***	0.883	0.682	-0.408	25.914***	0.008
	GCL2	0.917	0.589	-0.198	25.407***	0.874	0.689	-0.367	19.464***	0.043
	GCL3	0.883	0.475	-0.267	21.785***	0.895	0.642	-0.651	21.046***	0.013
	GCL4	0.925	0.663	-0.163	43.198***	0.914	0.694	-0.634	28.664***	0.011
	GCL5	0.699	0.342	-0.234	9.134***	0.869	0.666	-0.402	15.053***	0.170*
Process Clarity (PCL)	PCL1	0.461	0.843	-0.097	9.459***	0.543	0.848	-0.113	13.291***	0.005
	PCL2	0.542	0.867	-0.080	12.635***	0.595	0.907	-0.241	20.163***	0.040
	PCL3	0.532	0.900	-0.197	31.769***	0.751	0.880	-0.515	29.769***	0.019
	PCL4	0.662	0.822	-0.074	13.289***	0.692	0.845	-0.360	20.564***	0.022
Turnover Intention (TIN)	TIN1R	-0.234	-0.218	0.851	7.094***	-0.603	-0.377	0.911	41.601***	0.060
	TIN2	-0.154	-0.042	0.832	8.486***	-0.384	-0.272	0.826	14.948***	0.006
	TIN3R	-0.204	-0.078	0.908	8.902***	-0.457	-0.357	0.828	8.014***	0.080
	TIN4	-0.177	-0.113	0.850	8.280***	-0.428	-0.285	0.821	9.807***	0.030

* p < .05; ** p < .01; *** p < .001; t-values shown for loadings on respective constructs

Table B.2. Internal Consistency Reliability

	Prior to training (T1)		After training (T1)		Abs. Diff. (T2 – T1)	
Construct	**α**	**CR**	**A**	**CR**	**A**	**CR**
Goal clarity	.913	.936	.932	.949	.019	.013
Process clarity	.882	.918	.896	.926	.014	.008
Turnover intention	.886	.920	.870	.911	.017	.009

α = Cronbach's alpha; CR = composite reliability; All differences non-significant

Table B.3. Heterotrait-Monotrait Ratios (HTMT)

	Prior to training (T1)				After training (T2)			
Construct	**1**	**2**	**3**	**4**	**1**	**2**	**3**	**4**
1. Company experience								
2. Gender	.132				.132			
3. Goal clarity	.152	.115			.127	.133		
4. Process clarity	.279	.267	.693		.143	.115	.811	
5. Turnover intention	.163	.057	.256	.159	.151	.095	.601	.394

B.3. Structural Model: We assess the structural model by examining predictive capabilities and the relationships between the constructs. All variance inflation factors (VIFs) are less than 2.5 and well below the acceptable threshold of 5.0, suggesting the multicollinearity is not an issue (Hair, Ringle, & Sarstedt, 2011). The single significant influence among the control variables was company experience on turnover intention at T2 (β = -0.217, $p < .05$). This is consistent with prior studies that find tenured individuals exhibit lower propensity to leave an organization (Fleps, 2009). MGA finds a non-significant difference in beta coefficients for company experience between T1 and T2, suggesting that the change in the relationship strength due to user training is inconsequential.

B.3.1. Predictive Accuracy: Regarding goal clarity, the model explained 42.4% of variance at T1 and 57.6% at T2. The difference of 15.2% is non-significant (see Table B.4). The variance explained in turnover intention was non-significant at T1. At T2 however, the model explained 37.0% of the variance and the difference between T1 and T2 of 27.3% was significant ($p < .05$). Following guidance of Cohen (1988) we assess each exogenous construct's contribution to respective endogenous constructs using the following scale of effect sizes (f^2): .02 = small; .15 = medium; .35 = large. As Table B.4 indicates, process clarity exhibits a large effect on goal clarity at both T1 and T2, and a large increase from T1 to T2. The effect of the company experience control variable on turnover intention was small at both T1 and T2. The difference between T1 and T2 registers as a small increase, but at the lowest end of the scale. The effect of goal clarity on turnover intention was small at T1. At T2 however, the effect grew to medium strength. Neither gender nor process clarity exhibited an effect on turnover intention at T1 or T2. Next we assess the predictive relevance (Q^2) through blindfolding with an omission distance = 7 and reviewing the construct cross-validated redundancies (Chin, 1998; Jorg Henseler et al., 2009). Values larger than zero indicate the path model has predictive relevance for a given endogenous construct (Geisser, 1974).

Table B.4. Predictive Accuracy

Prior to training (T1)			**Effect size of exogenous variables f^2**			
Endogenous variable	**R^2**	**R^2_{adj}**	**Co Exp**	**Gender**	**GCL**	**PCL**
Goal clarity	.424***	.414***	n/a	n/a	n/a	.738^L
Turnover intention	.097	.027	.050	no effect	.033^S	no effect
After training (T2)			**Effect size of exogenous variables f^2**			
Endogenous variable	**R^2**	**R^2_{adj}**	**Co Exp**	**Gender**	**GCL**	**PCL**
Goal clarity	.576***	.568***	n/a	n/a	n/a	1.359^L
Turnover intention	.370***	.322**	.072^S	no effect	.291^M	no effect
Absolute difference (T2 – T1)			**Effect size of exogenous variables f^2**			
Endogenous variable	**R^2**	**R^2_{adj}**	**Co Exp**	**Gender**	**GCL**	**PCL**
Goal clarity	.152	.154	n/a	n/a	n/a	.622^L
Turnover Intention	.273*	.294*	.022^S	no diff.	.258^M	no diff.

Co Exp = company experience; GCL = goal clarity; PCL = process clarity
* $p < .05$; ** $p < .01$; *** $p < .001$
Effect size: S = small; M = medium; L = large

B.3.2. Predictive Power: As shown in Table B.5, the model provides predictive relevance for goal clarity at T1 (Q^2 = .276) and T2 (Q^2 = .419), and for turnover intention at T1 (Q^2 = .044) and T2 (Q^2 = .198). The effect size (q^2) of each exogenous construct on the predictive relevance for each respective endogenous construct was calculated as$(Q^2_{\text{included}} - Q^2_{\text{excluded}})/(1 - Q^2_{\text{included}})$, where Q^2_{included} equals the predictive relevance of the entire model and Q^2_{excluded} equals the predictive relevance with the exogenous construct removed from the model (Chin, 1998; Jorg Henseler et al., 2009). The Cohen (1988) effect sizes are appropriate for evaluating q^2 (Hair et al., 2017). The q^2 calculation is not applicable to process clarity since it is the only predictor of goal clarity. Both company experience and goal clarity exhibit a medium effect size on the predictive relevance of turnover intention at T1 and T2.

Table B.5. Predictive Power

Prior to training (T1)		**Effect size of exogenous variables q^2**			
Endogenous variable	**Q^2**	**Co Exp**	**Gender**	**GCL**	**PCL**
Goal clarity	.276*	n/a	n/a	n/a	n/a
Turnover intention	.044*	.025^{M}	no effect	.022^{M}	no effect
After training (T2)		**Effect size of exogenous variables q^2**			
Endogenous variable	**Q^2**	**Co Exp**	**Gender**	**GCL**	**PCL**
Goal clarity	.419*	n/a	n/a	n/a	n/a
Turnover intention	.198*	.031^{M}	no effect	.103^{S}	no effect

Co Exp = company experience; GCL = goal clarity; PCL = process clarity
* indicates predictive relevance
Effect size: S = small; M = medium; L =large

References

Abdinnour, S. & Saeed, K. (2015). User Perceptions Towards an ERP System. *Journal of Enterprise Information Management,* 28(2), 243-259.

Agarwal, R., Ganco, M. & Ziedonis, R. H. (2009). Reputations for Toughness in Patent Enforcement: Implications for Knowledge Spillovers via Inventor Mobility. *Strategic Management Journal,* 30(13), 1349-1374.

Allen, D. G., Bryant, P. C. & Vardaman, J. M. (2010). Retaining Talent: Replacing Misconceptions With Evidence-Based Strategies. *Academy of Management Perspectives,* 24(2), 48-64.

