

## Theoretical Article

### FRUGAL INNOVATION AND SOCIAL VALUE CREATION

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#### ABSTRACT

Frugal innovation, launched from emerging markets to overcome resource constraints and meet the needs of bottom-of-the-pyramid consumers has received widespread attention. Companies are striving to remove non-essential functions from their products or reduce their processes to cut costs, seeking to offer affordable products or services. Frugal innovation is not only related to simplicity, cost reduction and saving natural resources, but it also meets some basic human needs and creates a significant social value for low-income citizens in emerging countries. The objective of this paper is twofold, firstly through a detailed literature review, we will try to define this new emerging paradigm, as well as determine those characteristics that distinguish it from other innovations, and then find the possible interconnections between the two concepts of social sustainability which represents the important pillar of sustainable development and frugal innovation, this will be done through a theoretical narrative framework that will determine the essential themes of social sustainability and show their relevance in practice through the field of action of frugal innovation. The examples discussed demonstrate that the notion of frugal innovation can be seen as an approach to achieving social sustainability and subsequently achieving the Sustainable Development Goals. The paper seeks to explain how businesses and non-profit organizations can collaborate to undertake frugal innovations, thereby successfully helping various groups of disadvantaged people.

**Keywords:** Frugal innovation, social value, social sustainability.

**JEL Classification:** O15, O32, O33.

#### INTRODUCTION

Innovation was an important topic in the study of economics and business, according to the economist Joseph Schumpeter. Innovation was seen as the engine of economic growth, and entrepreneurs used conceptual breakthroughs to realize new combinations, destroying the status quo to create something better. This process of "creative destruction" has driven the economy forward (Schumpeter, 1942). Business strategy specialists believe that innovation enables companies to create economic value for their customers, and thus increase competitiveness (Grant, 1996) (Lengnick-Hall, 1992).

Today, it is impossible for governments, non-profit organizations or companies to invest massively in revolutionary new technologies to meet certain basic human needs, especially those of the disadvantaged or underserved. In such circumstances, frugal innovation came in to save face. It was initiated from emerging markets by various organizations to overcome resource constraints and satisfy the needs of the population at the bottom of the pyramid. And to achieve this new model of innovation, companies have endeavored to remove non-essential functions from their products,

To simplify their service offerings, and reduce their processes in order to cut costs, and consequently offer affordable products or services. The whole approach is designed to meet long-neglected needs, and to deliver significant benefits. With a growing number of organizations involved in this innovative approach, this new paradigm has undoubtedly come to create superior social value, be useful and benefit society as a whole. It is a new manifestation of innovation that

aims to bring products, services and systems to 04 billion poor and emerging consumers from society's underclass (Bhatti Y., 2012) (Zeschky M. B *et al.*, 2014). By dramatically reducing costs, while preserving user value and technological sophistication, it has been hailed as potentially disruptive to the classical innovation process, business models and even entire economies (Tiwari & Herstatt, 2012) (Radjou N. P., 2014) (Rao, 2013).

The question that arises is :

*what is frugal innovation and what are its different characteristics?*

When it comes to sustainable development, the social pillar is the most important, alongside the other two poles of sustainable development - environmental and economic. Social development focuses on developing programs and processes that foster social interaction and a culture of enrichment. It focuses on protecting the vulnerable while respecting social diversity and satisfying basic needs for happiness, security, freedom, dignity and affection (Vavik T. Keitsch, 2010). It is therefore essential to develop the concept of social sustainability by adopting principles and an integrative framework for sustainability (Perdrix, 2005).

*Keeping the above principle in view, this paper seeks to highlight how social sustainability is strongly linked to frugal innovation and to look for possible connections that help understand the link between social sustainability and frugal innovation based on the literature.*

It is sought to argue that the role of frugal innovation in sustainable development should be studied in depth, and that better tools should be formed to analyze these relationships (Levänen & *al.*, 2016), and finally determine How does frugal innovation manage to create social value?

