The importance of developing simple sustainable procurement methodologies to enhance sustainable consumption practices among SMEs

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Master's Thesis

The importance of developing simple sustainable procurement methodologies to enhance sustainable consumption practices among SMEs

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I certify that the work presented here is, to the best of my knowledge and belief, original and the result of my own investigations, except as acknowledged, and has not been submitted, either in part or whole, for a degree at this or any other University.

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Abstract

Sustainable procurement practices are undoubtedly important tools for mitigating global imbalances and lead us to a more responsible and sustainable way of living. Accordingly, in the last decade, many guidelines on sustainable procurement have been developed to help companies and the public sector implement basic procurement procedures towards sustainability. Nevertheless, the existing sustainable procurement guidelines (SPGs) are long, complex, intricate and, despite their broad and comprehensive approach, are not always suitable for small and medium-sized enterprises (SMEs). Indeed, when complying with sustainable procurement requirements, SMEs can positively affect supply chains in two ways: through sustainable consumption practices, and sustainable supply practices (as tier 1 suppliers (i.e. when offering products/services to procurement entities)). In fact, the latter can also trigger the former and generate a gradual dissemination of sustainable procurement practices to all other tier suppliers embedded in the supply chain system. Therefore, through this study, I aim to explore the main available SPGs and propose the design of simpler sustainable procurement training methods (SPTMs) to enhance SMEs' sustainable practices. To perform this task, I chose four renowned SPGs: (1) The International Organization for Standardization "ISO standard 20400", (2) The United Nations "Sustainable Public Procurement Implementation Guidelines", (3) The ICLEI "Procura + Manual", and (4) The European Commission "Green Public Procurement" (GPP). As a result of this analysis, I also propose new ideas and suggestions regarding SPTMs that could be better implemented. Ultimately, this work could contribute to advances in science by raising awareness of the importance of SMEs' engagement towards more sustainable supply chain management.

Keywords: Sustainable procurement, guidelines, training methodologies, SMEs

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Introduction

Inspired by authors such as Fritjof Capra, Eugene Pleasants Odum, and Peter Senge, I assume that we live on a planet where everything is connected and interdependent in a complex, dynamic, and systemic[1] context. As stated in the preface of the book "The Systems View of Life: A Unifying Vision":

> (…) As we discuss in this book, a sustainable society must be designed in such a way that its ways of life, businesses, economy, physical structures, and technologies do not interfere with nature's inherent ability to sustain life.
>
> Over the past thirty years it has become clear that a full understanding of these issues requires nothing less than a radically new conception of life. And indeed, such a new understanding of life is now emerging. At the forefront of contemporary science, we no longer see the universe as a machine composed of elementary building blocks. We have discovered that the material world, ultimately, is a network of inseparable patterns of relationships; that the planet as a whole is a living and self-regulating system…Evolution is no longer seen as a competitive struggle for existence, but rather as a cooperative dance in which creativity and the constant emergence of novelty are the driving forces. And with the new emphasis on complexity, networks, and patterns of organization, a new science of qualities is slowly emerging. (Capra, F. and Luisi, P.L. 2014, xi).

Grounded on this premise, human behavior is not the product of only one factor but, rather, of multiple dynamic factors and conditions. Hence, every simple linear cause-effect explanation in regard to social events/behavior could be imprecise. However, due to the current state of environmental emergency that the global society is facing, we now have to consider more practical and faster approaches to sustainability. We have limited time to prevent irreparable damage to the environment, and we should promote immediate measures to save our ecosystem.

[1] Systemic Thinking or Systems thinking is a scientific approach that encourages us to understand life in a more inter-connected and holistic way (i.e., where connections, actors, connections, contexts, processes, and boundaries are considered in our analyses).

In view of the above, through this work, I intend to analyze and discuss existing guidelines on sustainable procurement and the results derived from them. I also wish to assess the opportunities for designing more "user-friendly" sustainable procurement training methods (SPTMs) with a special focus on SMEs, which could enhance their sustainability consumption practices and, consequently, their participation as sustainable suppliers in public/private procurement tendering. Nevertheless, it is important to emphasize that this work does not intend to create a new method for sustainable procurement but, rather, generate ideas that could raise awareness among academics and society about the necessity for designing suitable approaches for SMEs' needs. In this context, some ideas and suggestions regarding new methodologies will also be provided. Through this reflection process, I discuss the feasibility of designing simple alternatives for SPTMs that could involve the prompt action that our planet needs towards encouraging sustainability practices among supply chain stakeholders.

Methodological Rationale

To explore the methodological rationale more effectively, I propose the following questions: "Why are training methods critical for enhancing sustainable procurement?" and "In what way could existing SPGs be simplified and applied to develop suitable sustainable procurement training strategies for SMEs?"

As mentioned in the previous section, we need urgent actions to mitigate society's imbalances related to consumption practices. However, the standard education process and its outcomes (awareness, responsiveness, etc.) takes time. In an interesting article published

in the Construction Manager Magazine, entitled "Let's set the standards for sustainability", Mr. Shaun McCarthy OBE[2] asserted:

> (…) - Our supply chain lacks the knowledge. I am proud to chair the Supply Chain Sustainability School, which is trying to do something about this element. We can demonstrate that the base level of knowledge is low and we have evidence that 8,000 people have joined the school since its launch in 2012 and are actively improving their knowledge of sustainability. (McCarthy OBE, S. 2015)

Mr. Shaun McCarthy OBE is a renowned specialist in sustainable procurement, and he is currently the chair of the Supply Chain Sustainability School.