Almajali, D. A., Masa'deh, R. E. & Tarhini, A. (2016). Antecedents of ERP Systems Implementation Success: a Study on Jordanian Healthcare Sector. *Journal of Enterprise Information Management,* 29(4), 549-565.

Amani, F. & Fadlalla, A. (2016). Organizing ERP Research: a Knowledge-Centric Approach. *Journal of Enterprise Information Management,* 29(6), 919-940.

Bagozzi, R. P. & Yi, Y. (1988). On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Scienc*e, 16(1), 74.

Beaudry, A. & Pinsonneault, A. (2005). Understanding User Responses to Information Technology: A Coping Model of User Adaptation. *MIS Quarterly,* 29(3), 493-524.

Bedeian, A. G. & Armenakis, A. A. (1981). A Path-Analytic Study of The Consequences of Role Conflict and Ambiguity. *Academy Of Management Journal. Academy Of Management,* 24(2), 417-424.

Bennett, R. J. & Robinson, S. L. (2000). Development of a Measure of Workplace Deviance. *The Journal Of Applied Psychology,* 85(3), 349-360.

Brown, S. P. & Peterson, R. A. (1993). Antecedents and Consequences of Salesperson Job Satisfaction: Meta-Analysis and Assessment of Causal Effects. *Journal of Marketing Research (JMR),* 30(1), 63-77.

Bureau of Labor Statistics. (2017). Job Openings and Labor Turnover - July 2017 [Press release]

Burris, E. R., Detert, J. R. & Chiaburu, D. S. (2008). Quitting Before Leaving: The Mediating Effects of Psychological Attachment and Detachment on Voice. *Journal of Applied Psychology,* 93(4), 912-922.

Byström, K. & Hansen, P. (2005). Conceptual Framework for Tasks in Information Studies. *Journal of the American Society for Information Science & Technology,* 56(10), 1050-1061.

Caillier, J. G. (2016). Does Public Service Motivation Mediate the Relationship between Goal Clarity and both Organizational Commitment and Extra-Role Behaviours? *Public Management Review,* 18(2), 300-318.

Chin, W. W. (1998). The Partial Least Squares Approach for Structural Equation Modeling. In G. A. Marcoulides (Ed.), *Modern Methods for Business Research.* (pp. 295-336). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

Chiocchio, F., Rabbat, F. & Lebel, P. (2015). Multi-Level Efficacy Evidence of a Combined Interprofessional Collaboration and Project Management Training Program for Healthcare Project Teams. *Project Management Journal,* 46(4), 20-34.

Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences.

Coulson, T., Olfman, L., Ryan, T. & Shayo, C. (2010). Enterprise Systems Training Strategies: Knowledge Levels and User Understanding. *Journal of Organizational & End User Computing,* 22(3), 22-39.

Cronan, T. P. & Douglas, D. E. (2013). Assessing ERP Learning (Management, Business Process, and Skills) and Attitudes. *Journal of Organizational & End User Computing,* 25(2), 59-74.

Cropanzano, R. & Mitchell, M. S. (2005). Social Exchange Theory: An Interdisciplinary Review. *Journal of Management,* 31(6), 874-900.

Davis, J. M. (2013). Leveraging the IT Competence of Non-IS Workers: Social Exchange and the Good Corporate Citizen. *European Journal of Information Systems,* 22(4), 403-415.

De Clercq, D. & Belausteguigoitia, I. (2017). Reducing the Harmful Effect of Role Ambiguity on Turnover Intentions. *Personnel Review,* 46(6), 1046-1069.

Erera-Weatherley, P. I. (1996). Coping with Stress: Public Welfare Supervisors Doing Their Best. *Human Relations,* 49(2), 157-170.

Esteves, J. M. (2014). An Empirical Identification and Categorisation of Training Best Practices for ERP Implementation Projects. *Enterprise Information Systems,* 8(6), 665-683.

Fadel, K. J. (2012). The Role of Appraisal in Adapting to Information Systems. *Journal of Organizational & End User Computing,* 24(4), 18-40.

Felps, W., Mitchell, T. R., Hekman, D. R., Lee, T. W., Holtom, B. C. & Harman, W. S. (2009). Turnover Contagion: How Coworkers' Job Embeddedness and Job Search Behaviors Influence Quitting. *Academy of Management Journal,* 52(3), 545-561.

Fields, D. L. (2002). Taking the Measure of Work. Thousand Oaks, CA: Sage Publications, Inc.

Fisher, C. D. & Gitelson, R. (1983). A Meta-Analysis of the Correlates of Role Conflict and Ambiguity. *Journal of Applied Psychology,* 68(2), 320-333.

Fornell, C. & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research (JMR),* 18(1), 39-50.

Fried, Y., Shirom, A., Gilboa, S. & Cooper, C. L. (2008). The Mediating Effects of Job Satisfaction and Propensity to Leave on Role Stress-Job Performance Relationships: Combining Meta-Analysis and Structural Equation Modeling. *International Journal of Stress Management,* 15(4), 305-328.

Geisser, S. (1974). A Predictive Approach to the Random Effect Model. *Biometrika,* 61(1), 101-107.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. & Tatham, R. L. (2006). Multivariate Data Analysis (6th ed.). Upper Saddle River, NJ: Prentice Hall.

Hair, J. F., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling. Thousand Oaks, CA: SAGE.

Hair, J. F., Ringle, C. M. & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory & Practice,* 19(2), 139-152. doi:10.2753/MTP1069-6679190202

Hair, J. F., Sarstedt, M., Ringle, C. M. & Gudergan, S. P. (2018). Advanced Issues in Partial Least Squares Structural Equation Modeling. Thousand Oaks, CA: Sage.

Hausknecht, J. P., Trevor, C. O. & Howard, M. J. (2009). Unit-Level Voluntary Turnover Rates and Customer Service Quality: Implications of Group Cohesiveness, Newcomer Concentration, and Size. *Journal of Applied Psychology,* 94(4), 1068-1075.

Heavey, A. L., Holwerda, J. A. & Hausknecht, J. P. (2013). Causes and Consequences of Collective Turnover: A Meta-Analytic Review. *The Journal Of Applied Psychology,* 98(3), 412-453.

Henseler, J., Ringle, C. & Sarstedt, M. (2015). A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling. *Journal of the Academy of Marketing Science,* 43(1), 115-135.

Henseler, J., Ringle, C. M. & Sinkovics, R. R. (2009). The Use of Partial Least Squares Path Modeling in International Marketing *Advances in International Marketing,* 8(20), 277-319.

Hom, P. W. & Kinicki, A. J. (2001). Toward a Greater Understanding of How Dissatisfaction Drives Employee Turnover. *Academy of Management Journal,* 44(5), 975-987.

Hom, P. W., Lee, T. W., Shaw, J. D. & Hausknecht, J. P. (2017). One Hundred Years of Employee Turnover Theory and Research. *The Journal Of Applied Psychology,* 102(3), 530-545.

Hom, P. W., Mitchell, T. R., Lee, T. W. & Griffeth, R. W. (2012). Reviewing Employee Turnover: Focusing on Proximal Withdrawal States and an Expanded Criterion. *Psychological Bulletin,* 138(5), 831-858.

House, R. J., Schuler, R. S. & Levanoni, E. (1983). Role Conflict and Ambiguity Scales: Reality or Artifacts? *Journal of Applied Psychology,* 68(2), 334-337.

Hu, J. & Liden, R. C. (2011). Antecedents of Team Potency and Team Effectiveness: An Examination of Goal and Process Clarity and Servant Leadership. *Journal of Applied Psychology,* 96(4), 851-862.

Hulland, J. (1999). Use of Partial Least Squares (PLS) in Strategic Management Research: A Review of Four Recent Studies. *Strategic Management Journal,* 20(2), 195.

Jaramillo, F., Mulki, J. P. & Solomon, P. (2006). The Role of Ethical Climate on Salesperson's Role Stress, Job Attitudes, Turnover Intention, and Job Performance. *Journal of Personal Selling & Sales Management,* 26(3), 271-282.

Kahn, R. L., Wolfe, D. M., Quinn, R. P. & Snoek, J. D. (1964). Organizational Stress: Studies in Role Conflict and Ambiguity. New York: John Wiley.