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This article will be structured as follows: firstly, an overview of frugal innovation and its main characteristics. Secondly, through a detailed literature review, to understand social sustainability and define the possible connections that may exist between these two concepts. And finally, to determine how frugal innovation creates social value.

## 1. Frugal innovation as a unit of analysis

### 1.1. Definitions and approaches

Frugal innovation represents the future of innovation, and is a concept to watch out for in the coming years (Zeschky, Winterhalter, & S. Gassmann, 2014). It will rethink the mapping of innovation. "It is the ability to do more with less by creating more social and commercial value while minimizing the use of resources such as: energy, capital and time" (Radjou N. P., 2014). It is developed in areas with severe resources. It involves products or services of good quality, but at reasonable prices, which are aimed at low-income customers. According to authors "Innovations stemming from frugality are fairly good and affordable products that meet the needs of consumers with limited resources" (Zeschky M. B *et al.*, 2014). As such, it creates many advantages not available in traditional product development. It has the potential to improve a company's competitive advantage, as well as enhancing the green supply chain through an ideal model for creating green products (Sharma & Iyer, 2012). Generally speaking, frugal innovation is considered to be low-cost innovation, but with ingenuity. It uses the concept of simplification at lower cost, using intelligent technology. All frugal solutions are characterized by: affordability, robustness, user-friendliness, scalability and attractive value (Tiwari & Herstatt, 2012). Frugal Innovations are seen as potentially disruptive and transformative (Woolridge, 2010), not only for emerging markets, but also for developed markets (Bhatti & Ventresca, 2009). They combine analytical, historical and current perspectives to define innovative, low-cost products aimed at the bottom of the pyramid. They can serve as an integrating mechanism for concepts such as disruptive innovation (Hart & Christensen, 2002), Lean innovation (Schuh & Hieber, 2011), Bottom of pyramid (Prahalad & Hart, 2002), jugaad innovation (Radjou N. *et al.*, 2012), local innovation (Smith, Fressoli, & Thomas, 114-124.) And inclusive innovation (George, McGahan, Prabhu, & Macgahan, 2012). The term "reverse innovation" is often used synonymously with frugal innovation. However, even though they mean the same thing, nevertheless they are not related to each other (Hossain & *al.*, 2015), there is a difference that distinguishes one from the other. "Reverse innovation refers to the case where an innovation is adopted first in emerging economies before "trickling down" to rich countries" (Govindarajan V. R., 2012). "These are pure innovations which mean they have to be developed from scratch and this involves reversing the way companies approach innovation" (Agarwal, 2012) (Govindarajan V. R., 2012) in contrast to frugal innovation which involves designing dedicated solutions for low-income market segments. "The development of frugal innovation capabilities represents an essential success factor for the development of reverse innovation" (Zeschky M. B *et al.*, 2014), so we can say that the two concepts are complementary. A company's ability to harness the potential of reverse innovation makes it more adept at succeeding in global innovation. Frugal innovation is also known as Jugaad innovation. Jugaad: is a Hindi word, meaning creative improvement (thinking frugally and flexibly), which requires rapid adaptation to unclear and uncertain circumstances in an intelligent way (Bobel, 2012). However, the term has a negative connotation among some schools of innovation because of its meaning as mere cure-all and its use as opposed to the traditional process of innovation (Birtchnell, 2011). Jugaad, in essence, speaks of a new model of innovation, which is based on constraints. This

means solving a customer problem in the most innovative way possible with limited resources. Brem and Wolfram, present a comprehensive definition of frugal innovation as a "jugaad-based, derivative management approach that focuses on developing, producing and managing resource-efficient products or services for people at the bottom of the pyramid by achieving a sufficient level of taxonomy and avoiding unnecessary costs" (Brem & Wolfram P, 2014). To develop jugaad or, in other words, frugal innovations, unusual skills and mindsets are required.

