DEVELOPING CREATIVE AND INNOVATIVE THINKING AND PROBLEM-SOLVING SKILLS

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Abstract

A specific financial services organisation in South Africa realised that they had to join the innovation revolution in order to remain commercially competitive due to unexpected competitors entering the traditional financial services domain. The evaluation question asks whether employees in a financial services organisation can develop creative and innovative thinking and problem-solving skills through an intervention such as a workshop, and can a benefit for the business unit and organisation be identified.

This qualitative study employed Utilisation Focused Evaluation (UFE) to address the evaluation question. Questionnaires, pen-and-paper tests and interviews were used to gather data. Descriptive statistics were applied to report the data. The most critical finding confirmed that individuals can acquire creative and innovative thinking and problem-solving skills. The acquisition of these skills though is not sufficient on its own to establish a culture supportive of creativity and innovation.

The study culminated in the creation of The Triple I Creativity and Innovation Model. The Triple I Creativity and Innovation Model illustrates how a workshop with distinctive training design features can impact the individual, the business unit and the organisation in order to initiate, ideaneer and ignite creativity and innovation.

Keywords: Developing creative and innovative thinking and problem-solving skills; Utilization Focussed Evaluation (UFE); Tripple I Creativity and Innovation Model.

1. INTRODUCTION

The development of creative and innovative thinking and problem-solving skills is crucial for the survival of organisations in the twenty-first century (Hamel, 2000; Levesque, 2001; Skarzynski & Gibson, 2008). The fundamental and perennial themes and propositions of this study, therefore, are based on the realisation that in times of increasing global competition and rapidly increasing change the need exists for managers and leaders to be able to respond in ways not previously imagined. Consequently, an organisation's ability to innovate will afford it the competitive advantage it requires to survive (Hamel, 2000; Krippendorff, 2008).

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2. BACKGROUND TO THE STUDY

Increasing global competition coupled with rapidly changing technology and the shortening of the product life cycle are rendering organisations more vulnerable to failure now than at any time in the past (Fonseca, 2002; Phrahalad & Krishnan, 2008). The catchphrase in industry is the desperate need for "innovation". The key to organisational success lies in developing intellectual capital and acquiring a new way of thinking, namely creativity to yield an idea, and innovation to translate the idea into a novel result (Allison, 2005; Roffe, 1999).

As organisations seek to distance themselves from competitors, they develop and/or adopt new products, processes, techniques or procedures (Cooper, 1998; Kelley, 2001; Krippendorff, 2008). Markets are dynamic; therefore, enterprises should continuously strive to innovate, and simultaneously to limit imitations in order to create a sustainable competitive advantage (Kajanus, 2000). The process is further complicated when other organisations that compete directly engage in innovation at the same time (Cooper, 1998; Hamel, 2000; Prahalad & Krishnan, 2008).

Solomon, Winslow and Tarabishy (2003) maintain that to fully understand the concept of innovation means that its main objective should firstly be understood. The central role of innovation is the long-term survival of organisations (Grulke, 2002; Hamel, 2000; Solomon et al., 2003).

Organisations have no option but to innovate and to achieve this, they have to design a strategy that is able to convert creativity into innovation (Allison, 2005; Cook, 1998). More importantly, they have to find ways to unleash the creative potential of their employees and convert this potential into innovative business solutions. Some organisations are more successful than others in mastering both innovation and change. If the development of creative and innovative thinking and problem-solving skills is the proposed solution, the challenge of finding a way to develop creative and innovative thinking and problem-solving skills in organisations still remains.

A specific financial services organisation in South Africa came to the realisation that they had to join the innovation revolution in order to remain commercially competitive in the twenty-first century. With retailers and other competitors such as the telecommunication role players entering the traditional financial services domain, it became evident to this organisation that a new business model would "create new value for customers, provide rude surprises for competitors, and create new wealth for investors" (Hamel, 2000, p.18).

To this avail a financial services organisation commissioned the researcher (first author) to design a creativity and innovation workshop with the intent to improve the creative and innovative thinking and problem-solving skills of their employees. The commissioned researcher was assisted by the other researchers to document the process.

3. RESEARCH PURPOSE

The problem being investigated, therefore, is the extent to which the creative and innovative thinking and problem-solving skills can successfully be taught and applied in a highly regulated environment where very few determinants on both an organisational and an individual level supportive of creativity and innovation are present.

