Article

Managing Employee Creativity and Innovation in Selected Zimbabwean Manufacturing Companies

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Abstract

The economic situation in Zimbabwe is worsening rapidly. Proper managing of employee creativity and innovation gives organisations a competitive edge. This study explored the managing of employee creativity and innovation in two manufacturing companies in Zimbabwe. An exploratory research design and a qualitative research method were utilised. Face-to-face interviews were conducted. Qualitative content analysis was used to analyse the data. The findings indicate that rewards, benchmarking, training, sense of belonging, engagement, feedback, teamwork and collaboration form part of the enabling factors in managing employee creativity and innovation. The identified employee creativity and innovation barriers were fear, punishment, lack of funding, lack of research and development in Zimbabwe, limited technology, and bureaucracy. Only two manufacturing companies in Zimbabwe were included in this study. The focus of this study was on employee creativity and innovation. However, there are other themes that could also have been investigated in the rapidly worsening economic Zimbabwean context. If managers do not give the necessary attention to employee creativity and innovation on a personal level of an employee, on an operational roll-out level, as well as on the bigger arena of the organisation, it might be that the companies lack competitiveness and do not contribute to the improvement of the economic situation in Zimbabwe. The contribution of this study lies in the in-depth explication of employee creativity and innovation in a rapidly worsening economic Zimbabwean context.

Keywords: barriers; employee creativity; enablers; innovation; operational level; organisational level; personal level

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Introduction

Many African countries can be characterised as a combination of countries emerging from a state of political instability, economic stagnation, and social distress that characterised past decades, with uneven timing and pace across the various countries in the region (African Development Bank Group 2014). It is widely acknowledged that a competitive and private sector-led manufacturing sector plays a key role in socioeconomic transformation and development. The limited role that manufacturing currently plays in certain African countries is, therefore, a potential source of concern for policy makers and their development partners alike (African Development Bank Group 2014). Several challenges remain and are holding back progress in African countries: public debt levels and debt risk are rising; the availability of jobs has not kept pace with the number of entrants in the labour force; fragility is costing the subcontinent a half of a percentage point of growth per year; gender gaps persist and are keeping the continent from reaching its full growth and innovation potential; and 416 million Africans still live in extreme poverty (The World Bank in Africa 2019). Creativity and innovation are not at a level that can assist Zimbabwean manufacturing companies. The United Nations Economic, Scientific and Cultural Organization (UNESCO 2013) suggests that developing creative industries provides a potent substitute and complement to the primary and secondary sectors of the economy and helps diversify the economy as well as generate revenue and promote trade and innovation.

Creative employees pioneer new technologies, birth new industries and power economic growth (Florida and Goodnight 2005). Creativity focuses on idea production, and innovation includes both idea production and implementation. According to Amabile et al. (2004, 5) as well as Zhou and Hoever (2014), creativity is the first and crucial stage of innovation, but predictors of ideation and implementation are likely to differ. However, recently, it is increasingly recognised that the relationship between creativity and innovation is more dynamic and complex than linear (Hong et al. 2018). “Creativity is widely seen as a driver of innovation, growth, and societal development” (Zhou and Shalley 2003, 333). Innovation is often seen as the output of ingenious individuals with exceptional skills and expertise. While creative individuals may be important for innovation, in everyday work-life, many tasks are done cooperatively in teams (Mowser, Dawson, and West 2018, 71). Employee creativity is defined as the generation of novel and useful ideas, products and processes (Amabile 1996; Anderson, Potočnik, and Zhou 2014; Woodman, Sawyer, and Griffin 1993; Zhou and Hoever 2014). Previous research has examined a variety of factors that predict employee creativity and innovation in organisations (Shalley, Zhou, and Oldham 2004; Zhou and Hoever 2014).

Problem Investigated

The economic situation in Zimbabwe is worsening rapidly. There are high unemployment and poverty levels due to issues such as the poor performance of traditional economic anchors like agriculture and the manufacturing sectors in the Zimbabwe economy (Ndofirepi 2016). A lack of financial support from multilateral

organisations, such as the International Monetary Fund and the World Bank, also compounds the Zimbabwean manufacturing sector's inability to source funds and lines of credit (Robertson 2016). This lack of financial support influences the difficult economic environment, which chokes the ability of companies to source working capital and capital for expansion and infrastructural development. Creativity and innovation are hampered and battered in Zimbabwe. Most Zimbabwean companies have to be creative and innovative to survive the current economic crisis. The term "*nhimbe"* of the Zimbabwean Shona people—which means bringing village resources into a temporary pool for cooperation and teamwork (Ryan and Bernard 2003)—should be taken into consideration when managing employee creativity and innovation in Zimbabwe.

Surprisingly little research has addressed the managing of employee creativity and innovation in manufacturing companies in Zimbabwe. The research gaps in this study are that it is not clear which enablers and barriers of managing employee creativity and innovation are evident in the selected manufacturing companies in Zimbabwe. Nor is it clear on which levels these enablers and barriers should be managed, because existing research has grappled with the questions: What enablers and barriers of managing employee creativity and innovation are evident in selected manufacturing companies in Zimbabwe; and on which levels must these enablers and barriers be managed?

Research objective

The research objective of this study was twofold: to investigate the enablers and barriers of managing employee creativity and innovation at selected manufacturing companies in Zimbabwe; and to determine on which levels these enablers and barriers must be managed.

Literature Review

Creativity and innovation should not be separated, but rather combined to unveil an organisational phenomenon of immense innovativeness (Hon and Lui 2015). An overview of the most prominent literature about managing creativity and innovation, as well as the enablers and barriers of managing employee creativity and innovation, is provided next.

Managing Employee Creativity and Innovation

Companies that figure out how to manage employee creativity and innovation, will have a crucial advantage in the ever-increasing competition for global talent (Florida and Goodnight 2005; Maxwell 2005). Zhou and Hoever (2014) state that, when managers create an environment that supports creativity, even employees who lack the natural inclination may become creative. The preponderance of literature on creativity has focused on the individual, yet the social environment can influence both the level and frequency of creative behaviour (McClean 2005). According to Zhang and Bartol (2017), leader encouragement of creativity moderates the connection between

psychological empowerment and creative process engagement. Because innovation is crucial for an organisation in highly competitive environments, researchers in organisational behaviour and management have placed considerable emphasis on how to enhance innovation (Gong et al. 2012; Khazanchi and Masterson 2011).

