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01. Critical Realism and Case Study Strategy in Entrepreneurship Research.
D.M.N.S.W. Dissanayake, K. Pavlovich 01 - 09

02. A Discourse Analysis on Research Texts on Copreneurs.
H.A.K.N.S. Surangi, B.A.H. Kawshala 10 - 19

03. Influence Effect of Mobile Banking Services on Financial Performance of
Deposit-Taking Cooperative Societies in Kenya.
D.M. Mugo, S.M.A. Muathe & S.T. Waithaka 20 - 32

04. Leading the Change: Context of a Manufacturing Company.
J. Wasaba 33 - 40

05. Factors Affecting on Work-life Balance among Female Information
Technology Professionals in Sri Lanka.
I.U. Liyanaarachchi, W.A.S. Weerakkody 41 - 56

Critical Realism and Case Study Strategy in Entrepreneurship Research

D.M.N.S.W. Dissanayake^{1*}, K. Pavlovich²

Abstract

Case study is one of the most popular research strategies among the adherents of entrepreneurship. However, it is questioned in terms of the philosophy being used. This paper proposes Bhaskar's critical realism as a coherent and a novel philosophical position that substantiates case studies to examine richer contextual phenomenon. Therefore, the compatibility of case studies with critical realist philosophy is argued. Further, the paper sets the scene for a discussion; the need of critical realism based entrepreneurship research. Realising entrepreneurship as a social phenomenon, it is argued that critical realism assists to contextualise research. Contextualisation even more facilitated as it favours a wide array of research methods to intervene the social world. However, critical realism cannot prove to be the right answer, its use depends on the researcher's acceptance of its basis assumptions.

Keywords: Case Study, Critical Realism, Entrepreneurship Research

Introduction

Case study research is, perhaps, the most wanted research strategy among the adherents of entrepreneurship. This may be, partially due to the nature of the inquiry of entrepreneurship. There is no argument, entrepreneurship as a discipline is inevitably a social phenomenon (Steyaert, 2007) and therefore, research denying positivist stance may be useful. The main units of analysis of entrepreneurship research; entrepreneurial ventures and relationships, are relatively difficult to access. Therefore, a case study of a single, or a small number of entities may provide a great deal of, largely qualitative, rich insights of a phenomenon.

It is important to note that many case study researchers do not seem to realise that their case study method assumes a positivist stance (Easton, 2010) and it may impede the richness of the outcome. In such a situation, the reliability of a positivist case analysis is questionable. There are reasons to bring upon claiming that positivism is not the answer to

case study research method. One such reason is, positivist's belief of existence of law-like generalisations or regularities (Easton, 2010) that provide a basis for predictions. This tend positivists to make causal statements, assuming occurrence of a regularity precedes to another. In contrast, researchers employ an interpretivist approach to defend these arguments. Interpretivists' deny discerning of causality and the outcome is based on subjective interpretations. However, interpretivist approach lack in "what standards one interpretation is judged to be better than another" (Easton, 2010, p. 118).

In this paper we argue critical realism as a philosophical lens a way forward in entrepreneurship research reinforcing the idea that, case studies within the critical realist philosophy may be a nuanced understanding. Simply, critical realism holds both the premises of ontological and epistemological concerns. It assumes the existence of an independent real world "out there", also, setting out the propositions for social construction (epistemology). This is Bhaskar's

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(1975) philosophy of science which reinforced the idea that universe, as well as the social world, is a stratified and open system of emergent entities. The remainder of the paper is structured as follows. Setting the scene, the article begins with a discussion of critical realism and its tenets. Then it bridges critical realism with case study research. Finally, the paper concludes with a thought; the importance of a critical realist stance in case study strategy in entrepreneurship research.

Critical realism; what it is?

Critical realism is considered as an extension of positivist and interpretivist paradigm thoughts and therefore, it is important to recognise the basic tenets of them prior to articulate what critical realism is. The basic thought of positivist is that they assume physics as its model for science (Hammersley, 2013). *Physics per se*, reinforces its inferences from causal relationships. Therefore, the positivist idea based on the beliefs of physics believe that all *knowledge must be grounded* in sense experience that is subject to *methodical control* [emphasis added] (Hammersley, 2013, p. 23). This insisted all positivist to believe that all phenomenon require rigorous measurements, thus acknowledged the need of hypothesis testing to test experimental control of variables. According to Hammersley (2013), rigorous ‘methods’ mean ‘explicit procedures’, with the assumption that the conclusions arrived would be the same regardless of the variation of cultural, personal, social characteristics of the inquirer. This notion developed into as ‘procedural objectivity’ (Eisner, 1992). Therefore, positivist believed a principle that, knowledge produced is accurate and reliable, if it has not been influenced by the ‘subjectivity’ of the inquirer.

In contrast, the centrality to the interpretivist argument is the understanding of the social world ‘from the inside’ – through common experience, empathy and culture etc – rather than from the outside perspective in which positivists and empiricist argued (Hammersley, 2013). The key for interpretive argument is, the human behaviour is shaped by

cultures in which they live; and that peculiar orientations of culture will not only influence what people believe but also what people do. Therefore, the concern of the social scientists from the interpretive viewpoint document culturally shaped human behaviour along with sources and consequences (Hammersley, 2013). Furthermore, interpretivists argue the fact that there is a necessity to understand what and why people do, or why certain institutions exists and operate in certain ways. To do so, an idea about peoples’ interpretations about the world and how they act upon it is inevitable. Clearly, this view contradicts with positivists. However, with positivist and interpretivist thoughts, critical realism was emerged.

In its simplest form, critical realism merges a realist ontology with constructivist epistemology (Maxwell, 2012). Similarly, Hu (2018) added that critical realism’s key ontological and epistemological assumptions make it distinct from the traditional philosophical paradigms. In their work, O’Mahoney and Vincent (2014) added that, critical realism differentiates from the traditional positivist (empiricist) and social constructionist (interpretivist) paradigm thoughts.

In his seminal work, Bhaskar (1975) suggested a philosophy of science that reinforced the idea that the universe, as well as the social world, is a *stratified and open system of emergent entities* [emphasis in original] (Vincent & O’Mahoney, 2018, p. 202). The discussion of Bhaskar’s stratified ontology requires connotations of its principles, and thus Sayer’s (1992) work is identified as a useful inaugural point (See; Hunt, 2003). In his work, Sayer identified eight key assumptions of critical realism and following is the extract from his work.

1. The world exists independently of our knowledge of it.
2. Our knowledge of the world is fallible and theory-laden. Concepts of truth and falsity fail to provide a coherent view of the relationship between knowledge and its object. Nevertheless knowledge is not immune to empirical check and its effectiveness in informing and explaining

successful material practice is not mere accident.

3. Knowledge develops neither wholly continuously, as the steady accumulation of facts within a stable conceptual framework, nor discontinuously, through simultaneous and universal changes in concepts.
4. There is necessity in the world; objects—whether natural or social—necessarily have particular powers or ways of acting and particular susceptibilities.
5. The world is differentiated and stratified, consisting not only of events, but objects, including structures, which have powers and liabilities capable of generating events. These structures may be present even where, as in the social world and much of the natural world, they do not generate regular patterns of events.
6. Social phenomena such as actions, texts and institutions are concept dependent. We not only have to explain their production and material effects but to understand, read or interpret what they mean. Although they have to be interpreted by starting from the researcher's own frames of meaning, by and large they exist regardless of researchers' interpretation of them. A qualified version of 1 therefore applies to the social world. In view of 4–6, the methods of social science and natural science have both differences and similarities.
7. Science or the production of any kind of knowledge is a social practice. For better or worse (not just worse) the conditions and social relations of the production of knowledge influence its content. Knowledge is also largely—though not exclusively—linguistic, and the nature of language and the way we communicate are not incidental to what is known and communicated. Awareness of these relationships is vital in evaluating knowledge.
8. Social science must be critical of its object. In order to be able to explain and understand social phenomena we have to

evaluate them critically (Sayer, 1992, p. 05).

Sayer's assumptions about critical realism imply that it captures both ontological and epistemological stances. For an instant, points 1, 4 and 5 set out the ontological position, assuming the belief of existence of an independent real world "out there". Furthermore, points 2, 3, 6, and 7 set out the propositions for social construction (epistemology). These contradictory views of ontology and epistemology, therefore, sets the principal tenet of critical realism (Easton, 2010; Maxwell, 2012). According to Easton (2010) "critical realists resolve this tension by arguing that the world is socially constructed but not entirely so" (p.120).

Entities, Powers and Systems

Bhaskar's (1975) philosophy of science which reinforced the idea that the universe, as well as the social world, is a *stratified and open system of emergent entities*, can be cleared by segregating its meaning into simple definitions – entities, powers, systems (Vincent & O'Mahoney, 2018). Fleetwood (2005) identifies entities (objects) not merely as collections of parts, rather, as "anything" which makes a difference. Therefore, individuals, organizations, institutions are entities. It should be noted that entities and variables as two contrasting views. Sayer (1992) added that "the concept of variable that is used in quantitative analysis is an indifferent one as regards causal explanation: variables can only register (quantifiable) change, not its cause" (p.180). Therefore, realists explanation about entities/ objects entails primary nature and capacities of the "things" rather than measurable properties (i.e. variables) (Easton, 2010). Further, Blundel (2007) added the term structures to refer how an object is created. As a result of structure, objects constitutes certain causal powers (Blundel, 2007) and liabilities (Easton, 2010). Vincent and O'Mahoney (2018) added that causal powers depend on related properties of its parts. The causal powers possess capacities, potentials or

abilities to act in a particular way to reinforce activities (Lawson, 1997).

The term ‘mechanisms’ is used by critical realists when explaining how object’s causal powers are exercised (Blundel, 2007), in addition, mechanisms transform entities (Vincent & O’Mahoney, 2018). Bhaskar (1975) called mechanisms as ways of acting of things. Easton (2010) added that in explaining of causality it requires to identify entities and mechanisms that connects and combine events to cause. This is important, as change is often occurred when powers of entities interact with another (Vincent & O’Mahoney, 2018). For an example, organisations are acquired by other organizations. According to Blundel (2007) mechanisms reinforces phenomenon as well. However, causal powers are not automatically activated, rather, it subject to the availability of other conditions (i.e. the context). Similarly, as Sayer (2000, p. 58) has claimed, ‘a particular mechanism can produce completely different actions at different times, and inversely, the same event can have completely different causes’. Another possible implication is that same events can be the outcome of a completely dissimilar pattern of causes (Blundel, 2007). The central theme of critical realism is therefore, to differentiate these contingent relationships between mechanisms (Blundel, 2007).

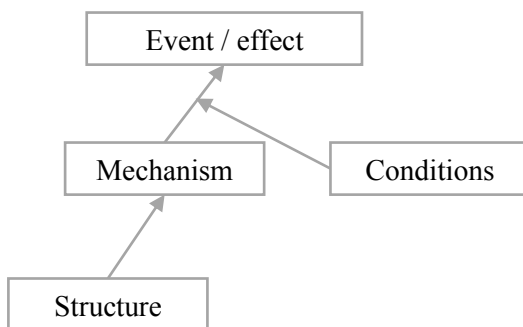


Figure 1: The critical realist view of causation

The Empirical, The Actual and The Real

The above explanation depicts how critical realism commit to ontological and

epistemological concerns. However, critical realism is yet more complicated. Citing Bhaskar’s (1975) work, Vincent and O’Mahoney (2018, p. 203) added that “*stratified* or ‘depth ontology’ makes a distinction between the ‘empirical’, the ‘actual’ and the ‘real’” [emphasis in original]. At first, the *empirical* level, “which is the realm of events as we experience them” (Fletcher, 2017, p. 183). Meanwhile, Vincent and O’Mahoney (2018, p. 204) added, “empirical is what we perceive to be the case”. At this level, objects are measured empirically using common sense. However, human interpretation and experience are often used to mediate these events. This is the level of reality where all the meanings, actions, decisions, occur – but most importantly, these events can be causal (Fletcher, 2017). The middle level, the *actual*, refer to events that happen with time and space. At this level, the events can be “different what we perceive to be the case” (Vincent & O’Mahoney, 2018, p. 204). Therefore, the actual level does not reinforce human experience. Events at the actual level occur whether we experience or interpret them or not, also these events are often different from what one observed at the empirical level (Danermark, 2002). At the final level, the *real*, discusses causal mechanisms or structures (Fletcher, 2017; Vincent & O’Mahoney, 2018). Causal mechanisms or structures are the intrinsic properties of an object, that are causal forces to produce events. Therefore, the critical realists’ emphasis is to explain social events by means of causal mechanisms and the effects they can have throughout the empirical, the actual and the real levels (Fletcher, 2017).

Critical Realism and Case Study Strategy

A relatively new philosophical stance; critical realism, does favour both qualitative and quantitative methods (Easton, 2010; Zachariadis, Scott, & Barrett, 2013). However, Ackroyd (2000) argued that critical realists reject the positivist tradition and its associated quantitative methods; it favours only qualitative methods in understanding the social world. We argue that quantifying things is not practical in realist terms. (Sayer, 1992)

identified that invariant nature of an object as a precondition in measuring an object. Invariant nature refers to the ability of an object which can be broken up and remerged without destroying the meaning of it (Hu, 2018); however, this is impractical in realist terms. Therefore, it implies that critical realism favours qualitative research.

The largely stratified nature of critical realism has made the philosophy itself methodologically comprehensive. In their work, Edwards, O'Mahoney, and Vincent (2014) compiled a series of methodological options in relation to critical realism. That include, grounded theory (Kempster & Parry, 2014; Oliver, 2012), disclosure analysis (Sims-Schouten & Riley, 2014), interviewing (Smith & Elger, 2014), and case studies (Ackroyd, 2004; Easton, 2010; Hu, 2018). Given the extended nature of critical realist methodological options, it is important to select the most convincing method in examining the social reality. In this way of thinking, Sayer (2000) added that methodological choices depend on the nature of the object investigated and what the researcher wants to learn about it.

We argue that case study research fits well with critical realist philosophy. We propose Sayer (2000) categorisation of extensive and intensive research methods to confirm this notion. Sayer claimed that the former; extensive research methods, employ survey designs, questionnaire designs, and statistical analysis. He added that extensive research methods search for similarities, regularities and patterns and these methods restrict its ability of generalisability to other populations. The latter; intensive methods, favour contexts and agents within the context using qualitative analysis; interviews and ethnography. It seeks to answer the question; what produces change? (Easton, 2010). The change occurred by causal powers is a discussed precept in critical realism and therefore, the selection of a method may favour the ability to exhibit causal powers. As an intensive research method, case study supports the examination of causal powers and it is entirely consistent with critical realist philosophy (Easton, 2010).

Case study remains a very popular research strategy among management scholars. Provided its varied views, it is a very difficult question to answer, what a case study is. Creswell (2018) viewed case study as a strategy of inquiry, while Yin (2014) regarded it as a study of a case (or cases) within a real life, setting or a context. Similarly, Eisenhardt (1989) claimed it as a research strategy aiming to understand the dynamics of a single setting. However, in spite of recent critiques (see; Piekkari & Catherine, 2018), Yin and Eisenhardt's works regard as the most popular methodological authorities on management case research. Piekkari and Catherine (2018) argued that Yin and Eisenhardt's thoughts on case study research only favour positivist case studies. Piekkari and Catherine (2018) subsequently suggested Thomas's (2016) work provided it's holistic view of a case study. They argued Thomas's work as a way forward in critical realist philosophy while denying the positivist case approach. Thomas's definition of a case study includes;

“...analyses of persons, events, decisions, periods, projects, policies, institutions, or other systems which are studied *holistically* by one or more methods. The case that is the subject of the inquiry will illuminate and explicate some analytical theme, or object” [emphasis added] (p. 23).