4. TRENDS FROM THE RESEARCH LITERATURE

The literature review[2] illuminates a shift in focus from the individual as pivotal enabler of creative and innovative thinking and problem-solving solutions in organisations to the environment as enabler of creativity and innovation. Recent thought leaders, however, acknowledge the interdependency of both individual determinants as well as organisational determinants for the establishment of an environment conducive of creativity and innovation (Hamel, 2000; Krippendorff, 2008; Prahalad & Krishnan, 2008; Skarzynski & Gibson, 2008).

The knowledge derived from the opinions as expressed by those researchers perceived as the "pioneers" in the field (Baron, 1969, 1990; Drucker, 1986; Guilford, , 1975, 1986; Schumpeter (1934), cited in Fonseca, 2002), with the views of those who are considered as the "ever-greens" who continuously contribute knowledge to the field (Amabile, 1983, 2003; De Bono, 1992, 2005; Martins & Terblanche, 2003; VanGundy, 1981,1997; Von Oech, 1983, 1990), with the opinions of the innovation "revolutionaries" (Allison, 2005; Fonseca, 2002; Hamel, 2000; Grulke, 2002; Kelley, 2001) and finally, with the views and perspectives on creativity and innovation of the current "thought leaders" (Krippendorff, 2008; Prahalad & Krishnan, 2008; Skarzynski & Gibson, 2008) constituted the framework for the selection of the content and distinctive design features of the workshop intervention.

4.1 Research Objectives

The first objective of the study was to review the current thinking on creativity and innovation and its role in business. Prior to developing creative and innovative thinking and problem-solving skills, the concepts creativity and innovation had to be defined.

[2]Some of the cited references did not conform to the chronology-driven notion of "recency of information/research". The researcher attempted to source the original or primary reference in all the cases where the reference was cited. The primary reference was used when available. Some of the references could not be sourced and the cited train of thought as well as the extended argument of the author who cited the author, were used.

Some authors are of the opinion that innovation needs to be distinguished from creativity (Middleton-Kelly, 2006; Skarzynski & Gibson, 2008) while others advocate the interchangeable use of the two concepts (Couger, 1995; Man, 2001). The authors are of the opinion that the context determines the approach of how to use these two concepts.

The concept 'creativity' is well-defined and explored in the literature review. Various authors have offered a definition of creativity. Baron (1969, 1990) and Guilford (1975, 1986) seem to agree that creativity should result in something new. Martins and Terblanche (2003) place the context of creativity at the level of the organisation.

Various authors identify different phases (Lessem in Henry, 1991; Wallas in Lytton, 1971) - an individual has to go through to be creative and it is evident that a process is required to reach a creative goal. Cook (1998) argues that an idea without commercial application is irrelevant. If creativity is viewed in an organisational context, the evaluation and application should focus on a commercial outcome.

Ford and Gioia (1995), Martins and Terblanche (2003) and Wallace and Gruber (1989) are of the opinion that creativity should be measured in context. From the above it is evident that a number of factors have to be considered when attempting to define creativity. This information, as well as the different views and definitions of creativity, were used to formulate the following definition of creativity for the purpose of this study:

Creativity is the accomplishment of new developments as a result of the interaction between an individual and his/her environment, or groups and their environment with commercial intent. Properly defined concepts form the starting point for the development of creative and innovative thinking and problem-solving skills. In the next section innovation is defined.

Schumpeter (1934, as cited in Fonseca, 2002, p. 15) defines innovation very broadly ("all ways of doing things differently") while Robbins, (1979) and West and Farr (1996) attempted more detailed definitions. Hamel (2000) focused on the creation of wealth and Kelley (2001, p.5) argued that innovation is a blend of "methodologies, work practices, culture and infrastructure". Grulke (2002, p.8) defined innovation as "the change into something new, the introduction of novelties and the alteration of what is established".

Although each researcher has their own interpretation of innovation, most researchers commonly view the central and key concepts as follows: innovation starts with a new idea; in organisations with characteristics that allow individuals to assume the role of entrepreneurs, a process or a blend of methodologies is followed that brings about a change that can be implemented for commercial gain.

The same themes that emerged during the discussions of the creativity definitions are evident in the definitions of innovation. The themes are extended to include the thoughts pertaining to the creation of wealth.