Freel (2000) states that innovation is essential for economic development and critical for firms to remain competitive. This study takes both innovation processes, namely idea generation and idea implementation (Scott and Bruce 1994; West 2002) into consideration. Innovation is the implementation of creative inspiration (Okpara 2007). Innovation is vitally concerned with novel approaches, new ideas and originality, and refers to the means by which ideas are exploited for competitive advantage (Okpara 2007). "Employees' small, day-to-day innovations are important sources for an organisation's success" (De Spiegelaere et al. 2014; Janssen 2000; Ma Prieto and Pilar Pérez-Santana 2014). These day-to-day innovations are referred to as innovative work behaviour (IWB), which is "the intentional introduction and application, within a role, group or organisation of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group or wider society" (West and Farr 1989, 23). Terwiesch and Ulrich (2010) propose that organisations with strong, reliable innovation cultures focus internally on process rather than creative genius. Tripathi et al. (2015) state that firms should embrace the digital culture to improve agility, experimentation and customer focus as well as incentivise firm teams to innovate and experiment. Many innovations are the result of some level of market orientation, for example the close relationship between the organisation and its customers (Sund 2008).

A large portion of managers consider creativity and innovation to be key determinants of success (Barsh, Capozzi, and Davidson 2008). Creativity and innovation are distinct concepts, but most researchers reserve a central role for creativity in providing the core ideas that may ultimately lead to innovation (Zhou and Hoever 2014). Managing employee creativity and innovation can create long-lasting advantage and produce dramatic shifts in competitive position (Hamel 2006). Few companies have a well-honed process for continuous management innovation. Most businesses have a formal methodology for product innovation, and many have research and development groups that explore the frontiers of science (Hamel 2006). While operational innovation focuses on a company's business processes (procurement, logistics, customer support), management innovation targets a company's management processes (Hamel 2006).

There are arguments that the African continent is rich in creativity and innovation, features which can be traced decades back, and yet Africa is beset with poverty, inequity, unemployment and unsustainable economic activities (Ndofirepi 2016). In the face of global competition, coupled with the harsh economic environment in which businesses in Zimbabwe operate, there is a need for creative and innovative micro and small entrepreneurs who will be able to meet the ever-changing customers' tastes and preferences (Nani 2017). It is important to manage innovation in Zimbabwe because

innovation was found to positively predict the performance of small and medium enterprises (SMEs) (Makanyeza and Dzvuke 2015).

Enablers of Managing Innovation and Creativity

Top management is the most important enabler of innovation, closely followed by customers and middle management (Sund 2008). Gilson and Shalley (2004) suggest that supervisory supportive behaviour facilitates individual creativity. Team composition (Sund 2008), rewards (Malik and Butt 2016), and sense of belonging (Nemeth 1997) enable employee creativity and innovation. Grenny (2019) states that creativity can be learned, but it is quite difficult to count the variables that govern it. Staff training was identified as one of the top areas for potential innovation in the postal sector (Sund 2008). Knowledge transfer is, therefore, inevitable. Innovation is about knowledge—creating new possibilities through combining different knowledge sets (Tidd and Bessant 2013). Nonaka (2011) describes tacit knowledge as subjective and experiential knowledge that cannot be expressed in words, sentences, numbers or formulas (context-specific). It involves cognitive skills, namely beliefs, images, perspectives, mental models and technical skills of craft (know-how). Nonaka (2011) further describes knowledge that is explicit as verifiable, as well as rationally based knowledge which could lend itself to expression in word form (content-free), which entails a theoretical approach, problem-solving, manuals and databases.

Benchmarking is similar to knowledge sharing and it distinguishes between real innovation and simple reputation (Epper 1999). Benchmarking is a management approach for implementing best practices at best cost (Ettorchi-Tardy, Levif, and Michel 2012). One of the most important benefits of benchmarking is the discovery of innovative approaches. Benchmarking highlights problem areas and the potential for improvement, providing an incentive to change; it also assists in setting targets and formulating plans and strategies (Meade 1998). Malhotra et al. (2017) postulate that internal crowdsourcing that enlists ideas from employees is a well-known source of innovation, just like other forms of crowdsourcing. This allows workers an opportunity to mingle in dynamic ways with colleagues from other departments, raise novel viewpoints as well as proffer novel strategic direction for executives to try out. Less bureaucracy, owner expertise and closeness between owners and customers can facilitate the implementation of innovation (Madrid-Guijarro, García-Pérez-de-Lema, and Van Auken 2009).

Mbizi et al. (2013, 370) found that enterprises' sustainability in the manufacturing sector in Chinhoyi, Zimbabwe, is one of the major attributes which aids enterprises to remain competitive. Technological creativity will contribute to the Zimbabwean economy (Ndofirepi 2016). Incubation centres, where business ideas can be generated and incubated under conducive environmental conditions, will assist with creativity and innovation in Zimbabwe (Nani 2017).

Barriers of Managing Innovation and Creativity

A better understanding of barriers to innovation can assist firms in fostering development of an environment that supports innovation (Hadjimanolis 1999). The most important barriers have to do with being too slow to make decisions, too much bureaucracy, and having a corporate culture that does not encourage creativity. The inability to attract top innovative talents was also identified as a significant barrier. Government regulations and the limited potential of home markets are the biggest barriers (Sund 2008).

It can be stated that a negative environment kills thousands of great ideas every minute. Maxwell (2005) posits that a creative environment is like a greenhouse where ideas are seeded and where they sprout and flourish. Respondents of this study perceive long internal decision-making processes to be a great hindrance to innovation (Sund 2008). Social barriers among individuals include defensiveness, feared rejection, conflict avoidance, self-interest and stereotypes (Heifetz, Grashow, and Linsky 2009). A lack of indigenous technology, insufficient supply of finance and a deficiency in skilled labour are barriers to being innovative in a small, less developed country such as Cyprus (Hadjimanolis 1999). An employer cannot force ideas and innovations from employees, but positive work behaviour encourages new ways of thought. However, punishment discourages employees and hampers efforts to create or maintain a creative work environment (Assad 2019). Critchfield (2007) is of the opinion that fear inhibits creativity. Weak management commitment and a lack of financial resources are barriers to innovation (Madrid-Guijarro et al. 2009). Lack of information, however, can become another obstacle to innovation (Frenkel 2003). Social and institutional barriers may seem overwhelming, but the potential for societies to overcome these barriers and achieve creative solutions ultimately depends on the individual (Fazey et al. 2007).

Company subject matter experts must not wield too much influence during the idea generation process; diverse views must be allowed so as to produce innovative outcomes. When engaging with experts in the company, these experts must be moderators of the crowdsourcing event or process and encourage rather than criticise other participants (Malhotra et al. 2017). Incentives and processes drive behaviour. The overriding idea is to create a collaborative atmosphere where employees share knowledge, learn from one another and offer pertinent knowledge for use in new solutions (Malhotra et al. 2017). Threat of job loss impairs employees' innovativeness through increased irritation and decreased concentration (Van Hootegem, Niesen, and De Witte 2018).