Our review in entrepreneurship literature indicates few case studies that have favoured critical realism. In reviewing the methodological concerns of a realist case study, Easton (2010), Wynn and Williams (2012), Hu (2018) and Zachariadis et al. (2013) provide important insights. Easton's considerations in commencing a realist case study were to recognise a phenomenon, boundaries of a phenomenon and research questions. Yin (2014) suggested that case studies are well suited for “why” and “how” questions. Easton (2010) added the importance of identifying objects/entities of the phenomenon after realising a research question. His thoughts of data collection of a critical realist case study were substantially open. He added that the choice of a data collection strategy will be governed by what is believed to be needed to develop plausible

causal mechanisms. He favoured semi-structured interviews over structured interviews for a critical realist case study. Thomas (2016) also complemented the use of semi-structured interviews in a critical realist study. Completion of data collection of a case study progresses to its interpretation. Easton (2010) claimed the need of an interpretivist appeal in interpreting findings. Also reinforcing interpretations between the empirical, the actual and the real levels, in which critical realist intend to understand may also provide valuable insights. In this way of thinking, Wynn and Williams (2012) and Zachariadis et al. (2013), Hu (2018) recognised the DREI methodology (Description of law-like behaviour, Retroduction using analogies to possible explanations of behavior, Elimination of alternative explanations, and empirically controlled identification of the causal mechanisms at work) as its fundamental basis on critical realist ideas. DREI methodology is a comprehensive explanation as to how findings of a critical realist case study may be interpreted (See; Hu, 2018).

Critical Realism and Entrepreneurship Research.

In this section we mention some important concerns that may be valuable for the adherents in entrepreneurship. Based on some themes, we argue that critical realism a useful platform for entrepreneurship research. Our prime concern is to raise the fact that critical realism assists to contextualise research. Given entrepreneurship as a social phenomenon (Steyaert, 2007), critical realism can be proposed as a paradigm thought to investigate contextual issues (Blundel, 2007).

Contextualising entrepreneurship research have called for much attention among the scholars. For an instant, research recognises the context in examining entrepreneurial action (Sarasvathy & Venkataraman, 2011; Ucbasaran, Westhead, & Wright, 2001) and actions are shaped by contextual variables (Zahra, Wright, & Abdelgawad, 2014). Further, contextualising entrepreneurship research reinforces creativity and novelty in

examining a phenomenon in a natural context, and critical realism provides a coherent frame for such investigations (Blundel, 2007).

Research on entrepreneurial action, for an instant, have given an emphasis to discovery or creation of entrepreneurial opportunities (Alvarez, Barney, McBride, & Wuebker, 2017) and thus, action is viewed as an act on the possibility that one has identified an opportunity worth pursuing. Opportunity discovery is an ontological perspective whereas creation is an epistemological view. Arguing that the concept of opportunity does not help to explain adequately the causes, processes and consequences of entrepreneurial action (Davidsson, 2015), interactions between entrepreneurs and their contexts would provide novel viewpoints. The interactions may be viewed as an agential relationship and thus, critical realism would be a frame for such an examination (Kitching & Rouse, 2017).

Critical realism is consistent with a number of quantitative and qualitative research methods (See; Ackroyd & Karlsson, 2014). In this way of thinking, critical realism provides a platform for entrepreneurship scholars to proceed through process oriented (qualitative methods) and variables oriented approaches (quantitative methods) (Blundel, 2007). The former refers to research methods based on stories and chronologies; the latter refers to methods such as configuration of data and pattern observations. Further, critical realist explanations of the empirical, the actual and the real levels are facilitated through these approaches.

Contextualising entrepreneurship research with these wide array of methods would enhance successful intervention with the social world. Critical realists seek explanations and knowledge about generative mechanisms and structures in social contexts. These intentions may be possible to develop theoretical understandings of real mechanism and structures, from the view of a practitioner or policy maker (Blundel, 2007). Therefore, critical realism may be a nuanced understanding for advocates of entrepreneurship. However, critical realism is empirically challenging.

A way forward

Case study research is prevalent in entrepreneurship research. It is often justified in terms of the exciting results it reveals. However, it lacks in terms of philosophical validation; epistemological and ontological reinforcements. In this paper we proposed a discussion that critical realism as a philosophical lens offers rich reinforcements and idyllically matched with case study research. We claim that critical realism offers a basis for case study research and how it can be done and fashioned. However, critical realism is relatively new for entrepreneurship research (Blundel, 2007), yet it is empirically challenging.

Critical realists accept the social construction but not entirely so. This stratified or the depth ontology distinguishes between the empirical, the actual and the real world. critical realists argue the existence of entities in the real world; such as organisations and entrepreneurs. These entities have powers to act and are liable to be acted upon by others (Easton, 2010). We proposed a number of methodological considerations around critical realism highlighting the fact that it favours both qualitative and quantitative methods. We brought the point; entrepreneurship research need to be contextualised, and critical realism would be a platform for entrepreneurship researchers to understand in situating phenomenon in natural contexts. However, as with all philosophical approaches critical realism cannot be proved to be the “right answer”. Acceptance of a critical realist approach depends on whether you agree with its basic assumptions and that acceptance can be based on any number of things.

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A Discourse Analysis on Research Texts on Copreneurs

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Abstract

The Small Over the previous few years, a considerable number of articles have been written about the rapid spread of entrepreneurship, the area of copreneurs are still under research field. Departing from a social constructionist approach, this study examines how entrepreneurial couples are constructed in research articles. The Methodological approach of this study is supported by discourse analysis. Discourse analysis was enabled to disclose the hidden motivations behind the text to interpret that text. Findings reveal that seven hegemonic statements : the love bond between a husband and wife grows stronger with involvement in a copreneurial venture, socially constructed men and women, the division of business and household responsibilities is traditional, blending of work and family dimensions creates new opportunities for tensions, conceptions of the female entrepreneur as problematic, female copreneurs and challenges of being in business with spouse and key patterns of couples in multiplex relationships. These influences reproduce the notion of essential gender differences and the idea of the female as the weaker sex. The findings of the study are dependent on the particular context in which the articles are constructed. This means that their results and assumptions cannot be generalized to other contexts uncritically. By discussing research findings, the study opens the avenues for alternative ways of theorizing and researching entrepreneurial couples. Suggestions for alternative research practices include the adding of an institutional approach to the research agenda, such as family policy, and legislation.

Keywords: Entrepreneurship, Copreneurs, Discourse analysis, entrepreneurial couples, hegemonic statements.

Introduction

With the exponential growth and evolution of entrepreneurship research in recent decades, new jargon has emerged to explain different aspect of entrepreneurship. Copreneurship is one such term. It is a new term for an old pattern of work: husbands and wives or couples with marital or marital-like relationships working together in the same business. Copreneurial couples have primarily been examined in the field of family business. Simply defined, a family business is managed by one or more family members. Copreneurs are an important sub group within this broad grouping. Over the previous few years, a considerable number of articles have been written about the rapid spread of entrepreneurship, the area of entrepreneurial

couples are still under research field. According to Cole, Johnson (2007), “married business couples who own and work together had been discussed but not specifically addressed until more relevant literature emerged in the 1980s. Business relationships between husbands and wives jointly in business are well considered historically. Not until the late 1980s, however, was this business relationship described specifically in an entrepreneurial context. In 1988, researchers coined the term “copreneurs” where couples who are both passionately and professionally involved; they are responsible and committed couples who own a business together. Jaffe (1990) and Nelton (1986), were the first researchers to observe the increase in copreneurial ventures which describe a

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couple's unique characteristics and potential hazards of the couples' dual relationships of combining a personal, romantic relationship with a practical, business one.

Copreneurs are a subgroup of the broader coentrepreneur group. Coentrepreneurs are any combination of two or more parties involved together in the functions of a business irrespective gender and division of work tasks and functions among them. "Involvement" is taken to consider ownership and management; for example, two sisters involved together in owning and operating a business would consider entrepreneurs, as would a separated or divorced heterosexual couple.

A small portion of the research concentrated on the self-employed, and even less research focused on investigating marital partners living and working together (Bjdmberg & Coyle-Shapiro, 2009). The dual-roles of copreneurial couples made separation of the aspects of family and business more difficult (Eddleston, Otondo, & Kellermanns, 2008; Fletcher, 2010; Werbel & Danes, 2010). In family businesses where cohabitating couples work together, also known as work-linked couples, the spouse must be fully aware of the importance of both domains (Halbesleben, Zellars, Carlson, Perrewe, & Rotondo, 2010). A founder's passionate commitment to the new venture was necessary for success (Fahed-Sreih & Morin-Deleerm, 2012). (Blenkinsopp & Owens, 2010). Most of these studies have not explored the interaction of a couple as a contributor to the perception of success, as was recommended for a more robust understanding. Interpersonal aspects of the couple living and working together, the dyad of the couple needed to be explored (Kenny, 2011; Krasikova & LeBreton, 2012). (Bjugren, Duggal, & Giang, 2012; SBA, 2012), (Basco & Rodriguez, 2009), (Dyer, Dyer & Gardner, 2013; Fletcher, 2010 Gudmunson et al., 2009), (Dyer et al., 2013); Small businesses play a vital role in the economy and many small businesses are family-owned and often operated by couples. One-third of all family businesses are copreneurial. More satisfaction occurred among male family business owners who were

older and married (Protas & Thompson, 2006). In female-led copreneurial firms, the most satisfied couples were in the middle 30s; however, there were variations in the length of either the cohabitation or the marriage of these couples. Wives perceived higher levels of stress than did husbands in copreneurial couples (Danes & Olson, 2003; Wu et al., 2010). In copreneurial couples, both spousal support and coworker support may originate from the same individual and have an even larger effect on the marital relationship. Copreneurs may be the link that is missing between the study of entrepreneurs and the study of the family business (Blenkinsopp & Owens, 2010). As the smallest unit of analysis, copreneurs should provide new insight into the dynamics of larger family businesses (Hedberg & Danes, 2012). Entrepreneurial couples tend to see their business as much more of a lifestyle choice and as a way of life than their non-copreneurial counterparts (Baines and Wheelock, 1998); Fitzgerald and Muske (2002), (Roha and Blum, 1990); and (Smith, 2000). Business success was measured in terms of a number of employees, business profit and sales as well as the manager's subjective view of the success of the business, had some influence in determining which copreneurs remained in business, which copreneurs discontinued working in the business together (Muske and Fitzgerald, 2006). Copreneurs have been described as having a unique opportunity to achieve control and satisfaction in both the work and family domains. They are incorporating family values, seeking to nurture family relationships, finding greater intimacy, and injecting human concerns into a business (Cox, Moore, & VanAuken, 1984; Jaffe, 1990; Thompson, 1990; Ward & Arnoff, 1990).

The study of copreneurs is an opportunity to expand our understanding of the dialectical system of psychology by utilizing an integrated systems perspective that incorporates social exchange theory, developmental theory, and family systems theory (Riegel, 1976, 1979). A husband and wife advertising team, defamed couples who share ownership, commitment, and

responsibility for business as copreneurs (Bamelt and Bamett, 1988). Exploring the main characteristics of companies in the five couple-categories revealed three key patterns of couples in multiplex relationships: unofficial copreneurs, traditional copreneurs, and multiple generation copreneurs (Fletcher, 2010).

In this setting, departing from a social constructionist understanding of entrepreneurial couple, this study examines how the entrepreneurial couples are constructed in research articles and reviews literature addressing couples from same entrepreneurial ventures perspective of understanding their contribution to the existing knowledge.

Methodology

Over the last 30 years, research emphasis in the area of entrepreneurship has moved away from purely descriptive explorations toward a clear effort to embed research within highly informed conceptual frameworks that recognize the gendered nature of entrepreneurship (Henry & Marlow, 2013). Despite this, however, the research methods adopted do not appear to have shifted in parallel. Indeed, extant literature continues to report methodological weaknesses, including small sample sizes, the use of inappropriate or gender biased measures, or the inclusion of female-male comparative studies where women's subordinate role is consistently highlighted (de Bruin et al., 2007). Reviews conducted to date have largely adopted a thematic focus (Carter & Shaw, 2006); categorized the level of research contribution (de Bruin et al., 2007); mapped the development of the field (Neergaard et al., 2011) or quantified the research contribution to the wider entrepreneurship field (Jennings & Brush, 2013).

The methodological choice of this study is supported by discourse analysis. In the most simple terms, discourse analysis is a research method that involves studying the use of language. Researchers analyse written texts, spoken discursive sign language, and any other means through which communication is

achieved. Discourse analysts generally pursue to understand discourse's relations to context, power, and relationship (Ruiz, 2009). Discourse analysis does not give a tangible answer to issues based on scientific research, but it gives access to the ontological and epistemological enquiry (Carver, 2002).

The researcher takes copreneurs, entrepreneurial couple, and spouse in the business, female entrepreneurs as keywords to search the literature researching on copreneurs which are published in 17 journals from 1993 to 2017. All the journals are top journals of entrepreneurship and gender, and these journals belong to a certain discourse community with certain discursive practices that perform a strong editing function of the texts. Then the researcher selected 51 articles based on their relevancy. Subsequently, articles numbered and organized this literature, including authors, date of publication, topic, and journal name, contents of research, main findings, key contributions, and research method. Researchers excluded conference proceedings since they serve as an early publication outlet, and many of these papers do subsequently appear in other journals. The selection is limited to scientific journals. Books and book chapters are not included.

Major Findings

Main findings based on the analysis reveal six hegemonic statements:

The love bond between a husband and wife develops stronger with involvement in a copreneurial venture.

Having a spouse as a business partner could make for a good partnership; if both parties share the same business-related interests and have the same aims for their company, then it can be concrete, equitable partnership. Studies show that spouse relations play a significant role in business ventures and family is necessary throughout the business as they always provide emotional strength to the entrepreneur, and her family backs her up through every struggle. In the literature, it can be identified that business ideas sometimes collide with family norms, and at other times business ideas seem to agree, but at all times

the availability of spouse is a very important part of this business (Essers, Doorewaard and Benschop 2013). Specifically, Powell and Eddleston (2013) hypothesize that emotional support from family members is positively related to entrepreneurial success.

Entrepreneurs can test out their ideas on a variety of people, from family and friends to former employers and work colleagues. The spouse represents trusted people whom the entrepreneur can discuss the entrepreneurial idea, to whom concepts can be presented; ideas can be tested out on them, without the entrepreneur being frightened of possible negative outcomes (Klapper 2008). Furthermore, the entrepreneur is looking for feedback, for critical comments and reflective thinking, without being faced with a competitive or possibly offensive response from a spouse (Klapper 2008).

According to Vadnjal and Vadnjal (2013), 121 female business owners were surveyed to examine the role of family support with the emphasis on spouses; the results confirm that support from husbands is very significant. Mostly, emotional support is evident (Vadnjal and Vadnjal 2013). To continue a business effectively, one has to live and breathe it. Many hours are spent at business, and even the hours spent at home are often occupied by thinking of issues surrounding the business. In that sense, the spouse has to bear it and be her moral strength and support. It can be a lonely experience for women when struggling with issues regarding their business, and they do not have many people with whom they can share their problems, doubts and worries. In this sense, a husband's moral support is vital.

Showing interest in the business requires being a good listener. The female business owners seek a trusted ear into which to pour their thoughts and concerns. Women generally discussed the decision of pursuing entrepreneurial careers with their husband, and expected a certain blessing from them, before taking on the final decision (Vadnjal and Vadnjal 2013).

Gordon (1986) observed that women do have different experiences of business ownership and that the male counterparts should not be

used to stand for the universal, as women have a different voice and a different experience of love, work and family.

Socially constructed men and women

Traditional attitudes, through which women are considered as subordinates to men or as having stereotyped roles to perform, continue via widespread practices in many countries. The result of such discrimination against the physical and mental integrity of women serves to deprive them of equal enjoyment, and fundamental freedom (De Mel, Peiris and Gomez 2013).