Innovation for the purpose of this research can then be defined as:

The accomplishment of something new or the change of something that already exists, as a result of the interaction between an individual and their environment, or a group with their environment with the sole purpose of commercial intent in the attempt to create wealth.

Ford and Gioia (1995), Hamel (2000), Kelley (2001) and Krippendorff (2008) agree that interventions should be designed in order to develop a culture of creativity and innovation. They concur that a specific relationship exists between creativity, innovation and culture. Successful organisations also change their strategy and structures firstly to enable innovation, secondly to support the intervention with a well-planned change management process, and thirdly choose a methodology or guideline to guide them through the change (Hamel, 2000; Kelley, 2001).

Organisations that successfully establish a culture supportive of creativity and innovation find creative solutions to the barriers of innovation, sanction actions to empower innovators, set boundaries for innovation, tolerate risk and create structures that facilitate innovation (Hamel, 2000; Kelley, 2001; Krippendorff, 2008).

It is evident from the literature review that innovative organisations focus on an organisational and an individual level to enable and establish creativity and innovation.

The researchers are of the opinion that most researchers are able to identify the characteristics of organisations that successfully lead the innovation revolution. These organisations enable and encourage their employees to think creatively and produce innovative ideas and solutions. The challenge for organisations that would like to become more innovative is how to unleash the creative potential of their employees to generate those ideas that can be channelled into innovative business opportunities. This could be achieved by developing the creative and innovative thinking and problem-solving skills of individuals in their organisations.

A financial services organisation realised that they adhere to few of the requirements and characteristics as displayed by innovative organisations. The organisation commissioned the design of a workshop to develop the creative and innovative thinking and problem-solving skills of the participants who would be nominated to attend such a workshop.

De Bono (1992) and Man (2001) argue that a valuable degree of creative skill can be acquired by anyone that sets out to acquire such skills. The next objective was to determine how to develop creative and innovative thinking and problem-solving skills in the financial services organisation and to articulate the design features and distinctive characteristics of the proposed organisational intervention.

Creativity is not limited to artists, musicians and marketing people; it is a tangible and abundant wellspring that everyone can tap into (Arenofsky, 2000; Levesque, 2001; Von Oech, 1983). The researchers support this view, and the premise underlying the selection of the workshop content is that everybody is creative and that creativity can be developed. The following themes were used as guidelines for the selection of the workshop content.

Creativity and innovation has to be defined in context (Couger, 1995; Man, 2001; Martins and Terblanche, 2003). Couger (1995), Foster & Kaplan (2001) and Lucas (2003) propagate the need for both divergent and convergent thinking. Allison (2005), Couger (1995), Hamel (2000) and Prahalad and Krishnan (2008) discuss barriers to creativity and innovation. Krippendorff (2008), Prahalad and Krishnan (2008) and Skarzynski and Gibson (2008) support the importance of an environment that sustains and enables creative and innovative thinking and problem-solving skills. Ford and Gioia (1995), Henry (1991) and Lucas (2003) support the theory that the brain consists of a left side and a right side and that each side has distinct functions and qualities. Kelley (2001), Levesque (2001) and Plompen (2005) are of the opinion that co-operative teams do have an influence on the degree to which creativity and innovation occur in organisations.

Cook (1998) takes a strategic view of creativity as a key element of competitive advantage. He adds that creativity is not predominantly something that can be “forced” through creativity techniques. It depends crucially on the setting of an appropriate context for ideas to emerge and their subsequent mobilisation into innovative products and services. When the context is right techniques can play their part in raising the level and type of creativity within organisations. The researchers attempted to provide a framework containing creative and innovative thinking and problem-solving techniques. Some of the design features and the distinctive characteristics of the workshop content will now be articulated.

4.2 Distinctive characteristics of the workshop

The workshop is based on adult learning principles and the design incorporated a variety of learning styles and training techniques (Lucas, 2003; Maresh, in Piskurich, Beckshi & Hall, 2000; Piskurich, 2000). The most effective activities were selected and their utility and practicality had to be evaluated.