Creative engagement in Zimbabwe is a complex process that occurs in moments of creative action, wherein a person tactically uses constraints to their advantage (Weston 2012). Innovation in education within Zimbabwe seems to be negligible (Mungazi 1985) but by constantly integrating new technologies in higher education, Zimbabwe can maintain the high standards associated with her globally renowned education system

(Kurasha 2015). An unstable economic environment inhibits creativity and innovation skills (Antonites 2014).

Research Methodology

A qualitative research approach was used in the study to obtain rich data from the participants.

Research Design

An exploratory research design was used in this study. Exploratory research does not aim to provide the final and conclusive answers to the research questions, but merely explores the research topic with varying levels of depth (Sing 2007). Constructivism, as the research philosophy in this current research, accepts reality as a construct of the human mind. Therefore, reality is perceived to be subjective (Creswell 2014). The constructivists have a belief that truth and knowledge are constructed through people; they cannot exist independently of a person's brain (Duffy and Jonassen 1991). Creswell (2014) states that social constructivists believe that people look for comprehension of their everyday world. Crotty (1998) identifies four pillars of a constructivism paradigm:

- People develop meaning through interacting with a world that will be the subject of their interpretation.
- Research persons using qualitative approaches are more inclined to use questions that are open-ended to enable subjects to express viewpoints of their own.
- People interact with their environment to make sense of their world as per social and historical views as well as cultural norms.
- The construction of meanings tends to arise from socialisation in communities. A qualitative process tends to be inductive in the main; a researcher gleans meaning from the information gathered during the research.

Entry into the Client System

Permission was granted by the two companies under study and access was gained into the organisations by allowing the researcher to conduct interviews in the participants' offices. Ethical clearance was obtained by the School of Business Leadership, Da Vinci.

Research Participants

Two manufacturing companies were chosen from the same a city in Zimbabwe, due to their eagerness to be competitive. Company X consisted of 280 employees and Company Y consisted of 390 employees. Company X competes in the SADC market space, secured capital investment through shareholding from a Japanese firm, and has thus financially capacitated itself. It has the largest market share for paint locally, but has faced stiff competition from emergent firms. Company Y also competes in the SADC market but has limited financial capital as it is owned by the Zimbabwean

government, which is also struggling financially. This company manufactures power and distribution transformers and has also made inroads into the SADC region to try and create income streams. It faces stiff competition from competitors in the SADC region—especially from South Africa. Non-probability sampling, using judgment sampling, was employed. Judgment sampling (also called purposive sampling) requires that researchers use their personal judgments to select cases that they think will best meet the research objectives (Saunders, Lewis, and Thornhill 2012). The inclusion criteria for choosing the interviewees were as follows: possessing a higher education qualification; and being a manager with least 10 years' experience in the companies under study. A total of 30 managers, 15 from each manufacturing company, were identified to participate in this study. Saturation of data occurred after the 23rd interview.

Measuring Instrument

The self as instrument was taken into consideration in this study. One of the researchers was a male, 51 years of age, and worked at one of the companies under study. He was, therefore, aware of the necessity to stay objective throughout the period of the study and did not allow bias to influence the study. The other researcher was a female, 49 years of age, working as an academic in the field of human resource management.

The other instrument, an interview guide, was developed to cover a wider spectrum of managing employee creativity and innovation without focusing on enablers and barriers *per se*. The following guide was used to conduct the face-to-face interviews:

- Tell me how you can contribute to organisational innovation.
- Tell me about the factors that influence your employees' creativity.
- Tell me how your organisation can enhance employee creativity.
- Tell me about the factors that can impact on employee innovation in your organisation.
- Tell me how the "*nhimbe"* culture concept can enhance employee creativity and innovation in your organisation. ("*Nhimbe"* is a Shona culture term for bringing village resources into a temporary pool for cooperation, say in farming, to ensure food security for the whole village. It is about teamwork to achieve greater yields.)

Trustworthiness

Bless, Higson-Smith, and Sithole (2013, 236) state that trustworthiness involves the following elements: credibility, dependability, confirmability and transferability. To guarantee credibility, the authors ensured that the interview guide measured what it purported to measure. The ATLAS.ti computer software data, interview transcripts and notes were used to ensure dependability. The codes were transparently assigned and an independent coder was also used to ensure confirmability. The transcripts of the

interviews are informative to enable different research persons to deduce judgements on generalisability of the findings to various dissimilar environments in Zimbabwe.

Creswell (2014) states that objectivity and trustworthiness are critical to research. Eisner (1991) indicates that the author conducting research looks for belief, bringing upon a coherent, insightful as well as crucially endowing research with information usefulness. Lincoln and Guba (1985) posit that the researcher looks for trustworthiness through a process of verification. Vaara and Whittington (2012) eloquently suggest that a key issue in practical research includes reflexivity—that is, the ability to reflect upon the enhancing and inhibiting impacts of societal customs, while focusing on exceptional awareness of issues that may bias both the researcher as well as the participants. Researchers must acknowledge their bias openly during the research study to contemplate how they arrived at the results, since collection of data is invariably influenced through researchers' own assumptions. In the present study, the researcher had a bias towards experienced and technically-minded participants to get rich data.

Data analysis

The interview responses were analysed by using the qualitative content analysis method of Tesch (1990) and the ATLAS.ti version 7.0. Inductive (new codes) and deductive (codes derived from existing literature) coding was used to analyse the data. Tesch (1990) states that the researcher needs to do a preliminary analysis, where the content must be identified and summarised for each theme. Each theme's data material must be assembled and grouped with the theme. The themes and subthemes in this study were a result of intense reading, rereading transcripts of research subjects' interviews, plus videos of the data (Bryman 2008). The researchers looked at the repetitions—topics that recurred, such as "rewards," and indigenous categories and local expressions, such as *nhimbe*, the Zimbabwean Shona term for cooperation (Ryan and Bernard 2003).

Findings

The findings of this study are presented in tables 1 and 2 as well as in Figure 1.