In many countries around the world, with the inequality in power relations based on gender relationships, and the roles and responsibilities assigned to men and women within the family and at community and political level, women are put in a secondary position in comparison to men (Ranasingha 2009). This, in turn, leads to the use of power and control over women, both physically and mentally. Therefore, men do not appreciate women who have higher status than them.

Researchers claim that the building networks remain a persistent structural barrier for women, and not all networks are accessible to women (Durbin 2011, D'Exelle and Holvoet 2011). Sonfield and Lussier (2005) reveal that women have been found to be more dependent and have a greater concern for others, particularly their families, whereas men tend to be more independent.

Female entrepreneurs' decisions are largely shaped by the social and cultural constraints which surround them. While the respondents in the study use various negotiating tactics, such as role-sharing and making a person feel guilty, the most common way in which respondents negotiate gender roles is by internally negotiating. Looking at how these internalized perceptions form and are communicated, many of the women view entrepreneurship as more than just an economic activity, but as a social process within which they are embodied, as entrepreneurship is predicated by their life, rather than solely being a way to earn money.

The division of business and household responsibilities is traditional.

The man's task is to protect women and children and to provide for them materially, and in this role, men dominate all aspects of business and public life. However, as in the case above, apart from their traditional role, women are supposed to do everything else. From this viewpoint, the women are particularly equipped to cross the boundaries of the traditional roles played by women and to bridge and connect the world.

Role division was found to differ significantly between husband and wife, and it seemed to affect the learning potential of the work environment. Moreover, the roles are strictly divided along traditional gender lines: the men usually lead the outside activities, such as going for airport pickups or drops, looking into all the construction work, organizing tours, looking after the marketing side of the business, participating in various training programmes and conferences, while the women manage money, handle administrative tasks and oversee the hotel kitchen (Surangi 2017). This evidence demonstrates that female entrepreneurs involved in tourism carry out a division of jobs and responsibilities, directly limiting the opportunities for participation, networking and learning.

This finding complies with the literature, as scholars claim that it is still only very few women who try actively to involve their husbands in domestic activities in many countries. Garcia and Welter (2011) identified this situation and explained that the male contribution is still low in terms of domestic work such as washing clothes, childcare, cleaning, cooking, taking care of elderly family members etc., because these domestic tasks are socially considered as feminine tasks. Furthermore, Garcia and Welter (2011), claim that husbands generally involve themselves only occasionally in household activities, usually as a result of being encouraged or pressured by their wife.

The Asian housewife has a special place in the home. She has to be there for the husband who comes home tired after work, look after the children, prepare the meals and keep the house

and garden clean (Kodagoda 2011). She performs all these tasks without any complaint. At mealtimes, women typically eat last, after they have served the men and the children of the household (Kodagoda 2011). As many females are currently employed, there should be a change in the traditional role of the woman as a housewife. However, whatever the position a woman may hold in society, whether she is employed or not, she is nevertheless responsible for domestic work.

Mothers' usual domestic practices were a shared allocation with their husbands, but with the bulk of the tasks taken on by the women.

Blending work and family dimensions create new opportunities for tensions.

Women often face contradictory societal expectations with regard to career development and motherhood (Duberley and Carrigan 2012). Both "at home" and employed/business mothers are affected by this ideology (Johnston and Swanson 2006); they are expected to sacrifice their own needs for those of their children and to commit their time to the care of their children and their leisure activities (Johnston and Swanson 2006). A common factor among all the respondents was that they all wanted to be available to look after their children. A majority described stressful times trying to combine their business with motherhood.

The above excerpts are evidence that these women experience pressure when they are trying to combine business and also be available for their children. These two roles conflict with how they are allocating their time. Consequently, they felt that they were bad mothers. This is similar to the significant findings in Japan (Leung 2011) and the UK (Duberley and Carrigan 2012), in which women discussed the tensions caused when their business required more attention, which took them away from their expected mothering duties.

Many comparative gender studies specifically find that women are more influenced than men in areas such as family responsibilities (Klyver 2007, Blisson and Rana 2001), domestic commitments and child-rearing. This is

strongly supported by the findings of the interview data collected from female business owners. It seems that the notion of being a good mother dominates the female entrepreneurs' stories. At other times, these women explained the stresses caused when the business needed increased attention, which took them away from their mothering duties. They limit their network activities in order to be able to be at home with their children; however, women are less available to their children compared to "full-time, stay at home" mothers (Duberley and Carrigan 2012). Therefore, they have rejected the identity of a full-time "stay at home" mother and created a business as a means of developing a new career identity which combines motherhood and work.

Definition of the female entrepreneur as problematic

In the last two decades, entrepreneurship has received much attention from all domains of society such as academia, economics, research, social work, politics and government (Roomi 2009). Developed countries consider innovation as the main characteristic of entrepreneurship, whereas developing countries identify entrepreneurship as a self-employment solution (Roomi 2009). Both these viewpoints lead to desired socio-economic development for all countries which support entrepreneurship through policies and grants (Roomi 2009).

Like their male counterparts, there is no standard definition of what constitutes a female entrepreneur (Moore 1990), except for the fact that she is a woman. The initial research on female entrepreneurs concentrated on their characteristics (Brush 1992). Demographics, psychological traits and business skills are all characteristics that are used to define a female entrepreneur (Brush 1992). However, these characteristics are all based on the research conducted on male entrepreneurs (Bird and Brush 2002, Hytti 2005). To complicate matters even further, the precise definition of entrepreneurship, that "entrepreneurs bring to the market products or services that are new or not already available

in the market (Deakins, D, O'Neill, and Mileham 2006) and that the owner risks uncertainty for the sake of making a profit" makes defining female entrepreneurship more problematic. Since most of the businesses created by women, in general, are in traditional sectors such as retail, hospitality and other low-end services, they do not fall into the category of entrepreneurship (Marlow and Patton 2005, Roomi 2009). The tourism sector is dominated by low-skilled employment, seasonal demand rounds and perceived low levels of innovation and entrepreneurship (c). Marlow (2002) argued that women's subordination within wider society is brought with them into self-employment and that this idea fundamentally underpins the evidence that indicates that enterprises owned by women are located in highly competitive sectors with low margins are likely to remain small and perform poorly. Rural tourism is characterised by low margins and highly competitive small businesses, and copreneurial businesses are typically small in size (typically they have no employees and only provide part-time employment for the owners).

Key patterns of couples in multiplex relationships

Female business owners perform multiple roles and tasks in their businesses. Naturally, their accounts of their efforts to manage the combination of business and domestic duties include moments of stress and conflict as they attempted to allocate time to the demands placed on them in both arenas (Ekinsmyth 2013, Duberley and Carrigan 2012). Sri Lankan women's gender identity has been constructed around the idea of a "dutiful wife and caring mother" (Surangi 2018). Combined with a business system based on gender segregation, the gender role identity in many counties (Surangi 2018) has been regarded as a constraining factor on women's participation in business activities.

Discussion

The subsequent section provides a holistic discussion of the findings in the context of our research objectives. Finally, conclusions are

drawn, and avenues worthy of future research are proposed. 40% were published within the last five years alone, suggesting that gender had now become a legitimate area of scholarly inquiry within the entrepreneurship field. However, it must be recognised that a relatively small percentage of such scholarship is being published in the higher tiered journals, a trend which, in itself, has the potential to restrict the future development of the field.

The majority of papers regarding copreneurs in our review adopt an exploratory or purely descriptive approach, and this is sustained over the three decades. However, the range of research questions investigated expands quite significantly over the review period, commencing with profiles of women and men entrepreneurs, their start-up experiences and management practices/strategies during periods 1 and 2, through to questions that focus on the barriers/challenges women entrepreneurs face, their attitudes/intentions, family influences and training/education. Interestingly, the most popular research topics over the entire 30-year period were finance/access to capital (41 studies), performance (39) and motivation (20).

Conclusion

The analysis of the texts revealed several constructs that were taken for granted about women, men, businesses and the social world. Main findings based on the analysis reveal six hegemonic statements: the love bond between a husband and wife develops stronger with involvement in a copreneurial venture, socially constructed men and women, the division of business and household responsibilities is traditional, blending of work and family dimensions creates new opportunities for tensions, conceptions of the female entrepreneur as problematic, female copreneurs and challenges of being in business with spouse and key patterns of couples in multiplex relationships. These influences reproduce the notion of essential gender differences and the idea of the female as the weaker sex. The research results are moreover dependent on the particular context in which the articles are produced. This means that their

results and assumptions cannot be generalized to other contexts uncritically.

Following the texts reported in this research, studies occupied in overlapping home and business worlds, using the copreneurial agenda seem both feasible and intellectually fascinating. Further research is possible into changing motivations of business owners in copreneurial ventures over time. Moreover, researchers in this study believe it possible to explore further gender-based identities, stereotypes and possibly coping strategies of both female and male copreneurs as this research does not allow for first-hand or authentic experiences. By discussing research findings, the study opens the avenues for alternative ways of theorizing and researching entrepreneurial couples. Suggestions for alternative research practices include the adding of an institutional approach to the research agenda, such as family policy, and legislation.

Despite efforts to produce as comprehensive a review as possible, the authors acknowledge that some articles may have been inadvertently omitted. This is inevitable, given that we limited our review to a specific number of journals over a specific period. Furthermore, as with all reviews, we acknowledge the inherent subjectivity of our critique, although efforts were made to counteract this through discussions amongst the author team to cross check perspectives and gain consensus.

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Effect of Mobile Banking Services on Financial Performance of Deposit-Taking Cooperative Societies in Kenya.

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Abstract

Deposit-Taking Savings and Credit Cooperative Societies have embraced mobile banking services to address efficiency challenges characterized by poor information delivery channels and high operational costs and to enhance their financial performance. However, the effect of mobile banking services on the performance of Deposit-Taking Savings and Credit Cooperative Societies has not been well studied. Even though some studies have indicated the potential of mobile banking services towards improving organizational performance, other studies have indicated otherwise. Given this contradiction, this study sought to investigate the effect of mobile banking services on the performance of Deposit-Taking Savings and Credit Cooperative Societies in Kenya. Descriptive and explanatory research designs were adopted. Using simple random sampling, the study was based on a sample of 86 Deposit-Taking Savings and Credit Cooperative Societies drawn from a target population of 110 Deposit-Taking Savings and Credit Cooperative Societies that were licensed by SACCO Societies Regulatory Authority as at 31st December 2011. The study found that three mobile banking services including mobile deposits services, mobile bill payments services and mobile statements services had a positive statistically significant effect on the financial performance of Deposit-Taking SACCOs in Kenya and therefore recommends their utilization to enhance the financial performance of the SACCO subsector.

Keywords: Financial Performance, Mobile Banking, Mobile Technology, SACCO

Introduction

Rapid advances witnessed in the mobile technologies have led to mobile banking which allows financial institutions to deliver their products and allow for transactions from the clients' mobile devices that include mobile phones, tablets, laptops, and personal digital assistants and other mobile devices such as point of sale (POS) terminals. Nzioka and Palakurthi (2010) assert that mobile banking has facilitated the spread of banking services in developing countries, where there is little or no access to internet connections and existence of poor infrastructure has crippled developments in reaching the unbanked populations particularly those living in rural areas. Mobile

banking offers a distinct alternative to conventional branch-based banking in that customers conduct all financial transactions through mobile phones instead of through physical presence in bank branches or through bank employees which allows more convenience to customers (Anyasi & Otubu, 2009; Muisyo, Alala & Musiega, 2014). Abadi, Kabiry and Forghani (2013) noted that mobile banking allows users to conveniently perform banking transactions at any time from any place using their mobile devices particularly their mobile phones. Aboelimged and Gebba (2013) indicated that with mobile banking, users can open accounts, check

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account balances, receive their bank statements, trade stock and manage a portfolio of assets, pay for goods and services and transfer money from one account to another conveniently using their mobile devices regardless of where they are located. This is also supported by Joshua (2009) who noted that a number of mobile banking services could be performed at anytime and anyplace via mobile devices particularly mobile phones enabled to connect to physical banks. Additionally, using several applications that are currently downloadable on mobile devices it is possible to inform mobile devices' users on the nearest automated teller machines (ATMs) making it possible for financial institutions to provide distinctive services that enhance their performance (Joshua, 2009).

Deposit- Taking Savings and Credit Cooperative Societies (SACCOs) in Kenya

Savings and credit cooperative society (SACCO) is a type of credit union owned by members sharing a common interest in order to mobilize savings to facilitate credit and other financial services to themselves (World Council of Credit Unions, 2013). Credit unions evolved from the cooperative activities of the early 19th century based on the idea that people could pool their money and make loans to each other. The first of these cooperatives emerged in Germany and England before spreading to other countries. A SACCO system encompasses a mutual agreement and membership that pools members' voluntary savings in the form of shares. The shareholders are brought together by a common interest or purpose such as marketing their products, empowering themselves financially or improving their livelihoods among other interests. In most cases, shareholders have a common connection or background such as their employment, community, geographical area, or any other affiliation. SACCOs differ from other financial institutions such as banks in the sense that they only offer credit and savings services to their members. SACCOs also differ from other philanthropic organizations as they only benefit their members, while excluding other members of the public (Makori, Munene & Muturi, 2013).

The SACCO subsector in Kenya comprises of Deposit-Taking and non-Deposit-Taking SACCOs. Deposit-Taking SACCOs are licensed, supervised and regulated by SACCO Societies Regulatory Authority (SASRA) under the SACCO Societies Act of 2008 (Mumanyi, 2014). Deposit-Taking SACCOs, unlike non-Deposit-Taking SACCOs, offer front office services activities (FOSA) which allow them to provide simple banking services to their members/customers (such as taking deposits, payment services, automated teller machines and other quasi banking services) thus improving their working capital.

The Deposit-Taking SACCOs account for three quarters of the SACCO subsector's assets, deposits and membership (SACCO Societies Regulatory Authority, 2013). Sub-Saharan Africa remains the region with the lowest deposit-taking institutions penetration in the world which stands at an average of 16.6 percent compared to 63.5 percent in developed countries and therefore the need to have Deposit-Taking SACCOs fill this gap (Savings Plus, 2010). In line with the Kenya's Vision 2030 strategy (that requires financial organizations to increase savings and to mobilize more investments for economic growth and development of the country) Deposit-Taking SACCOs' role in the Kenyan economy remains paramount (Government of Kenya, 2013). By the year 2009, out of the 20 million adult people in Kenya, 22.5 per cent were served by commercial banks and microfinance institutions (MFIs) while 17.6 per cent were served by SACCOs making SACCOs a key player in Kenya's financial sector (Matumo, Maina & Njoroge, 2013).

Statement of the Problem

Kenya's Vision 2030 under the economic pillar requires a vibrant and stable financial system to mobilize savings and to allocate resources more efficiently in the economy (Government of Kenya, 2013). Deposit-Taking SACCOs are expected to play a key role in the realization of this vision especially by connecting people who have been financially excluded by major banks to financial services. Despite their role in the

economy, Deposit-Taking SACCOs continue to face a number of performance challenges. They face stiff competition for membership from other deposit-taking institutions particularly commercial banks (Matumo *et al.*, 2013; SASRA, 2013). They also experience efficiency challenges characterized by poor information delivery channels and high operational costs due to inadequate information and communication technologies (Mugambi, Njeru, Memba and Ondabu, 2015). In addition, they also face high demands for loans which they are unable to meet due to liquidity shortages hence compromising their profitability especially given that they cannot seek credit from the Central Bank of Kenya (CBK) like other commercial banks (SASRA, 2014; Mugambi *et al.*, 2015). SASRA (2013, 2014) noted that many SACCOs had not yet managed to comply with capital adequacy ratios including core capital to total assets and core capital to total deposits liabilities. Athanosoglou, Brissimis, and Delis (2005) established that low capital adequacy can negatively impact on organizational profitability. Deposit-Taking SACCOs additionally experience the challenge of non-performing loans which was recorded at 4.7 per cent in 2013 and 5.73 per cent in 2014 and this can negatively affect their liquidity and eventually their profitability (SASRA, 2014).

