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FRUGAL INNOVATION IN MULTINATIONAL AND DOMESTIC COMPANIES AND ITS ECONOMIC AND SOCIAL IMPACT IN MOZAMBIQUE

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Abstract: This work entitled: Frugal Innovation¹ in Multinational and Domestic Companies and its Economic and Social Impact in Mozambique, aims to verify the social impact of frugal innovation practiced by national and multinational companies in Mozambique. The methodological approach is qualitative, using case studies to ascertain how frugal innovation generates economic and social impact. The work is made up of three main chapters, as follows: In the first chapter on Frugal Innovation, the research discusses the theories on Frugal Innovation and then, in addition to the evolution, the concepts of Frugal Innovation are discussed, taking into account its variations, the Frugal Innovation Process, focusing on inputs, outputs and success and impediment factors. The second chapter, in addition to an introductory note on social impact, discusses the emergence of the social context, develops the concept of social impact and its contribution to the economic and social spheres. The third chapter is reserved for the final considerations, where we will present some propositions regarding frugal innovation, its contribution and the impact it has generated in the social and economic spheres, and finally the study alludes to the questions that will guide the case study in Mozambique.

Keywords: Frugal Innovation, Social Impact, Economic Impact, Multinational and Domestic Companies.

INTRODUCTION

The speed of change in economic environments is constantly increasing in various parts of the world, including the African continent and Mozambique in particular. Customer desires and market trends mean that product life cycles are continually being compressed. In such a way that, in order to remain economically viable,

industries are increasingly dependent on rapid and significant innovations (FUHRMANN; GARCIA; SILVIO, 2007). Prahalad and Ramaswamy (2004) state that one of the ways of generating value lies in exploiting the resources of creativity and frugal innovation. In the same vein, Nagano et. al., (2014) and Mello (2010) point out that frugal innovation is one of the main factors that have a positive impact on competitiveness and economic development. Therefore, frugal innovation should not be understood as something fortuitous or occasional (SILVA et. al., 2014), because although creativity occurs more easily for some individuals than for others, frugal innovation and creativity are not innate (DYER et. al., 2011). On the contrary, the occurrence of frugal innovation depends on a set of interactions between managerial, marketing and technological elements, and its management is highly complex (NAGANO et. al., 2014).

More recently, the literature (BERNARDES, BORINI, FIGUEIREDO, 2019; BERNARDES, et. al., 2018) has focused on types of innovation that are more common in undeveloped countries, known as typical emerging market innovations. The focus of this work is on frugal innovation. Frugal innovation is characterized by a scarce resource solution (i.e. product, service, process or business model) that is designed and implemented despite financial, technological, material or other resource constraints, where the end result is significantly cheaper than competitive offerings (if available) and is good enough to meet the basic needs of customers who would otherwise remain underserved (Hossain et. al., (2016)).

Despite the relative increase in the literature on frugal innovation (Hossain et. al., 2016; Pisoni, et. al., 2018), one issue that needs to be better explored is the social impact of frugal innovation (Pansera & Owen,

1. Frugal innovation means creating simple, effective but high-quality products and services.

2015). In several countries around the world, there is an increase in business proposals aimed at understanding the interests and needs of society. Thus, developing countries, due to their abundance of resources, have been invaded by multinationals seeking to expand their profit margins and this margin can be retracted with an increase in policies aimed at economic and social development and organizational citizenship. Agarwal et. al., (2017). In developing countries, and Mozambique in particular, it has become commonplace for many companies to share part of their earnings with society by implementing activities that involve society (Pansera & Owen, 2015).

This study therefore asks **when, why and how frugal innovation generates social impact**. To this end, qualitative research will be carried out in Mozambique with national and multinational companies, in particular by analyzing frugal innovation projects carried out by these companies. The method will be a case study, using in-depth interviews and document analysis. It is hoped that the cases will show that during the time they are active in creating innovation, whether in products, technology or even services, the companies' presence on Mozambican territory will add value in terms of generating social impact through frugal innovation.

This research contributes to the Mozambican government's public policies in three ways:

The first aspect deals with issues of knowledge around commercial exchange where each of the two parties offers its business opportunities on the mitigation of social impacts and enrichment of the economy.

Secondly, it creates an opportunity to increase revenue collection from the exploitation of existing resources in Mozambique, as well as in-depth knowledge in terms of economic growth resulting from the

payment of the balance of trade, contributing to the enrichment of the Mozambican state coffers. Lastly, it will give them the chance to diversify their businesses, impacting on the absorption of local labor, employability and other aspects considered crucial to Mozambique's economy at a time when some companies are booming, such as Millenium BIM, Moma Heavy Rail, the Pande MTcel Natural Gas Multinational, Movitel, Vodacom and others, which with their massive arrival have boosted the country's growth.