### 1.2. Theories of innovation and social development

#### Schumpeter's Theory of creative destruction.

It is associated with technological or commercial innovation. Schumpeter insists on the destruction of the status quo by entrepreneurs, then by big business. This shift was partly due to the resources controlled by organizations. No matter who innovates, the need to access and control resources is no longer important for innovation. It is the acquisition, control and combination of labor, skills and materials that have become essential to the creation of new products and services (Schumpeter J. A., 1934) (Shane & Venkataraman, 2000).

Innovation is both a result (product) and a process, and can be divided into two main streams: the results-based innovation stream, which manifests itself in new products, new features and new production methods. Research in this stream studies the sources and economic consequences of innovation according to two key theories: one of resource-based vision (Barney, 1991) (Peteraf, 1993), and the other of resource dependence (Pfeffer & Salancik, 1978). Secondly, process-based innovation studies the social and organizational processes that produce innovation outcomes, such as individual creativity, organizational structure, environmental context and social and economic factors (Phills & *al.*, 2008) (Kanter, 1984. ) (Amabile, 1988.). The theory of competitive advantage (Porter, 1995), institutional entrepreneurship, entrepreneurship and innovation. (DiMaggio, 1988.)

In the extreme environments associated with developing countries, DIY entrepreneurs are able to provide solutions that would otherwise be inaccessible to users, for example due to poverty or lack of access. This highlights, in emerging or developing markets, the need to address both resource constraints as an innovation process and accessibility constraints as an innovation outcome. Desa writes: "by providing unique services in resource-poor environments, and finding ways to maintain financial viability, entrepreneurs can create markets for services that didn't exist before." (Desa, 2009.)

There are two criteria for identifying innovations, whether process- or outcome-based (Phills & *al.*, 2008). The first is that the phenomenon must be new, without necessarily being purely original. Novelty" need not be universal, but can be for a specific company or market. March and Simon have argued that innovations often occur by borrowing from other innovations, rather than by rudimentary invention (March & Simon, 1958.).

Secondly, the innovation must lead to improvement by being more effective or more efficient than the solutions it seeks to replace. In this sense, the innovation must not be entirely new, or require the enormous financial and human capital often associated with high-tech R&D. A third component is frugality, i.e. doing more with less.

As frugal innovation can encompass both processes and outcomes, it has overlapping meanings. It can refer to frugal innovation processes,

such as the reverse diffusion process (Govindarajan & Ramamurti, 2011), reverse engineering, the use of bricolage (Lévi-Strauss, 1967), creative improvisation or jugaad (Gulati, 2010. .) Jugaad is presented as a style of innovation based on improvisation and motivated by the scarcity of resources and attention to customers' immediate needs rather than their lifestyle desires (BusinessWeek., 2009.) Prahalad and Mashelkar argue that most innovation programs are based on the assumptions of wealth and abundance. However, they argue that these assumptions are being challenged by contemporary notions of affordability and sustainability, which are replacing high prices and abundance as drivers of innovation, particularly in emerging markets. They therefore urge companies to learn to do "more with less" for more people. They argue that "a powerful combination of constraints and ambitions has given rise to a new kind of innovation" (Prahalad & Mashelkar, 2010).

Social sustainability is considered the fundamental component of sustainable development (Colantonio A. , 2007). It is a multifaceted concept, which has been studied through the prism of distinct disciplines and theoretical perspectives (Weingaertner & Moberg, 2014) (Mak & Peacock, 2011) And it is also dynamic with a strong possibility of change over time. It's not clear what social development actually means in practice, and what its dynamics and ruptures are (Littig & Grießler, 2005), (Vifell & Thedvall, 2012), (Mak & Peacock, 2011). (Davidson, 2009,). (Dempsey & al, 2011) (Landorf, 2011).

