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The Componential Theory of Creativity as a Guide to Creativity for Kenyan Textile Micro and Small Enterprises

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Abstract

Due to their tendency to imitate each other's products, Kenyan textile micro and small enterprises (MSEs) face performance challenges, particularly in terms of low product differentiation. The importation of new and cheap used textile products further exacerbates the local competition. MSEs assist countries in achieving the United Nations Sustainable Development Goals (SDGs) by promoting decent jobs, economic growth, industrialization, and innovation. The purpose of this article is to elucidate how textile MSEs can utilise the Componential Theory of Creativity (CToC) to foster creativity and develop competitive innovations. Creativity enables artists and designers to explore uncharted areas revealing new concepts. The CToC shows that both intrinsic and extrinsic factors must be examined in order to enhance enterprise creativity. Sustainable product design and development requires effective product design strategies. Strategies are used in conjunction with other strategies rather than in isolation. Government support is critical for MSEs to create and

sustain new products, markets, and jobs, allowing them to meet economic changes.

Keywords: ***Creativity, Product design, Textile***

Introduction

The micro and small enterprises (MSEs), manufacture goods for both domestic and international markets. These enterprises have a significant economic impact on job creation and income generation (Oigo, 2012). AFDB (2024) highlights that Micro, Small and Medium-sized Enterprises (MSMEs) are the core of Africa's economies, accounting for 95% of firms and generating over 80% of new jobs annually, with a projected 1 billion labor force growth between 2016 and 2063. According to the Kenya State Department for Micro, Small, and Medium Enterprises (MSMEs) Development (2024), the MSME economy contributes 85% of non-farm jobs, accounting for 15 million out of the 18 million workforce in the country and currently absorbing nine out of 10 young workers. However, MSEs face challenges including design constraints, production constraints, and market constraints. One of the design constraints Kenyan informal sector enterprises, including textile MSEs is that they invest little in innovation and instead imitate each other's products (Daniels, 2010).

According to World Bank (2020), a Kenya enterprise survey of 2018 revealed that the most commonly mentioned challenge of enterprises (23% of firms) was the practices of competitors in the informal sector. This number was almost identical to that of 2013 (24%). Textile MSEs in Kenya have been reported to experience product design challenges, key of these being low product differentiation and few innovations (diversifications).

MSEs play a crucial role in countries achieving the SDGs, particularly in decent work and economic growth (goal 8), as well as encouraging industrialization and innovation (goal 9). The SDG targets for goals 8 and 9 adopted in this study are as follows:

- ***Target 8.2. Increase economic productivity through diversification, technological advancement, and innovation. (IISD, 2019a).***
- ***Target 8.3. Encourage the formalisation and growth of micro, small, and medium-sized enterprises through access to financial services and develop policies that encourage job creation, entrepreneurship, creativity, and innovation. (IISD, 2019a).***
- ***Target 9.b. Support the development of domestic technology, research, and innovation in developing countries. Ensure the creation of a favourable environment for industrial diversification and product value addition. (IISD, 2019b).***

Pierre and Fernandez (2018) argue that there is insufficient evidence regarding how micro and small firms engage in innovative activities. Therefore, further research is needed to examine the innovation strategies and capabilities of small enterprises.

Darvishmotevali (2019) posits that individuals experience enhanced creativity when they possess increased autonomy in decision-making and are willing to undertake risks. This is optimal in a work environment that focuses on fostering innovation and gives sufficient resources and time for creative endeavours. Moreover, it is essential to establish a professional setting that highly esteems innovation and encourages deliberate ventures in the process of product design and development.

An enterprise can utilise many theories and product design strategies to foster creativity and maintain competitiveness. The objective of this article was to elucidate how Textile MSEs can employ the Componential Theory of Creativity (CToC) to implement a creative and resilient product design process, thereby reducing the product design challenges.

Creativity

Creativity is a cognitive process that entails the identification of original and innovative ideas or unconventional connections between pre-existing ideas, with the aim of addressing a particular situation. To achieve effective creative expression, one must possess a thorough understanding of production procedures and skills.