Karuppan, C. M. & Karuppan, M. (2008). Resilience of Super Users' Mental Models of Enterprise-Wide Systems. *European Journal of Information Systems,* 17(1), 29-46.

Kemery, E. R., Bedeian, A. G., Mossholder, K. W. & Touliatos, J. (1985). Outcomes of Role Stress: A Multisample Constructive Replication. *Academy of Management Journal,* 28(2), 363-375.

Kim, H. W. & Kankanhalli, A. (2009). Investigating User Resistance to Information Systems Implementation: A Status Quo Bias Perspective. *MIS Quarterly,* 33(3), 567-582.

King, L. A. & King, D. W. (1990). Role Conflict and Role Ambiguity: A Critical Assessment of Construct Validity. *Psychological Bulletin,* 107(1), 48-64.

Klaus, T. (2011). Understanding User Dissatisfaction: Exploring the Role of Fairness in IT-Enabled Change. *Journal of Organizational & End User Computing,* 23(3), 1-25.

Low, G. S., Cravens, D. W., Grant, K. & Moncrief, W. C. (2001). Antecedents and Consequences of Salesperson Burnout. *European Journal of Marketing,* 35(5/6), 587-611.

Maditinos, D., Chatzoudes, D. & Tsairidis, C. (2012). Factors Affecting ERP System Implementation Effectiveness. *Journal of Enterprise Information Management,* 25(1), 60-78.

Mai, K. M., Ellis, A. P. J., Christian, J. S. & Porter, C. O. L. H. (2016). Examining the Effects of Turnover Intentions on Organizational Citizenship Behaviors and Deviance Behaviors: A Psychological Contract Approach. *The Journal Of Applied Psychology,* 101(8), 1067-1081.

Markus, M. L. & Tanis, C. (2000). The Enterprise System Experience: From Adoption to Success. In R. W. Zmud (Ed.), Framing the Domains of IT Management: Projecting the Future Through the Past (pp. 173-207). Cincinnati, Ohio: Pinnaflex Educational Resources.

Nah, F. F. H. & Delgado, S. (2006). Critical Success Factors for Enterprise Resource Planning Implementation and Upgrade. *Journal of Computer Information Systems,* 47, 99-113.

Netemeyer, R. G., Brashear-Alejandro, T. & Boles, J. S. (2004). A Cross-National Model of Job-Related Outcomes of Work Role and Family Role Variables: A Retail Sales Context. *Journal of the Academy of Marketing Science,* 32(1), 49-60.

Ojiako, U., Chipulu, M., Maguire, S., Akinyemi, B. & Johnson, J. (2012). User Adoption of Mandatory Enterprise Technology. *Journal of Enterprise Information Management,* 25(4), 373-391.

Parker, S. K., Morgeson, F. P. & Johns, G. (2017). One Hundred Years of Work Design Research: Looking Back and Looking Forward. *The Journal Of Applied Psychology,* 102(3), 403-420.

Peterson, M. F., Smith, P. B., Akande, A., Ayestaran, S., Bochner, S., Callan, V. & Setiadi, B. (1995). Role Conflict, Ambiguity, and Overload: A 21-Nation Study. *Academy of Management Journal,* 38(2), 429-452.

Reinartz, W., Haenlein, M. & Henseler, J. (2009). An Empirical Comparison of the Efficacy of Covariance-Based and Variance-Based SEM. *International Journal of Research in Marketing,* 26(4), 332-344.

Ringle, C. M., Wende, S. & Becker, J. M. (2015). SmartPLS 3". Boenningstedt: SmartPLS GmbH.

Rivard, S. & Lapointe, L. (2012). Information Technology Implementers' Responses to User Resistance: Nature and Effects. *MIS Quarterly,* 36(3), 897-A895.

Rizzo, J. R., House, R. J. & Lirtzman, S. I. (1970). Role Conflict and Ambiguity in Complex Organizations. *Administrative Science Quarterly,* 15(2), 150-163.

Sawyer, J. E. (1992). Goal and Process Clarity: Specification of Multiple Constructs of Role Ambiguity and a Structural Equation Model of Their Antecedents and Consequences. *Journal of Applied Psychology,* 77(2), 130-142.

Shang, S. S. C. (2012). Dual Strategy For Managing User Resistance With Business Integration Systems. *Behaviour & Information Technology,* 31(9), 909-925.

Singh, J., Goolsby, J. R. & Rhoads, G. K. (1994). Behavioral and Psychological Consequences of Boundary Spanning Burnout for Customer Service Representatives. *Journal of Marketing Research (JMR),* 31(4), 558-569.

Smith, C. S., Tisak, J. & Schmieder, R. A. (1993). The Measurement Properties of the Role Conflict and Role Ambiguity Scales: A Review and Extension of the Empirical Research. *Journal of Organizational Behavior,* 14(1), 37-48.

Sudhakar, G. P. (2012). A Model of Critical Success Factors for Software Projects. *Journal of Enterprise Information Management,* 25(6), 537-558.

Sykes, T. A. (2015). Support Structures and Their Impacts on Employee Outcomes: A Longitudinal Field Study of an Enterprise System Implementation. *MIS Quarterly,* 39(2), 473-A411.

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The Mediating Role of Employee Performance on the Relationship between Delegation of Authority and Decision Making

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Abstract: The aim of this study is to enhance understanding in the animated extent of delegation authority and its role in decision making. Precisely, the prime objective of this study is to visualize the concept and propose the effects of delegation authority on decision making along with the mediating role of employees' performance in the Police department at Dubai. Based on an inclusive and systematic literature review of delegation authority, decision making, and employee's performance, this study will collect data through self-administered questionnaires based survey in a quantitative manner. The collected data will be analyzed through smart partial least square structure equation modelling for validating the model, testing hypothesis, and finding results. This study will highlight some new insights into the relevant knowledge area. Specifically, the results will contribute to enhance the motivational synergy of upper management to include the employees in decision-making process to improve their performance. This study is only limited to the police department of Dubai and future studies can examine the relationship between defined constructs in other service sector and the moderating role of employees' performance. By integrating delegation authority, decision making, and employee's performance literature, the prime contributions of this study are the analysis of defined variables in the police department of Dubai with emphasize on new challenges and to boost up the gap of relevant literature.

Keywords: *Delegation of Authority, Employee Performance, Decision Making Strategy, Management*

1. Introduction

In the modern era, the decision-making process has shown significant growth in academic research and organizational practices around the world. Due to the advancement in information, communication, and organizational operations technology, many new challenges take place in organizations on a daily basis. Now, the trend of scientific administration has risen as a new technique to handle the issues of organizational operations and achieve the management objectives. Therefore, for the efficient management planning, operational process, follow-up, implementation, and the activities of the decision-making process, which is like the movement of blood in the human body on eternal basis lead to the conception of delegation authority. It also includes the various levels of management which are considered as a part of administrative work as all the matters either large or small need decisions and its success depends on how its process takes place (Hadi, 2015). Further, it is quite difficult to take part actively in all tasks of management and show efficiency in all decision and can lead to poor performance (Latif, 2015).

The ratio of success of an organization may depend on the capabilities and efficiency of its leadership who take an appropriate decision to achieve its goals and successfully meet the desired objectives in the sense of profitability and development in inner and outer operations. However, the approach and style of leaders to solve the problem may differ from one to other (Walther and Skousen, 2009). The decision-making process may be considered as a solution towards the problem as the proper analysis, calendar, prognostication, and extrapolate may be efficient techniques to get a solution (Zimmerman, 2012). However, this study merges the literature of delegation of authority, employee's performance, and decision-making strategies based on the findings in Dubai context and will be a novel contribution. If this study persuades in Dubai police department to examine the role of delegation authority in employees' performance, they can get benefits enormously to improve the security system of Dubai.

Research Questions

- Does delegation authority affect decision-making in the police department?
- Does organization functionality affect decision making in the police department?

- Does employees' performance (scientific level, experience and efficiency) mediate the relations of delegation authority and decision-making in the police department?

Research Objectives

- To determine the impacts of delegation authority on decision making in the police department.
- To determine the impacts of organization functionality on decision making in the police department.
- To determine the mediating role of employees' performance (scientific level, experience and efficiency) between a delegation of authority and decision-making in the police department.