Spangenberg and Omann have identified three analytical perspectives that surround discussions of social sustainability. These are the functional approach - widespread in rural, urban or community sustainability studies - the capital approach - seen from the perspective of economic thinking - and the system approach - seeing each area as a system that should be able to reproduce itself (Spangenberg & Omann, 2006). Over the past 15 years, much research on social sustainability has focused primarily on urban studies, both from an academic and a policy perspective (Ghahramanpouri, Lamit, & Sedaghatnia, 2013). Weingaertner and Moberg examined social sustainability from the point of view of urban development, and from the point of view of companies and products. They thus identified that context dependence influences the relevance and interpretations of detailed aspects of social sustainability (Weingaertner & Moberg, 2014).

## 2. The characteristics of frugal innovation and their social implications

The most important characteristic of frugal innovation is that it challenges the standard model of innovation, involving highly structured and costly research (Radjou N. *et al.*, 2012). it is characterized by limited resources to create low-cost innovations that are sustainable for the environment and communities. However, through a detailed literature review, several authors have unearthed other important characteristics, as well as their implication in the creation of social value. The following table perfectly illustrates the link between the two concepts:

**Table 1** : Frugal innovation: social characteristics and implications

Authors	Characteristics	Implications for society
Prahalad	<ul style="list-style-type: none"> <li>✓ Price performance</li> <li>✓ Hybrid innovations</li> <li>✓ Scale of operations</li> <li>✓ Respect for nature</li> <li>✓ Functionality identification</li> <li>✓ Process innovation</li> <li>✓ Work overflow</li> </ul>	<ul style="list-style-type: none"> <li>- Turn the four billion poor into potential customers and treat them as self-respecting citizens, understanding their basic needs and innovating solutions tailored to them.</li> <li>- Empowering people to escape poverty and deprivation.</li> </ul>

	<ul style="list-style-type: none"> <li>✓ Customer education</li> <li>✓ Design of hostile interfaces and infrastructures</li> <li>✓ Distribution: customer access and unconventional product delivery methods</li> </ul>	<ul style="list-style-type: none"> <li>- Meeting basic needs, social inclusion, human dignity and facilitating participation.</li> </ul>
Tiwari et Herstatt	<ul style="list-style-type: none"> <li>✓ Affordability</li> <li>✓ Robustness</li> <li>✓ User-friendly</li> <li>✓ Ease of use</li> <li>✓ Minimal use of raw materials</li> <li>Acceptability of quality standards</li> </ul>	<ul style="list-style-type: none"> <li>- Raise the standard of living of individuals in communities to a higher level.</li> <li>- Address human well-being, quality of life and poverty.</li> </ul>
Basu, Banerjee and Sweeney	<ul style="list-style-type: none"> <li>✓ Robustness</li> <li>✓ Lightweight</li> <li>✓ Mobile-enabled solutions</li> <li>✓ Human-centered design</li> <li>✓ Simplification</li> <li>✓ New distribution models</li> <li>✓ Adaptation</li> <li>✓ Use of local resources</li> <li>✓ Green technology</li> <li>✓ Affordability</li> </ul>	<ul style="list-style-type: none"> <li>The needs and situation of poor citizens in developing countries are put first, in order to develop appropriate, adaptable and affordable solutions that are accessible to all. Addressing social coherence, equity and justice.</li> </ul>
Rajdou, Prabhu and Ahuja	<ul style="list-style-type: none"> <li>✓ Creative improvisation</li> <li>✓ Constraint-based innovation</li> <li>✓ Unusual skills and mindset</li> <li>✓ Flexibility</li> <li>SimplicityInclusion sociale</li> </ul>	<ul style="list-style-type: none"> <li>- Innovate on the margins of society and bring them into the mainstream.</li> <li>- Tackling social inclusion and social justice.</li> </ul>
Rao	<ul style="list-style-type: none"> <li>✓ No frills,</li> <li>✓ Low-cost products or services</li> <li>✓ Robust, durable design,</li> <li>✓ ease of use, strong tendency to disrupt existing businesses.</li> </ul>	<ul style="list-style-type: none"> <li>- Innovating to harness frugality and improve profitability in a cost-conscious and sustainable world.</li> <li>- Addressing human well-being and poverty.</li> </ul>
Govindarajan et Trimble	<ul style="list-style-type: none"> <li>✓ Clean-slate innovations (developed from groups in the developing world).</li> </ul>	<ul style="list-style-type: none"> <li>- Closing the gap between rich and poor.</li> <li>- Tackling equity and social justice.</li> </ul>