The creative process involves identifying the project's aim and objective, understanding the circumstances and facts, brainstorming viable solutions, and ultimately adopting and presenting a novel product concept. Creativity enables artists and designers to transcend reality and venture into uncharted territories, thereby revealing unique new concepts. By engaging in experimentation and learning from their mistakes, they are able to uncover novel perspectives, thought processes, and methods of creation.

Product design strategies and guides are essential instruments that micro and small enterprises use to create competitive product innovations. This paper highlights one of the guides for creativity and innovation, the Componential Theory of Creativity (CToC). The theory can guide an individual or enterprise through their product design process.

The Componential Theory of Creativity (CToC)

The Componential Theory of Creativity (CToC) helps designers understand the creative process and its constituent elements. Designers can create unique products by utilising domain-specific skills, innovative methods, intrinsic motivation, and commitment to tasks. Teresa Amabile formulated the Componential Theory of Creativity (CToC) in 1983. Amabile (2012) argues that it accurately portrays the mental aspects necessary for generating innovative output. According to the CToC, creativity is most likely to be at its peak when a person who is motivated from within, has extensive knowledge in a specific field, and possesses advanced creative thinking skills, works in an environment that provides ample support for creativity (Amabile 2012).

The CToC outlines four essential factors that need to be taken into account: three related to the individual/Creative team, including relevant creative thinking abilities, suitable expertise and process knowledge, and task motivation, and one factor external to the individual, which is the social environment in which the individual operates. The components shown in figure 1 are (1) Expertise. Refers to a skill where knowledge, technological, procedural, and intellectual ability are applied. (2) Creative thinking. Refers to using the mind in a flexible and imaginative way to solve a challenge. (3) Motivation. Refers to an inner passion to solve the problem at hand. (i.e. Intrinsic Motivation). (4) Social Environment. Refers to the work environment intervening factors in the creative process (Extrinsic motivators).

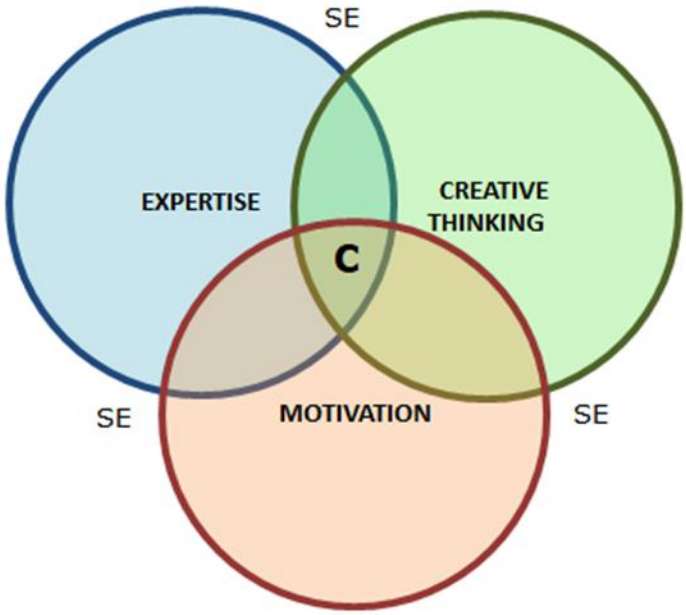

Figure 1: Component Model of Creativity
Source: Author. Adapted from Amabile (1998)

The componential model is the oldest theory on creativity and innovation in organizations, providing a comprehensive description of individual and organizational creativity processes and their mutual influence (Amabile & Pratt, 2016). The Amabile's component model was enhanced to clarify the mutually beneficial connection between the individual/team creative aspect and the enterprise's innovation aspect of product design (Creativity and Innovation) as illustrated in Figure 2.

Figure 2 illustrates the components influencing innovation and creativity. It shows that the symbiotic relationship as illustrated is that individual/group/team creativity feeds organizational / enterprise innovation; organizational work environment also impacts individual/group/team creativity.