Therefore, when considering the complexity of this subject (sustainable procurement education) and the current emergency state of our planet, we cannot depend only on standard education. Hence, I assume that training methods (typically practical, quick, easy to handle, and cheap to implement) are likely more appropriate for positively impacting sustainable procurement in a broader and faster manner. With respect to the second question, I do believe that SPGs could effectively contribute to the development of suitable SPTMs for SMEs in many ways. First and foremost, SPGs were created by highly qualified specialists in both supply chain and sustainability areas. Thus, most of the guidelines and all of the technical information embedded in them are costless (from the four guidelines considered here, the only exception is ISO 20400, which is a paid document) and available on the Internet. Ultimately, they were designed for public entities and lead companies that are, in fact, potential "clients" of SMEs in tendering processes, which implies one additional motivation for SMEs with respect to sustainability.

[2] Mr. Shaun McCarthy OBE is a renowned specialist in sustainable procurement who actively worked for the development of the ISO's SPG (ISO 2400) as leader of the UK delegation. Currently, he is director of Action Sustainability and chair of the Supply Chain Sustainability School.

After this initial clarification, when considering SPGs and how they could contribute to new SPTMs for SMEs, one of the most important aspects to be considered is communication. The use of appropriate language is a fundamental aspect and should be in line with the current communication language used in the SMEs. Differing from the sophisticated language used in academia or international organizations, SMEs' language is typically simple, brief, and direct. Furthermore, it is also imperative to mention the target population for these new alternative SPTMs, which in this case will be the purchasing department of Small and Medium Enterprises (SMEs). For this reason, it would be decisive to have a good understanding about the SMEs' supply chain processes in the private sector context. Nonetheless, one could ask, "why approach SMEs?".

The answer to this question is that SMEs contribute to over 90% of the world's business population (Beck 2013, as cited in World Bank 2018, 4) and contribute up to 40% of the gross domestic product (GDP) of emerging economies (World Bank, 2020). Besides that, SMEs are generally more open to adopting new procedures, either because of their lack of previous information on sustainable procurement or their flexible policies structure and low bureaucracy level (reduced organizational chart). Furthermore, because SMEs have a higher dependency on the internal markets than international ones, in some cases (depending on their industry sector) they can be less sensitive to international price changes. As a consequence, they could comply with requirements and policies even in a volatile economic scenario in the global market.

From a consumer's perspective view, despite the behavioral similarities between a legal (enterprise) and a natural (individual) person, there are some important differences to be considered. Here, I listed some specific characteristics from the legal person perspective (enterprise/ procurement professionals): 1) they are not completely free to take decisions (requirement for top management permission), 2) they usually buy a substantial amount of

products/services through high-value contracts, 3) they must follow internal policies, directives, briefings, and deadlines, and 4) they can use SPTMs in two different ways, either purchasing goods through good sustainable criteria or being qualified to participate in public or private tenders as sustainable suppliers. Regarding this point, in the paper "Access to Public Procurement Contracts in EU: Perspective of SMEs", Bobowisk stated that the public procurement reform of 2014 offered many legislative instruments to help SMEs access public procurement markets, as listed here: "(…)the liberalization of requirements regarding turnover of participant in a tender procedure, the reduction of documentation required, and the division of large contracts into parts" (Bobowisk, S. et al. 2018, 90).

I wish to add further to this list the "use of e-procurement[3]", as Sarah Schoenmaekers pointed out (Schoenmaekers, S. 2015, 180). Moreover, today many countries allow SMEs to form a consortium in order to bid for contracts. This measure encourages groups of SMEs to coordinate to participate in larger contracts that would be impossible to award on their own.

Therefore, these unique characteristics of SMEs' supply chain departments reveal that we are talking about a more complex, bureaucratic, and difficult target population in which we aim to promote changes in consumption behavior and implement SPTMs. Nevertheless, it is important to underscore that SMEs' sustainability in relation to supply chains could generate a substantial impact on the world's sustainability thanks to either their overall consumption volume or their representativeness and potential to encourage other companies to change. This qualitative type of study will be hinged on existing data from many sources

[3] As stated by the Michigan State University: "E-procurement is the process of buying and selling supplies and services over the Internet. It differs from e-commerce in that it makes use of a supplier's closed system typically available only to registered users….When implemented properly, e-procurement opens the lines of communication between a company and a supplier by creating a direct link and facilitating interactions such as bids, purchase orders and emails" (Michigan State University, 2019).

(i.e., government institutions, international organizations, academia, and the private sector). In this manner, I attempt to prevent bias in the final result.

Finally, I wish to also mention the various limitations that this work faces. Among them, the lack of publications about SPTMs focused on SMEs and the small amount of academic information on sustainable procurement dedicated to the private sector. As mentioned previously, I have been facing a deadlock because there is no sustainable procurement training guideline specifically designed for SMEs.