Source : Rakhshanda Khan

## 3. Frugal innovation and sustainable development

### 3.1. Frugal innovation and social sustainability

Sachs asserts that "social sustainability must be based on the equity and democratic values (political, civil, economic, social and cultural) of all peoples" (Sachs, 1999). From a sociological point of view, Littig and Grießler say that "social responsibility is given to the work of a society where institutional reproductive capacities are maintained over a long period and the norms of claiming social justice, human

dignity and participation are realized” (Littig & Grießler, 2005). Polese and Stren have stated that “The social sustainability of a community is defined as development compatible with the harmonious evolution of society, fostering an environment conducive to the cohabitation and compatibility of socially diverse cultures and encouraging social integration, with improvements in quality of life for all segments of the population” (Polese & Stren, 2000). An important aspect of definitions of social sustainability concerns future generations, insofar as improving society should enable current and future generations to use social resources profitably and healthily. This is echoed by Chiu, who developed the notion of generational well-being from Brundtl and’s definition of sustainable development, adding that “over the past decade, the concept of social sustainability has evolved towards a perception of dependence on society” (Chiu, 2003). Magis and Shinn define four central elements of social sustainability: individual well-being, social equity, democratic government and civil society. “Human well-being ensures the protection of basic needs, while equity guarantees mechanisms for the balanced sharing of society’s rights. The democratic process ensures that governance is people-oriented and empowers people to build democratic government” (Magis & Shinn, 2009). In short, “Social sustainability is about how individuals, communities and societies live with each other to achieve goals according to pre-established patterns of development, and which is chosen also taking into account the physical limits of their places of occupancy and the planet Earth as a whole” (Colantonio, 2007).

However, to better understand the phenomenon of social development, it needs to be measured, so many researchers have developed indicators to assess it. For example, Spangenberg and Oman refer to basic needs, social resources, equal opportunities, participation, self-maintenance and cultural diversity as the most important indicators (Spangenberg & Omann, 2006). Littig and Grießler consider the satisfaction of basic needs that improve quality of life, social justice and social coherence as the three basic indicators (Littig & Grießler, 2005). Cuthill considers capital, infrastructure and social justice/governance as key indicators of social sustainability (Cuthill, 2009). Vavik and Keitsch highlight three indicators, namely poverty, illiteracy and access to health services (Vavik & Keitsch, 2010).

McElroy, Jorna and Engelen, for example, have proposed a social footprint method to measure it quantitatively and report on the social evolution of their operations (McElroy, Jorna, & van Engelen, 2008). Thomsen and King have proposed a set of standards drawn from the best practice of sustainable companies that could serve as a starting point for assessing social development (Thomsen & King, 2009).

The following table identifies themes of social sustainability that have been highlighted by different authors so far. The literature identifies the most important elements of what a socially sustainable society should involve, many authors point to similar themes as they remain the main building blocks of social sustainability