Table 1: Employee creativity and innovation enablers: Themes and verbatim

Themes	Verbatim
Rewards	"Internal competitions where the best ideas are rewarded, for example intercompany competitions in safety, health and environment and quality. The best performers are rewarded." (Participant 3) "Reward, remuneration can unlock creativity, for example the colour system was a brainchild of employees' suggestion scheme." (Participant 4) "There is a culture of rewarding or encouraging innovative ideas to come through." (Participant 12)
Benchmarking	"By benchmarking its processes against the best in the private sector, Zesa Enterprises can enhance innovation." (Participant 19) "Benchmarking with other industries, for example civil service, offering an employee a vehicle and fuel, thus motivating employee." (Participant 21) "I believe one of the things is to accept that the business environment has changed, we exist in a global village; our company must benchmark against the likes of Asea Brown Boveri, a world-class company." (Participant 22)
Training	"The company train employees at seminars to enhance people's thinking." (Participant 2) "We send people to workshops and seminars such as those held by the Confederation of Zimbabwe Industries." (Participant 4) "In the quest to achieving business goals you can have an organisation that creates creativity, for example through training, creating an environment that supports skills enhancement." (Participant 5)
Sense of belonging	"Employees feel they belong, their contribution is valued, they feel important and recognised and feel they are contributing to something important and of worthwhile value." (Participant 1) "Once an employee feels part and parcel of the organisation, he is likely to pour out his heart and contribute to quality to meet customer demands." (Participant 11) "A sense of belonging is critical, organisational aims to share everything with the employees." (Participant 17)

Engagement	"Company Y has a perfect culture of employee involvement; employees are appreciated and listened to; we are empowered to make decisions." (Participant 3) "Management meets people from time to time and employees give suggestions and raise grievances." (Participant 4) "Top management is able to interact with lowest and highest level." (Participant 11)
Feedback	"We have running suggestion boxes and we analyse customer suggestions on where we can improve." (Participant 11) "Customer feedback is encouraged and they can tell us about product expectations." (Participant 12) "Tapping into customer feedback can help in terms of new products in relation to competitors, focusing on weaknesses." (Participant 13)
Teamwork	"Innovation is encouraged; through teamwork employees feel involved in the day-to-day running of the company." (Participant 4) "The *nhimbe* culture clearly shows that team effort provides better results; there is the team aspect and pooling of resources which will enhance any group's ability to achieve." (Participant 6) "Teamwork is very important. If we work as a team, we will be a great company. Interdepartmental teamwork is very important for cohesion." (Participant 19)
Collaboration	"Company Y is connected to LinkedIn platform where customers, suppliers, work colleagues share ideas. Company Y is well networked for idea sharing." (Participant 3) "It should interact with competitors to see how they are doing. Company Y cannot paint the whole of Zimbabwe …" (Participant 7) "We have something in place, for example, internal impact forums where people meet on a weekly basis and come up with solutions. Outside we have engaged colleges and tapping into their thinking. Company Y is training polytechnic students on paint innovation and feedback, we tap into these." (Participant 8)

It is clear from Table 1 that rewards, benchmarking, training, sense of belonging, engagement, feedback, teamwork and collaboration form part of the enabling factors in managing employee creativity and innovation.

Table 2: Employee creativity and innovation barriers: Themes and verbatim

Themes	Verbatim
Fear	"Fear of job losses can actually kill innovation." (Participant 2) "No fear must be allowed. Many a time people are afraid of being put down. Employees must be free to experiment with their ideas; that is the only way you can get people to be innovative." (Participant 5) "The organisation must remove circles around management so that employees are not afraid of approaching key managers." (Participant 23)
Punishment	"Silo mentality and punishing employees for mistakes should be avoided." (Participant 14) "Factors that stifle innovation include punitive measures meted out when an innovation fails. Innovation ideas that are not implemented kill future innovative ideas." (Participant 22) "One of the factors that impact innovation is punishment, for example, when running tenders and then we fail to land a tender we are punished. In future an employee will not be motivated to think innovatively." (Participant 23)
Lack of funding	"Invest in the innovations, for example, a budget for innovation. Certain individuals can think outside the box but the organisation must help." (Participant 8) "A lack of finance to bring in new technology was also hampering innovation." (Participant 15) "Company X has platforms where employees give their innovative ideas, employees' ideas are killed by lack of funds and this will reduce motivation to innovate due to resource shortages." (Participant 23)
Lack of research and development in Zimbabwe	"Our research and development department is in South Africa. There is need to have one in Harare as this can help as well. Use of software like Visualiser to assist in selecting pictures for a house is key." (Participant 4) "… it affects creativity in that you have to be hands on. Our innovation is driven from our South African parent company." (Participant 2) "In terms of innovation we have an innovation department in South Africa for all organisation departments. However, a South African innovation may not work in Zimbabwe. Locally at this point we are not doing innovative work. It is an area of improvement." (Participant 8)

Limited technology	"The organisation must provide resources, information technology resources and training in latest trends in the industries." (Participant 3) "To expand towards new technological trends, creativity is affected by technology and new resources. The organisation can expand its coverage and expand the business to another level." (Participant 6) "The environment is not conducive to open innovation systems. Profits are already shrinking so Company Y risks giving competitors data. It has limited scope with technology available in Zimbabwe." (Participant 7)
Bureaucracy	"Reduce bureaucracy; dismantle centralisation as it is not working." (Participant 21) "The organisation must de-role to allow a free flow of ideas, no idea should be deemed inferior; it must be validated rather than be discarded before evaluation." (Participant 22) "Loosen up boundaries so that employees feel free to proffer innovation. Certain managers might not take up their ideas through structural rigidities." (Participant 23)

In Table 2, the themes that form part of the employee creativity and innovation barriers are fear, punishment, lack of funding, lack of research and development in Zimbabwe, limited technology and bureaucracy.

As stated previously, an exploratory research design explores the research topic with varying levels of depth (Sing 2007). The aforementioned themes in this study were further analysed by using inductive (new codes) coding to summarise and group the enablers and barriers into three different levels (personal, operational and organisational). Personal creativity and innovation refer to the individual's capability to embrace creativity and innovation (Helson and Pals 2001). Operational creativity and innovation refer to the execution part (Feurer, Chaharbaghi, and Wargin 1996). Organisational creativity and innovation refer to the organisational climate, leadership style, organisational culture, resources and skills and the structure of an organisation (Andriopoulos 2001). This visual presentation is done so that managers can see on which levels employee creativity and innovation can be managed holistically. Figure 1 illustrates these three levels.