Methodology

I have chosen four well-known guidelines that are references on SPTM and are frequently used by procurement departments around the world: 1) The International Organization for Standardization "ISO standard 20400", 2) The United Nations "Sustainable Public Procurement Implementation Guidelines", 3) The ICLEI "Procura + Manual", and 4) The European Commission "Green Public Procurement". Three of these guidelines are specifically focused on public procurement, and only one is dedicated to both private and public sectors. One of the above-mentioned guidelines is only focused on environmental matters and, consequently, it does not match the general sustainability requirements (i.e., to comply with the three sustainability pillars (environmental, social, and economic)). There are no comprehensive guidelines specifically devoted to SMEs, and unfortunately, at the present time, we have limited understanding about the importance of SMEs to the entire value chain and to sustainable procurement practice consolidation. Thus, via the use of a qualitative research method, this work aims to discuss the lack of simple and practical SPTMs for improving sustainability practices in SMEs. The study will be grounded on the systematic research and analysis of the most important SPGs that are currently available.

Initially, I established criteria (see Table 2) of 14 imperative elements for sustainable procurement implementation/ management and based on them, I will analyze the guidelines' contribution towards the development of appropriate SPTMs focused on SMEs.

The first part of the analysis (Document Structure, Audience, Language, Sustainability Frame, and Methodology) considers the guidelines' design and format, whereas the second part (Main Objectives, Resources Needs, Training Needs, Sustainability approach, Innovation and Sustainability Integration, Technical Criteria for Products/Services, Sustainable Labels Information, Engaging Suppliers, Control and Assessment Measures) is devoted to the guidelines' content analysis. Later, in light of this extensive criteria analysis, I will be able to discuss new potential methodologies to be applied on daily procedures of SMEs.

In short, the ideas of alternative SPTMs will emerge throughout the analysis of the guideline's requirements and their systematic comparison, relevance status, and recurrence. Ideally, these new methodologies could enhance the sustainable procurement practices on SMEs in many ways, through a rapid and uncomplicated sustainability processes integration, work-learning systems that could promote SMEs' awareness on sustainability, a more user-friendly approach when comparing with complex guidelines (i.e., more aligned with the SMEs' daily routine), among others. Here, it is also important to stress that being user friendly and practical does not mean being permissive and disrespectful of the holistic[4] context of sustainability. Therefore, ideally, the new SPTMs must achieve the three sustainability aspects (i.e., environmental, social, and economic and respect the parameters of these fundamental aspects). To conclude, I will approach my last general analysis entitled "Legacy for SMEs Sustainable Consumption Practices".

[4] By Holistic, I mean the complexity interdependence of the sustainability aspects. Thus, any change made in one aspect could positively or negatively impact the other aspects.

Analytical Framework

In a world where natural resource availability is becoming scarce, and levels of pollution (both global and local) are significantly high, exploring effective alternatives to enhance sustainable consumption practices is crucial.

Over recent decades, the general media, academia, and civil society have tended to blame "the producers" as solely responsible for the overexploitation of natural resources, unfair labor practices, market pressure, biodiversity depletion, human rights violation, economically unfair competition, greenhouse gas and particulates emission increase, unemployment rate increase, degradation of forests, unhealthy work conditions, extinction of species, desertification, soil erosion, soil contamination, improper waste disposal, and environmental disasters. Nonetheless, we are now able to realize that the same claimant actors were the ones who have typically chosen to consume harmful products and services in the end of the supply chain system. Accordingly, the claimants (consumers) were visibly part of the problem of which they used to claim about; hence, the legitimacy of their objection was noticeably weakened. As stated by Joseph Murphy and Maurie J. Cohen (2001, p.4): "Over the past four or five decades, consumers in the richest nations have largely avoided being identified as responsible for the environmentally damaging effects of their consumption practices in part because other targets and explanations have been offered".

Hence, at that time, the controversy between production and consumption role in the sustainable supply chains context then evolved into a South "versus" North debate, where the North represents the "consumers" located in developed countries and the South representing the "producers", located in developing and least-developed countries. As noted by Helena Shanahan and Annika Carlsson-Kanyama:

> (…) Three decades ago, Georg Borgström coined the term 'shadowareas' to describe areas in the poorer parts of the world appropriated by the rich consumers. Since then, this appropriation has resulted in global environmental change. This process has also caused households in the North to become increasingly disconnected from their local resource base. Through the global trade system they can consume resources from far away, and thus they are to a lesser degree constrained by the health of the ecosystems in the near environment. The trade system has enabled such households to over-consume and thus become the main contributors to global environmental degradation in terms of depletion of non-renewable raw materials, and emissions of greenhouse gases and non-degradable substances (H. Shanahan and A. Carlsson-Kanyama 2005, 299).