2. Literature Review

Developing business in Arabic nations need regular concerns and particular scenery as these nations culturally presents uniqueness and fairly diverse from the Western perspective. Divergences in perspective from others are the comparative beginning age of these nations, as they have solid accentuation on belief, the extraordinary rapid monetary change in the prior 50 years, the ancestral and domestic nature of culture, the enormous part of connections (wasta) in working together as their environment in both the nations and its associations, have impact on the current industry situation (Ali, 2005; Stephenson, Russell and Edgar, 2010). Beyond the development of the Gulf States, the longstanding governmental and community desires remain in unsatisfied, as the presence of this is the crucial point of the sovereign in these communities (Kamla and Roberts, 2010). Therefore, longstanding influence assemblies stay in place, for instance, the leadership control numerous associations, and yet incorporated at the high-ranking level. The bonding in which the requirement for a Middle Easterner pioneer who can be viewed as "The Solid and Dependable", standing, edible, versatile and fit for execution resolutions – as simple as who can be a leader (Al-Huzem, 2011). Delegation is a law that provides imprecision and expectation to employees and enhances their moral (Iancu, 2012). Meanwhile, it is a "political and social process,' which requires detailed analysis, and decision making in foreign policy, and at odds with the goal of creating a more unified voice in the world through coherent, more effective, and more visible foreign policy action" (Austermann, 2014). However, it has also noted that the functionality of organization is interlinked with the decision making strategy (LI and Weng, 2017), and called as "Random Authority" in a matrix management system to handle multiple tasks according to the local context and requirements.

Delegation of Authority: Islamic training gratifies front-runners to counsel and look for exhortation before settling on any sort of approach (Al-Huzem, 2011). As an outcome, Arab's leaders most often lean toward the consultative style of administration, where supervisors casually counsel their dependents after they come with resolution. A minor departure from this, is the quasi-counselling style where directors get counsel their subordinates without considering their thoughts and proposals when settling on a resolution. A few investigations have demonstrated that enabling workers to take an interest in basic leadership can prompt increment in inspiration, work execution, and company development such as indicated by Al-Jammal, et al. (2015) that the appointment of supremacy helps the honorable of workers in any association and it makes workers have self-assured and feelings of a place as a major aspect of the makers in the association. Designation of power is an important substance for associations, as per Al-Jammal et al. (2015), designation of power has an effect on an association, on the supervisor and on the team members. They discoursed the effect of the assignment of power on the association which helps in accomplishing upper hand, increment proceeding and in addition viability in undertaking execution. In a similar vein, they have expressed that the appointment of power has decreased the pressure of supervisor, construct participation and develop trust between the leader and the workers which inspired staff fulfilment.

In this manner, it reduces physical and intelligent struggles smeared by supervisors on the level of workers, they expressed that assignment of power takes a shot at accomplishing effective strengthening, building elective and authoritative initiative. It influences representative to feel fearlessness and inspiration for magnificence in execution, and on the level of client, the appointment of power addresses the issues of clients quickly, conveying or giving the zero defer because of designation power. Kombo, Obonyo, and Oloko (2014); Kiiza and Picho (2015) have shown that utilization of designation of power can assist workers' capability to be expended, leaders may have the capacity to keep up their activity position and safeguard the way toward

encouraging the business undertakings, representatives' faithfulness, and accomplishing execution productivity and it fills in as an approach to help leader in lightening the weight of maintaining the issues of the business.

Organizational Functionality: Associations exist with the motivation behind realizing retrospectives as a gathering that one individual may not able to accomplish a task separately (Tran and Tian, 2013). These days, organizations may locate in the hierarchical structures that best fit the business in which the association works better, its magnitude and situation seem fruitful. Hierarchical structures need to take after clear ways particularly concerning where and how choices in associations are made, with a specific end and goal to achieve the authoritative objectives (Tran and Tian, 2013). A critical point on the director's plan is, in any case, how to adjust and locate the perfect condition for the choice. The decision may lie between finding a choice dedicated to larger amounts in the sequences, when next to nil power is assigned to subordinates, an occurrence is known as domination; or to build the stack of duties and envoi choice energy to dependents from bring down levels in the associations, implying that delegation is established (Jones, 2013).

Employees' Performance: One of the impact of Sheikocray is a restricted correspondence framework among administrators which exist in numerous Middle Eastern associations, where workers' sentiment is not generally tuned in to (Suliman and Abdulla, 2005) as Middle Easterner administration is a little bit outdated in direct correspondence, exchange and fronting the representatives (McLaurin and Mitias, 2008). In relations with Hofstede (Hofstede, 2011), who has described Middle Easterner societies as having a great power distance, as the research reports "in dynamic associations crossover UAE, another sort of relationship grounded in shared trust and regard is rising amongst superiors and supervisees" (Suliman and Al Kathairi, 2013), which could demonstrate that administration measures the strengthening and is a cumulative pound in UAE associations. One of the main points for a business association arrangement is to increase the upper hand and its value. Without the workers releasing their duties, the goals of the associations may not be accomplished. Therefore, worker execution is an essential factor of association objectives. As indicated by Al-Jammal, Al-Khasawpeh and Hamadat (2015), workers "who are occupied with their work and focused on their associations give a critical upper hand including higher efficiency and lower worker turnover". Hence, it is not astounding that a large percentage of the present associations discover approaches to deliver rights and designations to administrative workers. As every business face challenges now a day, followed with the borderless era, the concern on business operation may be difficult for a single handled business operator. Accordingly, there is a requirement for obligations to be stimulated or appointed to their stipulated supervisor who may decrease the amount of work and the burden of the entrepreneurs or directors.

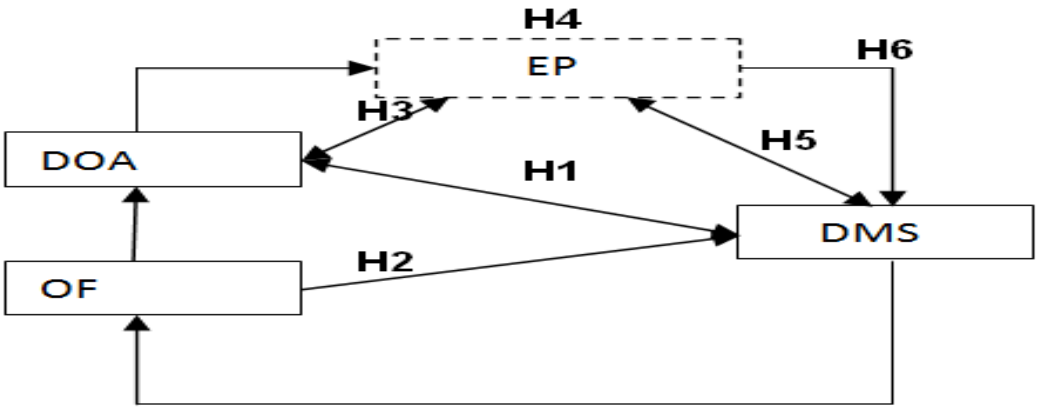
Decision-Making Strategy: According to the findings of (Bloom, Sadun and Van Reenen (2012); Athanasouli and Goujard (2015); and Gur and Bøjrnskov (2016), the community belief has a solid impact on the locus of basic leadership power in a chain of position. In high principle in social orders, there is a propensity to decentralize while in low trust nations centralization of basic leadership process is more typical and defilement is more drilled (Athanasouli and Goujard, 2015). In the presence of high trust, the movement of basic leadership expert from bosses to subordinates may be more probable and fruitful. This may help in solving difficult issues and get successful in completing the assignment (Yukl, 2010). Since numerous researchers such as (Bloom, Sadun and Van Reenen (2012); Athanasouli and Goujard (2015); and Gur and Bøjrnskov (2016) have exhibited how the level of trust in a nation is impacting the hierarchical structure and the place of basic leadership in organizations.

Research Framework: Research framework provides the base to operationalize the theoretical concept and examine the relationship between defined constructs. However, this study has designed a framework to interpret the effects of delegation authority and organizational functionality on decision making along with the mediating role of employees' performance. On the basis of the framework, this study has developed the following hypothesis.