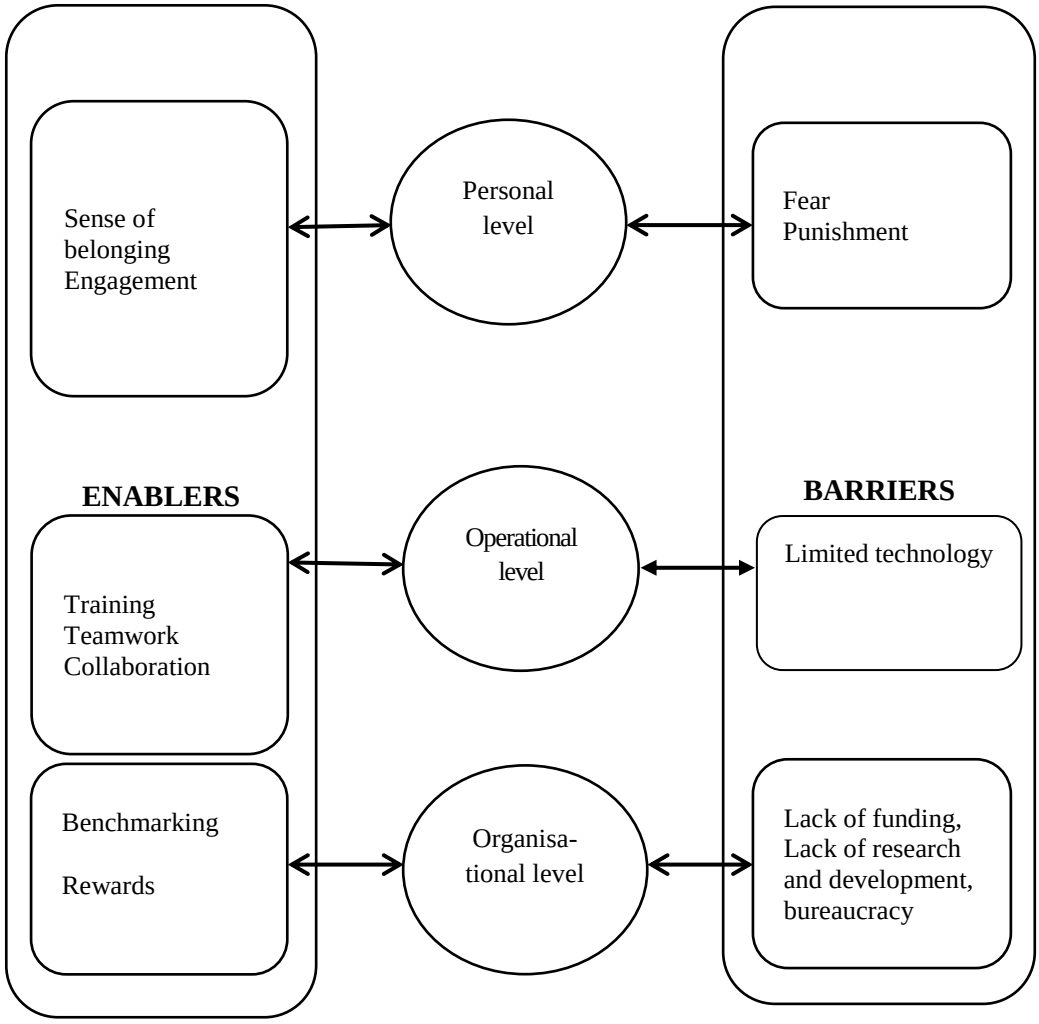

Figure 1: Enablers and barriers of managing employee creativity and innovation on three different levels (authors' own development)

In Figure 1, sense of belonging, engagement training, teamwork, collaboration, benchmarking and rewards were categorised as enablers of managing employee creativity and innovation. Fear, punishment, limited technology, lack of funding, lack of research and development, and bureaucracy were categorised as barriers of managing employee creativity and innovation. The three levels (personal, operational and organisational) on which management should focus to properly manage employee creativity and innovation are presented. On a personal level, management must attend to employees' sense of belonging and engagement in order to improve their ability to be more creative and innovative. Fear and punishment, on the other hand, should be eliminated or else it will distract employees from being creative and innovative. On an

operational level, management should provide training opportunities and encourage teamwork and collaboration. Technology should be provided to stimulate creativity and innovation, or else it will be a distractor. On an organisational level, management should benchmark their processes, services and products to kindle creativity and innovation. Rewards for being creative and innovating should also be considered. On the other hand, a lack of funding is not enabling staff to be creative and innovative. The fact that the research and development section of these manufacturing companies are in South Africa and not in Zimbabwe is also a distractor. Lastly, bureaucracy is also a distractor in the sense that delayed decision-making and rigidity inhibit employee creativity and innovation.

Discussion

These findings in tables 1 and 2 show that both innovation processes, namely idea generation and idea implementation (Scott and Bruce 1994; West 2002) were evident. The preponderance of literature on creativity has focused on the individual, yet the social environment can influence both the level and frequency of creative behaviour (McClean 2005); this concurs with the findings of this study.

It is clear from Table 1 that rewards, benchmarking, training, sense of belonging, engagement, feedback, teamwork and collaboration form part of the enabling factors in managing employee creativity and innovation. Rewards enable innovation (Malik and Butt 2016); this supplements the findings in the study. Epper (1999) also found benchmarking to be an important factor in the success of employee creativity and innovation. Staff training was identified as one of the top areas for potential innovation in the postal sector (Sund 2008), which corresponds with the findings of this study. Nemeth (1997) also found a positive connection between sense of belonging and innovation. Zhang and Bartol (2017) accentuate the positive effect of engagement on creativity. Team composition enables innovation (Sund 2008) as well as rewards (Malik and Butt 2016). The overriding idea is to create a collaborative atmosphere where employees share knowledge, learn from one another and offer pertinent knowledge for use in new solutions (Malhotra et al. 2017); this concurs with collaboration as being an enabler.

In Table 2, the themes that form part of the employee creativity and innovation barriers are fear, punishment, lack of funding, lack of research and development in Zimbabwe, limited technology, and bureaucracy. Critchfield (2007) as well as Heifetz et al. (2009) found that fear inhibits creativity; this corresponds with the findings of this study. Punishment discourages employees and hampers efforts to create or maintain a creative work environment (Assad 2019), as was also found in this study. A lack of financial resources is a barrier to innovation (Madrid-Guijarro et al. 2009); this is in agreement with this study's findings. A lack of indigenous technology and a lack of supply of finance and skilled labour are barriers of being innovative in a small, less developed country such as Cyprus (Hadjimanolis 1999). A lack of technology was a distractor at

these two manufacturing companies under study. Madrid-Guijarro et al. (2009) are in agreement with this study in the sense that bureaucracy distracts employee creativity and innovation. Respondents perceive long internal decision-making processes to be a great hindrance to innovation (Sund 2008), and this bureaucracy is also a distractor.

Managerial Implications and Recommendations

Our findings provide important managerial implications to help organisations effectively manage employee creativity and innovation. If managers do not give the necessary attention to employee creativity and innovation on a personal level of an employee, on an operational roll-out level, as well as on the bigger arena of the organisation, it might be that the company lacks competitiveness. Time needs to be set apart for engagement with employees. The impact of fear and punishment is detrimental to being creative and innovative. At an operational level, training, teamwork and collaboration should be encouraged to effect creativity and innovation at these two manufacturing companies. Investing in technology seems to be priority. At an organisational level, benchmarking and rewards should be encouraged and different routes for funding investigated. The negative impact of the absence of the research and development section in Zimbabwe needs to be explored. Bureaucracy has no practical value to enhance employee creativity and innovation and processes should therefore be streamlined. Unless an organisation is able to move into further creativity and innovation, it risks being left behind as others take the lead in changing their offerings, their operational processes or the underlying models which drive their business (Tidd and Bessant 2013).