For entrepreneurs in Mozambique, this research is important because it will help them understand and they will have the opportunity to learn from others in mitigating social and economic impacts based on the experience they can acquire from foreign managers and consequently they will be able to develop their businesses based on the experience of large companies, as well as increasing their experience in working towards economic and social growth, contributing to the development of Mozambique.

The research is important for the academic literature on frugal innovation, because it contributes to the literature on frugal innovation in particular. Studies in African countries and in Mozambique in particular could also help academics with the increase in literature to improve their knowledge around frugal innovation, since for Mozambique it is a new concept. The studies by Hossain, 2018, will help in the adoption of small business innovations to develop frugal innovations and inclusive development; studies by Pansera, 2017, will help in innovation for development and poverty reduction and finally studies by Pisoni, 2018, will help in the approach to frugal innovation as a state of the art and in the prospects for the future. Both can provide a profound boost for academics in enriching the literature on Frugal Innovation and its social and economic impacts.

CHAPTER-I: FRUGAL INNOVATION

The work is structured in two main chapters, the first of which refers to the chapter on frugal innovation in the light of frugal innovation theories, concepts of frugal innovation, the evolution of frugal innovation, variations of frugal innovation, the frugal innovation process and the summary table on the concept of frugal innovation according to the authors; and the second chapter is a review of social impact, the emergence of social impact, the concept of social impact, businesses with social impact in the corporate world and finally their socio-economic contribution.

FRUGAL INNOVATION

In this chapter, in the light of the theories of frugal innovation, we will develop the concepts of frugal innovation, the evolution of frugal innovation, the definition and variations of frugal innovation and the frugal innovation process, and finally the table summarizing the concepts of frugal innovation based on the authors.

THE EVOLUTION OF FRUGAL INNOVATION

The literature on Frugal Innovation, although established in recent times by Radjou et. al. (2012), involves concepts that are already known, such as innovation (OECD, 2004; Schumpeter, 1988), added to the concept of frugality (Henderson, 1978), giving rise to the concepts of frugal innovation that are developed in this work. The first appearances in the literature on this concept are linked to Henderson (1978), in which the middle class rejects the high-consumption lifestyle of the industrialized world in the 50s and 60s. In the 1980s to 1990s, some efforts to measure consumer behavior incorporated aspects related to the concept of frugal innovation into their assessment (e.g. De Young, et.al., 1986a, 1986b). However, it was at the end of

the 1990s that the first effort specific to the concept of frugal innovation was published by Lastovicka et. al. (1999), where they present the purchasing behavior of frugal consumers. Soon after, another article published by De Young (2000) presents an evaluation of the motives that lead to responsible behavior, including an evaluation of several previous works (De Young, 1986a, 1986b, 1988, 1993, 2000; Lee & De Young, 1994; Lee et. al., 1995). Also at the end of the 1990s, the themes of development and poverty, once dominated by development economists, came largely under the radar of management, organization and innovation scholars (Pansera, 2013) and, later, the same theories were developed in other regions of the world, most prominently in Brazil, Russia, India and China. By expanding the research to other countries, it was found that the entrepreneurial spirit of frugal innovation, far from being only Indian, is in fact universal. Proof of this is that other emerging markets, specifically in Latin America, Africa and Western Europe and Asia, have their own version of frugality.

The evolution of Frugal Innovation has become the central innovation hub most focused on developing countries. Several studies on Frugal Innovation that have emerged in recent years overlap with many other concepts (Agarwal et. al., 2017). The research flow for frugal innovation has also occurred in a series of paths, and the diffusion of the concept of frugal innovation through academic literature and practical has emerged in a disorganized and complex way. Several review articles on the economics of frugal innovation literature and related topics have provided some insights through different lenses (Agarwal et. al., 2017; Hossain, 2017; Rosca et. al., 2017; Zeschky et. al., 2014a, b). Agarwal et. al., (2017) reviewed the literature for constraint-based innovations originating from emerging economies. Hossain (2017)

systematically explored several cases of frugal innovation through industry classification. In addition, Rosca et. al., (2017) identified the role of frugal innovation in sustainability, while Tiwari et. al., (2016) conducted a study on bibliometric analysis to identify the main sources of knowledge of academic influence. They shed light on issues such as the publication of articles during the period 2010-2016, the most frequently used keywords, and influential authors. Pansera et. al., (2017) also conducted a review of innovation concepts emerging from developing countries, with frugal innovation. They also explored how the concept of frugal innovation has evolved over the years.