Finally, when discussing the enormous challenges we have with respect to sustainable consumption, O. Mont and A. Plepys (2008, p.536) commented:

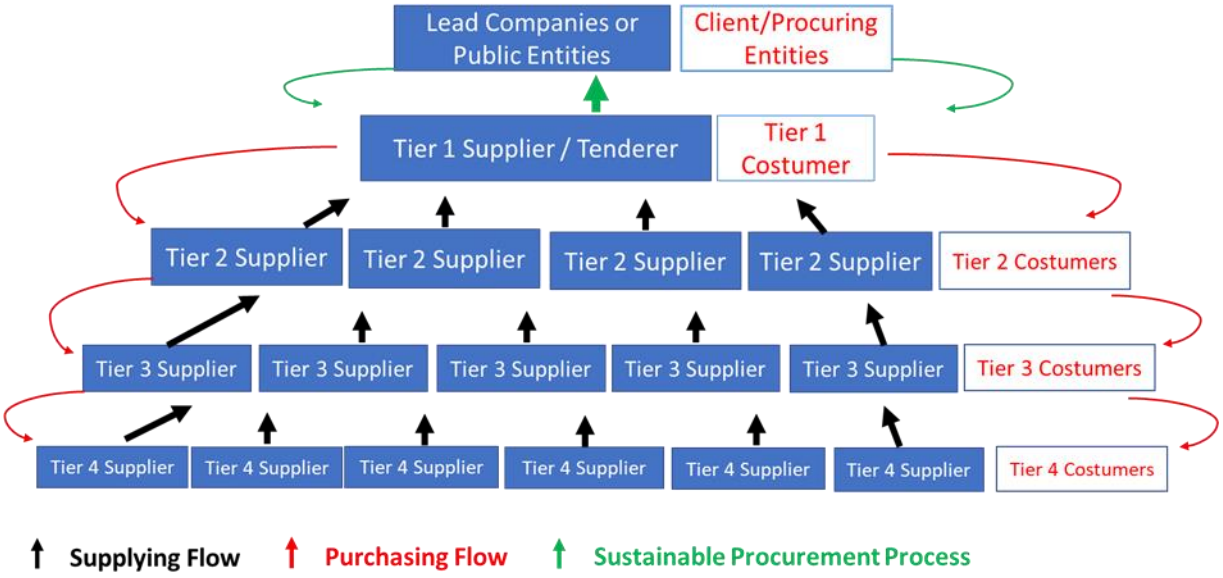
> (…) Therefore, eco-efficiency strategies are insufficient in route towards sustainable development and they must be complemented with changes in consumption patterns as well as reduction of the levels of material consumption. Unfortunately, the latter not only requires personal moral commitment, but also threatens a variety of vested interests clashing with current political and economic strategies of promoting economic growth.

Based on the systems thinking approach, I assume that producers and customers are intrinsically linked and are mutually dependent. Thus, I believe that the solution for this inconsistency can be achieved through behavioral changes on both sides of the market: production and consumption. In fact, that is the only way to get closer to our target of reaching global sustainability.

As we can observe in "Table 1", on the one hand, SMEs can be sustainable suppliers by way of their tendering processes. On the other, they could be active sustainable consumption players and spread good consumption practices throughout supply chains. Thus, through this particular work, I intend to explore the sustainable consumption potential of SMEs by using suitable SPTMs.

TABLE 1:

Potential Impact of Sustainable Procurement over the Supply Chain System



The crucial question here is: "How could we promote changes to SMEs' consumption behavior towards more sustainable and participatory way?". Therefore, I will examine the feasibility of compiling new simple SPTMs grounded in complex SPGs. I wonder how beneficial this approach could be not only for business communities but for the entire society. The central objective here represents substantially more than simply changing SMEs' practices but, rather, it aims to enable supply chain professionals and high executives to achieve awareness and act consciously.

Ultimately, through this thesis, I wish to raise awareness among SME actors as to the importance of their own daily acts (i.e., perceiving the systemic environment that we are all immersed in). We are all victims and causative agents of the problems we want to overcome. In a broader socioeconomic context, I consider it critical to point out three issues that are directly impacting our way to produce and consume. First, access to education in the global south is quite different to northern countries, and this inequality generates a clear difference in consumption preferences among consumers located in various regions. Second, the

substantial use of new technologies and the promise of an inclusive Industry 4.0[5] can delude us and lead society to a rebound effect[6], which could increase the North-South gap. Third, the emergence of the Covid-19 pandemic is causing an economic disruption globally, and this event will directly impact SMEs. Currently, many SMEs are going bankrupt, and most of them are located in countries where governments are not able to provide financial support.

Chapter 1

Role of SMEs in Global Sustainability

In a recent publication— "OECD SME and Entrepreneurship Outlook 2019"—the OECD defined SMEs as all enterprises with less than 250 persons employed (OECD 2019, 36). Yet, according to the European Commission, an SME is an enterprise with less than 250 employees and an annual turnover that does not exceed EUR 50 million and/or an annual balance sheet total that does not exceed EUR 43 million (European Commission 2015, 10).

From those definitions of a SME, many international organizations were able to provide statistical data regarding the SMEs in the global context. Interestingly, all of them emphasize the relevancy of the SMEs' position in the global context.

Accordingly, the World Bank through its recent report "Improving Access to Finance for SMEs" mentioned that SMEs account for over 90% of firms worldwide (Beck[7] 2013, as cited in World Bank 2018). Besides, according to the OECD, SMEs are essential actors in

[5] Industry 4.0, or the fourth industrial revolution, is a terminology used to indicate the transformation process of many companies through the adoption of new technologies, such as the progressive automation of production, smart machines, and autonomous systems.

[6] The rebound effect involves the decrease of expected efficiency gains from new technologies that intend to improve resources' performance due to people's behavior and/or systemic reactions.