Challenges faced by SACCOs have necessitated them to adopt and utilize mobile banking services. Although various scholars have asserted that mobile banking services have the potential to enhance organizational performance (Kato, Otuya, Owunza & Nato, 2014; Maina & Gekara, 2014; Njenga, Kiragu & Opiyo, 2015) these benefits are yet to be confirmed in studies covering Deposit-Taking SACCOs in Kenya. Further, despite the potential of mobile banking services, SASRA (2011) raised concerns in regard to increased incidences of fraud among Deposit-Taking SACCOs raising questions on the role of ICT towards the performance of this sector. It is at the center of these mixed conclusions of effects of mobile banking services that necessitated the need to carry out a study from a Kenyan

context to establish the effect of mobile banking services on the performance of Deposit-Taking SACCOs in Kenya. The specific objectives of the study were to establish the effect of mobile money transfer services, mobile deposits services, mobile bill payments services, mobile statements services and mobile enquiry services on the performance of Deposit-Taking SACCOs in Kenya.

Literature review

Theoretical Review

The study was anchored on three theories. Agency theory was used to explain financial performance. Information systems success model was used to link utilization of mobile banking to the realization of organizational benefits. Task-technology fit theory was used to explain the compatibility expected between the nature of tasks and mobile banking services for organizational benefits to be realized.

Agency Theory

SACCOs' management boards have a duty to run the SACCOs in such a way as to maximize the long-term returns to members. Agency theory (Jensen & Meckling, 1976) was used to explain how the relationship between SACCO members and management boards can be harnessed to address SACCOs' financial performance. Agency theory revolves around the principal who hires an agent and delegates decision making to the agent. The prominence of agency theory in explaining financial performance of organizations is influenced by its simplicity in reducing an organization into two participants, the managers (agents) and the shareholders (principals) and also the notion of human beings as self-interested parties (Daily, Dalton & Canella, 2003).

Information Systems Success Model

The measurement of an information system success is crucial in justifying its adoption and continued use. It was for this purpose that DeLone and McLean (1992) proposed an integrative model for conceptualizing and operationalizing information system success

factors. According to this model, the success of an information system is determined by the information system quality (the technical quality of the system) and the output quality of the information system (information quality). Systems quality deals with the success of an information system at the technical level focusing on the desired characteristics of an information system itself which produces the information. Information quality focuses on the information product at the semantic level or the success of information in conveying the intended meaning. These dimensions are linked indirectly to information systems effects on individuals and organizations. This study assumes that system quality (quality features of mobile banking applications), information quality (completeness and accuracy of information generated from mobile banking applications) and service quality (excellence in the way business processes are performed using mobile banking services in the organization) have been addressed as mobile banking services are already adopted by organizations. The gap that remains is to link usage of mobile banking to net benefits, a gap this study sought to fill.

Task-Technology Fit (TTF) Theory

Goodhue and Thompson (1995) established task-technology fit to be an important concept in assessing and explaining information systems success. Task-technology fit is a key theory but often overlooked in understanding the effect of technology on individual performance and by extension the organizational performance (Goodhue & Thompson, 1995). In this theory, technologies are viewed as tools used by individuals in carrying out their tasks and tasks are defined as “the actions carried out by individuals in turning inputs into outputs” (Goodhue, 1995; p. 1828). The model proposes a link between task-technology fit and utilization of technology and a link between task-technology fit to performance impacts.

Goodhue and Thompson (1995), assert that information and communication technologies will enhance individual and organizational performance if the functionalities of the

technology conform to the attributes of the tasks supposed to be performed by users within an organization. Task-technology fit being the degree to which technology assists an individual in performing his or her tasks, must exist for the successful realization of benefits from a given technology. Specifically, Goodhue (1997) asserts that fit among task requirements, individual abilities, and the functionality and interface of the technology are a requisite for the realization of tangible benefits from a given technology. Using task-technology fit model, in order for mobile banking services to have a positive effect on organizational performance, mobile banking services must be utilized and there must be a good fit with the tasks the mobile banking services support for the users (Goodhue & Thompson, 1995). Therefore, the model requires that mobile banking services are compatible with the tasks performed by individuals in the organization for performance outcomes to be realized by the individual and by extension the organization.

Empirical Studies

Mobile technologies have found their way into financial institutions leading to mobile banking in developing countries, where there is little or no access to internet connections and existence of poor infrastructure has crippled developments in reaching the unbanked populations particularly those living in rural areas (Nzioka & Palakurthi, 2010). Mobile banking offers a distinct alternative to conventional branch-based banking in that customers can conduct all financial transactions 24 hours a day 7 days per week conveniently without physically travelling to banks' premises (Anyasi & Otubu, 2009; Muisyo, Alala & Musiega, 2014). Mobile banking has now become popular in most financial institutions in developing countries. Dineshwar and Steven (2013) in their study found that awareness of mobile banking services was quite high and usage level was reasonable indicating the potential of mobile banking in revolutionizing the financial sector in developing countries.

Abadi *et al.* (2013) noted that mobile banking allows users to conveniently perform banking transactions at any time from any place using their mobile devices particularly their mobile phones. Aboelmagd and Gebba (2013) indicated that with mobile banking, users can open accounts, check account balances, receive their bank statements, trade stock and manage a portfolio of assets, pay for goods and services and transfer money from one account to the other conveniently using their mobile devices regardless of where they are located. This is also supported by Joshua (2009) who noted that a number of mobile banking services could be performed at anytime and anyplace via mobile devices particularly mobile phones enabled to connect to physical banks. Additionally, using several applications that are currently downloadable on mobile devices it is possible to inform mobile devices' users on the nearest automated teller machines (ATMs) making it possible for financial institutions to provide distinctive services that enhance their performance (Joshua, 2009).

Muiruri and Ngari (2014) noted that mobile banking services enhanced the financial performance of commercial banks in Kenya. Based on the descriptive research design, their study involved a sample of 16 commercial banks with the respondents being members of banks' management. The study recommended commercial banks in Kenya to do more investments in terms of mobile banking and other innovations to enable banks to survive the prevailing stiff competition and the turbulent business environment. This is also supported by Kato, Otuya, Owunza and Nato (2014) who found a positive relationship between the adoption of mobile banking and the performance of commercial banks. This study explores the potential of mobile banking towards improving performance of SACCOs that are now serving more citizens in the rural areas compared to commercial banks, most of which haven't established their presence in most rural areas in Kenya.

Njenga, Kiragu and Opiyo (2015) noted that mobile banking services enhanced the profitability of co-operative societies in Nyeri County, Kenya. Their study which was based

on the descriptive design with a sample of 30 co-operative societies in Nyeri County concluded that other than mobile banking services, internet banking also enhanced financial performance of co-operative societies and therefore management boards of these societies should invest more on these innovations. The study also recommended the value addition of mobile banking to include services such as provision of loans which would increase the number of transactions conducted via mobile devices and hence more income for co-operative societies. The study, however, employed a weak research design, descriptive design, and therefore the findings need to be confirmed by use of superior research designs such as explanatory research design so that findings can be validated and generalized across the entire SACCO subsector in Kenya.

Donovan (2011) in his study found that mobile money services significantly improved freedom and sense of belonging for Kenyans. Through the ability to send and receive money conveniently using mobile devices from friends and family members, a form of power that acts on all Kenyans both users and non-users of mobile money services emerges (Donovan, 2011). In another related study, Must and Ludewig (2010) assert that mobile banking services can lead to poverty reduction and financial inclusiveness by increasing savings rates, creating jobs, and increasing access to various financial products offered by microfinance institutions. It would be important to conduct a similar study indicating how mobile banking services would affect the performance of SACCOs, especially given performance challenges in the SACCO sector (Otieno, Okengo, Ojera & Mamati, 2013).

According to Kirui, Okello and Nyikal (2012) who conducted another study found that mobile money transfer services help to resolve an idiosyncratic market failure experienced by farmers. Mobile money transfer was also found to greatly enable farmers to access financial services, which otherwise would not be accessible to them. Their study employed a propensity score matching technique to examine the impacts of mobile money services

and used cross-sectional data collected from 379 multistage randomly selected households in Central, Western and Nyanza regions in Kenya. Similar studies need to be conducted to validate the findings within organizational contexts to evaluate whether organizational performance challenges can benefit from mobile-based money transfer services, a gap this study sought to fill.

Okiro and Ndungu (2013) established in their study that commercial banks had the highest usage of mobile banking followed by SACCOs and lastly MFIs. This study was based on the descriptive design where 30 financial institutions were investigated including two MFIs, 11 SACCOs and 17 commercial banks on their use of mobile and internet banking services. The study established that cash withdrawal was the most commonly used mobile banking service whereas purchasing commodities was the least commonly used. Although the study focused on how mobile and internet banking provides various capabilities to both clients and employees of these organizations, performance outcomes arising from the use of mobile and internet banking to organizations were not addressed, an area this study sought to address.

Conceptual Framework

The study proposed that the performance of Deposit-Taking SACCOs is affected by mobile banking services that included mobile money transfer services, mobile deposits services, mobile bill payments services, mobile statements services and mobile enquiry services as captured in the conceptual framework shown in Figure 1. Mobile money transfer service is the use of mobile devices to transfer money from a SACCO member account to another account (within the same SACCO, another SACCO or any other financial institution). Mobile deposits service is the use of a mobile device to load money into a member’s account within the SACCO. Mobile bill payments service is the payments for utilities, goods, and services including settlement of bills using mobile devices enabled to access money from a member’s account. Return on assets was used to evaluate

the financial performance of Deposit-Taking SACCOs as depicted in the conceptual framework.

As indicated in the conceptual framework shown above, the following five null hypotheses were tested in this study:

- i. There exists no effect of mobile money transfer services on the performance of Deposit-Taking SACCOs in Kenya
- ii. There exists no effect of mobile deposits services on the performance of Deposit-Taking SACCOs in Kenya
- iii. There exists no effect of mobile bill payments services on the performance of Deposit-Taking SACCOs in Kenya
- iv. There exists no effect of mobile statements services on the performance of Deposit-Taking SACCOs in Kenya
- v. There exists no effect of mobile enquiry services on the performance of Deposit-Taking SACCOs in Kenya

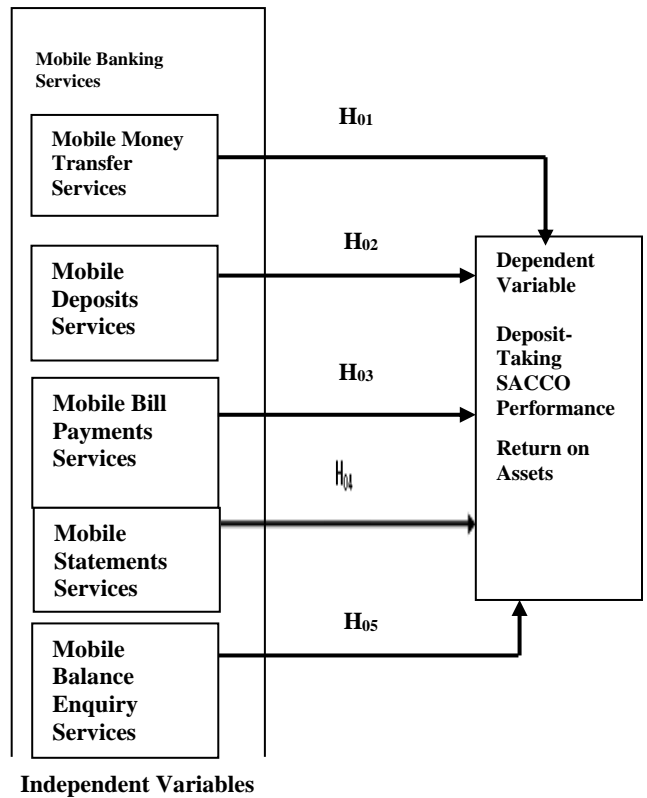


Figure 1: Conceptual Framework

Methodology

This study was guided by the positivism paradigm. It was an ideal philosophy for this study as scientific processes were followed in the formulation of the hypotheses and deductions of the observations in order to determine whether to reject or not to reject the formulated hypotheses as recommended by Mack (2010). According to Sekaran and Bougie (2009) there is no single perfect research design, hence the researcher used both descriptive survey and explanatory research designs to achieve optimal results.

In order to obtain data necessary to draw inferences, the target population included those Deposit-Taking SACCOs that had existed for at least three years since their being licensed. Therefore, the target population was the 110 Deposit-Taking SACCOs that were licensed as at 31st December 2011 in Kenya. To select an optimum sample of 86 Deposit-Taking SACCOs from where data was collected, the simple random sampling method was used. Simple random sampling ensured that each Deposit-Taking SACCO had an equal chance of being selected as suggested by Mugenda and Mugenda (2003). Random sampling was also found suitable by Acharya, Kagan, Lingam and Gray (2008) who conducted a study to establish website usability impacts on the performance of banks. Three variables usually will need to be specified to determine the appropriate sample size: the level of precision (sampling error), the level of confidence or risk, and the degree of variability in the attributes being measured (Kumar, 2005). A simplified formula using these three variables was provided by Yamane (1967) to calculate sample sizes as shown below:

$$n = \frac{N}{1 + Ne^2}$$

Where

n = sample size

N = Total population

e^2 = Level of precision (sampling error)

Assuming a rule of thumb as suggested by Ngulube (2010) of 95 per cent confidence level, the degree of variability of 0.5 and 0.05

sampling error the above formula was used to produce a sample size of 86 Deposit-Taking SACCOs as shown below:

Target population = 110 Deposit-Taking SACCOs

$$\begin{aligned} \text{Sample size } n &= \frac{N}{1 + Ne^2} \\ &= 110 / (1 + 110 * 0.05^2) = 86.2745 \\ &= 86 \text{ Deposit-Taking SACCOs} \end{aligned}$$

From the sample of 86 Deposit-Taking SACCOs, the study considered only those Deposit-Taking SACCOs that had been licensed and had existed for at least five years. Additionally, the study considered those Deposit-Taking SACCOs that had been using mobile banking services for at least five years for the purpose of obtaining data necessary to draw inferences. To ensure this, the information technology manager was asked about the use of mobile banking services before data collection could be commenced in any given SACCO. The inclusion criterion was in line with Gupta (2005) who asserted that the size of a sample and possible variations contained in the data can affect the quality of information obtained from a sample. Using the inclusion criteria, it was found that all the 86 Deposit-Taking SACCOs forming the sample had existed for more than five years and had been using mobile technology services over those years. From each Deposit-Taking SACCO, two managers (from information technology and finance departments) were purposively sampled as the respondents of the study who were issued with a self-administered structured questionnaire. Mugenda and Mugenda (2003) contend that a researcher can purposefully select respondents he/she considers to have the required information or with the capability to provide credible responses. The respondents selected were believed to be conversant with the utilization of mobile banking services within the SACCO and their effect on SACCO's performance. They were, therefore in a position to provide credible responses necessary to make valid conclusions regarding the study objectives.