DEFINITION AND VARIATIONS OF FRUGAL INNOVATION

The definition of Frugal Innovation is seen as challenging by researchers. For some authors, such as Zeschky, Widenmayer and Gassmann 2011; Sehgal, Dehoff and Paneer 2010; Sharma and Iyer 2012, the concept of “frugal innovation” has been used to denote innovations developed specifically for customers with limited resources in emerging markets. Other authors such as Sharma and Iyer 2012; Cappelli et. al., 2010; Petrick and Juntiwasarakij 2011 emphasize the concept of frugal innovation as something created. In contrast, frugal innovations are not redesigned solutions, but products or services developed for very specific applications in resource-constrained environments. Frugal innovations based on new product architectures, for example, are often quite vulnerable to making a stationary product portable, an economic innovation that can reach an entirely new group of customers.

Cost Innovation for Williamson (2010) are solutions that offer similar functionalities to Western products at lower costs for customers with limited resources. Cost innovation is not a new concept. There are countless cases where low-cost competitors have turned an expensive

product into a commodity, with drastically reduced costs. For example, by developing a method for producing lithium-ion batteries at room temperature and humidity (all Western competitors used expensive “dry rooms” for production), the Chinese company BYD managed to reduce the production costs of lithium-ion batteries by 70 percent, to the point where they could be valued at a point corresponding to low-performance nickel-cadmium batteries. Another example is a Chinese company, Huawei, which manages to sell its first smartphones at around 20 percent of the cost of its Western competitor (ZESCHKY, et. al., 2011).

For the authors Zeschky, Widenmayer and Gassmann (2011), functionality is measured in lower cost as good enough innovations and are solutions that include functionalities and features designed to meet a restricted range of resources beyond capital constraints. The same authors explain that like cost innovations, good enough innovations achieve lower price points by taking local cost advantages combined with local better supply conditions. However, according to the same authors, good enough innovations are also adapted or redesigned to meet the specific usage requirements of the target market. To further their arguments, they drew on the example of Swiss laboratory equipment manufacturer Mettler Toledo, which developed a basic scale, good enough for the Chinese market that achieved low-cost reductions through manufacturing and materials, but also incorporated a more basic set of minimum features than Mettler’s Western. They also looked at some examples of Logitech, which has developed several products that are good enough for emerging markets. The M215 wireless computer mouse offers simple basic functions and ease of use in a product that incorporates cheaper materials for non-critical parts and drastically reduced packaging to cut costs.

The concept of Frugal Innovation: as new functionality at lower cost is conceived by Graham (2010) from examples of mobile phone-based microfinance in service M-Pesa, a joint venture of Kenyan Safaricom and UK-based Vodafone, which uses existing mobile phone technology and infrastructure to reach people who previously had no access to banking services. Overall, in contrast to cost and good enough innovations, frugal innovations are quite new, both in terms of technology and market prospects. Although existing technologies are employed in most cases, frugal innovations are typically built on new product architectures that enable entirely new applications at much lower prices than existing solutions.

Although existing technologies are employed in most cases, frugal innovations are typically built on new product architectures that enable entirely new applications at much lower prices than existing solutions.

Reverse innovation: selling low-cost innovations from emerging markets elsewhere. In contrast to cost innovation, good enough and frugal, reverse innovation refers to a market rather than a product concept. For Vernon (1966), in the past the flow of innovation has moved from developed to emerging markets. But as developed market customers were attracted to cost-effective, good, sufficient and economical innovations developed for emerging markets. This dominant paradigm has been at least partially overturned. According to research, more and more companies are redeploing their innovations with limited resources to Western markets, to attract cost-conscious customers or to fill gaps in these large developed markets.

Therefore, from the above we conclude that reverse innovations are cost-effective, good enough or economic innovations that find a market among customers outside the emerging markets they were originally

targeted at. Although innovation for resource-constrained consumers in emerging country markets is growing, the discussion so far has lacked a common understanding of how to define the various types of resource-constrained innovation. As emerging markets continue to grow, resource-constrained innovation of all kinds will become key elements of growth for global companies.

Entering resource-constrained markets with a simple set of cost innovations offers different competitive advantages and strategic options than changing products to create a good enough innovation or creating entirely new markets with frugal innovation.

This concept that we have brought to the research can contribute to a clearer understanding of existing innovation concepts for resource-constrained environments and can thus provide the basis for future research.