[7] Beck, Thorsten. 2013. "Bank Financing for SMEs–Lessons from the Literature." National Institute Economic
Review 225 (1): R23–R38.

our economic and social system, and they currently represent 99% of all businesses in the OECD area. They also generate approximately 60% of employment and add significant value in the OECD region at a rate of between 50% and 60% (OECD 2019, 29). The SMEs are also relevant in developing countries, contributing 33% of the GDP and 45% (on average) of total employment (OECD 2017, as cited in Koirala 2019, 4). Nonetheless, when considering low-income countries, SMEs contribute to only 16% of GDP, but they are responsible for 78% of all employment (Koirala 2019, 4). SMEs also perform an important role for public procurement needs globally. As reported by the World Bank on behalf of the DCED (2017, 9), during the same year of its report, SMEs in Korea awarded 73.9% of the public procurement services, and in Mexico, SMEs awarded 67% of total public procurement contracts. In Europe, according to the report "Key findings: Analysis of SMEs' participation in public procurement and the measures to support it" (European Commission 2019, 1), in 2017, SMEs won 65% of all public procurement contracts of the EU and EEA.

Ultimately, OECD studies also noted the enormous environmental footprint (on aggregate) from SMEs (i.e., they contribute 60–70 % of Europe's industrial pollution (OECD 2018, as mentioned in Koirala 2019, 4). The researcher Shashwat Koirala warns that "(…) In particular, SMEs in the manufacturing sector - which accounts for a large share of global resource consumption, pollution, and waste generation – are critical for the green transformation" (OECD 2013, as cited in Koirala 2019, 4). According to the OECD, the industries in which SMEs represent a significant impact on the environment are metal finishing, waste treatment, food and drink, textile and leather manufacturing, construction, and livestock farming (OECD 2018, 19).

As a result of the above studies, we can conclude that SMEs can positively impact society (high employment rate), but they also have a substantial capacity to negatively impact the environment (high environmental footprint). Accordingly, it is apparent that many SMEs

across the globe are not respecting sustainability recommendations. This issue is most likely related to a number of factors, including the lack of resources to implement the recommendations, difficulties in recruiting qualified employees, lack of suitable information on sustainability, low access to capital, less pressure from stakeholders, and finally due to SMEs focus on the economic aspect rather than the other sustainability aspects (social and environmental). Indeed, in regard to SMEs' environmental concerns, Raar noted, "(…) The SME sector per se was not driven to self-regulate and adopt environmental issues" (Hillary 2004 as cited in Raar 2014, 529).

In 2018, the OECD published the second edition of an interesting report entitled "Environmental Policy Toolkit for Greening SMEs", asserting that the capacity of SMEs in adopting sustainable practices is threatened by SMEs' resource constraints, knowledge limitations, and skill deficits due to their size (OECD 2018, 19). In fact, this comment from the OECD is quite similar to my previous observation. Nonetheless, there is a deficit of research addressing SMEs' barriers and difficulties in adopting sustainable programs. In 2004, Ruth Hillary asserted that SMEs are highly diverse and heterogenous and, therefore, studies that have attempted to comprehend the environmental aspect of SMEs were "comparing not just apples and pears, but the whole fruit bowl" (Hillary 2004, 568). In light of the above evidences, it is clear that urgent action must be taken to comprehend SMEs' singularities and their various facets and also promote more simple and accessible management methodologies towards sustainability.

There are only ten years left to achieve the global targets of the United Nations' Sustainable Development Goals (SDGs), and considering practical methodologies on sustainability management, consumption awareness, and cooperation among companies from the private sector is critical. Unfortunately, it is not currently easy to find information focused on SMEs' sustainability throughout supply chains. Indeed, there are only few SPGs with

technical advice for lead companies/public sector, and most of them have complex and extensive content. I am not suggesting that those guidelines are inapplicable or nonfunctional, but they should also focus on other stakeholders and their consumption behavior within the supply chains (i.e., the stakeholders from supply chains' tier 2, tier 3, and beyond). As stated in the ISO 20400 guideline, "The adoption of this document by large organizations promotes opportunities for small and medium-sized organizations in their supply chains" (ISO 2017,vi). In this regard, I wish to disagree with a remark made by Mr. Shaun McCarthy OBE in an article posted in the Chartered Institute of Procurement and Supply (CIPS) website, entitled "The 10 primary principles of sustainable procurement". One of the primary principles that he cites is " 'Sustainable supply' not 'sustainable supplier' ", in which he asserted the following:

> The focus of the standard should be on sustainable supply, not sustainable supplier. This means using procurement techniques to deliver the outcomes required by the buying organisation's corporate responsibility objectives or policy outcomes for public sector. It should not primarily focus on the sustainability practices of the supplier in their own organisations unless this represents a risk to the purchasing organisation (e.g. labour standards). (McCarthy OBE, S. 2014).

Nevertheless, when examining the SPG "ISO 20400" (the guideline Mr. McCarthy OBE has contributed to develop), there is a clear recommendation to "engage the supply chains". As stated in the ISO 20400 guideline:

> 6.3.2 Engaging the supply chains
> In order to fully manage sustainability risks (including opportunities) throughout its supply chains, an organization might need to engage one or a group of suppliers, partners or subcontractors in initiatives that go beyond contractual requirements (…). (ISO 2017, 17)

Regarding this point, I completely agree with ISO 20400 because I assume that if we wish to improve sustainability throughout the supply chains, we must engage all stakeholders towards the same goal. We should have a corporate citizenship attitude if we want to change

the current scenario. Considering the limitations of the SMEs (scarce financial resources, limited administrative structure, and employees in charge of multitasks routine, etc.), How could procuring entities support and engage SMEs towards a more sustainable supply chain system?