Empirical Model

Multiple linear regression analysis was conducted to establish the effect of independent variables (mobile money transfer services, mobile deposits services, mobile bill payments services, mobile statements services and mobile enquiry services) on the dependent variable (financial performance) as recommended by Jackson (2009). According to Faraway (2002) and Brooks (2014) multiple linear regression analysis is chosen when the dependent model is continuous and when independent variables are more than one. It was therefore relevant in testing the effect of mobile technology services (independent variables) on the performance of SACCOs (dependent variable) in this study as the dependent variable was continuous. This is depicted by the model shown below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Where,

Y= Performance of the Deposit-Taking SACCO based on return on assets

X₁= Mobile money transfer services

X₂= Mobile deposits services

X₃= Mobile bill payments services

X₄= Mobile statements services

X₅= Mobile balance enquiry services

ε=error term

β₀ = constant term

β₁- β₅ = coefficients of the independent variables

The empirical model above was used to generate coefficients and t-statistics for each independent variable and their corresponding p-values. To determine whether each independent variable had a significant effect on the performance of SACCOs, its corresponding coefficient was tested to check whether it was statistically different from zero by checking its p-value. If p-value of a given coefficient was less than the chosen significance level (0.05) the null hypothesis was rejected and a conclusion drawn that the corresponding variable significantly affected the performance of SACCOs.

Results and discussion

After checking the completeness and non-response cases of questionnaires, 68 questionnaires were correctly filled representing a response rate of 79.1 per cent. Unreturned questionnaires were 10 representing 11.6 per cent while the disqualified questionnaires due to incompleteness and inconsistencies were 8 representing 9.3 per cent of the total number of issued questionnaires. According to Babbie (2004), Mugenda and Mugenda (2003) and Saunders, Lewis and Thornhill (2007), a response rate of 50 per cent is adequate, a response rate of 60 percent is good, and a response rate of 70 per cent is very good. The response rate of 79.1 per cent observed in this study was therefore very good and as such sufficient for further analysis and for drawing conclusions based on the stipulated research objectives. Furthermore, the study's response rate was acceptable as it compared well with similar studies conducted in Kenya such as Kidombo (2007) who achieved a response rate of 64.0 per cent, Magutu (2013) who had a response rate of 75 per cent and Waithaka, Kimani, Korir and Muathe (2013) who had a response rate of 69 percent.

Regression Results

Tables 2, 3 and 4 summarize the regression analysis results.

Table 2: Summary Results of Regression Model

| Model Summary | | | | |
|--|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .648 ^a | .420 | .373 | .50033 |
| a. Predictors: (Constant), Balance Enquiries, Mobile Bill Payments, Mobile Deposits, Mobile Statements, Mobile Money Transfer Services | | | | |

Table 3: ANOVA Results for Model Significance

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|--|------------|----------------|----|-------------|-------|-------------------|
| 1 | Regression | 11.224 | 5 | 2.245 | 8.967 | .000 ^b |
| | Residual | 15.521 | 62 | .250 | | |
| | Total | 26.745 | 67 | | | |
| a. Dependent Variable: SACCO Performance | | | | | | |
| b. Predictors: (Constant), Balance Enquiries, Mobile Bill Payments, Mobile Deposits, Mobile Statements, Mobile Money Transfer Services | | | | | | |

As shown in Table 2, R^2 was 0.420 indicating that the five independent variables (mobile money transfer services, mobile deposits services, mobile bill payments services, mobile statements services and mobile enquiry services) explained 42 per cent of variations in financial performance of SACCOs. This implied that 58 per cent of the variation in financial performance of SACCOs was explained by other variables outside the model.

To check the statistical significance of the overall regression model, ANOVA test was used as shown in Table 3. From Table 3, the overall model was statistically significant ($F_{(5,62)}=8.967$, $p=0.000$) implying that the study's independent variables (mobile money transfer services, mobile deposits services, mobile bill payments services, mobile statements services and mobile enquiry services) explained the variations in the dependent variable (financial performance of Deposit-Taking SACCOs) and therefore the model was adequate for further hypotheses testing.

From the regression analysis shown in Table 4, it was found that three mobile banking services including mobile deposits services, mobile bill payments services and mobile statements

services had a positive statistically significant effect on the financial performance of Deposit-Taking SACCOs in Kenya. However, mobile money transfer services and mobile balance enquires were found to have no statistically significant effect on the financial performance of Deposit-Taking

SACCOs possibly due to their low uptake in many Deposit-Taking SACCOs. The study, therefore, concludes to a large extent that mobile banking has enhanced the financial performance of Deposit-Taking SACCOs as evidenced by the three services. This study is consistent with other studies in terms of findings. Njeri (2012) established that the utilization of mobile banking as an innovation within Deposit-Taking SACCOs improved the financial performance of these SACCOs. In their study Tsuma, Musiega, Albert and Douglas (2015) also found that SACCOs were reaping the benefits of financial innovations such as mobile banking particularly through increased efficiency, improved service delivery, improved operational performance among many others. Muiruri and Ngari (2014) also propound this finding in their study that found a positive relationship between the performance of commercial banks and the utilization of mobile banking services. Ogweno, Oteyo and Collins (2014) also found a positive relationship between the performance of microfinance institutions and mobile banking and as such recommended adoption of mobile banking in all financial institutions. Additionally, the finding concurs with Kato *et al.* (2014) whose findings indicated the existence of a positive relationship between mobile banking and the performance of commercial banks in their

Table 4: Regression Coefficients

| Independent Variables | Beta (Coefficients) | T-Statistic | P-Values | Decision |
|-----------------------------------|---------------------|-------------|----------|-------------------------------|
| Constant | 2.516 | 11.454 | .000 | |
| Mobile Money Transfer Services | .011 | .122 | .640 | Do not reject null hypothesis |
| Mobile Deposits Services | .161 | 1.986 | .031 | Reject null hypothesis |
| Mobile Bill Payments Services | .076 | 1.053 | .041 | Reject null hypothesis |
| Mobile Statements Services | .092 | 1.375 | .039 | Reject null hypothesis |
| Mobile Balance Enquiries Services | .043 | .572 | .570 | Do not reject null hypothesis |

study that was based in Kakamega town in Kenya.

Recommendations of the study

The study recommends that the management boards of Deposit-Taking SACCOs in Kenya should formulate strategies aimed at increasing utilization of mobile banking services particularly mobile deposits services, mobile bill payments services and mobile statements services as they have been shown to contribute positively towards enhancing SACCOs' performance. Creating awareness of mobile banking services by SACCOs' management should be conducted to encourage buy-in by SACCO members. In addition, management boards of Deposit-Taking SACCOs should lower costs for accessing mobile banking services to increase utilization of this service by Deposit-Taking SACCO members.

Contribution of the study to knowledge

Overall, the study builds on the existing body of knowledge by contributing empirically to the existing literature on the use of mobile banking services and their effect on organizational performance. The study has also developed a conceptual framework that is relevant to academicians interested in undertaking similar studies in other sectors of the economy. The conceptual framework can be adopted as it is or adapted to suit distinct issues in other financial institutions in future studies of mobile banking services. On practical contributions, the study has shown how various mobile banking services contribute to enhancing the financial performance of Deposit-Taking SACCOs. This knowledge is paramount to the management boards of the SACCOs to make investments decisions geared towards enhancing the performance of their SACCOs.

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Leading the Change: Context of a Manufacturing Company

J.Wasaba¹

Abstract

Concept of change leadership revolves around a quoted public porcelain tableware company in Sri Lanka, which is having a 34-year history in making quality tableware products to the export market. Company was set up with the assistance of a Japanese company and influence of the government of Sri Lanka and had a rich, and deep rooted culture embedded into the village. Despite the quality of product and global recognition, the company was malfunctioning: export share dropped, cost of manufacturing shot up, export prices dwindled, dynamism and initiatives of people eroded. Company went through various ownership and management changes, and was in financial crisis in a number of occasions. Lack of business focus and non-sensible investment decisions by the top management were pointed out as reasons for the downfall by employees of the company. This case was reviewed in the context of transformational leadership, change management and management innovation point of view along with practical aspects experienced by the CEO who brought change leadership to the organization. In doing so, review of related theory and literature was carried out to substantiate the change initiatives. It was found, transformational leadership which envision and embrace change will always have positive impact whilst change procedure, without an effective leadership is nonexistent. The necessity and the urgency required in a process and belief in team work are ingredients of transformation. Once the transformation is progressing, sustainability or retention of the systems, procedures and behaviors are the challenges in execution of the transformation faces by the leader who has to take control.

Keywords: Change, Leadership, Management, Organizational Transformation, Innovation

Introduction

Company is world renowned for achieving a remarkable whiteness in porcelain dinnerware products for more than a decade. It is identical with a culture in production of upscale dining. However, the Company's export share was dropping continuously over the past few years due to outdated and uncompetitive production practises and competition from the region; Company's technology is over 25 years of age, and is highly labour intense. The major cost drivers being energy, labour, raw materials and overheads. Major competition for porcelain tableware is coming from Bangladesh, China, Indonesia, Thailand, India, Middle East and Eastern Europe where those countries compete with high capital and low labour intensity operations. Manufacturing of porcelain

tableware is traditionally complicated with 24/7 continuous operations, due to their kiln (firing) architecture, together with parallel product combinations of hundreds of shapes and designs being produced at a time. Designs are hand crafted, and dependent on skilful labour who are unionised and politically motivated. On the other hand, management was reluctant on radical work place change due to unrests. As such naturally, Company's operational and financial performances were always below average as workers always interfere with management decisions.

Purpose of the Study

Purpose of the study is to find out a background to the problem and find theoretical and practical ways to improve the performance of the Company through

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transformational leadership, change and organizational innovation. If the Company continues in this manner it would have faced serious going concern issues in the future. Suggestions and empirical evidence thus far supported by the leadership and senior leadership to improve the performance of the Company was appreciated. However, a systematic approach along with streamlined communication throughout the organization regarding the purpose of change, and change initiatives in today's dynamic work environment would have been appreciated.

Methodology

This paper follows an actual case scenario, a living example in today's challenging labour intensive manufacturing environment in Sri Lanka. Whilst trying to identify the causes of issues which are hindering growth prospects, author wishes to bring about a theoretical explanation to come out from the issues for the betterment of the Company. Thoughts of the new leadership, who is brought in for the purpose of identifying causes and finding solutions to the underperforming company to perform better, is highlighted.

The industry specific issue, which has been gone through the CEO of a manufacturing organization is highlighted whilst concepts and arguments are empirically supported. In view of that, a literature review is carried out to find out suitable solutions, to suggest the present management, and protagonist to identify the different management situations and map out the pathway to solve the company's issues. Finally, conclusions are drawn leaving many assumptions and change management procedures and technics wide open for arguments.

Literature Review

Literature review is carried out on three theoretical bases namely; (1) transformational leadership, (2) Change management, and (3) Innovation from the business process reengineering point of view. Organizations that have over-adapted are likely to resist change (Frank, Gertz, and Porter, 1996). Sustaining profitable growth is most puzzling

and compelling problems for leaders and managers (Drucker P, 1996). Companies are struggling to keep the pace at least over GDP and Inflation. As Hampton (1993) explained, the means of internal growth is the firm's ability to increase sales and expand its own operations. Also, greatest barriers to profitable growth are inside the company as Kurt Lewin explained. A leader through his or her vision creates the road map for a corporation (Burns, 1978). Business acumen, sound technical background, etc. are some often-cited attributes of a modern-day corporate visionary (Gupta, 2011).

In witnessing the effects of globalization and technology advances (Zott, 2011), no longer companies will have the luxury of expecting day-to-day operations to fall into a structured and predictable pattern, or stay in the same status quo. As such the new normal in today's business is continuous change. (Jönsson & Schölin 2016). Schumpeter (1934) described innovation as the driving force for development and abandoning old patterns. Profitable growth is a narrow and moving target, which is hard to find (Eastman, 2012), and sustaining consistent growth is even hard. Profitable and growing business in any industry will always change (Gupta, 2011). The fact that few companies manage to grow profitably over time indicates how difficult to keep up to the change (Jönsson & Schölin, 2016). This means finding the emerging value proposition, not just refining today's, but through a grand plan.

Certain Companies are very conservative on use of new technology. However, as Zott (2011) highlights, the use of new technology is the order of the day. Organizations cannot be structured and departmentalized though the employees are very competent with machines, processes, systems and products. In such a context, turn around operations from a bureaucratic, inflexible and rigid organization to an agile and dynamic state is challenging (Magretta, 2002).

There are two broad areas in this context naming leadership for change i.e. transformational leadership and change management. As Gupta (2011) highlights,

companies need strong leadership to change the current state to a desired state, while export competitiveness, flexible manufacturing, agile organization and regional cost competitiveness to achieve sustaining and strengthening the product and brand promise. The change management techniques have to be deployed by the leader in a systematic way to bring the desired change.

Transformational leadership is all about creating positive change (Jönsson and Schölin, 2016) and motivation, morale and performance of the followers. Thereby, bringing innovation and creativity, significant change in the life of people and organizations are needed. Cadres came down with freezing recruitments (Lorange and Nelson, 1987) and use of new technology, change in systems, procedures, and training and development.

Transformational leadership is a process in which leaders and followers help each other to advance to a higher level of morale and motivation (McGuire & Hutchings, 2007). Further, Yuki (1994) draws some tips for transformational leadership, as developing a challenging and attractive vision together with employees, tying the vision to a strategy, specify and translate it into actions, expressing confidence, decisiveness, commitment and optimism about the vision's implementation, and realizing it through small planned steps. Generally, organizational change directly affects all departments and employees (Eastman, 2012). Therefore, effectiveness of change management can have a strong positive or negative impact on employee morale. Stages of leading the change is all about determining the need for change, establish a sense of urgency, prepare and plan for change, implement the change, communicate the change vision, empower employees, generate short-term wins, sustain and anchoring the change.

Transformational leadership will impact cohesive leadership and team performance through development of a shared vision within the team. (Zander, 1994). This possibly develop team communication (Kitchen and Daly, 2002) and conflict management skills, and promote team cohesion. Cohesion is

defined by Shaw (1976) as the degree to which members of a team are motivated to remain in the team, to achieve and celebrate results. Effective leaders produce one thing in common, by definition their followers produce good results (Zander, 1994). Burns (1978) argue transformational leadership is the process of developing the people, who, in turn, develop their organizations by accomplishing the determined goals and objectives. In other words, transformational leadership results in making ordinary people produce extraordinary performance. Employees at all levels are empowered to improve outputs by coming together with new and flexible work structures to solve problems, improve processes and satisfy customers (Stanleigh, 2008). As such, total involvement starts with active leadership and utilizes the talents of all employees. Strong leadership is necessary to overcome resistance to change, to form clear quality-oriented goals, and to formulate means by which these goals might be achieved (Eastman, 2012).

Organizational change management should begin with a systematic diagnosis of the current situation in order to determine both the need for change and the capability to change. As Eastman (2012) points out, despite having many types of organizational changes, the critical aspect is the company's ability to win the employees on the change. People are resistant to change as they generally feel that as uncomfortable (Stanleigh, 2008). As such, change management processes should include companywide brainstorming, rigorous negotiations, discussions and communications between leadership, management and employees (Kitchen and Daly, 2002) in order to have a deep understanding about the journey.

One of the cornerstone models for understanding organizational change was developed by Kurt Lewin in 1940. His model is described using the analogy of changing the shape of a block of ice and is known as Unfreeze, Change and Refreeze. As Lewin (1940) explains, motivation for change must happen before any change come in to action and need to prepare the organization to accept

that change, which involves breaking down the existing status quo. As Lewin explains, this forces organizations to re-examine its core, and effectively “creating a controlled crisis” in the organization.

As Kitchen & Daly (2002) explain, after the uncertainty is created in the unfreeze stage, people begin to look for new ways to support the new direction. People take time to embrace the new direction and participate proactively in the change. In order to accept the change, people need to understand how it will benefit them. (Eastman, 2012). However, everyone does not fall in line just because the change is necessary and will benefit the company. Reconciliation of different interests and managing politics will also be part of change management. Therefore, employees, like it or not become de facto, politicians (Butcher and Clarke, 2017), in an organization. In other words, game playing, sabotaging, negative, win-lose, non-corporative behavior, are very common attributes in a changing business environment. (Butcher and Clarke, 2017). These diverse range of change activities are included ultimately to achieve customer satisfaction improvement, sales and revenue growth, cost reduction, process innovation, technology implementation, new market entry, through satisfied workforce (Jørgensen et al., 2009).