**Table 2 :** Social sustainability themes from the literature on social development.

	Murphy, Chambers et Conway ,Thin et autres, Koning, Chiu, Sachs, Holden , Baines et Morgan, Polese et Stren, Partridge, Ketschau
Social coherence	Littig et Grießler, McKenzie, Vallance, Perkins et Dixon, Murphy.
Committed democratic government and democratic society	Cuthill, Magis et Shinn, Sachs, McKenzie, Larsen, Davidson et Wilson, Dempsey et al.
Human rights	Bebbington et Dillard, Vavik et Keitsch, Sachs, Polese
Social inclusion	et Stren, Larsen, Davidson et Wilson, Ancell et Thompson-Fawcett, McKenzie, Dempsey et autres, Bramley et Power, Glasson et Wood, Partridge.
Diversity	Vavik et Keitsch, Polese et Stren, McKenzie Spangenberg et Omann, Baines et Morgan.
Decline in poverty	Vavik et Keitsch, Vallance, Perkins et Dixon
Social infrastructure	Cuthill, Chan et Lee
Social capital	Cuthill, Lehtonen, Magis, Messer et Kecskes, Semenza, Baines et Morgan, Dempsey et al., Vavik et Keitsch, Rogers, Gardner et Carlson, El-Husseiny et Kesseiba, Bramley et Power, Rocak, Hospers et Reverda, Colantonio et Dixon
Changes in household behaviour	Vallance, Perkins et Dixon
Sociocultural preservation Models and practices	Vavik et Keitsch, Vallance, Perkins et Dixon, Davidson et Wilson, Colantonio et Dixon
Stakeholder involvement	Littig et Grießler, Boström, Giddings, Hopwood et O'Brien, Spangenberg et Omann, Murphy Thin et autres, Baines et Morgan, U.O'Hara, Bramley et autres, Dempsey et autres, Vavik et Keitsch, Galuppo et autres, Funk, Lindgreen et autres, Labuschagne, Brent et Erck, Brown, Dillard et Marshall, Colantonio et Dixon, Partridge
Human dignity	Littig et Grießler, Larsen, Vavik et Keitsch
Safety and security	Thin et autres, Bramley et autres, Dempsey et autres, Vavik et Keitsch, Glasson et Wood, Gauthier, Geibler et al. Tanzil et Beloff
Sense of place and belonging	Bramley et autres, Dempsey et autres, Glasson et Wood, Bramley et Power, Colantonio et Dixon, Yung, Chan et Xu, Yung et Chan
education and training	Spangenberg et Omann Dempsey et autres, Sachs, Colantonio et Dixon
Community engagement and development, community resilience	Bramley et autres, Woodcraft, Hackett, et Caistor-arendar, Castillo et autres, Bramley et Power, Colantonio, Landorf, Magis, U. O'Hara
Fair Operating Practices	Bebbington et Dillard
Absence of structural barriers (health, influence, competence, impartiality)	Missimer, Robert et Broman

**Source : Rakhshanda Khan**

To link frugal innovation with social development, we see that social factors such as human well-being, basic needs, quality of social justice, social inclusion, poverty reduction, learning capacity must be addressed and analysed closely. Through the study of several cases of frugality, we see that this new paradigm often offers solutions to society’s problems. First, frugal innovation helps

Key themes of social sustainability	Authors
Essential needs and quality of life	Littig et Grießler, Polese et Stren, McKenzie, Magis et Shinn , Spangenberg et Omann , Baines et Morgan , Ancell et Thompson-Fawcett, Colantonio, Dempsey et al., Carew et Mitchell, Partridge.
Social justice and equity	Cuthill,Dempsey et al. , Littig et Grießler , McKenzie , Magis et Shinn, Vallance, Perkins et Dixon, Giddings, Hopwood et O'Brien, Spangenberg et Omann ,

to remove distinctions between people by improving connectivity within and outside the community, it thus guarantees the principle of equity and social justice, which is one of the most important principles of social sustainability. Second, it can be said to be a way of addressing the social challenges of inclusion in the bottom markets of the pyramid.

Third, the principle of human well-being is a key outlet for frugal innovation trade, especially in low-income consumer markets where resources are unevenly distributed, but with some innovations, even the poorest sections of society will have access to essential goods and services, and frugal innovations work in favour of social cohesion, by which members of a community play an active role in society to help marginalized communities. Social cohesion is a measure of solidarity between the members of a society.