It is essential to remind that ultimately, the entire society is paying for those stakeholders' negative externalities,[8] and they must realize that and adopt mechanisms to internalize their negative externalities. Accountability and the promotion of a proactive corporate citizenship is a good way to begin this process. Finally, we must consider that after the emergence of the Covid-19 pandemic, the situation of the SMEs is progressively worsening. In fact, SMEs are the most fragile companies in the market because most of them did not establish a Reserve Fund[9] previous to the pandemic event and, consequently, they have to deal with countless working capital challenges to survive. To prevent further economic damage due to the pandemic, the EU nations granted €1.85 trillion for pandemic relief. Indeed, the European leaders reach a deal of €750 billion as well as other reinforcements for the longer term (2021–2027) that will bring the EU budget to €1.85 trillion, as announced in the press release "Europe's moment: Repair and prepare for the next generation" from the European Commission (2020). According to this press release, this money will be used for lives and livelihood protection, reparation of the single market, and to build a successful recovery. It is hoped that several industries from the European Union's market will be supported, and many SMEs will survive this "shock" thanks to these funds.

[8] As asserted by Claire A. Hill, "Negative externalities are costs imposed on third parties. The paradigmatic example is pollution. A firm manufactures a product that generates toxic waste and dumps the waste; society pays for the associated cost, including the community's health problems caused by the waste" (Hill, Claire A. 2016, 517).

[9] As mentioned by Chen, J. (2018): "A reserve fund is a savings account or other highly liquid asset set aside by an individual or business to meet any future costs or financial obligations, especially those arising unexpectedly."

Nonetheless, a dramatic economic situation is taking place in many of the least-developed countries and some developing countries. Unfortunately, most of them cannot assist their own markets and businesses and, consequently, many SMEs are going bankrupt.

Chapter 2

Analysis of Different Sustainable Procurement Guidelines (SPGs) from SMEs' Perspective

To develop a good understanding of the guidelines I am going to analyze, initially it is imperative to present an overview of each one of these documents. I then begin the 14 criteria analyses. Finally, at the end of this chapter, I provide a general analysis of the criteria in the item "Legacy for SMEs Sustainable Consumption Practices".

Overview

- ISO 20400 – Sustainable procurement (ISO 20400) 2017

ISO 20400 is a standard created by the International Organization for Standardization (ISO) and published in 2017. Through this document, the authors recognize the importance of the procurement department to enhance sustainability by improving productivity, facilitating communication between suppliers and purchasers, stimulating innovation, and assessing value and performance (ISO 2017, VI). The authors have also stated that this document is suitable for any kind of organization, irrespective of its condition (private, public, size, location, etc.). Interestingly, they also state in regard to the guideline's use: "The implementation of this document takes into account the particular context and characteristic of each organization, scaling the application of the concepts to suit the size of the organization" (ISO 2017, VI). Furthermore, the ISO's webpage mentions that this guideline

"contributes to the following Sustainable Development Goals (SDGs)" (ISO Webpage, 2017): (1) No poverty, (2) Zero Hunger, (5) Gender Equality, (8) Decent work and economic growth, (10) Reduced inequalities, (11) Sustainable cities and communities, (12) Responsible consumption and production, and (16) Peace, justice, and strong institutions.

- Sustainable public procurement implementation guidelines (SPP) 2012

The SPP guidelines were published by the United Nations Environment Programme (UNEP) in 2012. The guideline is the result of a previous pilot project named Marrakech Task Force, which assisted with the implementation of sustainable procurement in seven countries (Costa Rica, Colombia, Chile, Lebanon, Mauritius, Tunisia, and Uruguay). In regard to the guideline's objectives, the authors stated:

> These Guidelines aim to give direction to governments on designing and implementing sustainable public procurement (SPP) policies and action plans. The Guidelines and the associated UNEP's SPP Approach are hereon referred to as the "SPP Approach". The aim is to provide countries a common vision, language, and framework for SPP and to guide stakeholders on how to effectively pave the way towards SPP implementation. (UNEP 2012, 6)

- The Procura + Manual (Procura+) 2016

The ICLEI – Local Governments for Sustainability published the third edition of Procura + Manual in 2016. The Procura+ is a European public network that exchanges information and promotes actions for more sustainable and innovative procurement. Via participation in webinars, seminars, and working groups, these public agents can exchange ideas and promote new initiatives. With regard to the third edition guideline, the authors stated that:

> This fully updated and revised edition of the Procura+ Manual aims to position sustainable procurement in the current economic, political and legal framework. As with previous editions, it acts as a central point of reference for public authorities and others wishing to understand and implement sustainable procurement. The lessons and experiences of Procura+ Network participants are reflected in the pages that follow, together with the findings of a number of recent large-scale studies and sector-specific initiatives (ICLEI 2016, 6).