H1: Delegation of authority has a positive relationship with decision making in the police department
H2: There is a statistical significant correlation between the eight fields in the police department.
H3: There is a statistical significant difference in the delegation of authority related to variables (Sex, Age, place of living, place of work, and Salary) in the police department

H4: There is a statistically significant difference in decision making related to variables (Sex, Age, place of living, place of work, and salary) in the police department
H5: There is a statistically significant difference in the eight fields related to variables (Functional role, sex, age, place of living, place of work, and salary) in the police department
H6: Employees' performance mediates the relationship between the delegation authority and decision-making process in Police Department.

Figure 1: Proposed Research Framework



Framework keywords are:

- Employees' Performance: EP,
- Delegation of Authority: DOA,
- Organizational Functionality: OF
- Decision-Making Strategy: DMS

3. Research Methodology

The statistical tools in this study resorted to collect data through a questionnaire-based survey among non-mangers in the Dubai police department (5 towns). The study questionnaire comprised information about demographic and other main variable of the study. The questionnaire was adopted to collect data. This study has selected a sample size of 750 respondents which consist of managerial and non-managerial staff at United Arab Emirates government (Dubai police, who works in (Al-Towara, Br-Dubai, Al-Rashedia, Gabal-Ali, and Jumeirah). The study will use SPSS, and smart partial least square structure equation modelling to analyze the collected data.

4. Results and Discussion

This study has presented a conceptual framework to examine the impacts of a delegation of authority on the decision-making process along with the mediating role of employees' performance in the police department at Dubai. This study will fill up the gap of knowledge in existing literature by adding new evidence from the police department of Dubai. The results of this study will highlight the degree of delegation of authority in enhancing the employees' performance and decision-making process. However, this study is consistent with the prior studies, such as Al-Jammal, Al-Khasawneh and Hamadat (2015) have examined the impacts of a delegation of authority on employee's performance and noted that delegation of authority has a significant relationship with the efficiency, effectiveness, and empowerment of employee's performance. This study is in line in the sense of delegation authority and its influence on employee's performance. Likewise, Thoms, Idowu and Olarewaju (2018) have assessed the relationship of a delegation of authority with the employee's performance through empirical way and observed that delegation of authority has a significant relationship with the employee's effectiveness. However, Graham, Harvey and Pur (2015) have presumed that delegation

of authority toward decision making in firms depends on the nature and structure of firms. The study has explained that the delegation of authority in decision making varies across corporate policies and also depends on the personal characteristics of top management.

Recommendations: Every officer is in charge of observation, measures the execution of its dependents and has a choice of right for smearing corrective measures. As indicated by (Montana and Charnov), this undertaking and decision right for the officer are permitted to turn the workers on posts, to change their KPI's and even to bring down their pay rates if they are not satisfied with their assignments or not meet the activities requirement. By assigning this duty and power delegations to officers, the leader can moderate their workload and let the circumstance be taken care of by the officers closer to the issue who knows the subordinate better (Yukl, 2010). The botch in appointing such power delegation to division officers may influence the execution of the sector, as the supervisor may better understand the workload of his dependent and the level of their capacities. For instance, the inline supervisor better knows the workers' performance in the manufacturing sectors and in the supply chain process. As the uncontrolled and external factors are not visible to top management, thus the inline supervisor has better knowledge about the real situation, and can decide better as compared to top management.

Conclusion: This paper has presented a conceptual framework to examine the influence of delegation of authority in decision making along with the moderating role of employees' performance. Therefore, this study thoroughly read the previous literature to examine what sort of duties and decision power do leaders give to their assistants. In view of the above mentioned previous researchers, it has noted that centralism is more typical and low in belief in many countries. However, numerous studies have clarified that delegation of authority can enhance the level of performance and lead to do the better decision making. The discoveries have demonstrated that authoritative and operational power is not completely assigned from a higher level to bring down at lower levels in the chain of command, supporting that organizations in low trust nations have a central unit resolution, the locus of the resolution being high up in the order. Duties and errands are appointed separately with decision making and in addition, obviously authority powers that include cash, are classified and imperative which can affect the trust in associations negatively. Therefore, a delegation of authority can significantly affect the overall efficiency especially in the police department.

References

Abd al-Hadi, A. (2015). House of Pharos scientific, Alexandria.

Ali, A. J. (2005). Islamic Perspectives on Management and Organization, Edward Elgar Publishing, Cheltenham.

Al-Huzem, Y. B. U. (2011). The Principles of Leadership, Maktaba Darussalam, Riyadh.

Al-Jammal, H. R., Al-Khasawneh, A. A. & Hamadat, M. H. (2015). The impact of the delegation of authority on employees' performance at great Irbid municipality: case study, *International Journal of Human Resource Studies*, 5(3), 48-69.

Athanasouli, D. & Goujard, A. (2015). Corruption and Management Practices: Firm Level Evidence. *Journal of Comparative Economics*, 43(4), 1014-1034.

Austermann, F. (2014). European Union Delegations in EU Foreign Policy, The European Union in International Affairs series.

Bloom, N., Sadun, R. & Van Reenen, J. (2012). The Organization of Firms across Countries. *The Quarterly Journal of Economics*, 127(4), 1663-1705.

Graham, J. R., Harvey, C. R. & Pur, M. (2015). Capital allocation and delegation of decision-making authority within firms, *Journal of financial economics*, 115, 449-470.

Gur, N. & Bjørnskov, C. (2016). Trust and Delegation: Theory and Evidence. *Journal of Comparative Economics*, (000), 1-14.

Hofstede, G. (2001). Culture's Consequences: International Differences in Work-Related Values, 2nd ed., Sage, Beverly Hills.

Iancu, B. (2012). Legislative Delegation, the Erosion of Normative Limits in Modern Constitutionalism.

Jones, G. R. (2013). Organizational Theory, Design and Change. 7th ed. Harlow: Pearson Education Limited.

Kamla, R. & Roberts, C. (2010). The global and the local: Arabian Gulf States and imagery in annual reports, *Accounting, Auditing & Accountability Journal*, 23(4), 449-481.

Kiiza, P. & Picho, E. O. (2015). Delegation and staff commitment in the school of finance and banking in Kigali, Rwanda: An empirical study. *Global Journal of Commerce and Management Perspective*, 4(3), 50-54.

Kombo, B. W., Obonyo, G. O. & Oloko, M. (2014). Effects of delegation on employee performance in savings and credit cooperative societies in Kisii County, Kenya. *The International Journal of Business and Management*, 2(7), 22-31.

Latif, A. E. (2015). Delegation of authority, International Neulenk for publication and distribution, Cairo.

LI, S. & Weng, X. (2017). Random Authority, *International Economic Review*, 58, 211-235.

McLaurin, J. R. & Mitias, P. (2008). Transformational strategy in the city of gold: pursuit of the vision, Allied Academies International Conference: *Proceedings of the Academy of Strategic Management (ASM)*, 7(2), 20-24.

Montana, P. & Charnov, B. (2000). Management. 3rd ed. Hauppauge, N.Y: Barron's.

Stephenson, M. L., Russell, K. A. & Edgar, D. (2010). Islamic hospitality in the UAE: indigenization of products and human capital, *Journal of Islamic Marketing*, 1(1), 9-24.

Suliman, A. M. & Abdulla, M. H. (2005). Towards a high-performance workplace: managing corporate climate and conflict, *Management Decision*, 43(5), 720-733.

Suliman, A. & Al Kathairi, M. A. (2013). Organizational justice, commitment and performance in developing countries: the case of the UAE, *Employee Relations*, 35(1), 98-115.

Thomas, O. O., Idowu, O. O. & Olarewaju, A. A. (2018). Delegation of authority and Employees Performance: An Empirical Evidence from Ikeja Division in Lagos State, Lagos State University, retrieved from: http://jei.uni-ruse.bg/Issue-2016/08.%20Olajide_Okunbanjo_Adeoye.pdf, Accessed on 12/21/2018.

Tran, Q. & Tian, Y. (2013). Organizational Structure: Influencing Factors and Impact on a Firm. *American Journal of Industrial and Business Management*, 3(2), 229-236.

Walther, L. M. & Skousen, C. J. (2009). Budgeting and decision making, London business school, United Kingdom.

Yukl, G. (2010). Leadership in Organizations. 7th ed. New Jersey: Pearson.