The ideal group size appears to be 12 people (West in McAdam & McLelland, 2002). Amabile (2003) adds further considerations to the above that should be considered when selecting participants for the workshop: skill in the domain, creative working and thinking skills, as well as intrinsic motivation. Rapid Instructional Design (RID) represents an eclectic approach with a flexible choice of techniques based on the nature of the instructional objective, the characteristics of the participants, and context of training (Thiagarajan, in Piskurish et al., 2000). The final workshop design incorporates the ADDIE (analyse, design, develop, implement and evaluate (Beckshi & Doty in Piskurich et al., 2000)) process, as requested by the client.

As the focus of this study is contained within the training arena, it lends itself to the use of the Kirkpatrick evaluation framework. It is evident from the literature review that the Kirkpatrick Four Level Model (Level One, Reaction; Level Two, Learning; Level Three, Behaviour and Level Four, Results) has prevailed and is still used despite its shortcomings (Coetsee, 1998). Due to the time constraints for the purpose of this study, the evaluation was limited to levels one and two. Some information regarding level three evaluations was obtained. Further, it was impractical to do a pre- and post-test due to the subjective nature of the subject matter. A specific body of prior knowledge is required to be able to facilitate the workshop.

The process combined sound theoretical information with experiential activities that supported the transfer of learning and retention of information.

5. RESEARCH DESIGN

5.1 Research approach

The first motivation for the choice made is that the central research question and problem can only be answered by means of the research design and models found in programme evaluation literature. The study is in essence evaluation research. The design furthermore had to be informed by the fact that a qualitative research approach had been considered most relevant, if not mandatory given the nature of the research problem and question. The research problem and question being: “Can employees in a corporate context such as a financial environment develop appropriate creative and innovative thinking and problem-solving skills through an intervention such as a workshop?” Utilization Focussed Evaluation (UFE) (Patton, 1997) allows for or enables the researcher to address both the evaluation need and the qualitative research approach.

In addition, UFE is very apt, because it allows the shift from research project conceptualisation right through to an evaluation of the impact and utility or practical value of the intervention being evaluated, namely the workshop to train employees in a financial services organisation to become more innovative and creative in their daily task execution in the interest of the sustainability and continued competitiveness of the organisation.

5.2 Research strategy

Rossi, Freeman and Lipsey, (1999, p.2) define programme evaluation as: "The use of social research procedures to systematically investigate the effectiveness of social intervention that is adapted to their political and organisational environment and designed to inform social action in ways that improve social conditions". Evaluation is a form of applied social research in which the primary goal is to study the effectiveness with which existing knowledge is used to direct practical action (Clarke & Dawson, 1999). The research strategy is thus based on programme evaluation principles.

In this study evaluation research is used to determine the merit or worth of the programme (the workshop format and content), to improve the programme and to generate knowledge about the expected impact of the programme on the individual and on business competitiveness.

5.3 Research Method

The research methods included the following: research setting, entrée and establishing researcher roles, sampling, data collection methods, recording of the data, data analyses and reporting.

5.3.1 Research setting

One of the key features that distinguishes qualitative research from quantitative research as identified by Babbie and Mouton (2001) places the main thrust of this study in the qualitative research paradigm, namely that the research takes place in the natural setting of the social actors, in this study, in a large financial services institution.

5.3.2 Entrée and establishing researcher roles

Cultural and other forces shape and surround the researcher. It is therefore crucial for a researcher to be competent in exploring his or her personal perspectives (Babbie & Mouton, 2001; O'Leary, 2005).

Apart from the awareness and sensitivity to issues, the researcher should also have "theoretical sensitivity" in order to make appropriate decisions regarding the data (Strauss & Corbin, (1995) cited in Hoepfl, 1997). The researcher should have a "prolonged engagement with the study to ensure the investment of sufficient time to achieve certain processes; learning the culture (of the participants), testing for misinformation introduced by distortions, either of the self or of the respondents, and building trust (with the participants)" (Lincoln & Cuba (1985) cited in Oka & Shaw, 2000).

5.3.3 Sampling

As Babbie and Mouton (2001) indicate, sampling within the qualitative paradigm is almost always by means of purposeful sampling, as is the case here. With purposive sampling, the choice of interviewees is guided by the theory, common sense and the nature of the research question, e.g. executives may have different perspectives than employees (Grinell, 1993).

A total of 51 employees out of a possible 72 attended the workshops (the manager decided that some of the support staff should also attend), which constitutes 70,8 % of the division's population. The data collection instruments are discussed below.