In a change procedure the succession planning for unplanned loss of key personnel (Rothwell, 2002) is inevitable. It entails a longer term and more extensive approach towards the training and replacement of key individuals (Wolfe, 1996; Rothwell, 2002). However, both theory and practice indicate that a healthy turnover in the management cadre is positive for the company (Mannion 2009).

Further, Business Process Re-engineering (BPR) is rethinking and radical redesign of business processes to achieve dramatic improvements in business performance, such as cost, quality, service, and speed. These cannot be minor fixes or continuous improvement projects but starting all over from scratch to meet the demand of today's markets with the power of today's technologies (Nasierowski, 1997). In this process, business

will have to abandon the outdated rules, as how people and companies did things in the past does not matter in meeting the current and future challenges. It's a whole new game (Stanleigh, 2008). Revenues and income can be stagnated even after painful layoffs and restructuring (Nasierowski, 1997). This includes, taking decisions about the appropriate work force size, skill requirement, plant capacity and locations, functions consolidation and possible shifts in production focus, which mainly changes either: the scope of a business undertaken or the manner in which the business is conducted by the enterprise (Lin, 2018).

Globalization and constant innovation of technology is resulted in a constantly evolving business environment. Easily accessible information has resulted in unprecedented scrutiny from stockholders and pressure on management. Areas of social media and mobile adaptability have revolutionized business and this in turn leads to an ever-increasing need for change. Adopting computer-based techniques for product design, engineering and production technology in the today's context are essential part of the business excellence (Nasierowski, 1997). According to Magretta (2002) and Zott (2011), entrepreneurs in the dotcom era used to describe the way they were doing business, compare differences between their business and that of their competitors, or how their business would be profitable. Under environmental changes, criticality of achieving sustainable competitive advantage becomes more important by considering that the fast pace technological change is forcing firms to rotate strategy cycle faster and sooner (McGrath, 2013). The effect of business model on performance of entrepreneurial firms (Zott and Amit, 2007) position the business model between strategy and tactics to complement with technological innovation (Velu and Khanna, 2013). On the other hand, the intensity of technological change and the shifts in industry borders have all created new business opportunities.

Nasierowski, (1997) explains four central restructuring concepts. Further he argues that the businesses will have to abandon the outdated rules and therefore how people and companies conducted activities in the past does not matter in meeting the current and future challenges. As Appelbaum (1997) argues in survivor's syndrome, mixed bag of behaviors and emotions, lack of communication (Kitchen, Daly 2002) and inadequate preparation of employees for layoffs of some human resource professionals, cause survivors to view the entire process suspiciously and resulting uncertainty. An oversized staff is dysfunctional for the organization. Its by-products include organizational inefficiency, tolerance for incompetence, and cumbersome administrative procedures. (Lorange and Nelson, 1987). On the other hand, undersized staff is detrimental to efficiency. Overloading people with work on a continued basis builds unhealthy stress. Matching people and tasks are of major importance. Assigning simple tasks to overqualified people may negatively affect their motivation and performance (Hackman and Oldham, 1975). Assigning a task to someone who is not adequately qualified is also counterproductive.

Market strategy of an organization seeks superior performance in the market place, while the nonmarket strategy aims at shaping the competitive environment (Baron, 1997). Understanding the nature and timing of the changes adopted by business groups is important as they respond to markets (Ramaswamy, Purkayastha, 2017). Creating the best on-line experience for customers, bringing more commerce, which generates more revenue and more profit are of essential (Sharma, 1999). Strategy formulation with the most innovative strategy will be merely words on paper in the absence of an executable plan and resources. Misaligned operations will stall the best strategy miserably if a company's operating model does not support it (Wary, Waco, 2004).

Autonomy and entrepreneurship are a trade-off between guidance and freedom. As Gelderen (2010) explained, they are essential for a leader to carry on with radical

change. Peters and Waterman (1982), who developed the best business practices, identified eight attributes of corporate excellence and bias for action, productivity through people, stick to the knitting, lean staff, autonomy and entrepreneurship plays a significant role amongst them. Moreover, creativity may also mean employees using a range of their diversified skills, abilities, knowledge, views, and experience to generate new ideas for decisions making, problem solving, and completion of tasks in efficient ways. (Millissa, Cheung, Wong, 2011). Often consequent restructuring effort is to bring the firm back to the 'core' (Zhao 2009). Some benefit from becoming more focused (Hoskisson and Hitt, 1994), by eliminating non-value adding areas in the business process. Firm performance should improve by freeing-up capital to invest in the core competences, and by freeing time for managers to focus on a smaller, more understandable set of businesses (Hoskisson and Hitt, 1994). Evidence showed that, generally the specialized firms perform better than those diversified (Zhao, 2009), and stick to the knitting (Peters and Waterman, 1982). Furthermore, many business groups have been actively reducing their business scopes by divesting or spinning off the existing business units in their portfolio (Zhao, 2009).

Strategic thinking, core values, purpose, vision and empowerment were the key attributes of corporate excellence and continuous growth (Jönsson and Schölin, 2016). One of the significant features of firms revealed in this is their orientation towards results study (Nanayakkara, 1999). The relative importance was given by managers for bias for action. However, it reveals Sri Lankan firms are less oriented towards growth and development. (Nanayakkara, 1999; Fonseka, 2000). However, workplace training and related activities are often discussed as important factors for productivity, capacity, and competitiveness (Jönsson and Schölin 2016). Jørgensen (2009) argued that, learning from the history is very important as it encourages accessing historical data for managers in changing process.

Jönsson and Schölin (2016) argue that, in order to achieve superior performance, it is imperative to have the flexibility in operations. When changes are being embraced company started to make profits, brought a good investor friendly environment and a good feeling amongst all stake holders. Maintaining minimum stocks, disposing of redundant assets, flat department structure, sharing and empowered teams, simple and transparent management, and logical approach to problem solving are some of the key highlights.

Findings

Changes to the company were not easy to come by, with a culture of strikes and work stoppages for various issues due to the resistance to change. As Eastman (2012) argues, resistance can be in many forms. However, leadership was determined to create an investor friendly environment and turnaround complex manufacturing operation to a profit-making entity, thereby reap benefits to employees.

There were three tests followed by the Company before assigning a person to perform a task namely: (1) whether the new technology can be used instead (Zott et al., (2011), or (2) whether the remaining staff can be trained and developed to carry out such tasks (Rothwell, 2002) or (3) whether the change in systems and procedures can be applied instead (Stanleigh M, 2008) of the current established procedure. Companies did not lay off the excess carders all the time but it deploys freezing of recruitments, outsourcing of non-core activities and assign work force to core areas. Change procedure may be rigorous and uncomfortable, however when people have embraced the new ways of working, the organization refreeze by way of a stable organization chart, consistent job descriptions, and KPIs. As Gupta (2011) explains, together, employees feel stable, confident and comfortable. In the change process, bringing discipline, improving working condition of employees, engagement of employees for the change process were key highlights. Organizing field trips by Companies for its employees is essential to understand and learn

good manufacturing practices, irrespective of the relevance of the industry. In addition, experienced staff to create opportunities to disseminate their explicit and tacit knowledge of its products and processes are important.

It is important to measure the effectiveness of the change in terms of financial performances, market share improvement, global competitiveness, customer satisfaction, shareholder value, and employee satisfaction from different perspectives of different stakeholders such as employees, customers, suppliers, and shareholders. Stanleigh (2008), in his recent surveys identified that, 75 percent of CEOs do not yield the promised results in organizational change. Moreover, the change efforts fail to produce the expected and always produce unintended and unhelpful consequences. As such it is important to measure company performances as an outcome of the change.

Conclusion

The ability to manage and adapt to change is an essential ability required in the workplace today. However, major and rapid organizational change is a challenge because of the structure, culture, and routines of organizations; often reflects a resistance to change internally even with the external environment changes rapidly.

With the business environment experiencing rapid changes, organizations must learn to be comfortable with change, as change becomes way of living. When these developments occur, the organizations that adapt fast, create a competitive advantage, while the companies that refuse to change will suffer with losses and loss of market share.

Future Research Directions

From the change point of view, it is noteworthy to observe and measure how effectively the change can be frozen, in other words sustained, in a duration to which it is practically possible. The commitment from different stakeholders, especially from the leadership and employees, towards its sustainability is noteworthy to rate. After the fundamental changes are carried out, it is important to freeze the change and move

on to next phase of technological advancements (Velu, Khanna, 2013) with required shareholders financial commitment. As such, it is noteworthy to study how the technological adaptation is feasible and sustained after a change procedure is completed.

Once the company outsource its non-core areas, whilst sticking to the knit (Zhao 2009), the situation has to be preserved into the future. As such, effectiveness of outsourcing after categorizing the firms' activities into core and non-core activities are worth studying.

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Factors Affecting on Work-life Balance among Female Information Technology Professionals in Sri Lanka

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Abstract

Information Technology is one of the fast growing competitive industries in Sri Lanka. Along with the competitiveness, the nature of the profession involves factors such as long non-standardized working hours, critical deadlines etc. As a consequence, IT professionals strive to achieve a balance between the work and other aspects of their life. This skewed work-life balance drastically affects their health and family life. Therefore, work-life balance is becoming an area of growing concern in the information technology industry. Hence, many researches have been done to identify the factors affecting work-life balance among IT professionals in Sri Lanka. Majority of the existing literature reflect the identified factors that affect the work-life balance irrespective of the gender. However, female IT professionals often find it more difficult to maintain a balance between their personal and professional life. This is one of the root causes to have a huge gender gap in the IT industry of Sri Lanka. Hence, the purpose of this research is to identify the factors which impact on the work-life balance among the female IT Professionals in Sri Lanka. Throughout this research different paradigms have been used. A survey has been conducted with fifty female IT professionals who are currently employed in different IT companies to collect data for this research. The descriptive approach is used for the analysis of this data. In addition to that, extensive research on the literature is carried out to identify the factors affecting the work-life balance. The outcome of this study depicts that the majority of the factors which affect the work-life balance of female IT professionals fall under the two categories; “self-awareness and support systems” and “individual commitment”. Thus the organizations and the female IT professionals by having a better understanding of these factors will be able to provide and achieve a better balance between their personal and professional life.

Keywords: Work-life Balance, Information Technology Industry, Organization

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Introduction

Work culture has evolved ever since the technological advancements enabled employees to connect to their work 24/7 to deal with their ever demanding work (Giang, 2014) where most of the employees are now face difficulty to choose between professional life responsibilities and personal life responsibilities (MHA, 2017). It has been identified that having a balance between personal and work-life is beneficial for both employee and employer. Therefore, work-life balance has identified as a significant area in Human Resource Management and it has taken the attention of the government, researchers and organizational management (Njeri, 2014).

Work-life balancing is a broader theory that is defined by many researches in many different ways using different dimensions (Poulose & Sudarsan, 21014). Prabha and Nirmala (2016) stated that work-life balancing is a concept that includes proper prioritization between work (career and ambition) and lifestyle (health, pleasure, leisure family and spiritual development). Jim (2003) stated that work-life balance does not mean an equal balance between personal and professional life. Trying to schedule, an equal number of hours in order to full fill personal and work-life activities, demands and commitments are usually unrewarding and unrealistic. Therefore, work-life balance can refer as a range of flexible working arrangements that go beyond statutory entitlements and that assist employees to combine employment with their family life, with their caring responsibilities and with their personal life outside the workplace (Sudhakar & Sudharani, 2010).

Proper work-life balance enables employees to stay productive and competitive at work while maintaining a happy, healthy home life with sufficient leisure, despite having work pressure and endless activities which require their time and attention (Neera & Pallavi, 1991). Lack of work-life balance can result in many disastrous consequences such as absenteeism, voluntary attrition, tardiness, bad performance, low

motivation, more errors in the work they produce (Mendis & Weerakkody, 2014). However, from the perspective of the organization, the biggest disadvantage of poor work-life balance is the poor employee performance which will lead to producing low quality work, reducing the productivity, job dissatisfaction, lack of commitment towards their work and poor employee efficiency and effectiveness (Mendis & Weerakkody, 2014).

Lack of work-life balance also has an adverse effect on employee career growth as well as it has a negative effect on their personal life (Mendis & Weerakkody, 2014). Therefore achieving work-life balance is beneficial for both employees and their employers. However, work-life balance cannot be achieved without the support of employer, colleagues, family members and the community. When a person gets a sufficient amount of support to maintain balanced personal and professional life they tend to perform well in their job. Especially for an organization, having employees who are enjoying work-life balance is important due to the success of the organization depends on their employee's performance (Spinks, 2004). Employees have multiple roles and responsibilities that they have to play in their personal and professional life. Therefore, employees expect that the organization is helping them to achieve their personal and professional goals. When the organization is able to provide an environment where their employees are able to achieve their personal and professional goals, that organization can retain valuable resources within the organization for a longer period and attract best people to work in their organization (Spinks, 2004). In the processes of achieving work-life balance, the very first step is identifying the factors that are affecting the work-life balance. Once the factors are identified organization as well as individuals can take actions to achieve work-life balance. Therefore, this study intends to identify the factors affecting work-life balance among female IT professionals in Sri Lanka.

Problem statement

Information and Communication Technology has become a vital component in the context of policy for science and technology development in many countries which is increasing the global demand. Major players in the industry are facing increasing difficulties to cope up with this increasing global demand and technology. Therefore, Sri Lanka is becoming a world's information and communication technology (ICT) destination of choice which has the capabilities to full fill this increasing global demand. Hence, Sri Lanka is gradually transforming itself into a most desired ICT destination in Asia due to the availability of the most talented ICT resources that consists of more than 85,000 ICT workforces (Board, 2017). Due to this increasing global demand, the nature of the profession involves factors such as long non-standardized working hours, critical deadlines, unplanned work and unplanned meetings which make it difficult for IT professionals to achieve a balance between the personal and professional life (Lakmali & Rathnayaka, 2016). Therefore, there have been a number of studies done by different researchers to find out the factors that affect the work-life balance among IT professionals. Majority of the existing studies reflect the identified factors which affect the work-life balance irrespective of the gender. However, female IT professionals often find it more difficult to maintain balance with the increasing pressures at work and to full fill ever-increasing demands at their home (Sundaresan, 2014). Therefore, there is a research gap in this regard. Hence, the purpose of this research is to find out the factors affecting work-life balance among female IT professionals in Sri Lanka.

Research Objective

General objectives

The general objective of this study was to identify the factors which affect on work-life balance among female IT professionals in Sri Lanka.

Specific Objectives

- I. To determine the factors affecting work-life balance among female IT Professionals Sri Lanka.
- II. To determine the most significant factor that affecting the work-life balance among female IT professionals in Sri Lanka.

Literature review

The role of the women in society has changed dramatically due to the increasing economic and social demands. Nowadays men are not considered as the sole breadwinners in families as women also share the responsibilities with men and earn for their families while managing the household responsibilities and commitments. Therefore, nowadays more and more people are discussing work-life balance. Work-life balance has become a challenge for professionals due to the fact that work-life imbalance can lead to conflicts, job frustration, health issues and low productivity (George, 2016). Sadhvi (2015) has identified that majority of the female population have either turn down or not pursue job opportunities due to the fear of job may disrupt their personal life since women are the main source that takes care of families and carry out most of the household chores. Hence balancing personal and work-life simultaneously has become a challenge (Sadhvi, 2015). When it comes to Information Technology industry, it is an industry which consists of long working hours, tight deadlines, non-standardized working hours, unscheduled meetings and travelling (Lakmali & Rathnayaka, 2016). Due to these unusual work demand in the IT industry, IT professionals are experiencing very high-stress levels, work pressures which are affecting the quality of work and the well-being of the employees (Lakmali & Rathnayaka, 2016). Lakmali and Rathnayaka (2016) have found out that there are many individuals and organizational factors that are affecting work-life balance among these IT professionals. It is important to identify these factors due to the fact that once the organizations as well as individuals have a better understanding of the

factors that are affecting on work-life balance, collaboratively can form management practices that enable these employees to achieve work-life balance due to the fact that not achieving work-life balance has an impact on employee well-being and organizational performance (Lakmali & Rathnayaka, 2016).