Zimmerman, P. B. (2012). Decision-Making for Leaders, Advanced Leadership Initiative at Harvard University.

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E-Entrepreneurship for E-Startups: Potentials, Common Challenges and Way Forward

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Abstract: In today's economic world, the advancement in technology has opened up new forms of economic activities, particularly business. Whilst entrepreneurship is a major factor in business, e-entrepreneurship has become a buzzword facilitated by the rapid advancement of internet and developments in Information and Communication Technologies (ICTs). E-entrepreneurship, in the name of transforming business from the local marketplace to the global one, has revolutionized the entire business processes. This set of new business mechanism has created new opportunities for the startups, which in this regard is termed as e-startups. The purpose of this paper, therefore, is to develop a comprehensive understanding of the concept of e-entrepreneurship by addressing related potentials and challenges. Extant literature has been reviewed to this end. The analysis indicated that flexibility of and accessibility to technology and products, less capital and risk in comparison to physical businesses are the major advantages that an e-entrepreneur might enjoy while commencing an e-startup. On the other hand, lack of institutional support, digital security threat, tough competition with established brands, less innovation and lack of academic and practical exposure in terms of business and marketing are some barriers that challenge the operation of e-startups. The conclusion of the paper draws on some recommendations accordingly.

Keywords: *Entrepreneurship, e-entrepreneurship, e-startup, e-business, net economy.*

1. Introduction

In recent years the ongoing development of internet and technology has changed the way we think of business. Today, information as the means of competitive advantage is more easily accessible and used for commercial purposes due to new business settings shaped by Information Technologies (Kollmann, 2006). These commercial activities can be termed as e-business (Matlay & Martin, Collaborative and competitive strategies in virtual teams of e-entrepreneurs: A pan-European perspective, 2009) and it forms new entrepreneurial activities called e-entrepreneurship (Kollmann, 2006; Matlay, E-entrepreneurship and small e-business development: towards a comparative research agenda, 2004). In the same process, the wave of e-startups is streaming in ways few have contemplated before. It is agreed that potential entrepreneurs lack in liquid capital (Blanchflower & Oswald, 2007). Today technology has become affordable, reliable and powerful (Hunter & Long, 2003). In spite of the lack of huge capital, one can start his own business online and can compete with larger businesses. Internet and technology jointly have established practices and new ways of doing business, thus informing and influencing business at regional, national and international levels (Matlay, E-entrepreneurship and small e-business development: towards a comparative research agenda, 2004). Today, e-entrepreneurship observes its tremendous societal importance. E-entrepreneurship, alike traditional entrepreneurship, requires basic business skills and expert knowledge (Zhao, 2007). In this paper, the term e-entrepreneurship refers to those entrepreneurial activities that are operated on the internet (Manuel, 2006). The purpose of this discussion is to identify the advantages and the relevant risks a new e-entrepreneur might come across while doing business online. The beginners may find this paper very useful, especially in the context of small business operations. This discussion will also provide the necessary guidance to the relevant stakeholders on "e-entrepreneurship". This paper is basically premised upon an extant literature review. Therefore, starting with a review of the concepts of entrepreneurship and other associated terms, the sections then offers a brief discussion on potentials and challenges a startup might experience and so should address. The paper ends with some strategic recommendations.

2. Literature Review

Entrepreneurs bring new businesses to the market (Rumelt, 2005). They are widely viewed as the risk takers and explorers of new opportunities. The concept of entrepreneurship was first established in the 17th century, when an entrepreneur took the risk of profit or loss on a fixed contract with the government (Manuel, 2006) and Richard Cantillon (1680-1734) saw the profit opportunities in buying cheaply and selling at a higher

price for a group of people called "entrepreneurs" (Landstrom, 2007). The meaning has evolved ever since. While some describe the entrepreneur as a risk-taker of a new venture, others, marking his innovative skills, consider as a developer of new goods, services or processes for profit. Meyer, Neck, & Meeks (2017) have listed some of the modern definitions of entrepreneurship as below.

Table 1: Modern Definitions of Entrepreneurship

Author	Definition
Schumpeter (1934)	Entrepreneurship is seen as new combinations including the doing of new things or the doing of things that are already being done in a new way. New combinations include (1) introduction of the new good, (2) new method of production, (3) opening of a new market, (4) new source of supply, (5) new organizations.
Kirzner (1973)	Entrepreneurship is the ability to perceive new opportunities. This recognition and seizing of the opportunity will tend to "correct" the market and bring it back toward equilibrium.
Drucker (1985)	Entrepreneurship is an act of innovation that involves endowing existing resources with new wealth-producing capacity.
Stevenson, Roberts, & Grousbeck (1985)	Entrepreneurship is the pursuit of an opportunity without concern for current resources or capabilities.
Rumelt (1987)	Entrepreneurship is the creation of new business, new business meaning that they do not exactly duplicate existing businesses but have some element of novelty.
Low & MacMillan (1988)	Entrepreneurship is the creation of the new enterprise.
Gartner (1988)	Entrepreneurship is the creation of organizations, the process by which new organizations come into existence.
Timmons (1997)	Entrepreneurship is a way of thinking, reasoning, and acting that is opportunity obsessed, holistic in approach, and leadership balanced.
Venkataraman (1997)	Entrepreneurship research seeks to understand how opportunities to bring into existence future goods and services are discovered, created, and exploited, by whom, and with what consequences.
Morris (1998)	Entrepreneurship is the process through which individuals and teams create value by bringing together unique packages of resource inputs to exploit opportunities in the environment. It can occur in any organizational context and results in a variety of possible outcomes, including new ventures, products, services, processes, markets, and technologies.
Sharma & Chrisman (1999)	Entrepreneurship encompasses acts of organizational creation, renewal, or innovation that occur within or outside an existing organization

Entrepreneurship, on the one hand, is the discovery of opportunities and the creation of new economic activity building a new organization (Reynolds, 2005) and on the other the process of risk-taking of a new business (Hébert & Link, 1989). Therefore, entrepreneurship is the pursuit of new business opportunities that create wealth in any society.

This is the age of knowledge which is based on the information. The ongoing development of the internet and technology has changed the way of entrepreneurship. A whole range of new ideas and opportunities for entrepreneurship have come up. E-entrepreneurship is the expansion of traditional entrepreneurship in the e-business which incorporates all the key elements of traditional entrepreneurship, including risk-taking, proactivity, innovation, running and managing the e-business (Zhao, 2007). Therefore, the concept of e-business comes along with the e-entrepreneurship. IBM was one of the first companies which used the term "E-Business" in 1997 (Sharma, Pathak, & Chowhan, 2014). E-business deals with buying, selling and managing business-related functions over the internet with a view to satisfy the customers (Matlay & Martin, Collaborative and competitive strategies in virtual teams of e-entrepreneurs: A pan-European perspective, 2009). A successful e-business organization combines four distinctive elements: leading-edge technologies, long-term business strategies, strategy implementation using technologies, and aligning people's behavior surrounding the business (Sharma, Pathak, & Chowhan, 2014).

Thus, E-business forms the fundamental construction of e-entrepreneurship (Zhao, 2007). Internet and modern technology not only changed the way of doing business but also established a new economy, i.e. net economy or digital economy. Kollmann (2006) described e- entrepreneurship as the act of establishing new companies in the net economy. Turban, King, Lee, Liang & Turban (2015) defined net economy as an online platform where business can be operated based on digital technologies and communication networks. The scope of the net economy, thus, has provided the startups, the new ventures, a venue for developing new ideas and turning those ideas into new e-businesses. According to (Finkelstein, 2001), the success of internet startups is determined by four basic factors: customers, capabilities, competitive advantage, and internal consistency. He argues that customers are the heart of all business and a business must develop and retain customers. Startups need to develop unique capabilities that the customer's value and are not easily copied by the rivals. In return business will benefit from the competitive advantage which is supported by its internal system. E-entrepreneurship is becoming more popular these days, as many people are becoming interested in gaining freedom from their traditional employment and so are heading towards e-startups. Rather than working for a company, they are branching out into becoming e-entrepreneurs and becoming their own boss and/or employers. As this trend is growing at a fast rate, it is worthwhile to look at its potentials and challenges.