5.3.4 Data Collection Methods

It is rare to find a study that is based on only one method of data collection; rather the norm is to employ a range of data-collection techniques (Clarke & Dawson, 1999). This also applied to this study where individual interviews and questionnaires were used to collect data. Firstly, different instruments are used to collect different types of data. Secondly, they serve as a means of triangulating data and improving authenticity and validity of findings. As Clarke and Dawson (1999, p.86) remark: “Using more than one reference point enables greater accuracy of measurement”. The measuring instruments used for the purpose of this research were questionnaires, pen-and-paper tests and interviews, and are discussed in greater detail below.

Questionnaires are one of the most frequently used data-collection instruments in evaluation research (Clarke & Dawson, 1999). For the purpose of this study, questionnaires were used to collect formative data about the satisfaction of participants with various aspects of the delivery of the programme and also the key design features and characteristics of the intervention/workshop. All stakeholders who participated in the intervention had to complete the questionnaires.

Pen-and-paper tests were designed in accordance with Kirkpatrick and Kirkpatrick's level two evaluation requirements. The pen-and-paper tests sought to determine what knowledge was gleaned, what skills were developed or improved and what attitudes were changed (Kirkpatrick & Kirkpatrick, 2006). All stakeholders who participated in the invention had to complete the pen-and-paper tests.

Conducting an interview is another frequently used data-collection method in qualitative research (Babbie & Mouton, 2001; Clarke & Dawson, 1999). Terre Blanche and Kelly (1999) are of the opinion that it is advisable to set up an interview schedule beforehand that covers key topics and sub-topics. However, the interviewer has the flexibility to probe and ask questions in the most appropriate sequence depending on the situation (Clardy, 1997).

One possible shortcoming of using semi-structured interviews is that of interviewer error due to the variability between interviews, which may affect reliability. However, this tends to be a problem usually where a number of interviewers are used (Clardy, 1997). In this study the researcher (first author) conducted all the interviews. Structured interviews were conducted in order to obtain information regarding the contents and design features of the Creativity and Innovation Workshop, as well as to discover how participants attending these workshops experienced the workshops. Managers (more senior) were interviewed on their perception of change achieved and to assess the nascent impact on organisational development.

5.3.5 Recording of data

The participants in the programme were surveyed about their satisfaction with the creativity and innovation programme using questionnaires and interviews. The information obtained from the pen-and-paper tests was integrated and compared with information from the questionnaires and individual interviews where additional comment was invited.

5.3.6 Data analyses and strategies employed to ensure quality data

The pen-and-paper tests were assessed and the findings were interpreted and used in conjunction with the data from the questionnaires and the interviews. The critical process in articulating the researcher's "sense making" is about what has happened as the story evolves, it is thus both retrospective and current (Coghlan & Brannick, 2001). The analysis of the questionnaires, pen-and-paper tests and the interviews was based on pattern identification. The data collected from the questionnaires and interviews of the participants were examined to identify patterns indicating the impact of the implementation of creative and innovative decisions in the division in the organisation. The data collected from the structured interviews conducted with senior and executive management were used to corroborate employee perceptions.

Coghlan and Brannick (2001) argue that the researcher should not only use theoretical frameworks to interpret and make sense of data and plan for future action, but also critique and extend existing theoretical frameworks to make a contribution to theory development.

5.3.7 Reporting

This final part of UFE entails the making of decisions about the dissemination of the evaluation report. These decisions need not comply with commitments made during the planning for intended use. For the purpose of this study the evaluation is in the form of the thesis/article and incorporates all the views from the intended users and senior management.

6. FINDINGS

The main conclusion was reached by the creation of a framework derived from the literature review and the empirically engendered data. The most critical findings relate to the acknowledgement and confirmation of the fact that individuals in a financial services organisation can acquire creative and innovative thinking and problem-solving skills.

However, the conclusion had to be extended (Muller, 2004) because it was evident that the acquisition of these skills is not sufficient on its own and is dependent on a spectrum of determinants on both an organisational and individual level that is a prerequisite to allow for the sustainable and practical application of these acquired skills. The extension of the conclusions may have no logical connection to the data or the evidence presented (Mouton, 2001), but they are derived as a result of the researcher's/first author's own interpretation of the findings regarding the impact of the workshop intervention in the financial services organisation.