In Figure 1, it is clear that management should focus on three different levels (personal, operational and organisational) to properly manage employee creativity and innovation. Previous studies about managing employee creativity and innovation from management's point of view pertaining to these three levels in Zimbabwean companies, could not be found. Figure 1, therefore, contributes to the body of knowledge within the field of managing employee creativity and innovation.

It is recommended that managers be trained, mentored and coached to effectively deal with employee creativity and innovation matters on a personal, operational and organisational level. The companies can offer incentives to employees, such as gift cards, to both idea contributors and collaborators. The rewards can be tangible, like monetary incentives or recognition by management to make employees think out of the box. Once the ideas are put forward, it is also management's responsibility to consider those ideas and implement the best one chosen; to not discourage employees to showcase their creativity in future. Providing a suggestion box or something similar can also help in bringing out creative ideas from more reserved employees who prefer anonymity and confidentiality, though who should also be recognised for their suggestions. It should also be noticed that the most creative concepts are born out of brainstorming sessions where people discuss and debate over possible solutions. Having

a private channel to present ideas may obstruct the creative process. Therefore, the company should manage both private and public mediums to provide employees a perfect intermediate to portray their creativity. Another cause of employees' not coming forward with their inventive ideas could be because they are unsure of whether the organisation supports creativity. A major hurdle to bringing innovative ideas forward is the fear of repercussions when making mistakes. Risk-taking should be encouraged by the companies to develop a creative culture. Management should be more receptive and open-minded towards their employees' suggestions. A more holistic and systematic way of promoting creativity and innovation in the workplace is therefore recommended. Management should invest in a systematic approach to manage employee creativity and innovation by involving other managers, employees, external consultants, academics, crowdsourcing as well as research and development (R&D). In this manner, a holistic view will be obtained to make suitable decisions.

The following circumstantial information could be considered for future research. The economy in Zimbabwe is fast deteriorating; many companies are operating on shoe-string budgets and cannot access fresh capital to increase production capacity and upgrade employee skills to match global talent. There is a need to invest in college and university education that focuses on creative thinking as well as innovative thinking. The Zimbabwean government cannot provide all this funding and the private sector is urged to help. Zimbabwe faces international isolation and this hampers cross fertilisation of new technology ideas, creativity and innovation. A rigid and outdated educational curriculum is also battering creativity and innovation. This needs to be revamped by teaching creativity and innovation at primary school level. There is now some thrust towards innovation hubs at universities, but this must be encouraged at industry and even secondary school levels. Lack of international benchmarking of technology and talent is also hampering creativity and innovation, as a culture of maintaining the status quo rules. The education curriculum needs to encourage students gifted in arts, dance, photography and design to ensure creativity and innovation. Lack of diversified skills sets is thus also hampering creativity and innovation.

For future research, the framework about the three levels (personal, operational and organisational) can be tested and improved to develop a model for managing employee creativity and innovation. Further investigation on the enablers and barriers as well as the different levels to manage employee creativity and innovation is also needed. A questionnaire can be developed and validated to measure employee creativity and wellness in African and other countries. A qualitative approach can be followed to investigate employee creativity and innovation in all the manufacturing companies in Zimbabwe and other African countries.

Limitations

Only two manufacturing companies in Zimbabwe were included in this study. The focus of this study was on employee creativity and innovation and there are other themes that

could also have been investigated in the rapidly worsening economic Zimbabwean context.

Conclusion

The purpose of this study was to determine enablers and barriers of managing employee creativity and innovation. Rewards, benchmarking, training, sense of belonging, engagement, feedback, teamwork and collaboration form part of the enabling factors in managing employee creativity and innovation. Employee creativity and innovation barriers are fear, punishment, lack of funding, lack of research and development in Zimbabwe, limited technology, and bureaucracy. To provide a visual presentation to managers, these enablers and barriers were grouped into three different levels (personal, operational and organisational) that need attention. The contribution of this study is the visual presentation to illustrate the three levels (personal, operational and organisational) on which management should focus to properly manage the enablers and barriers of employee creativity and innovation. It is essential that proactive management of employee creativity and innovation be encouraged at the manufacturing companies under study to address the worsening economic situation in Zimbabwe. The Zimbabwean situation was elucidated by referring to creativity and innovation that are hampered and battered.

Disclosure Statement

The authors reported no potential conflict of interest.

References

African Development Bank Group. 2014. “Eastern Africa’s Manufacturing Sector.” http://observatoire-europe-afrique-2020.org/wp-content/uploads/2016/03/Eastern-Africa_Manuf …78.pdf.

Amabile, T. M. 1996. *Creativity in Context: Update to “The Social Psychology of Creativity.”* Boulder, CO: Westview Press.

Amabile, T. M., E. A. Schatzel, G. B. Monela, and S. J. Kramer. 2004. “Leader Behaviours and the Work Environment for Creativity: Perceived Leader Support.” *The Leadership Quarterly* 15 (1): 5–32. https://doi.org/10.1016/j.leaqua.2003.12.003.

Anderson, N., K. Potočnik, and J. Zhou. 2014. “Innovation and Creativity in Organisations: A State-of-the-Science Review, Prospective Commentary, and Guiding Framework.” *Journal of Management* 40 (5): 1297–1333. https://doi.org/10.1177/0149206314527128.

Andriopoulos, C. 2001. “Determinants of Organisational Creativity: A Literature Review.” *Management Decision* 39 (10): 834–841. https://doi.org/10.1108/00251740110402328.

Assad, A. 2109. “The Effects of Punishment on Employee Behaviour.” Accessed 14 August 14, 2019. http://smallbusiness.chron.com/effects-punishment-employee-bahaviour-14302.html.

Antonites, A. J. 2014. “The Concepts: Creativity, Innovation and Opportunity Finding.” In *Entrepreneurship: A South African perspective*, 3rd edition, edited by G. Nieman and C. Nieuwenhuizen. Pretoria: Van Schaik. Chapter 3.

Barsh, J., M. M. Capozzi, and J. Davidson. 2008. “Leadership and Innovation.” *McKinsey Quarterly* 1: 36–47.

Bless, C., C. Higson-Smith, and S. L. Sithole. 2013. *Fundamentals of Social Research Methods: An African Perspective*, 5th edition. Cape Town: Juta.

Bryman, T. 2008. *Social Research Methods.* Oxford: Oxford University Press.

Creswell, J. W. 2014. *Research Design: Qualitative, Quantitative and Mixed Method Approaches,* 4th edition. Los Angeles, CA: Sage.

Critchfield, S. 2007. “How to Push Your Team to Take Risks and Experiment.” *Harvard Business Review*, March. https://hbr.org/2017/03/how-to-push-your-team-to-take-risks-and-experiment.