3. Potentials

Small sized businesses are more operative and flexible than big companies. Specific focus on operations may return rewarding outcomes. Today Information and Communication Technologies (ICTs) are the most important factors in doing business in many countries. Business ventures generally anticipate of being successful using the technology they use. E-entrepreneurship, in this regard, is benefited through their direct connection with customers. Without being tied down to a physical location, information work can be done anywhere with a laptop or cell phone crossing time zones to allow business to be monitored anytime, anywhere (McNurlin, Sprague, & Bui, 2009). Social media email and instant messaging give the opportunity to be connected with the customers as long as the internet is available. These tools now allow prompt communication with customers and suppliers. On the other hand, customers prefer online shopping because they don't have to wait for stores to open. They can shop whenever they want and arrange for delivery or pickup. Moreover, customer buying options are quick and convenient as they transfer funds online. Therefore, e-startups can start with relatively inexpensive and free social media tools, Facebook, Twitter, LinkedIn, etc. (Brooks, Heffner, & Henderson, 2014). Knowledge and technologies associated with social media have become a significant component of business operations of many companies in their marketing, risk management, and customer relationship strategies (Brandel, 2010). Social media communications influence customer perceptions and purchase decisions (Edleman, 2010; Elzinga, Mulder, & Vetvik, 2009).

Today's businesses value digital networking as the means of viral marketing which allows information to be spread promptly from one to many through self-replication (Phillips, McFadden, & Sullins, 2010). An e-entrepreneur can also make use of the positive reviews and comments from the general public & customers to build up his business furthermore. Digital networks can help him to enhance company exposure and obtain better decision-making information in order to optimize business processes (Brooks, Heffner, & Henderson, 2014). The idea of e-entrepreneurship has eliminated many of the barriers that a traditional marketplace faces (Matlay & Westhead, Virtual teams and the rise of e-entrepreneurship in Europe, 2005). E-startups benefit from the borderless market to the high-end technology. They enjoy access to the global marketplace from the very beginning. Physical stores are limited by the geographical area, but online stores can sell products and services across the world. In statista.com it was reported that, in 2017, Amazon's total consolidated net revenue was USD 177.9 billion, of which USD 54.3 billion were generated through international revenue channels.

Capital, in any business venture, is one of the major factors of production. E-entrepreneurs have the advantage of operating their businesses with less initial capital and a minimum fixed cost. They can collect money or take loans from their relatives for small scale operations. E-startups can save money since they don't have to pay for decorated office spaces, office maintenance, a range of utilities and salaries like other physical business organizations. Automated billing, inventory management and online banking also contribute to lowering the operational costs of E-startups. Every business has operational risks. The risk of e-business is much lower than any other physical businesses. One of the major benefits of e-business is that it's easy to scale the business quickly. An e-entrepreneur can work more closely and flexible with his suppliers and partners, and can offer any feedback to his customers' needs within a moment. They make a faster decision, which, in turn saves time. A growing business largely depends on its customer satisfaction. Internet and its ever-changing capabilities offer the beginners such possibilities so that they can expand their business strategically and opportunistically (Hunter & Long, 2003).

4. Challenges

Adam Smith (1723-1790) identified land, labor and capital as the three factors of production in his Wealth of Nations (1776) which are the basic inputs needed for any business operation and internet startups are of no exceptions. Though the primary relevance of land and labor as factors of production has been diminished measurably due to technological advancement, the costs associated with these two factors still incur in different forms. Internet startups need office space & equipment, warehouse, internet connection as well as labor hours to run their business. Entrepreneurs face challenges to meet these associated costs due to lack of liquid capital at the beginning (Blanchflower & Oswald, 2007). Startups need capital to start business operation. Availing of bank loans, mostly through the long and troublesome procedure, is not always easy. To have adequate capital to start & retain business is, therefore, always a big challenge (Brooks, Heffner, & Henderson, 2014). Besides, technologies are subject to continual change which requires subsequent investments. Some economists considered entrepreneurship as the fourth factor of production, separate from labor. Jeremy Bentham (1748-1832) recognized the role of the entrepreneur in society (Landstrom, 2007). Jean Baptiste Say (1767-1832) presented a different approach of entrepreneurship as an input in the production process (Drucker, 1974; Landstrom, 2007). An entrepreneur, with his skill sets, mobilizes the resources and creates more wealth.

Most e-startups don't get very far. It's the entrepreneur himself who takes calculated risks to grow his business. It's imaginable that the beginners are lamentably naive in their actions. Beginners face challenges in timely decision making due to lack of entrepreneurial skills and they can't grow beyond their initial size because of their limited vision (Matlay & Westhead, Virtual teams and the rise of e-entrepreneurship in Europe, 2005) and lack of confidence in their abilities. Furthermore, the issue of management was acknowledged by a number of economists as another spectrum of production. Alexander Hamilton (1757-1804), Comte de Saint-Simon (1760-1825), Francois Fourier (1772-1837), Henry Clay (1777-1852) and Alfred Marshall (1842-1924) attributed management as one of the factors of production (Drucker, 1974). A manager manages and organizes all the entrepreneurial activities coupled with other resources. Most of the times in a small enterprise, the management and managerial skills are neglected. The entrepreneur can't bear the cost of a manager and instead he becomes the manager. In a recent paper Ngige (2014) argued that

managerial skills are different from entrepreneurial skills. Lack of experience and insufficient knowledge in business management may lead the business to failure. Ademola, Olaleye, Olusuyi & Edun (2013) found that over 60% of small business failure in Nigeria is due to poor management practices.

Today the Internet is an open marketplace. The competition is very extensive since there is almost no barrier to new entrants and competitors in this market. Maguire (2002) attributed three types of risks that any project may face: risks associated with new technology, project size and failure. New technology almost creates a bubble. The dot-com collapse (1999-2001) saw hundreds of e-startups closed down or sold. If a startup sets short term ambitious goals and makes the business large beyond its capacity from the beginning, the risks associated with project size increases. If the business can be copied quickly by the competitors, there may be financial risks. The combination of basic business skills and expert knowledge, in this regard, therefore, is a key factor in the long run sustainability of e-business (Zhao, 2007). The Information Technology environment changes rapidly. It also requires regular support and maintenance. But e-entrepreneurs mostly can't cope with the pace of the new technologies and sometimes they are incapable of making proper use of it. Old-fashioned e-marketing tools, limited exposure in social media, ineffective and outdated websites increase the cost of doing business. Hunter & Long (2003), in support of this challenge, justifiably argued that technology is generally used for daily operations rather than strategic and competitive reasons.

Customers are the main focus of any business. What drives a customer to buy online? The answers usually include convenience, price and speed. But there are a few other factors that become more fundamental- trust and service. It is a big challenge for the startups to gain the customers' acceptance & credibility since they separate the customer from the product or service in both time and space (Finkelstein, 2001). It's also very much critical for them to position their products within a short period of time. Most online startups struggle because of their inefficiencies in customer service. It is unfortunate that most of the entrepreneurs are skilled in a field other than marketing (Martin, 2009; Stokes, 2000; Zontanos & Anderson, 2004). In most of the cases entrepreneurs initiate an idea and then try to find its market rather than market needs assessment. Marketing practice is about interrelated transactions which affect the success of entrepreneurial ventures. Many generally mistake marketing for advertising. However, advertising is only a key element of marketing mix-widely known as 4Ps: product, price, place and promotion (Kotler & Armstrong, 2012). Beginners usually don't analyze these 4Ps of marketing. They prefer informal, short-cut methods than formal market research for gathering market information (Stokes, 2000). The advancement of internet technology has also changed the traditional marketing concepts to e-marketing. Today startups need considerable investment in search engine optimization, content marketing, public relations and paid advertising.

Though innovation and new product development is the key to dominate the market, most of the beginners don't pay attention to it. They take innovation and new product development as a pricy matter for them at this very stage. Those who are exceptions, face regular challenges of imitation and erosion from the competitors. In addition, some people start online businesses with fraudulent business intentions which return distrust among the customers and harden the roads of actual startups.