It can be derived from the information obtained from the literature review that the financial services organisation only partially adhered to the characteristics displayed by innovative organisations and that only some of the determinants required on both an organisational and individual level to support creativity and innovation were present. The project sponsor however instructed the development of a business case for some of the ideas. The ideas were placed in an incubator while waiting in anticipation to germinate once the conditions and environment warrant successful implementation. Figure 6.1 presents the determinants involved.

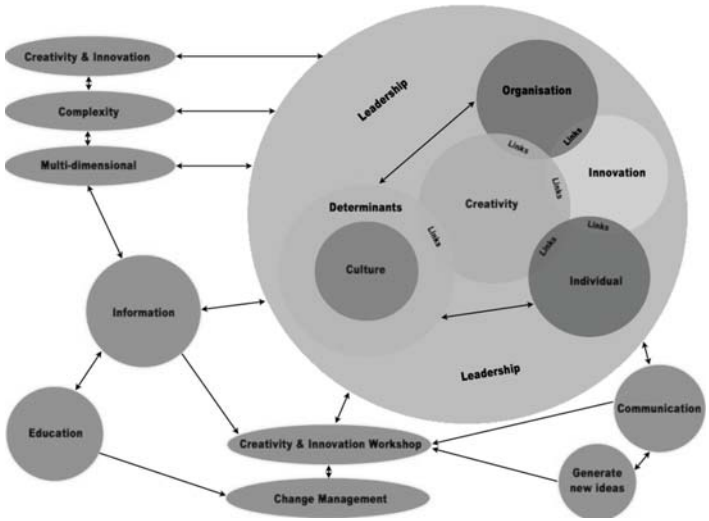

Figure 6.1: Determinants that are required to support creativity and innovation: an integrated overview

Source: Researcher's/first author's own interpretation and adaptation derived from various sources

The above figure is a graphical presentation and interpretation of the determinants on an individual and organisational level that are required to be present for the establishment of creativity and innovation. The determinants are constantly changing and dependent on the current organisational culture. Most of the determinants are usually preset in organisations to a greater or lesser degree. The core determinants usually form the nucleus (determinants in the grey circle) while the determinants in the outside purple circles usually form part of the actions of a planned intervention.

How does one then move from the individual as unit who has acquired these creative and innovative thinking and problem-solving skills to a situation where the organisation ultimately benefits from the practical application of these skills? The development of the Triple I Creativity and Innovation Model is a proposed option to be considered.

7. DISCUSSIONS

7.1 Outline of the results

The literature review and the empirically engendered data unequivocally concluded that employees in a corporate context such as a financial services environment can develop appropriate creative and innovative thinking and problem-solving skills by means of an intervention such as a Creativity and Innovation Workshop. It is furthermore evident that the acquisition of these skills are not sufficient on their own to establish an environment conducive to creativity and innovation and are therefore dependent on a kaleidoscope of determinants on both an individual and organisational level to exert and sustain the required influence (refer to Figure 6.1).

Again, how do we move from the individual as unit of stimulation (recipients of the workshop input) to an organisational level where the individual employees have to apply the creative and innovative thinking and problem-solving skills acquired during the Creativity and Innovation Workshop in practice in order to create a sustainable innovative and competitive organisation?

In organisations that are able to unleash the creative potential of their employees to produce ideas and turn these ideas into innovative business opportunities and implement them for successful commercial gain, the determinants as depicted in Figure 6.1 are all present and operate in synergy.

This still begs the question: Can employees in a financial services organisation be trained to be creative and innovative in the medium to longer term?

The literature on research methodology established and developed a link between the theoretical execution of the research and the practical understanding and application of the multiple phenomena that have emerged (also in this study) (Henning, 2005).

The researchers now derive the thematic essence of the emerging trends and themes of this study using the theoretical infrastructure of the literature review and research methodology, and actual exposure in the financial organisation as analytical framework and points of departure.

7.2 Practical implications: The Triple I Creativity and Innovation Model

The Triple I Creativity and Innovation Model indicates the impact of a workshop consisting of a collage of creativity and innovation techniques and methodologies in tandem with distinctive training design features on the individual, the business unit and the organisation in order to initiate, ideaneer and ignite creativity and innovation. The innovation model consists of three steps, namely: initiation (initiating), ideation (ideaneering) and ignition (igniting) of creativity and innovation. The researchers refer to the model as the Triple I Creativity and Innovation Model.