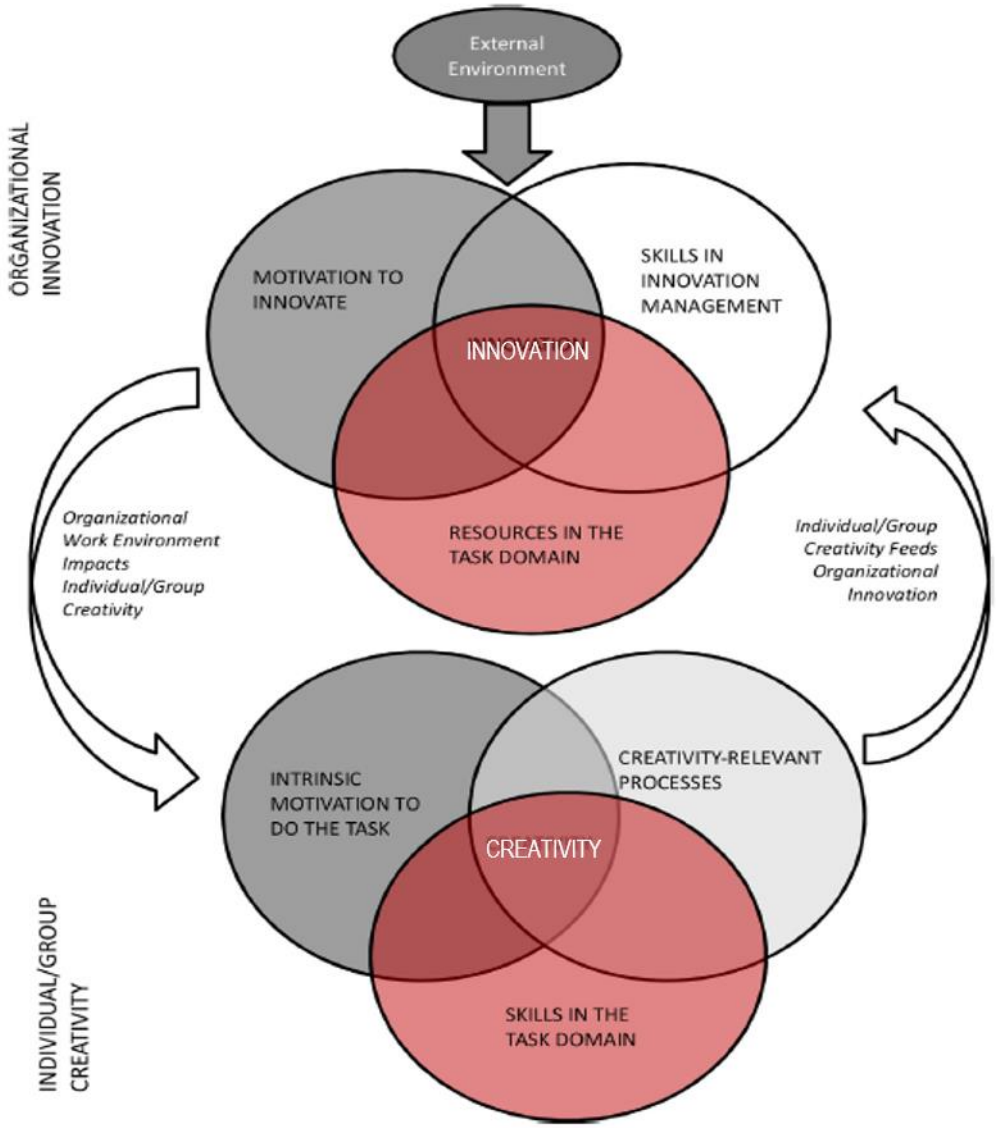

Figure 2: Interaction between Creativity and Innovation
Source: Amabile & Pratt (2016)

Product Design Strategies Relation to the Componential Theory of Creativity

The study employed benchmarking, association, collaboration, original, and research product design strategies to examine how they relate to the CTOC. These strategies were chosen based on their

empirical validation in previous enterprise studies (Dionco-Adetayo & Adetayo, 2004; Mahemba & De Bruijin, 2003; Ulrich & Eppinger, 2008). The strategies are widely used to enhance business growth and performance and are in line with the principles of creativity and innovation in product design and development. Figure 3 illustrates how selected product design strategies fit into the CToC.