In other words, the document can be handled either by public authorities or for whoever wishes to implement sustainable procurement.

- European Green Public Procurement (GPP) 2016

The GPP is a handbook (named "Buying Green!") created by the European Commission in 2016, with the main objective being to promote sustainable procurement practices in public entities. However, the GPP authors pointed out the importance of the document for corporate purchasers:

> (…) It has been produced for public authorities, but many of the ideas and approaches are equally relevant for corporate purchasers. It should also help suppliers and service providers – particularly smaller companies (SMEs) – to better understand the environmental requirements increasingly encountered in public tenders (European Commission 2016, 4).

The GPP is also aligned with the EU Legal Framework and the Government Procurement Agreement (GPA) of the World Trade Organization (WTO), which enables it to be adopted in many different areas of the world. As a consequence, this is a European guideline, but it can also be safely used by those outside Europe.

2.1 Document structure

ISO 20400 comprises 52 pages and is composed of seven clauses. The content is organized as the following: the first three clauses refer to the scope, normative references, and terms/definitions, and the last four clauses outline the entire process towards sustainable procurement integration/implementation. At the beginning of the ISO guideline, there is an interesting schematic view of the content, in which the authors have organized the seven document clauses. Each of the last four clauses were assigned to different departments or staff members.

The SPP guideline contains 78 pages and comprises eight chapters. However, the guideline authors state that the structure is based on four key steps (UNEP, 2012, 12). The guideline encompasses interesting summaries about the main implementation steps, and these contents are organized in boxes. Moreover, in "Appendix 3", they provide a detailed plan to implement all the steps. An excellent questionnaire is available in "Appendix 4", entitled "Supplementary status assessment", which assesses five topics: 1) information about the person and organization/department they represent, 2) scope of procurement, processes and practices, 3) country experience with SPP and GPP, 4) perceptions, barriers, and obstacles regarding SPP and contracting, and 5) training and support for implementing SPP.

Procura+ comprises five chapters and contains 107 pages. The content is a mix of discursive explanations and practical examples placed in boxes. In Chapter 2, "Managing sustainable procurement in your organization", the authors present an implementation model with four basic steps: 1) set scope and targets, 2) develop action plan, 3) Implement action plan and, 4) monitor and report. They also provide two interesting tables: 1) references the baseline inventory questionnaire, which can help organizations assess their own status, and 2) explains methods of interacting with the market during the three procurement phases: pre-procurement, during tender, and post tender. Finally, in Chapter 5, there is an overview of six groups of products/services criteria (technical criteria) and a clarification regarding how to use the information during the tender call procurement stages (ICLEI 2016, 82).

The GPP has 79 pages and comprises seven chapters, which could help readers to understand the main elements to achieve procurement environmental sustainability. The document considers four sectors as its key sectors: buildings, food/catering services, vehicles, and energy-using products. The document also provides many successful cases and examples resulting from sustainable procurement implementation in European countries. With regard to the technical criteria of products/services, the GPP has developed

additional documents related to specific environmental procurement criteria, covering 21 product and service groups. The criteria for each of the 21 groups are frequently reviewed so that they can be updated with the new legislation and scientific information (European Commission 2016, 15).

Comments: In contrast to ISO 20400 and SPP, the Procura+ and GPP initiate their approach through the guidelines' implementation steps. I consider this to be a positive aspect for SMEs because from this perspective, it is easy for readers to understand the entire procurement mechanism, and it rapidly catches the reader's attention. In the SPP guideline, there are two important points that I wish to highlight: the use of summary tables to clarify important aspects of the procurement steps and the adoption of a Supplementary status assessment, in which countries/organizations could assess many aspects related to the sustainable procurement process. Ultimately, I underscore the "Schematic view" of ISO 20400 that is particularly interesting. In the ISO's "Schematic view", the clauses of the guideline are divided according to their importance level and then addressed to different departments of the procurement organization. Although SMEs have a smaller structure, it is important to know "who" is responsible for "what type of task" within the organization.

2.2 Audience

The guidelines are clear about their audience, and ISO 20400 is the most comprehensive of the five guidelines addressed here. In the introduction of ISO 20400, the authors have emphasized that the guideline "is applicable to any organization, public or private, regardless of its size and location" (ISO 2017, vi). Nevertheless, given the SMEs' constraints in terms of information, human resource, and structure, it is highly unlikely that a small company from a poor country could adopt a complex guideline to become a

sustainable stakeholder. Still, it is a positive initiative from the ISO to create a guideline that encompasses the public and private sectors, which SMEs belong to.

Comments: The “SPP”, “Procura+ Manual”, and “GPP” guidelines are clearly focused on the public sector. Nonetheless, they inform that the documents could be extensively handled by other sectors/stakeholders from the supply chains.

Hence, the ISO guideline appears to be most aligned with SMEs in regard to this aspect due to the fact that it is also intended for the private sector.

2.3 Language

In terms of language, the ISO 20400 and GPP have shown a more direct approach and do not excessively repeat the content. However, for ISO 20400, there is excessive use of bullet points, which could undermine the integral sense of the content. In contrast, Procura+ uses a more discursive language, which makes it longer and more intricate. Similarly, SPP uses a discursive approach, but with more direct and incisive information in the “Boxes”, through their step summaries.