The model is based on the viewpoint that a “conceptual model broadly explains phenomena of interest, expresses assumptions, and reflects a philosophical stance” (Burns & Grove (1999), cited in Mkhonto, 2007, p.449). For clarification, some terminology and certain assumptions with regards to the model are explained below. Firstly, the terminology used is derived from the creative and innovative use and interpretation of certain words by the researchers. Secondly, the creation of the model is viewed as a means, rather than the end itself. Thirdly, the model will be presented portraying a linear perspective as well as portraying the researcher's own creative interpretation of the model.

The model attempted to acknowledge and accommodate the multi-dimensional complexity of the determinants required on both an organisational and individual level to establish creativity and innovation (refer to Figures 6.2 & 6.3) as well as to acknowledge and accommodate the influence of the workshop on the individual, the organisation, and business competitiveness.

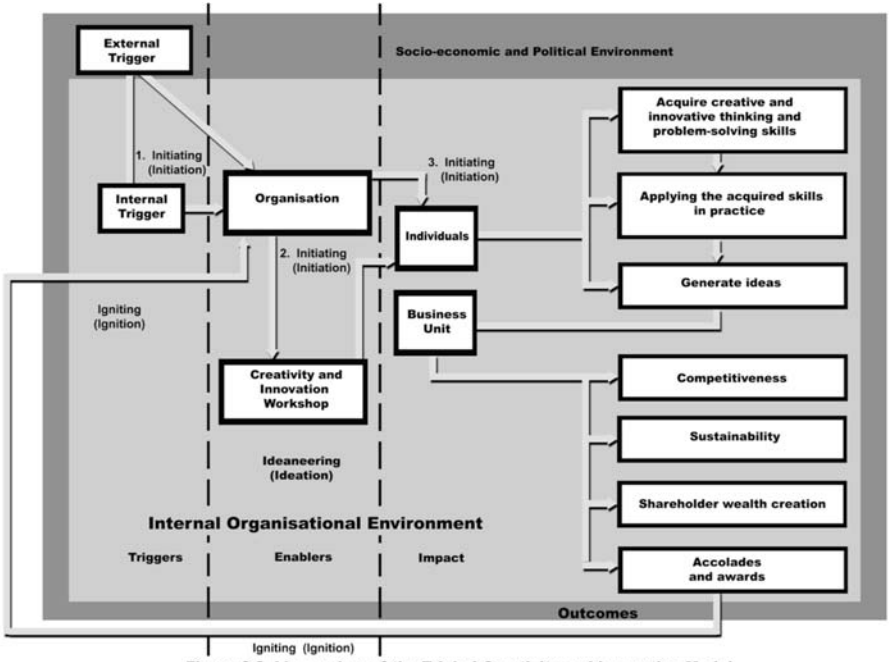

Figure 6:2 Linear view of the Triple I Creativity and Innovation Model

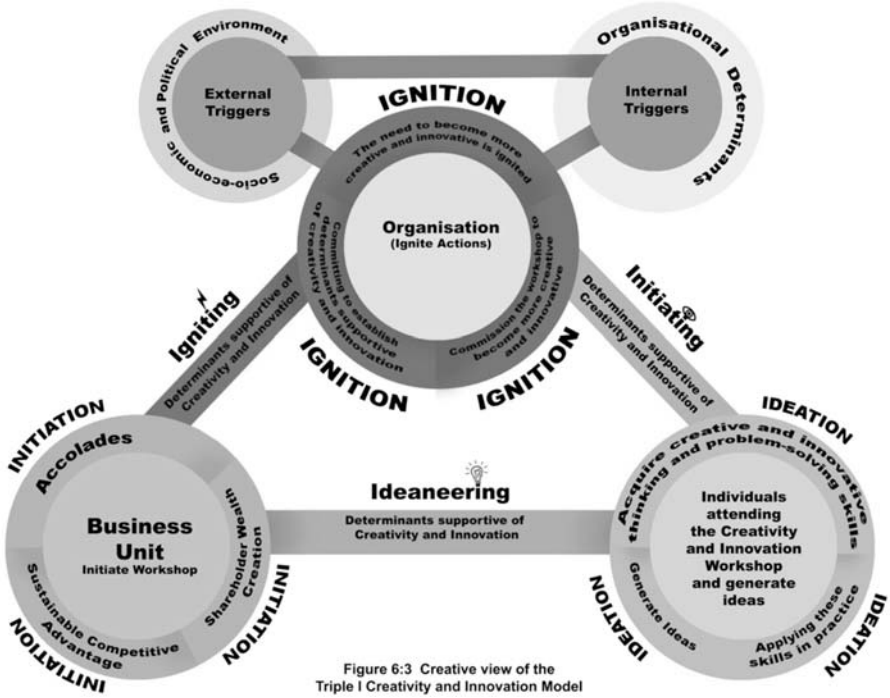

Figure 6:3 Creative view of the Triple I Creativity and Innovation Model

7.3 Realization of the objectives

The intellectual contribution of this research then resides, among other things, in the emergence of an extended definition of creativity and innovation as potential commercial catalyst resulting in possible wealth creation opportunities for organisations.

The second intellectual contribution derives from a unique compilation of a selected blend of creative and innovative thinking and problem-solving techniques and methodologies presented in a very experiential manner in tandem with the creative process that facilitated and instilled a confidence within the attending individuals to not only make use of these acquired skills, but to also apply them in practice in the workplace.

The third contribution is the manner in which the workshop design acknowledged and accommodated the reality of the regulatory and statutory restrictions imposed on the financial services organisation while simultaneously affording the individual the opportunity to acquire creative and innovative thinking and problem-solving skills and to negotiate the creation of conditions supportive of creative and innovative expression. The resulting successes ignited renewed interest in the benefits derived from an emphasis on creativity and innovation and the subsequent consideration of the organisation to initiate the establishment of determinants on both an individual and organisational level to support creativity and innovation.

The final intellectual offering resides within the culmination of the design and development of the Triple I Creativity and Innovation Model. This model takes into account that the individual as unit who was exposed to the training is part of a greater organisational context and certain determinants on both an individual and organisational level are required for the successful and sustained application and implementation of the creative and innovative ideas generated.