Crotty, M. 1998. *The Foundations of Social Research: Meaning and Perspectives in the Research Process.* Thousand Oaks, CA: Sage.

De Spiegelaere, S., G. van Gyes, H. de Witte, W. Niesen, and G. van Hootegem. 2014. “On the Relation of Job Insecurity, Job Autonomy, Innovative Work Behaviour and the Mediating Effect of Work Engagement.” *Creativity and Innovation Management* 23: 318–330. https://doi.org/10.1111/caim.12079.

Duffy, T. M., and Jonassen, D. H. eds. 1991. *Constructivism: New Implication for Instructional Technology in Constructivism and the Technology of Instructional Technology.* Hillsdale, NJ: Erlbaum.

Eisner, E. W. 1991. *The Enlightened Eye: Qualitative Enquiry and the Enhancement of Educational Practice.* New York: Macmillan.

Epper, R. M. 1999. “Applying Benchmarking to Higher Education: Some Lessons from Experience.” *Change* 31 (6): 24–31. https://doi.org/10.1080/00091389909604230.

Ettorchi-Tardy, A., M. Levif, and P. Michel. 2012. “Benchmarking: A Method for Continuous Quality Improvement in Health.” *Health Policy* 7 (4): e101–e119. https://doi.org/10.12927/hcpol.2012.22872.

Fazey, I. J. A., J. Fazey, K. Fischer, K. Sherren, J. Warren, R. F. Noss, and S. R. Dovers. 2007. "Adaptive Capacity and Learning to Learn as Leverage for Social-Ecological Resilience." *Frontiers in Ecology and the Environment* 5 (7): 375–380. https://doi.org/10.1890/1540-9295(2007)5[375:ACALTL]2.0.CO;2.

Feurer, R., K. Chaharbaghi, and J. Wargin. 1996, "Developing Creative Teams for Operational Excellence." *International Journal of Operations and Production Management* 16 (1): 5–18. https://doi.org/10.1108/01443579610106328.

Florida, R., and J. Goodnight. 2005. "Managing for Creativity." *Harvard Business Review* 83 (7): 124–131.

Freel, M. 2000. "Barriers to Product Innovation in Small Manufacturing Firms." *International Small Business Journal* 18 (2): 60–79. https://doi.org/10.1177/0266242600182003.

Frenkel, A. 2003. "Barriers and Limitations in the Development of Industrial Innovation in the Region." *European Planning Studies* 11 (2): 115–137. https://doi.org/10.1080/0965431032000072837.

Gilson, L. L., and C. E. Shalley. 2004. "A Little Creativity Goes a Long Way: An Examination of Teams' Engagement in Creative Processes." *Journal of Management* 30 (4): 453–470. https://doi.org/10.1016/j.jm.2003.07.001.

Gong, Y., S.-Y. Cheung, M. Wang, and J.-C. Huang. 2012. "Unfolding the Proactive Process for Creativity: Integration of the Employee Proactivity, Information Exchange, and Psychological Safety Perspectives." *Journal of Management* 38 (5): 1611–1633. https://doi.org/10.1177/0149206310380250.

Grenny, J. 2019. "How to be Creative on Demand." *Harvard Business Review*, January.

Hadjimanolis, A. 1999. "Barriers to Innovation for SMES in a Small Less Developed Country (Cyprus)." *Technovation* 19 (9): 561–570. https://doi.org/10.1016/S0166-4972(99)00034-6.

Hamel, G. 2006. "The Why, What, and How of Management Innovation." *Harvard Business Review* 84 (2): 72–84.

Heifetz, R., A. Grashow, and M. Linsky. 2009. *The Practice of Adaptive Leadership*. Cambridge, MA.: Harvard Business Press.

Helson, R., and J. L. Pals. 2001. "Creative Potential, Creative Achievement, and Personal Growth." *Journal of Personality* 68 (1): 1–27. https://doi.org/10.1111/1467-6494.00089.

Hon, A. H. Y., and S. S. Lui. 2015. "Employee Creativity and Innovation in Organisations Review, Integration, and Future Directions for Hospitality Research." *International Journal of Contemporary Hospitality Managemen*t 28 (5): 862–885. https://doi.org/10.1108/IJCHM-09-2014-0454.

Hong, J., B. Hou, K. Zhu, and D. Marinova. 2018. "Exploratory Innovation, Exploitative Innovation and Employee Creativity. The Moderation of Collectivism in Chinese Context." *Chinese Management Studies* 12 (2): 268–286. https://doi.org/10.1108/CMS-11-2016-0228.

Janssen, O. 2000. "Job Demands, Perceptions of Effort-Reward Fairness and Innovative Work Behaviour." *Journal of Occupational and Organisational Psychology* 73 (3): 287–302. https://doi.org/10.1348/096317900167038.

Kurasha, P. 2015. "The Future of Higher Education in Zimbabwe: A Constantly Moving Target." *Zimbabwe Journal of Educational Research* 27 (2): 204–221. https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/10403.

Khazanchi, S., and S. S. Masterson. 2011. "Who and What is Fair Matters: A Multi-Foci Social Exchange Model of Creativity." *Journal of Organisational Behaviour* 32 (1): 86–106. https://doi.org/10.1002/job.682.

Lincoln, Y. S., and E. G. Guba. 1985. *Naturalistic Inquiry.* Newbury, CA: Sage. https://doi.org/10.1016/0147-1767(85)90062-8.

Ma Prieto, I., and M. Pilar Perez-Santana. 2014. "Managing Innovative Work Behaviour: The Role of Human Resource Practices." *Personnel Review* 43 (2): 184–208. https://doi.org/10.1108/PR-11-2012-0199.

Madrid-Guijarro, A., D. García-Pérez-de-Lema, and H. van Auken. 2009. "Barriers to Innovation among Spanish Manufacturing SMEs." *Journal of Small Business* Management 47 (4): 465–488. https://doi.org/10.1111/j.1540-627X.2009.00279.x.

Malhotra, A., A. Majchrzak, L. Kesebi, and A. Looram. 2017. "Developing Innovative Solutions through Internal Crowdsourcing." *MIT Sloan Management Review* 58 (4): 73–79.

Malik, A. R., and A. N. Butt. 2016. "Rewards and Creativity: Past, Present, and Future: Rewards and Creativity." *Applied Psychology* 66 (2): 290–325. https://doi.org/10.1111/apps.12080.

Makanyeza, C., and G. Dzvuke. 2015. "The Influence of Innovation on the Performance of Small and Medium Enterprises in Zimbabwe." *Journal of African Business* 16 (1–2): 198–214. https://doi.org/10.1080/15228916.2015.1061406.

Maxwell, J. C. 2005. *Thinking for Change: 11 Ways Highly Successful People Approach Life and Work.* New York: Hachette.