Authors	Definitions
Agarwal et. al, (2017)	“Frugal innovation is “good enough”, affordable products that meet the needs of consumers with limited resources.”
Weyrauch and Herstatt (2017)	“Frugal innovation consists of three attributes: substantial reduction of costs, concentration on core functionalities and optimized performance level.”
Hossain et. al, (2016)	“Frugal innovation is a scarce resource solution (i.e. product, service, process, or business model) that is designed and implemented despite financial, technological, material, or other resource constraints, where the end result is significantly cheaper than competitive offerings (if available) and is good enough to meet the basic needs of customers who would otherwise remain underserved”.
Agnihotri (2015)	“Frugal innovation refers to products and services that are developed with resource constraints.”
Brem and Wolfram (2014)	“Frugal innovation has low to medium sophistication, medium sustainability and medium emerging market orientation.”
Cunha et. al., (2014)	“Frugal innovation is product innovation when there is a shortage of affluent customers and distinguishes it from bricolage, which is when material resources are scarce, and improvisation, when time is scarce.”

Kuo (2014)	“Frugal innovations are products and services that focus on crucial needs, save the use of resources or eliminate non-essential resources in the design process.”
Zeschky et. al., (2014a)	“Frugal innovations are usually built on new product architectures that enable entirely new applications at much lower prices than existing solutions.”
Zeschky et. al., (2014b)	“Frugal innovation has a higher technical novelty and a higher market novelty than good enough innovation and cost innovation.”
Basu et. al., (2013)	“Frugal innovation is also an innovation process design in which customers are the main focus to develop accessibility, adaptability, affordability and appropriate products.”
George et. al, (2012)	“Frugal innovation is...innovative, low-cost, high-quality products and business models originating in developing countries and exportable to other developing countries or even the developed world, often referred to as ‘frugal innovation.’ “
Gupta (2012)	“FI is a new management philosophy, which integrates the needs of the bottom of the pyramid (BoP) market as a starting point for developing solutions that are expected to be very different from alternative solutions.”
Sharma and Iyer (2012)	“Frugal innovation stems from resource scarcity: using limited resources to meet the needs of low-income customers.”

Table-2: Some representative definitions of frugal innovation.

Source: Hossain, (2018) and Adapted by Mateço, (2023)

Among the various concepts explained in the theories, the author identified most with the theory of Pansera, 2016. According to his understanding, this concept includes many other concepts defined in this research. For example, he lists the concept of frugal innovation as a scarce resource solution (i.e. product, service, process or business model) that is designed and implemented despite financial, technological, material or other resource constraints, where the end result is significantly cheaper than competitive offerings (if available) and is good enough to meet the basic needs of customers who would otherwise remain underserved”.

THE PROCESS OF FRUGAL INNOVATION

Several studies have listed a large number of cases of Frugal Innovation occurring at the individual, group and societal levels along with their sources and characteristics (Hossain, 2017; Rao, 2013; Rosca et. al., 2017).

Some Western multinational corporations (MNCs) have adopted Frugal Innovations to satisfy low-income customers. Some studies by Rosca et. al., 2017 on MNCs’ prominent Frugal Innovations include healthcare products (ultrasound machines, Lullaby baby warmer and Vscan), and Siemens’ CT scanner. According to them, multinationals tend to be more involved with frugal high-tech innovations, which serve not only low-income customers, but also those with higher incomes, even in richer countries. The same studies are complemented by Prabhu and Jain, (2015), and shared by Anderson and Markides, (2007) who according to them, MNCs have enormous financial, human, marketing, operational and technical resources that they can use together with their experience to create solutions for low-income countries.

Prabhu and Jain, (2015) understand that emerging multinational corporations (EMNCs) are best equipped to succeed with Frugal Innovation. Hossain, (2017) corroborates this idea by emphasizing in his study that in addition to having sufficient resources, there is a need to have the local knowledge to develop Frugal Innovations.

Chinese and Indian social enterprises such as Selco, Husk Power Systems and Grameen Bank’s microfinance have also contributed significantly to sustainability (Hossain, 2017).

General Electric, for example, has empowered its subsidiaries in China and India, and this has resulted in several cost-effective innovations, such as the MAC400 ECG machine, the portable ultrasound machine and the Lullaby baby warmer (Hossain, 2017).

State and international organizations also play a key role in empowering local partners and individuals to develop frugal innovations (Gupta, 2012).

In addition, the active participation of citizens in the economic innovation process allows small local entrepreneurs to customize their products and services to meet the needs and price expectations of their customers (Annala et. al., 2018).

Thus, Frugal Innovations have emerged from a wide variety of sources. Among which we identify the entry and exit of frugal innovation, the success factors and impediments as elements of the process part of the structure also increase accessibility for some low-income customers.