From this study's point of view, the most critical finding relates to the acknowledgement that individuals can acquire creative and innovative thinking and problem-solving skills as advocated in the research literature and affirmed by the empirically engendered data. The acquisition of these skills, however, is not sufficient on its own – the skills are dependent on a spectrum of determinants on an individual and organisational level, the prerequisite to ignite interest and support for creativity and innovation. The creation of The Triple I Creativity and Innovation Model attempts to address the establishment of the required conditions.

8. RECOMMENDATIONS

Given the acknowledgement that the acquisition of creative and innovative thinking and problem-solving skills is not sufficient on its own in ensuring the sustainable success of the intervention, the business unit has to be made aware and be informed that certain prerequisite determinants are required prior to the implementation of the intervention.

The organisation has to realise that the trained individual is the unit through which the acquired creative and innovative thinking and problem-solving skills permeate the organisation. It is recommended that actions should be taken to establish the determinants to support the individual to be able to apply these acquired skills in practice in order to ultimately benefit the organisation.

9. CONTRIBUTION TO THE FIELD

A workshop with distinctive features derived from a unique combination of training approaches in tandem with a set of carefully selected techniques and methodologies with the ultimate intent to develop the creative and innovative thinking and problem-solving skills of the attending participants.
The development of the 'Triple I Creativity and Innovation Model' with the intent to ignite, ideaneer and initiate innovation.

10. CONCLUDING COMMENTS

The literature review and the empirically engendered data unequivocally conclude that employees in a corporate context such as a financial services environment can develop appropriate creative and innovative thinking and problem-solving skills by means of an intervention such as a Creativity and Innovation Workshop.

It is furthermore evident that the acquisition of these skills is not sufficient on its own to establish an environment conducive to creativity and innovation and is therefore dependent on a kaleidoscope of determinants on both an organisational and individual level to exert and sustain the required influence. Once organisations understand that their long-term survival depends on the ability to continually innovate and create novel products and services in order to ensure business competitiveness, their commitment to innovation will hopefully ignite their passion for the creation of opportunities for sustainable idea generating initiatives. Successful commercialisation of novel services and products will ultimately ensure a sustainable future and satisfactory shareholder wealth creation.

“Greater than the thread of mighty armies is an idea whose time has come.” - Victor Hugo

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