Kumari and Devi (2012) carried out a study to find out the relationship between the work-life balance and demographic factors. They conducted this study among the women employees in various professions like IT, BPO, Marketing, Insurance, Banking and Education at Bangalore. According to the analysis, they have concluded that there is a significant relationship between demographic factors and work-life balance of women employees. Therefore, the study indicates that the relationship between demographic factors and work-life balance of employees will be an important factor in designing appropriate WLB policies within the organization.

Mokana, Faizuniah & Mohd (2015) have conducted a study to identify the effects of several individual factors like emotional intelligence, spiritual intelligence, job engagement etc. and organizational factors like organizational support, workload etc. and environmental factors like technological advancement on employee work-life balance. The finding of this study indicated that emotional intelligence, job engagement and organizational support have a positive and significant relation to work-life balance. Whereas technological advancement and workload have a negative and significant relation to work-life balance. The finding also highlighted that spiritual intelligence did not significantly relate to work-life balance. Sudhakar and Sudharani (2010) found several factors that are hindering the work-life balance among information technology and information technology-enabled services related to employees.

The research has shown that there is a significant impact from work pressure, long working hours, shift time change, frequent

travel and high target on employee work-life balance. Other than these factors inhibiting factors which are associated with working environment relationships like gender discrimination, poor coworker relationship and lack of supervisor support has a significant effect on the employee work-life balance. The study also has revealed that personal life factors such as lack of family support, marital conflicts, and frequent changes in the sleeping pattern also has a significantly affecting on employees work-life balance.

Work-life balance is more significant for working women due to the fact that they have to face several challenges and issues in their family life and their workplace. Working women virtually has two full-time jobs where one at their home and the other one at their office. Therefore, women are experiencing more difficulty than men when it comes to balancing work and personal life demands and commitments. A significant proportion of the women is experiencing a lack of work-life balance due to excessive work pressures, too little time for them, and the necessity to full fill the others' expectations. Majority of the women are experiencing job being spilt into their personal life as they have to put longer hours to full fill the increasing demands of their jobs (Sundaresan, (2014). Sadhvi (2015) also found that age and marital status are affected work-life imbalance especially among the women in IT Sector. During this study also found out that certain factors like company policies, flexibility, company facilities are also affecting the work-life balance. Delina and Prabhakara (2013) argue that the IT sector female professionals have more difficulty in balancing professional and their personal life due to the weekly hours of work and the stress associated with the work, age and caring responsibilities. Compared to their male counterpart this study has shown that the work-life imbalance among women affects their health in a more serious manner.

Therefore, juggling between the demand, responsibilities and commitments in personal and professional life can have serious implication on an individual's well-being and

overall quality of life. Hence the literature review unveils that there are many studies that have been carried out to find out the factors that affect the work-life balance among employees who are working in many different industries. Such factors are personality, wellbeing, emotional intelligence, work arrangements, WLB policies, organizational support, superior support, college support, job stresses, role conflict, role ambiguity, role overload, technology, Childcare arrangements, spousal support, Family support, social support, personal & family demands, dependent care, family quarrel, demographic factors (age, gender, marital status, parental status, experience, job type, income, type of family) (Shobitha & Sudarsan, 2014), spiritual intelligence, job engagement (Mokana, Faizuniah, & Mohd, 2015), work load (Khalil, Husna, & Shafiq, 2015) and many more. However, for the purpose of this study only emphasized on workload, work support (organizational support and supervisor/college support), technology, job engagement, emotional intelligence, dependent care and family support factors.

Theoretical Framework

The study was carried out to identify the factors affecting work-life balance among female IT professionals in Sri Lanka. Initially through a rigorous literature review on work-life balance related theories and previous research finding related to this was done in order to identify the research problem and the factors that affect the work-life balance among employees. Hence, this study has found out that there are many factors affecting the work-life balance among employees. However, from this number of factors of this study more emphasized on workload, work support, family support, technology, dependent care, emotional intelligence and job engagement factors. Hence, this study conducted to identify whether these seven factors also have an influence on work-life balance among female IT professionals in Sri Lanka. The model is summarized in Figure 1.

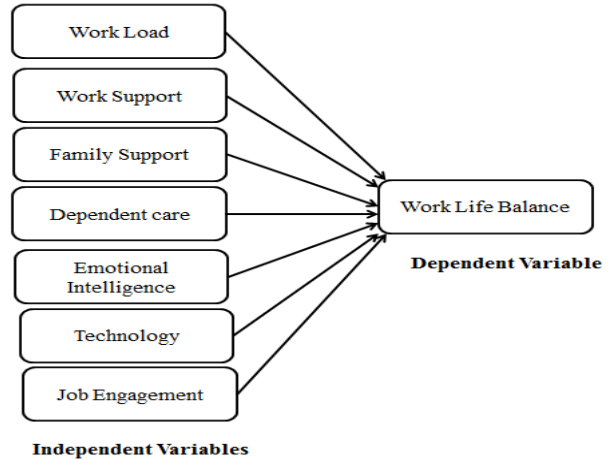


Figure 1: Research framework

Methodology

Sample design:

This study was carried out with female IT professions who are currently working in different IT companies in Colombo district. A sample of fifty IT professionals out of one thousand four hundred female IT professional working in five different IT companies situated in Colombo district was selected for gathering primary data by adopting the simple random sampling technique.

Data collection:

The study has used a structured questionnaire as the research instrument in collecting primary data which were used to identify the factors that are affecting the work-life balance among female IT professionals in Sri Lanka. The study has developed the research instruments for this study based on the structured questionnaire that has been tested in prior studies, which were identified through the literature review as mentioned below, and used several self-developed questions.

Job Engagement: Twelve items developed by Utrecht (2004) was used to measure the job engagement variable.

Technology: Five items based on Mokana, Faizuniah & Mohd (2015) study and a self-developed item used to measure the technology variable.

Work Load: Six items developed by Qureshi, Jamil, Iftikhar, Arif, Lodhi and Naseem (2012) and two self developed items were used to measure the workload variable.

Work Support: Among the ten items used to measure the work support two items were self-developed items, whereas other eight items were based on the study of Gunawardena (2016) and the Mokana, Faizuniah & Mohd (2015) study.

Emotional intelligence: Eight items developed by Mokana, Faizuniah & Mohd (2015) was used to measure the emotional intelligence variable.

Dependent Care: Six items were used to measure the dependent care variable, which were based on Gunawardena (2016) and remaining items were self-developed items for this study.

Family support: Seven items were used to measure the family support variable. These items were based on Gunawardena (2016) study.

Other than these seven work-life balance related variables used separate ten items to identify the level of work-life balance among female IT professionals in Sri Lanka. These ten items were based on Mokana, Faizuniah & Mohd (2015) study.

Statistical tool used:

The collected data has been analyzed by factor analysis, ANOVA and multiple regressions. Workload, work support, family support, technology, dependent care, and emotional intelligence and job engagement factors effect on Work-life balance is measured through Likert's five-point scale.

Reliability and validity

In order to test the internal consistency of the instrument, Cronbach's Alpha was used (Table 1).

Job Engagement: Variable was considered reliable as the Cornbrash's alpha value is 0.734.

Table 1: Reliability Analysis

| Variables | Items | Reliability | Interpretation | Result |
|------------------------|-------|-------------|------------------|---------------------|
| Job engagement | 12 | 0.734 | $0.734 \geq 0.7$ | Acceptable |
| Technology | 6 | 0.717 | $0.717 \geq 0.7$ | Acceptable |
| Work load | 8 | 0.901 | $0.901 \geq 0.9$ | Excellent |
| Work Support | 7 | 0.599 | $0.599 \geq 0.5$ | Poor but acceptable |
| Emotional intelligence | 8 | 0.901 | $0.901 \geq 0.9$ | Excellent |
| Family support | 7 | 0.879 | $0.879 \geq 0.8$ | Good |
| Dependent care | 6 | 0.730 | $0.730 \geq 0.7$ | Acceptable |

Note: Reliability = Cronbach's alpha values

Technology: Variable was considered reliable as the Cornbrash's alpha value is 0.717.

Work Load: Variable was considered reliable as the Cornbrash's alpha value is 0.901.

Work Support: Analysis revealed that with several questions Cornbrash's alpha value is less than 0.5.

Hence, computation was redone by eliminating items and the new Cornbrash's alpha value for the remaining items was displayed as 0.599. Variable was considered reliable as the Cornbrash's alpha value greater than 0.5.

Emotional intelligence: Variable was considered reliable as the Cornbrash's alpha value is 0.901.

Dependent Care: Variable was considered reliable as the Cornbrash's alpha value is 0.730.

Family support: Variable was considered reliable as the Cornbrash's alpha value is 0.879.

Other than these seven work-life balance related variables used separate ten items to identify the level of work-life balance among female IT professionals in Sri Lanka. Based on these ten items Cornbrash's alpha value of the work-life balance was 0.824 which is greater than 0.8. Therefore, these ten items of work-life balance are acceptable. Other than these Likert scale questions six additional questions were asked from the respondents to get the understanding about their demography.

Data analysis

On the basis of questionnaire filled by the respondents which consists of statements related to workload, work support, technology, Job engagement, emotional intelligence, family support, dependent care and statements related to their opinion regarding current level of work-life balance that they are experiencing were scaled by using a five-point Likert scale (Strongly Agree, Agree, Neither agree or disagree, Disagree, Strongly Disagree) and giving them scores (1,2,3,4,5) according to that and then applying factor analysis and regression analysis on them using SPSS software version 16 with a view to meet the objective of this study.

Profile of the respondents

This study is conducted among the female IT professionals in Sri Lanka who are working in different designations. For this study only considered the female IT professionals who are directly involved in the software development lifecycle which includes project managers, software developers, quality assurance analysts, business analysts and technical engineers.

Hence, 36% respondents are quality assurance analysts, 26% respondents are software developers, 14% respondents are business analysts, 10% of the respondents are technical engineers and 14% respondents are project managers (Table 2).

Table 2: Designation

| Category | Frequency | Percentage |
|----------------------------|-----------|------------|
| Quality assurance analysts | 18 | 36% |
| Software developers | 13 | 26% |
| Business analysts | 7 | 14% |
| Technical engineers | 5 | 10% |
| Project managers | 7 | 14% |

Source: Survey Data

Among these IT professionals, 58% of the respondents are between ages 20-30 years and

42% of the respondents are between ages 31-40 years (Table 3).

Table 3: Age

| Category | Frequency | Percentage |
|-------------|-----------|------------|
| 20-30 years | 29 | 58% |
| 31-40 years | 21 | 42% |

Source: Survey Data

According to this study, 58% of the respondents have 1-5 years of industry experience, 40% of the respondents are having 6-10 years of experience and 2% of the respondents are having 11-15 years of industry experience (Table 4).

Table 4: Work experience

| Category | Frequency | Percentage |
|-------------|-----------|------------|
| 1-5 years | 29 | 58% |
| 6-10 years | 20 | 40% |
| 11-15 years | 1 | 2% |

Source: Survey Data

Among these respondents 56% of the respondents are single and 44% of the respondents are married IT professionals (Table 5).

Table 5: Marital Status

| Category | Frequency | Percentage |
|----------|-----------|------------|
| Single | 28 | 56% |
| Married | 22 | 44% |

Source: Survey Data

Survey revealed that 26% of the female IT professionals are having two dependents, 22% of the female IT professionals are having one dependent, and 18% of the female IT professionals are having more than three dependents, 2% of the female IT professionals are having three dependents to be cared by them while 32% of the female IT professionals indicated that they don't have any dependent to be cared by them (Table 6). However, the total

of 68% of the female IT professionals have indicated that they have one or more dependents to be looked after by them.

Table 6: Number of dependents

| Category | Frequency | Percentage |
|-------------|-----------|------------|
| 0 | 16 | 32% |
| 1 | 11 | 22% |
| 2 | 13 | 26% |
| 3 | 1 | 2% |
| More than 3 | 9 | 18% |

Note: Number of dependents = family members who need to be cared by the respondent (children, aging parents, siblings)

Source: Survey Data

Among these fifty respondents, 48% are indicated that they work 9-10 hours per day, 20% of respondents indicated that they work 11-12 hours per day, 12% indicated they work more than 12 hours per and another 20% indicated that they work only 7-8 hours per day (Table 7). This finding indicates that 80% of female IT professionals are working beyond standard working hours (8 hours) per day and only 20% of the female IT professionals are working up to standard working hours. Hence, this can summarize that most of the female IT professionals in the Sri Lankan IT industry are working beyond the standard working hours per day.

Table 7: Working hours

| Category | Frequency | Percentage |
|------------------------|-----------|------------|
| 7-8 hours per day | 10 | 20% |
| 9-10 hours per day | 24 | 48% |
| 11-12 hours per day | 10 | 20% |
| More than 12 hours per | 6 | 12% |

Source: Survey Data

Through the questionnaire, the study has also identified that 46% of the female IT professionals in Sri Lanka are not planning to stay in the IT industry until the age of retirement. However, 40% of them have not yet taken a decision to remain in the IT

industry until the age of their retirement while 14% of the female IT professionals are already decided to continue their work in the IT industry until they retire (Table 8). However, the majority of the respondents have already decided that they are not planning to stay in the IT industry until the age of retirement.

Table 8: Likelihood of working in IT industry until age of retirement

| Category | Frequency | Percentage |
|---|-----------|------------|
| Not planning to work in the IT industry until the age of retirement | 23 | 46% |
| Not have taken a decision | 20 | 40% |
| Planning to work in the IT industry until the age of retirement | 7 | 14% |

Source: Survey Data

Objective 1: To determine the factors affecting work-life balance among female IT professionals in Sri Lanka.

Through a through literature review, this study has identified that work load, work support, technology, Job engagement, emotional intelligence, family support, and dependent care are affecting on the work-life balance. Hence, through this study it is trying to determine whether these identified factors are also affecting the work-life balance among female IT professionals in Sri Lanka in the same manner or not.

Hence this enables the study to identify the factors that are actually affecting work-life balance among female IT professionals in Sri Lanka. For the purpose of achieving this objective, it has been performed a principal axis factor analysis on the work-life balance variables such as work load, work support, technology, Job engagement, emotional intelligence, family support, and dependent care (Seven variables). For the purpose of factor analysis, carried out correlation analysis between all the seven variables and KMO and Bartlett's test to ensure that a factor analytic solution can be obtained for this study. Based on the Table 10 outcome it demonstrates that

some item's correlations are higher and some are having a lower correlation. For example, family support and job engagement have 0.653 correlations. This indicates that there is an average positive correlation between family support and job engagement. Relatively higher correlations indicate that two items are associated and probably be group together by the factor analysis. Items with lower correlation usually will not have high loading on the same factor. Factor analysis takes the assumption that the determinant should be more than 0.0001. According to this study, the determinant is 0.021 (Table 10) which is greater than 0.0001. This indicates that the factor analytic solution can be obtained for this study.

KMO test (Kaiser-Meyer-Olkin) and Bartlett's tests measure the strength of the relationship among the variables. KMO 0.5 is the bare minimum required for performing a satisfactory factor analysis (Chetty, 2015). Based on Table 9 KMO of this study is 0.694, therefore this is acceptable (Table 9). Bartlett's test is another test that uses to determine the strength of the relationship

between variables. Therefore, this value should be less than 0.05. According to this study, Bartlett's test value is 0.000 which is lesser than 0.05 (Chetty, 2015). Hence this indicates that the correlation matrix of this study is not an identity matrix (Table 9).