ENTRY

An important input for Frugal Innovation is the use of fewer resources, at the cost of a Frugal Innovation that becomes accessible to low-income customers.

Zeschky et. al., (2014a) on Frugal Innovation cost, according to him, can be reduced in several ways, such as reusing old materials, using locally available resources, eliminating unnecessary product features and reducing maintenance costs, among others. For example, Chinese company BYD can produce its lithium-ion batteries for 70% less than its competitors in Western markets. Williamson and Zeng, (2009) emphasize in their literature how Chinese port crane manufacturer ZPMC can hire 40 times more engineers in China than in Germany for the same cost, allowing ZPMC to offer products at a very low price. According to them, many EMNCs have gained cost advantages through low local wages by providing local resources in operation.

The literature by Hossain et. al., (2016) on the concept of frugal innovation readily emphasizes the use of locally available materials, resulting in low-cost products. GE's

portable ultrasound machine, as well as its Mac 400 and Mac 800 electrocardiogram machines, developed by a team of dedicated independent businesses based in China and India.

In general, thanks to their proximity to the target market, local companies understand customer needs better than Western companies do. Along with cutting-edge innovations there are many cost-effective innovations made in-house from local materials.

The literature by Hossain, (2017) has contributed significantly is the empowerment of local partners with General Electric companies, for example, empowering with their subsidiaries in China and India, and this has resulted in several economic innovations such as MAC400 ECG machine, portable ultrasound machine and the Lullaby baby warmer. The same is true of the literature by Gupta, (2012) which has made a great contribution by referencing frugal innovation in state and international organizations on performance and the fundamental role it has played in empowering local partners and individuals to develop frugal innovations.

In addition, the active participation of citizens in internal processes of economic innovation allows small local entrepreneurs to customize their products and services to meet the needs and price expectations of their customers (Annala et. al., 2018).

In short, economic innovations emphasize less need for resources and the use of local and/or recycled resources. With high technology, frugal innovation has helped both Western companies and local companies in developing countries to succeed.

SUCCESS FACTORS

For Zeschky et. al. (2011), predicting success is always difficult and frugal innovation more challenging. According to them, the resource-constrained environments of developing countries provide fertile ground

for the growth of financial institutions. Therefore multinationals need to understand Frugal Innovation and how they can influence rules and regulations in unstable situations and unpredictable places. On the other hand, Sako (2009) believes that multinationals can develop Frugal Innovation through strong collaboration with subsidiaries and local firms. However, both Tiwari and Herstatt, (2014) and Krishnan (2013) understand that the success of frugal innovation depends on or needs to follow untrodden paths to develop success that target highly price-sensitive customers and centers need to shift from their existing technical capabilities to develop an intimate understanding of the business environment. Consequently, Petrick and Juntiwarakij, 2011; Hossain et. al., (2016) a substantial change in mindset and capability is required for that purpose. Agarwal and Brem, 2012; Zeschky et. al., (2014a) in addition to cost reduction in existing high technologies, the success factor is also important when including resources in innovators, transfer of technical knowledge in local markets and that companies to succeed in Frugal Innovation need to be frugal and bring about changes in the mindset of employees in modifying the organizational culture. Agarwal and Brem, (2012) the success factor in Frugal Innovation is the creation, development and commercialization that requires proximity to local markets throughout the value chain, team formulation and marketing.

Frugal Innovations are inspired by the desire to solve local challenges (Douglas, 2013), but knowledge transfer is important for the suitability of any approach to Frugal Innovation (Altmann and Engberg, 2016).

Localization and the identification of core value are key success factors for MNEs in emerging markets (Agarwal and Brem, 2012). Along with design, the use of local entities is also essential for Frugal Innovation (Bolanos, 2013). Other success factors in Frugal Innovation are pointed out by various researchers as follows:

Creating new models of collaboration between entities in developed and developing countries.

Having the institutional discipline to let go of disappointing projects and look for promising new approaches.

Protection of Product Innovation and the rapid and successful use of external partners are essential.

Creating support infrastructure in developing countries.

Being close to universities and strengthening their role in society, as well as committing to a local presence, are also pointed out as important for successful Frugal Innovation.

In short, local competence is indeed crucial for Frugal Innovation (Rosca et. al., 2017) and the success or failure of Frugal Innovations also depends on specific market knowledge (Grover et.al.,2014).MNCmanagersandlocalcompanies need to form mutual alliances to accelerate the pace of development in Frugal Innovation and meet the needs of low-income customers. In addition, it is crucial that local people with first-hand experience of the product's target market are integrated into teams.