In many cases it has been seen that small businesses are only concerned with the particular opportunity (Hunter & Long, 2003) and localized market (Matlay & Westhead, Virtual teams and the rise of e-entrepreneurship in Europe, 2005), thus preventing them from growing themselves big. Besides, increased competition from big and well-established companies is a major threat to the success of the startups. Big companies try to create a monopoly and drive the new one out of the market.

As the e-business organizations largely depend on internet-based technologies, management deals with never-ending information security threats every day. Data thefts, from inside or outside, have become one of the top security concerns across all organizations (McNurlin, Sprague, & Bui, 2009). Because of new technologies, threats are getting more sophisticated and hackers are more creative in their attacks. Customers will not buy from a business if they find that the website crashes and the system becomes down regularly. Customers don't want their personal information, bank details and credit card numbers to be stolen. Therefore, it becomes expensive to implement an organization's security strategy and activities for the e-entrepreneurs who are very new in his business.

Lastly, in many countries the government is not e-business friendly. The startups get limited support from the government. They meet tax regulations, marketing restrictions and poor infrastructure. These sorts of challenges mostly occur in developing countries where institutional support for e-business (startups and running) is meagre both quantitatively and qualitatively. E-entrepreneurs face challenges everywhere.

5. Future of E-Startups

Modern technologies have opened new opportunities & replaced the existing market but the net economy becomes a fast-moving, highly uncertain and unpredictable trading environment (Matlay & Westhead, Virtual teams and the rise of e-entrepreneurship in Europe, 2005). We are passing through the information age and information will dominate the near future. It has been argued by experts that Big Five companies: Google, Apple, Amazon, Facebook and Microsoft monopolize the web (Manjoo, 2017). We saw some of the best startups in the tech industry e.g. Uber, WhatsApp, Instagram, Snap, Twitter were obtained by these big companies in the end. The current trends foretell that the future also belongs to them. They dominate the app stores, cloud storages, Ad networks and most importantly- the data. Startups will have to pay most of their earnings to these companies just for existing. These big companies will accrue ever more capital and power, and startups will face unfair competition.

6. Conclusion and Recommendations

The purpose of this paper is to conceptualize-entrepreneurship while discussing its core features, potentials and challenges. E-entrepreneurship gives new business ideas, boosts new technologies, and creates successful businesses. Since there are a growing number of e-startups today, extensive research is needed to study how these firms effectively plan and incorporate new business processes and practices from a long-term perspective. Further research is also required to address emerging technologies e.g. electronic data interchange, data communication, artificial intelligence, and security-related technologies. The emergence of electronic business is not just the application of technology in business, but is a strategy to manage all related business functions creatively over the internet. However, ineffective management in e-business leads to inefficient use of business resources. Developing and maintaining managerial skill regularly through training and development in this regard is required. Young people are the main entrepreneurs of any business venture. They need entrepreneurship education which will enable them to get a good base of skills and practical knowledge. Entrepreneurship education in the school or undergraduate level will provide students with the skills and knowledge to come up with business ideas and develop their own ventures. Continuing business always requires a risk assessment, for which the startups need to consider periodic risk assessment to avoid some of the risks. Moreover, any business requires continuous dedication and a long-term business plan. More focus is needed in valuing of online startups. The competition in online business is extensive. Therefore, startups should change their strategies regularly in line with market needs, and competitions in order to gain market credibility.

References

Ademola, I. S., Olaleye, S. O., Olusuyi, A. E.& Edun, F. (2013). Why small scale businesses failed as a remedy to unemployment problem in Nigeria. *Journal of Humanities and Social Science,* 8(4), 68-93.

Blanchflower, D. G.& Oswald, A. J. (2007). What Makes a Young Entrepreneur, IZA Discussion Papers 3139. Institute for the Study of Labor (IZA).

Brandel, M. (2010). Are you LISTENING? *Computerworld,* 44(13), 13-15.

Brooks, G., Heffner, A.& Henderson, D. (2014). A SWOT analysis of competitive knowledge from social media for a small start-up business. *The Review of Business Information Systems (Online),* 18(1), 23.

Drucker, P. F. (1974). Management: Tasks, Responsibilities, Practices (1st ed.). New York: Truman Talley Books, E. P. Dutton.

Edleman, D. (2010). Branding in the digital age: You're Spending Your Money in All the Wrong Places. *Harvard Business Review,* 88(12), 62-69.

Elzinga, D., Mulder, S.& Vetvik, O. J. (2009). The consumer decision journey. *McKinsey Quarterly,* 3, 96-107.

Finkelstein, S. (2001). Internet startups: so why can't they win? *Journal of Business Strategy,* 22(4), 16-21.

Hébert, R. F.& Link, A. N. (1989). In search of the meaning of entrepreneurship. *Small business economics,* 1(1), 39-49.

Hunter, M. G.& Long, W. A. (2003). Adopting the entrepreneurial process in the study of information systems and small business. In Managing IT in government, business & communities (pp. 1-14). IGI Global.

Kollmann, T. (2006). What is e-entrepreneurship?–fundamentals of company founding in the net economy. *International Journal of Technology Management,* 33(4), 322-340.

Kotler, P.& Armstrong, G. (2012). Principles of Marketing (14th ed.). Pearson Education.

Landstrom, H. (2007). Pioneers in entrepreneurship and small business research (Vol. 8). Springer Science & Business Media.

Maguire, S. (2002). Identifying risks during information system development: managing the process. *Information Management & Computer Security,* 10(3), 126-134.

Manjoo, F. (2017, 10 18). Retrieved from The New York Times: https://www.nytimes.com/2017/10/18/technology/frightful-five-start-ups.html

Manuel, E. (2006). e-Entrepreneurship. Munich Personal RePEc Archive, Paper No. 2237(13). Retrieved from https://mpra.ub.uni-muenchen.de/2237/1/MPRA_paper_2237.pdf

Martin, D. M. (2009). The entrepreneurial marketing mix. *Qualitative Market Research: An International Journal,* 12(4), 391-403.

Matlay, H. (2004). E-entrepreneurship and small e-business development: towards a comparative research agenda. *Journal of Small Business and Enterprise Development,* 11(3), 408-414.

Matlay, H.& Martin, L. M. (2009). Collaborative and competitive strategies in virtual teams of e-entrepreneurs: A pan-European perspective. *Australasian Journal of Information Systems,* 16(1).

Matlay, H.& Westhead, P. (2005). Virtual teams and the rise of e-entrepreneurship in Europe. *International Small Business Journal,* 23(3), 279-302.

McNurlin, B., Sprague, R. H.& Bui, T. (2009). Information Systems Management in Practice (8th ed.). Pearson Education, Inc.

Meyer, G. D., Neck, H. M.& Meeks, M. D. (2017). The entrepreneurship-strategic management interface. In Strategic entrepreneurship: Creating a new mindset (pp. 17-44). Oxford, UK:Blackwell.

Ngige, C. D. (2014). Management as a Factor of Production and as an Economic Resource. *International Journal of Humanities and Social Science,* 4(6), 162-166.

Phillips, M., McFadden, D. T.& Sullins, M. (2010). How effective is social networking for direct marketers. *Journal of Food Distribution Research,* 41(1), 96-100.

Reynolds, P. D. (2005). Understanding business creation: Serendipity and scope in two decades of business creation studies. *Small Business Economics,* 24(4), 359-364.

Rumelt, R. P. (2005). Theory, strategy, and entrepreneurship. In Handbook of entrepreneurship research (pp. 11-32). Springer, Boston, MA.

Sharma, M., Pathak, D.& Chowhan, S. (2014). E-Business: Strategic Management Practice for New Entrepreneurship. Social Science Research Network.

Stokes, D. (2000). Entrepreneurial marketing: a conceptualisation from qualitative research. *Qualitative market research: an international journal,* 3(1), 47-54.

Turban, E., King, D., Lee, J. K., Liang, T. P.& Turban, D. C. (2015). Electronic commerce: A managerial and social networks perspective (8th ed.). Springer.

Zhao, F. (2007). Issues and challenges facing e-entrepreneurship and e-innovation. 18th Annual Information Resources Management Association International Conference (pp. 945-948). IGI Global.

Zontanos, G.& Anderson, A. R. (2004). Relationships, marketing and small business: an exploration of links in theory and practice. *Qualitative market research: an international journal,* 7(3), 228-236.