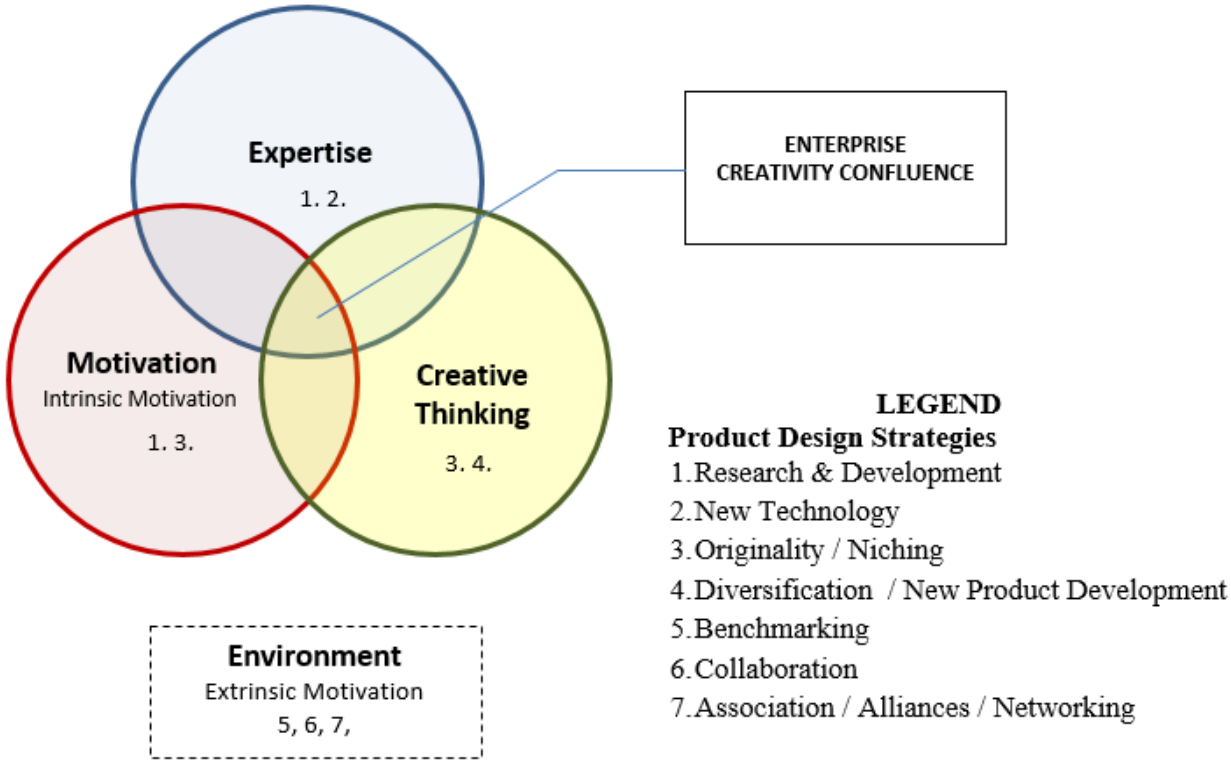

Figure 3: PD Strategy Relation to the CToC
Source: Author. 2020

In order for the creative process to be successful, it is imperative to consider all of these components. An individual or enterprise can be referred to as having a 'Creative Orientation' when they employ a product design approach that is cognizant of and backed by strategies for initiating new unique concepts/products. The explanation of the relationship between product design strategies and the Componential Theory of Creativity is summarized in Table 1 (next page).