### 3.2. The role of frugal innovation in creating value

Frugal innovation could effectively discover basic needs that government organizations had never adequately addressed. And then take some actions to solve these problems. So, there are two essential steps to be taken: the first is to identify the underserved population and understand their unmet needs.

Second, ensuring simplicity and conservation of resources. None of the solutions provided by organizations should be applied in a complicated way (advanced technologies). They do not require intensive use of resources, examples explain the phenomenon; "MPedigree which has drug verification services using 2G mobile technologies, which may seem obsolete in some developed countries". "The My Shelter Foundation solar bottle bulb is not a complicated technology, but just a recycled plastic bottle filled with bleached water." "Godrej ChotuKool simplifies the architecture of a regular refrigerator by reducing the number of parts from 200 to 20 and replaces compressors with cooling chips to reduce costs and energy consumption."

With simple, resource-efficient designs, these solutions become affordable for most of the disadvantaged in emerging countries. If businesses or organizations in the developed world can also instill simplicity and resource-saving spirit in their products or services, greater social value will be created for the benefit of low-income people. Third, organizations undertaking this type of innovation can, based on specific local conditions and constraints, design products or services that are feasible to solve the problem faced by disadvantaged people. Affordability in particular is a common problem for most disadvantaged people so simply providing existing products or services at the lowest price will not work, because there are other environmental constraints that need to be taken into account. Calls for additional efforts to develop new products or services that are different from the low-cost solutions available in developed countries. And that's what makes the ingenious look of frugal products.

## DISCUSSION

In short, through a detailed literature review on the subject, it emerges that frugal innovation is attracting increasing attention worldwide. Other than its attractive features, such as: concentration on basic needs, economical use of resources and elimination of non-essential functions, and its fundamental principles that illustrate the harmonious combination of ingenuity, research and development to make products or services affordable for consumers. This new paradigm has allowed many firms to rethink and redesign their products or services to meet unmet basic needs, especially in important areas such as health and agri-food to create sufficient social and environmental value.

This research also explores how various companies create social value through frugal innovation. It revealed that a range of organizations, including non-profit organizations, are collaborating to undertake frugal innovations to successfully help the disadvantaged. This innovative philosophy is not only about creating social value for emerging countries, where resources are relatively scarce, but it has also flourished in community affairs in the more resource-rich developed countries. On the other hand, social sustainability was reviewed and it was found that the two fields of study are linked through several key themes in the social field. The CSO is one of the important pillars of sustainable development. And through this document, it is deduced that it is possible to achieve social sustainability objectives by applying frugal innovation.

## CONCLUSION

Our research highlights the role of this new concept, frugal innovation in promoting sustainable development goals. Socially responsible societies provide free access and equal opportunities for all these members, thus ensuring survival and the realisation of their development potential. On the other hand, frugal innovators deliberately seek opportunities with underserved customers. As a result, companies that innovate frugally contribute to the economic objectives of society. The examples cited throughout the article show how perfectly this paradigm contributes to improving life in marginalized societies. This study may have its limitations, as there has been no access to better tools for measuring social sustainability and frugal innovation. Measuring the social sustainability of frugal innovations will be a challenge and to improve understanding of this relationship, it is important to design better indicators that will measure it more accurately. The multidisciplinary nature of social sustainability has allowed this area to be viewed from a different angle. Finally, in this research, we were forced to derive themes of social sustainability and we were forced to use the sustainable development goals as a basis for measuring social sustainability.

The scarcity of studies related to this field remains a real handicap and to remedy it is strongly recommended to look for new perspectives to be able to demonstrate the relationship between the two concepts sought. Again, studying cases of frugal innovation in a country like Morocco as innovative startups with social character could further enrich the understanding of this new paradigm and contribute to ensure a positive societal transformation and social development New to improve social inclusion in the Moroccan community.

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