Mbizi, R., L. Hove, A. Thondlana, and N. Kakava. 2013. "Innovation in SMEs: A Review of its Role to Organisational Performance and SMEs Operations Sustainability." *Interdisciplinary Journal of Contemporary Research in Business* 4 (11) (March): 370.

McClean, L. D. 2005. “Organisational Culture’s Influence on Creativity and Innovation: A Review of the Literature and Implications for Human Resource Development.” *Advances in Developing Human Resources* 7 (2): 226–246. https://doi.org/10.1177/1523422305274528.

Meade, P. H. 1998. *A Guide to Benchmarking*. Dunedin, New Zealand: University of Otago.

Mowser, K. S., J. F. Dawson, and A. W. West. 2018. “Antecedents of Team Innovation in Health Care Teams.” *Creativity and Innovation Management* 28 (1): 71–81. https://doi.org/10.1111/caim.12285.

Mungazi, D. A. 1985. “Educational Innovation in Zimbabwe: Possibilities and Problems.” *The Journal of Negro Education* 54 (2): 196–212. https://doi.org/10.2307/2294933.

Nani, G. V. 2017. “Business Imitations: The Dearth of Creativity and/or Innovation? A Case Study of the Bulawayo Metropolitan Province, Zimbabwe.” *Journal of Contemporary Management* 14 (0): 60–83.

Ndofirepi, T. M. 2016. “The Impact of Technological Creativity and Entrepreneurship Education on the Entrepreneurship Intentions of Students from Particular Tertiary Institutions in Zimbabwe and South Africa.” Thesis. Central University of Technology, Free State.

Nemeth, C. J. 1997. “Managing Innovation: When Less is More.” *California Management Review* 40 (10): 59–74. https://doi.org/10.2307/41165922.

Nonaka, I. 2011. *The Knowledge Creating Company*. Boston, MA: Harvard Business Review Classics.

Okpara, F. O. 2007. “The Value of Creativity and Innovation in Entrepreneurship.” *Journal of Asia Entrepreneurship and Sustainability* 3 (2): 1–14.

Robertson, J. 2016. “Stalled Reforms Sticky Point in Zimbabwe’s New Funding Hunt.” *Zimbabwe Independent Business Digest* 18: November 5.

Ryan, G. W., and H. R. Bernard. 2003. “Techniques to Identify Themes.” *Fields Methods* 15: 85–109. https://doi.org/10.1177/1525822X02239569.

Saunders, M., P. Lewis, and A. Thornhill. 2012. *Research Methods for Business Students.* 6th edition, Pearson Education.

Scott, S. G., and R.A. Bruce. 1994. “Determinants of Innovative Behavior: A Path Model of Individual Innovation in the Workplace.” *Academy of Management Journal* 37 (3), 580–607. https://doi.org/10.2307/256701.

Shalley, C. E., J. Zhou, and G. R. Oldham. 2004. “The Effects of Personal and Contextual Characteristics on Creativity: Where Should We Go from Here?” *Journal of Management* 30 (6): 933–958. https://doi.org/10.1016/j.jm.2004.06.007.

Sing, K. 2007. “Quantitative Social Research Methods.” Los Angeles, CA: Sage.

Sund, K. J. 2008. “Innovation in the Postal Sector: Strategies, Barriers and Enablers. Project Report.” SAP. London: Middlesex University. http://eprints.mdx.ac.uk/5224/1/ InnovationPostalSectorSUND.pdf.

Terwiesch, C., and K. T. Ulrich. 2010. *Innovation Tournaments: Creating and Selecting Exceptional Opportunities.* Boston, MA: Harvard Business School Press.

Tesch, R. 1990. *Qualitative Research: Analysis Types and Software Tools*. New York: Falmer.

The World Bank in Africa. 2019. “Overview: Sub-Saharan Africa.” https://www.worldbank.org/en/region/afr/overview.

Tidd, J., and J. R. Bessant. 2013. *Managing Innovation: Integrating Technological, Market and Organisational Change*, 5th edition. Hoboken, NJ: Wiley.

Tripathi, S. B., B. Poddar, Y. Erande, S. George, and K. V. Bansa. 2015. *Inclusive Growth with Disruptive Innovations: Gearing Up for Digital Disruption.* Boston, MA: Boston Consulting Group, 1–44. http://image-src.bcg.com/Inclusive-Growth-Disruptive-Innovations-Aug-2015-India_ tcm21- 28756.pdf.

UNESCO. 2013. “Special Report on Creative Economies.” http://www.unesco.org/new/en/culture/themes/creativity/creative-economy-report-2013-special-edition.

Vaara, E., and R. Whittington. 2012. “Strategy-as-Practice: Taking Social Practices Seriously.” *Academy of Management Annals* 6 (1): 1–52. https://doi.org/10.5465/19416520.2012.672039.

Van Hootegem, A., W. Niesen, and H. de Witte. 2018. “Does Job Insecurity Hinder Innovative Work Behaviour? A Threat Rigidity Perspective.” *Creativity and Innovation Management* 28 (1): 19–29. https://doi.org/10.1111/caim.12271|. https://doi.org/10.1111/caim.12271.

West, M. A. 2002. “Sparkling Fountains or Stagnant Ponds: An Integrative Model of Creativity and Innovation Implementation in Work Groups.” *Applied Psychology: An International Review* 51 (3): 355–424. https://doi.org/10.1111/1464-0597.00951.

West, M. A., and J. L. Farr. 1989. “Innovation at Work: Psychological Perspectives.” *Social Behaviour* 4 (1): 15–30.

Weston, A. 2012. “Creativity in the Informal Economy of Zimbabwe.” Doctoral thesis. Kingston University. https://pureportal.strath.ac.uk/en/publications/creativity-in-the-informal-economy-of-zimbabwe.

Woodman, R. W., J. E. Sawyer, and R. W. Griffin. 1993. “Toward a Theory of Organisational Creativity.” *Academy of Management Review* 18 (2), 293–321. https://doi.org/10.5465/amr.1993.3997517.

Zhang, S., and K. M. Bartol. 2017. “Linking Empowering Leadership and Employee Creativity: The Influence of Psychological Empowerment, Intrinsic Motivation, and Creative Process Engagement.” *Academy of Management Journal* 53 (1): 107–128. https://doi.org/10.5465/amj.2010.48037118.

Zhou, J., and I. J. Hoever. 2014. “Research on Workplace Creativity: A Review and Redirection.” *Annual Review of Organisational Psychology and Organisational Behaviour* 1 (1) 9: 333–359. https://doi.org/10.1146/annurev-orgpsych-031413-091226.

Zhou, J., and C. E. Shalley. 2003. “Research on Employee Creativity: A Critical Review and Directions for Future Research.” *Research in Personnel and Human Resources Management* 22: 165–217. https://doi.org/10.1016/S0742-7301(03)22004-1.