Table 1: PD Strategies Relation to the CToC

The Relationship between PD Strategies and the Componential Theory of Creativity				
	Strategy	**CToC Components**	**Orientation**	**Explanation**
1.	**Research & Development,**	**Expertise**	**Knowledge Orientation**	**Product innovation (performance) relies on R&D to promote expertise, a component of creativity. The expertise component can only be nurtured by an enterprise that is Knowledge oriented, where Knowledge acquisition and Sharing is encouraged.**
		Motivation (Intrinsic Motivation)	**Conducive work Environment**	**Successful R&D can only happen when the Employee/Designer/Intrapreneur is motivated. Requires a Design Management Style that creates a conducive work Environment**
2.	**New Technology,**	**Expertise**	**Knowledge Orientation**	**Embracing new technology strategies usually gives an enterprise a competitive advantage. An enterprise that is Knowledge oriented will enable the upgrade of Skills therefore indicating their sensitivity to the Expertise component. Singla et al. (2018) advocate that Technology push (TP) and demand pull (DP) practices need to be prioritized to meet the challenges of competent markets worldwide.**
3.	**Originality / Niching,**	**Creative Thinking**	**Intrapreneural Orientation**	**A competitive market place characterized by copying and imitation requires a strategy like Niching (Originality) to ensure less or no competition on similar products and/or same clients. Embracing intrapreneural orientation will**

				allow for creative thinking where employees are allowed to design and innovate.
		Motivation (Intrinsic Motivation)	**Conducive work Environment**	**A successful Originality / Niching strategy can only happen when the Employee/Designer/Intrapreneur is motivated. Requires a Design Management Style that creates a conducive work Environment**
4.	**Diversification / New Product Development (NPD)**	**Motivation (Intrinsic Motivation)**	**Conducive work Environment**	**Creation of new and differentiated products (Diversification) is achieved successfully when the Employee/Designer/Intrapreneur is motivated. Requires a Design Management Style that creates a conducive work Environment**
		Creative Thinking	**Intrapreneural Orientation**	**Embracing intrapreneural orientation will allow for creative thinking where employees are allowed to design and innovate.**
5.	**Benchmarking,**	**External Environment (Extrinsic Motivation)**	**Market Orientation**	**Product design and innovation process begins with a situation/Market analysis in order to provide a fitting product for the client/market. Benchmarking can be said to be a comparison with high performers in the same trade for self-evaluation. A Market orientation stipulates sensitivity to Competitor and Customer dynamics. The extrinsic motivation will drive the enterprises innovation agenda.** **Popular quotes relating to the Benchmarking strategy includes:** **- "Do not reinvent the wheel"**

				- "Learn not only from your mistakes but also from the mistake of others" - "Stand on the shoulder of giants".
6.	**Association /Alliances / Networking**	**External Environment (Extrinsic Motivation)**	**Market Orientation**	**Association / Networking relates to linking and getting support from not only design and development but also support for secondary areas such as Marketing, Finance and Legal issues.**
7.	***Collaboration***	***External Environment (Extrinsic Motivation)***	***Market Orientation***	***Most innovation activities involve multiple actors, from situation analysis, planning/design and development. Findik and Beyhan (2015) note that enterprises that engage in external collaboration for innovation are better placed to improve their products. When collaboration is carried out internally it is usually referred to as Teamwork.***

Source: Ombura, 2023

Conclusion

The development of successful product innovations takes the route of identifying a design concept, analysing its utility and aesthetic value, and determining a suitable approach to creating the product. To remain competitive, enterprises may need to prioritize and apply successful product design strategies. Firms that focus on creativity

and innovation are more able to sense and respond to market trends in a dynamic and diversified market, and hence continue in business. The CToC shows that both intrinsic and extrinsic factors must be examined in order to enhance enterprise creativity. Product design is a key component of an enterprise's performance, because it pertains to creativity and product innovation. Textile MSEs should strive for a robust design process that will ensure the creation of viable and quality products for the market. The various product design strategies feasible for an enterprise need to be optimised and used in combination with other strategies for enhanced performance (innovation).

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