They need to build relationships with host governments and other public and private entities, as well as satisfy local consumers (OECD, 2010; Sako, 2009). The private sector, including NGOs and social enterprises, serve low-income clients in the face of challenges such as lack of finance, technical expertise and knowledge (OECD, 2010). Successful Frugal Innovations involve working within constraints (Singh et. al., 2012). Frugal Innovation can show ways to succeed in a price-sensitive and volume-oriented market with narrow margins (Tiwari and Herstatt, 2013). Zeschky et. al., (2011) point out that low-cost manufacturing, simple design, low-cost materials and basic functionality are the keys to serving low-income customers.

HINDERING FACTORS

The impeding factors in Frugal Innovation are developed under restrictions of various kinds, of which the following associated innovations are according to the authors:

Ray and Ray, (2011) for multinationals, developing Frugal Innovations that meet the needs of low-income customers is still a challenge. This idea is shared by Parthasarathy, (2013) according to whom serving disadvantaged customers is not easy, both technically and organizationally. Other researchers such as Simula et. al., (2015) the lack of adequate and reliable sales and distribution channels is also a major impediment to Frugal Innovation. Zeschky et. al., (2011) argue that multinationals must restructure their established business models, integrating resources restricted to consumers and building organizational structures and resources for Frugal Innovation. OECD, (2010) and (Zeschky et. al., (2014a) advocate a lack of sustainable policy makers in Frugal Innovation that can stimulate sustainable growth, and emphasize the development of Frugal Innovation mainly in places with weak regulation. However, Rosca et al. (2017) argue that combining economic value with environmental and social benefits is another key challenge to ensure the success of a business model.

SOCIAL IMPACT

In the capitalist economy, corporations have a very important impact on society and, as a result, there is a demand for all their actions and initiatives. These demands can occur informally, through pressure from public opinion, regulations, formal and informal protests and even boycotts of a certain company's products (Edgar, B., &Luciana, A., 2013). Large companies have often been seen as villains. On the one hand, they are seen as having a negative impact as polluters and

causing environmental degradation on the planet; on the other, they are seen as creating social inequalities in the exploitation of employees, who, if not exposed to precarious working conditions, live with continuous pressure and occasional loss of privacy due to constantly connected cell phones and laptops (Edgar, B., &Luciana, A., 2013). Finally, there is the view that companies make us consume what we don't need or want (Edgar, B., &Luciana, A., 2013).

In turn, companies, either defensively or more proactively, develop initiatives that aim to minimize the negative impacts caused or even seek solutions to improve living conditions (Edgar, B., &Luciana, A., 2013). Focusing on and reducing these effects, also known as "externalities", is an attempt to live together in a more friendly, environmentally correct and transparent way. In this chapter, in the light of the theories, the study will develop the path of the emergence of the social context, concepts of social impact, its contribution to the economy and to society.

THE EMERGENCE OF THE SOCIAL CONTEXT

The movement for more social action by companies is not new. Philanthropic actions by corporations have been seen since the 17th century. However, the form of social action, as well as the vision of how these actions should be carried out, has changed considerably.

In the 17th century, donations were made by company owners for social actions, without any link to the business itself. It wasn't until the 1960s that North American companies began to set up foundations that earmarked up to 5% of their turnover for social causes, although this was still unrelated to their core business.

Even then, there was a great deal of discussion about corporate social responsibility. In 1962, Milton Friedman, one

of the most prominent economists of the 20th century and an influential theorist of economic liberalism, declared that “few trends can so deeply undermine the foundations of our free society as the acceptance by corporations of a social responsibility other than that of making as much profit as possible for their shareholders (Edgar, B., &Luciana, A., 2013 p.66-67).”

Various attempts were made to define the concept of corporate social responsibility during this period. One of them is that proposed by The World Business Council for Sustainable Development: “Corporate Social Responsibility is an ongoing commitment by companies to act ethically and contribute to economic development while improving the quality of life of their employees and their families, as well as the local community and society as a whole.” (Edgar, B., &Luciana, A., 2013 p.66-67).”

This definition is more social in nature and caters for various stakeholders, not just shareholders. This discussion has evolved a lot in recent years and there is now a relative consensus that profit maximization cannot be the primary objective of corporations.

CONCEPT OF SOCIAL IMPACT

Social impact is the set of positive changes in the living conditions of the target population, sustainable in the medium and long term, that result from the products, services or programs developed by social entrepreneurs, such as newborn mortality and child malnutrition indicators, used to measure the impact of social programs on children’s health and other educational aspects (LIMEIRA, TANIA, MARIA VIDIGAL, 2018).