Table 9: KMO and Bartlett's Test of Sphericity

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | Bartlett's Test of Sphericity | | |
|---|----------------------------------|----|-------|
| | Approx. Chi-Square | Df | sig |
| 0.694 | 177.169 | 21 | 0.000 |

Hence correlation matrix output of the seven variables, KMO and Bartlett's test output confirms that a factor analysis solution can be obtained by this study. Therefore, these tests validate the possibility of the factor analysis of this study; hence carried out the principal axis factor analysis on the work load, work support, technology, Job engagement, emotional intelligence, family support, and dependent care variables.

Table 10: Correlation Matrix

| Correlation | Work Load | Work Support | Technology | Job Engagement | Emotional Intelligence | Family Support | Dependent Care |
|------------------------|--------------|-----------------|------------|-------------------|---------------------------|-------------------|-------------------|
| Work Load | 1.000 | -.012 | .792 | -.146 | -.316 | -.226 | .604 |
| Work Support | -.012 | 1.000 | .177 | .381 | .393 | .447 | .137 |
| Technology | .792 | .177 | 1.000 | -.231 | -.409 | -.278 | .602 |
| Job Engagement | -.146 | .381 | -.231 | 1.000 | .701 | .653 | -.063 |
| Emotional Intelligence | -.316 | .393 | -.409 | .701 | 1.000 | .713 | -.125 |
| Family Support | -.226 | .447 | -.278 | .653 | .713 | 1.000 | -.247 |
| Dependent Care | .604 | .137 | .602 | -.063 | -.125 | -.247 | 1.000 |
| Sig. (1-tailed) | | | | | | | |
| Work Load | | .468 | .000 | .156 | .013 | .057 | .000 |
| Work Support | .468 | | .109 | .003 | .002 | .001 | .171 |
| Technology | .000 | .109 | | .053 | .002 | .025 | .000 |
| Job Engagement | .156 | .003 | .053 | | .000 | .000 | .331 |
| Emotional Intelligence | .013 | .002 | .002 | .000 | | .000 | .193 |
| Family Support | .057 | .001 | .025 | .000 | .000 | | .042 |
| Dependent Care | .000 | .171 | .000 | .331 | .193 | .042 | |

Note: Determinant = .021

Extracting factors

Based on the extraction sum of squared loading (Table 11) the first factor is accounted for 40.578% of the variance whereas the second factor is accounted for 23.398% of the variance. All the remaining factors are not significant.

Scree plot is the graphical representation of eigenvalues against all the factors. This helped to determine how many factors to retain. Based on Figure 2 the curve of the scree plot of this study begins to flatten between factor 2 and factor 3. From the third factor onwards eigenvalues are less than 1. Hence, only two factors have been retained (Chetty, 2015).

Table 11: Total Variance Explained

| Factor | Initial Eigenvalues | | | Extraction Sums of Squared Loadings | | | Rotation Sums of Squared Loadings | | |
|--------|---------------------|---------------|--------------|-------------------------------------|---------------|--------------|-----------------------------------|---------------|--------------|
| | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % | Total | % of Variance | Cumulative % |
| 1 | 3.137 | 44.812 | 44.812 | 2.840 | 40.578 | 40.578 | 2.294 | 32.772 | 32.772 |
| 2 | 2.012 | 28.747 | 73.559 | 1.638 | 23.398 | 63.977 | 2.184 | 31.205 | 63.977 |
| 3 | .667 | 9.527 | 83.087 | | | | | | |
| 4 | .514 | 7.340 | 90.427 | | | | | | |
| 5 | .313 | 4.475 | 94.902 | | | | | | |
| 6 | .209 | 2.981 | 97.883 | | | | | | |
| 7 | .148 | 2.117 | 100.000 | | | | | | |

Note: Extraction Method: Principal Axis factoring

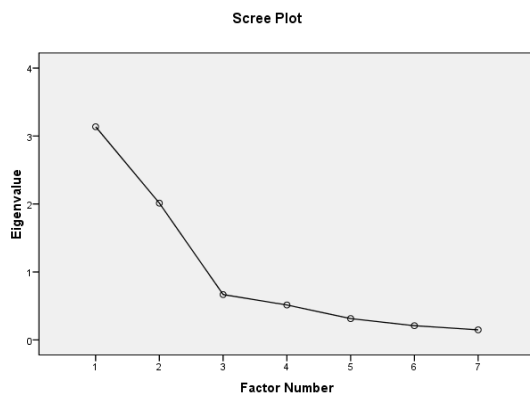


Figure 2: Scree Plot

Based on the rotated factor matrix of this study (Table 12) Emotional Intelligence, Family support, Job engagement, Work support loaded on Factor 1 while Technology, Work Load, Dependent care loaded on Factor 2. The First factor focuses on “self-awareness and support systems” with a total factor loading 2.973 and 40.578 percentage of variance. Total four items were loaded in the first factor. The second factor focuses on “Individual’s commitments” with a total factor loading 2.445 and 23.398 percentage of variance (Table 13)

Table 12: Rotated Factor Matrix

| | Factor | |
|------------------------|------------------------------------|--------------------------|
| | Self-awareness and support systems | Individual's commitments |
| Emotional Intelligence | .833 | |
| Family Support | .810 | |
| Job Engagement | .782 | |
| Work Support | .548 | |
| Technology | | .937 |
| Work Load | | .826 |
| Dependent Care | | .682 |

Note: Principal Axis Factoring and Rotation Method: Varimax with kaiser Normalization.

Rotation converged in 3 iterations

Table 13: Extracted Factors

| Factor number | Name of the Factor | Indicators | Factor loadings | Variance explained (%) |
|---------------|------------------------------------|------------------------|-----------------|------------------------|
| Factor 1 | Self-awareness and support systems | Emotional intelligence | .833 | 40.578 |
| | | Job engagement | .810 | |
| | | Family support | .782 | |
| | | Work Support | .548 | |
| Factor 2 | Individual's Commitments | Technology | .937 | 23.398 |
| | | Work Load | .826 | |
| | | Dependent care | .682 | |

Previous studies have used similar variables to identify the factors affecting work-life balance. In Mokana, Faizuniah, & Mohd (2015) study, they were able to categorize factors affecting work-life balance into three main factors; (a) individual factors which include emotional intelligence, spiritual intelligence, job engagement; (b) organizational factors which include organizational support, work load; and (c) environmental factors which contain technological advancement. Whereas Sudhakar and Sudharani (2010) found work

pressure, long working hours, shift time change, frequent travel and high target are affecting employee work-life balance. This study also has revealed that personal life factors such as lack of family support, marital conflicts, and frequent changes in the sleeping pattern also have a significant effect on employee work-life balance. In Shobitha and Sudarsan (2014) study, they have categorized work-life balance related factors into main four factors including Individual factors which consists of personality, wellbeing, emotional

intelligence; Organizational factors which includes factors like supervisor support, Colleague support, organizational support, technology; Social factor which consists of child care arrangement, dependent care issue, family support, spousal support and Demographic factors. All these studies have used more or less similar variables like workload, work support, technology, job engagement, emotional intelligence, family support, and dependent care variables, but they were reduced into different main factors. Therefore, based on the results of this study these seven variables have reduced into two main factors such as “Self-awareness and support systems” and “Individual’s Commitments” factors. Hence, these factors are affecting work-life balance among female IT professionals in Sri Lanka.

Objective 2: To determine the most significant factor influencing work-life balance among female IT professionals in Sri Lanka

This study has carried out a multiple regression analysis to achieve this objective. According to the model summary, the coefficient of the determination is 0.603. If this value is 0.6 or more the model is nicely fitted. Accordingly, 60.3% of variation in work-life balance is explained by the regression model. Therefore, the model is nicely fitted. $R=0.777$, this is the multiple correlation of this study which is greater than 0.7. This means that “Self-awareness and support systems” factor and “Individuals commitments” factor are having strong positive association jointly with work-life balance (Table 14).

Table 14: Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------|----------|-------------------|----------------------------|---------------|
| 1 | .777a | .603 | .586 | .39367 | 1.688 |

Note: Dependent Variable: Work-life Balance
a. Predictors: (Constant)

According to ANOVA table, the probability of F test statistic is 0.000. This means that the regression ANOVA result is highly significant. This indicates that “Self-awareness and support systems” factor and “Individuals

commitments” factor jointly influence on the work-life balance. Hence, model is appropriate (Table 15).

Table 15: ANOVA table

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|------------|----------------|----|-------------|--------|-------|
| Regression | 11.067 | 2 | 5.534 | 35.707 | .000a |
| Residual | 7.284 | 47 | .155 | | |
| Total | 18.351 | 49 | | | |

Note: Dependent Variable: Work-life Balance
a. Predictors: (Constant)

Individual effect of “Self-awareness and support systems” factor and “Individuals commitments” factor has been analyzed in coefficient table (Table 16). The probability of “Individuals commitments” factor is 0.000. The result is highly significant. Individual beta value is 0.746. This indicates that “Individuals commitments” has a highly significant positive effect on work-life balance.

Table 16: Coefficient table

| Model | Unstandardized Coefficients | | Standardized Coefficients | Collinearity Statistics | | | |
|------------------------------------|-----------------------------|------------|---------------------------|-------------------------|------|-----------|-------|
| | B | Std. Error | Beta | t | Sig. | Tolerance | VIF |
| Constant | 1.001 | .428 | | 2.340 | .024 | | |
| Self-awareness and support systems | -.130 | .117 | -.104 | -1.105 | .275 | .946 | 1.058 |
| Individual’s Commitments | .769 | .098 | .746 | 7.889 | .000 | .946 | 1.058 |

Note: Dependent Variable: Work-life Balance

Beta value of “Self-awareness and support systems” factor is -0.104 which is greater than -0.5. Hence, “Self-awareness and support systems” factor has a weak negative correlation with work-life balance. However, probability of “Self-awareness and support systems” factor is 0.275 which is more than 0.05. Therefore, “Self-awareness and support systems” factor has no partial effect on work-life balance. However, “Self-awareness and support systems” factor and “Individuals commitments” factor jointly influence on work-life balance and the “Individuals commitments” factor has highly significant positive effect on work-life balance.

Validity of regression result

Validity of the regression model of this study was tested using Heteroscedasticity test,

Independent of residuals test, normality of residuals test and Multicollinearity test.

Heteroscedasticity test: The study tested the behavior of residual using scatter plot (Figure 3). They are distributed randomly without having any predictable pattern. Therefore, the variance of residual is constant. Hence, the residuals are homoscedastic. Regression result is more valid.

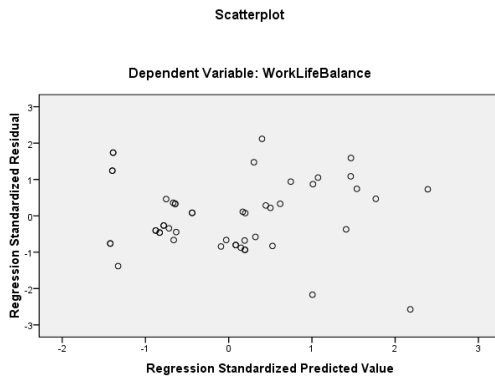


Figure 3: Scatter Plot

Independent of residuals: In the model summary (Table 14) Durbin test statistic is 1.688. This is between 1.5 and 2.5. Therefore, residuals are independent. Regression results are more valid.

Normality of residuals: Probability of Kolmogorov-Smirnov is 0.184 and the probability of Shapiro-Wilk is 0.264 (Table 17). All these values are greater than 0.05. Therefore, residuals are normally distributed with zero mean.

Table 17: Test of Normality

| | Kolmogorov-Smirnova | | | Shapiro-Wilk | | |
|-----------------------|---------------------|----|------|--------------|----|------|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Standardized Residual | .110 | 50 | .184 | .971 | 50 | .264 |

Note: Lilliefors Significance Correction

Multicollinearity test: When independent variables are perfectly correlated (“Self-awareness and support systems” and

“Individuals commitments” factors) it creates multicollinearity problem. Based on the coefficient table (Table 16) collinearity diagnostic, all VIF values are less than 10. Similarly, tolerance values are more than 0.1. Therefore, there is no multicollinearity problem. Hence the regression results are more valid.

Conclusion

This study has examined the factors that affect work-life balance among female IT professionals in Sri Lanka. Through a rigorous literature review, this study has identified seven variables which includes Emotional Intelligence, Family support, Job engagement, Work support, Technology, Work Load and Dependent care, as the factors that are affecting the work-life balance among employees. Hence the study focused on these factors to identify whether they are influencing work-life balance among female IT professionals in Sri Lanka. Based on the result of this study, these seven variables were reduced into two main factors which are named as “Self-awareness and support systems” and “Individual’s commitments” where Emotional Intelligence, Family support, Job engagement, Work support comes under “Self-awareness and support systems” factor whereas Technology, Work Load, and Dependent care come under “individual’s commitments” factor. The outcome of this study indicated that these two factors jointly have strong positive impact on work-life balance among female IT professionals in Sri Lanka.

Findings of this study also revealed that the “individual commitments” factor is the most significant factor that affecting work-life balance among female IT professionals in Sri Lanka.

“Individual commitments” factor has a significant positive affect on work-life balance. This indicates that when female IT professionals are able to fulfill their commitments related to their work-life and family life they are able to achieve the desired level of work-life balance. Hence, from the organization perspective, organizations can focus on providing a working environment for

their female IT professionals where they can manage and fulfill the work-related commitments with the use of technological advancements like telecommuting (remote connectivity to work from anywhere at any time) while they are fulfilling their dependent-related commitments. This will further improve the work-life balance among female IT professionals in Sri Lanka.

Research findings also highlighted that “Self-awareness and support systems” factor does not have a significant partial effect on work-life balance. However, together with “individual commitments” factor, it has a strong positive impact on work-life balance among female IT professionals in Sri Lanka. Therefore, “Self-awareness and support systems” factor also need to be improved in order to improve the overall work-life balance among female IT professionals in Sri-Lanka. Lack of understanding about employees’ own emotions (emotional intelligence) and highly be involved in their job, hinder the work-life balance as well as lack of work support and family support also hinder the work-life balance (Mokana, Faizuniah, & Mohd, 2015). Even though “Self-awareness and support systems” factor does not have significant partial effect on work-life balance, together with “individual commitments” factor it has a strong impact on work-life balance among female IT professionals in Sri Lanka. Hence, by reducing the negative effects of “Self-awareness and support systems” can improve the work-life balance among female IT professionals in Sri Lanka. From the organization perspective, organization should be able to understand the needs of their employees inside and outside the organization in order to provide a supportive work culture where their employees can success in their career and enjoy both work and family life. This will improve the “Self-awareness and support systems” factor which will untimely enable these female IT professionals to provide their valuable service to IT industry for many years. In conclusion, the findings of this study indicate that both organization and the individuals must monitor these identified

factors and their underlying variables to achieve a desired level of work-life balance.

Limitations

This research study has some limitations. One of the major limitations is that this research study examined only few factors that can affect on work-life balance. As well as, since the survey was conducted using the questionnaire method it was a greater challenge to ensure the actual validity of the responses. This research conducted to identify the factors affecting work-life balance among female IT professionals in Sri Lanka IT industry. However, for the study respondents were selected only from the five prominent IT companies in Colombo district. Therefore, this research does not entirely reflect the perception of female IT professionals who are working in other districts. Due to the time and resource constraints, this study only considered female IT professionals who are directly involved in the software development life cycle (Project managers, Business analysts, software developers, Quality assurance analysts, Technical engineers) and didn’t consider public sector female IT professionals for this study.

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