The social purpose refers to the main guideline and goal of the impact business, i.e. the creation of a new solution to overcome the challenge of the target audience: a population group in conditions of socio-economic vulnerability.

These challenges make up the Sustainable Development Goals published by the United Nations Development Program (UNDP), such as good health, education, inequalities, peace, social justice, etc. (YUNUS, M. 2010, p.5).

BUSINESS WITH A SOCIAL IMPACT IN THE CORPORATE WORLD

When thinking about businesses with a social impact in the corporate world, it is important to understand the different configurations they can have. There is a big difference between the social impact businesses of large organizations and those undertaken by small companies. The way they enter the social impact business sector is different. For Mintzberg (1987), social impact business models involve six main characteristics: Mission, Governance model, Profitability, Social impact, Innovation and Scale.

a) **Mission:** refers to the meaning and vision of the desired improvement. It is related to the organization’s values and purpose, i.e. the intended social benefit and impact. Purpose and the intention to have a social impact are essential in this sector. In large companies, it also means the degree to which the social impact business is aligned with the company’s core business. It seeks integration with the company’s business in order to create a win-win relationship, in which both the company gets tangible returns and society benefits.

b) **Governance model:** for large companies, business with a social impact is no longer just a social responsibility movement disconnected from the enterprise, but plays a key role in defining their action strategies. To this end, the initiatives are structured according to their own governance model, with management integrated with the rest of the company and autonomy to carry out the projects. In this model, as we have already seen, partnerships play an essential role. They can involve actors from different sectors, such as the private sector, the third sector, the public sector

or even communities themselves. In small businesses, social impact is an integral and central part of the value proposition from the outset.

c) **Profitability:** Businesses with a social impact developed by large and small corporations have as their basic premise the financial return on their actions in the short, medium and/or long term. In addition to doing good, they must be good business. However, from any perspective, profitability is relevant.

d) **Social impact:** this is a prerequisite for any business with a social impact, preferably in some structural sector (education, health, food, water, energy and housing). Assessing the significance of this impact is not simple and will be explored further.

e) **Innovation:** this is the ability of a business to come up with innovative solutions and alternatives that go beyond common sense, creating initiatives that provide gains for the company and for society. As this is a new business model with a different mindset, it is important that companies seek innovation and thinking outside the box.

f) **Scale:** a basic premise for structuring businesses with a social impact is the focus on scale with actions, as a way of increasing both the return for companies and their social impact. This becomes important for companies that are always looking for growth, profitability and access to a larger population. As these initiatives are focused on the emerging needs of the base of the pyramid, scale is a relevant dimension, given the complexity and size of the problems experienced by this population.

Succinctly explaining and in line with the perceptions listed above by the author, one comes to the conclusion that it is important to note that the small business entrepreneur must have a good perception, even if intuitive, of the opportunities to start a new business that has

some differential and can offer access to products and services to consumers. In addition, small businesses often achieve important competitive advantages because of the relationship they create with the community.

More than just close contact, this link allows small businesses to adapt to consumer desires much more quickly, in a process that is close to co-creation, a procedure that is more difficult for a large company to implement.

It is also important to note that both large and small companies need to offer products and services that are considered to be of a high quality by their customers. The cases of organizations that have succeeded in this sector are linked to businesses that don't simply offer a cheaper version of an existing product. The focus here is on innovating and offering differentiated products in which the community sees a real gain, not just a simplified version.

CONTRIBUTION OF SOCIO-ECONOMIC IMPACT

The contribution of the social purpose is the main guideline and goals of the impact business, i.e. the creation of a new solution to overcome the challenge of the target audience: a population group in conditions of socio-economic vulnerability.

These challenges are part of the Sustainable Development Goals published by the United Nations Development Program (UNDP), such as good health, quality education, zero hunger, clean water and sanitation, gender equality, decent jobs, reducing inequalities, peace and justice, etc.

Economic impact businesses are considered innovative because they implement new solutions to old challenges through technology, creative thinking and entrepreneurial behavior. The business is scalable when it has the potential to expand its reach by:

- ✓ Expansion of the business itself to reach the people in the target audience;
- ✓ Replication in other regions through partnerships;
- ✓ Dissemination of elements of the business (technology, know-how, methodology, programs, products, services, etc.) by other entrepreneurs or through public policies; (YUNUS, M. 2010, p.17).

Therefore, business scalability is the ability to grow without losing the qualities that add social and economic value.

FINAL CONSIDERATIONS

FORMULATION OF PROPOSITIONS

In this chapter we set out to present the propositions related to innovation practices and their economic and social impact for companies and the local community where they are located, while answering the following research question: **Why, how and when a company does frugal innovation, does it generate social impact?**

PROPOSITION-1:

INNOVATION USING TECHNOLOGIES. CASE OF MILLENIUM BIM WITH THE NEW SMART IZI VISUAL IN MOZAMBIQUE (Contributes and generates Social and Economic Impact)

Millenium BIM has reinforced its leadership in cost innovation in its Banking System by launching the new Smart IZI look. The digital tool, updated with new functionalities, is available in the Google and Apple Stores, and provides dynamic and rewarding experiences for the Bank's customers. The slogan is **Now staying at home will be more enjoyable**.

Among the new features of the renewed Smart IZI are the possibility of making

transfers to e-currency accounts, from M-pesa to e-Mola and vice versa, paying Social Security and recovering the password for the Internet Banking channel and now also making transfers abroad.

Customers can also use the new Smart IZI to manage and control the security of their cards.

In the current context of the outbreak of the Corona Virus Pandemic, known as (covid-19), Millenium BIM offers the best Mobile conditions that allow Customers to access Banking Services, safely and comfortably, without leaving home.

Social and economic contribution:

- It helps customers save time traveling to the place where they should make their transactions;
- It helps customers control their savings in bank accounts without having to leave home;
- It helps customers to transfer their money both nationally and internationally.

Economic and social impact:

✓ Millenium BIM is the best Bank in Information Security and Fraud Prevention on the entire African continent, an international distinction that recognizes the Bank's efforts to protect its clients' data, at a time when the digital age is contributing to the simplification and agility of financial operations.

✓ Its investment is low cost and its return is of great impact, adding greater economic and social value to both the Company and the Community and throughout the country.

Source: Jornal Savana, Mozambique, April 24, (2020)

SAVANA- Moza www.savana.co.mz

PROPOSITION-2:

Corona virus: USP researchers create lung ventilator for emergencies made in 2 hours and 15 times cheaper in Brazil. (Contributes and generates Social and Economic Impact)

The estimated cost of the device will be R\$1,000 - the cheapest ventilator on the market costs R\$15,000, according to USP. The prototype is ready and is now being tested and produced in the laboratory. The license is open to anyone interested in producing the ventilator.

Engineers from the Polytechnic School of the University of São Paulo (Poli-USP) have developed a lung ventilator for use in emergencies, which can be produced in up to two hours and is 15 times cheaper than the devices available on the market.

On March 20, a group of around 40 people, including biomedical, mechanical, mechatronic, electronic and production engineers, students and representatives of the private sector, worked together to develop the ventilator, called "Inspire", to meet a possible demand for hospital equipment during the Corona virus pandemic.

The total manufacturing time is less than two hours and the estimated cost of the device will be R\$1,000 reais - the cheapest ventilator on the market costs R\$15,000, according to USP. "We would like the national industry to develop and export the technologies they have to many countries," continued the researcher.

The prototype is ready and is now being tested and produced in the laboratory. The expectation is that they will be available to hospitals by mid-April, when coronavirus cases are expected to peak in the state of São Paulo.

The lung ventilator developed by Poli-USP is mechanical, to be used in emergencies, as the team considered a possible lack of compressed air lines in hospital beds, which would make it necessary to pump air to the patient.

According to researcher Raul González Lima, Poli-USP is responsible for the project, but not for manufacturing, which will have to be done by companies authorized by

the National Health Surveillance Agency (Anvisa). The project has an open license for those interested in producing the fan.

Source: Vivian Reis, G1 São Paulo, Brazil, 31/03/2020.

PROPOSITION-3:

GIVE CHANCE TO THE EXCLUDED
(Contributes and generates Social and Economic Impact)

E.g. Dr. Liu Jiren Chairman and CEO of Neusoft (China's largest IT services and solutions provider) is concerned about the health of 800 million rural Chinese who, according to him, "will get older and sicker before they get richer." Dr. Liu's pure concern for China's marginalized segments has led him to develop technological solutions that promote social inclusion, such as telemedicine applications, which provide affordable healthcare for millions of rural Chinese.

Source: Navi Radjou, (2012)

It is on the basis of these propositions that we will try to find out, formulate and answer our case study questions about the companies located in Mozambique and the local communities where they are located in order to contribute to the study, taking into account the following questions below:

1. What contribution do companies located in Mozambique make by implementing businesses with a social and economic impact?
2. Why study frugal innovation for companies located in Mozambique that generate social and economic impact?
3. How do companies in Mozambique implement frugal innovation?
4. When do companies in Mozambique implement frugal innovation and generate economic and social impact for the local community?
5. What is the relationship between social impact and social impact business management?

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