Comments: As noted at the beginning of this work, communication is a critical topic for our analysis. Ideally, the language approach for SMEs should be simple and direct. Considering the literacy level of many SME workers, the written language should be simple, with assertive phrases, avoiding flowery words and repetition of the same information. These measures could significantly improve users’ understanding and information retention. Accordingly, GPP seems to be in line with the proposal and could be a suitable reference for future SPTM communication approaches.

2.4 Sustainability Frame

ISO 20400, SPP, and Procura+ are sustainable guidelines. That is to say, their conception is based on the three fundamental aspects of sustainability (environmental, social, and economic), whereas GPP is a green guideline with the main focus on the environment. Indeed, page 4 of the GPP guideline states, "(…) The 2014 directives also provide a number of new opportunities for socially responsible procurement, which are not considered here" (European Commission 2016, 4).

Comments: Despite the unquestionable quality of the "GPP", the adoption of this guideline could be problematic for companies and organizations because its central focus relies on only one aspect of sustainability—the environment. Therefore, it could inadvertently promote the development of only one sustainability pillar to the detriment of the other two. This imbalance between the sustainability pillars is currently one of the main problems for sustainability projects. For this reason, when considering SPTMs for SMEs, I would exclude the GPP conception. Nonetheless, there are many elements of the guideline that we may take advantage of, including the format, language, organization, and technical criteria.

2.5 Methodology

ISO 20400 presents an international, standard approach. The document is highly comprehensive, organized, and sequential. The content begins with the "Scope" and ends with the "Integration of Sustainability into the Procurement Process" clauses. To accomplish the clauses (only for the last four clauses), the guideline suggests the engagement of specific departments or staff members within the organization/company. There are no assessment questionnaires or other practical training material. SPP provides a mix of theoretical and practical measures; the latter are found in the Tables and Appendix. The tables present a series of implementation step summaries, which could be used as

checklists. The Appendix provides a status assessment questionnaire that makes it easier to understand the structure and needs of the organization when integrating sustainable procurement into the current procurement process. Procura+ encompasses a theoretical approach with a more practical one entitled "Procura+ Management Cycle". As noted in the document, "Procura+ Management Cycle presents a standard management approach – putting in place an implementation strategy with established goals and action plan, implementing that strategy, and then reviewing performance before starting again with the updating of the strategy" (ICLEI 2016, 28). The GPP methodology relies on theoretical explanations regarding the entire integration and implementation processes of the sustainable procurement, and it also presents many boxes with highly successful cases across European countries. GPP also notifies that its standardization method should be seen as flexible rather than prescriptive, due to authors assumption that different types of organizations could adhere to the guideline.

Comments: When reflecting upon the methodology criteria, it is apparent that SMEs should adopt a mix of theoretical and practical approaches. Sustainability awareness can be achieved not only via theoretical knowledge but also through more dynamic, practical, and interactive approaches. Private sector workers are generally more practical and easily inspired by tangible results. The mix of theoretical and practical training will likely optimize SMEs' adhesion to sustainable consumption practices.

2.6 Main Objectives

ISO 20400's main objective is to provide guidance to organizations (independent of their activity or size) by integrating sustainability within procurement. SPP's main target is to give "direction to governments on designing and implementing sustainable public procurement (SPP) policies and action plans" (UNEP 2012, 6). Whereas the Procura +

guideline aims to position sustainable procurement in the current economic, political, and legal framework, and the GPP intends to achieve environmental goals related to climate change, resource use, and sustainable consumption/production by promoting green procurement practices in public entities, particularly in the European public sector.

Comments: Regarding the new SPTMs, their main objectives could be the improvement of SMEs' sustainable consumption practices, but beyond this objective, we must consider global sustainability (i.e., a more complex target that encompasses the whole of society). In a systems-based approach, sustainability can only be achieved when the entire society cooperates and participates.

2.7 Resource Needs

None of the guidelines clarify the number of resources necessary for the implementation. They assert that this depends on the size and structure of the organization. For example, "The number of people involved will depend on the scope of activities to be covered and the resources available within the authority" (ICLEI 2016, 37), and "(…) The extent of the life cycle assessment should be decided by the organization taking into account the purpose and the resources available" (ISO 2017, 21).

Comments: It is rather a difficult task to specify the number of resources necessary for sustainable procurement implementation, but for SMEs, it could be easier to define a minimum and maximum parameter in this regard.

2.8 Training needs

ISO 20400 does not give special attention to training. In Clause 6 (6.2.1 Organizational culture), it simply mentions that staff members responsible for delivering sustainable procurement in an organization should provide supportive organizational education and

training. On the other hand, Chapter 2 (Item 6 - Step 4: Training) of the SPP explains that education and training should be offered in several stages of the process with diverse target groups. According to the guideline, the "overall aim is that staff be aware of the implications of SPP, know the benefits of SPP and the consequences of not carrying it out, and have the skills necessary for its implementation" (UNEP 2012, 35). The three pages devoted to training are highly enlightening, and box 19 of the guideline shows a list of "Suggested Training Content". Thus, through the "Workshops and training" item on page 34 of the Procura+ guideline, the authors assert that organizations should consider adopting workshops and training because, in their view, training always tends to be popular among employees because they feel that the organization is taking care of their professional knowledge improvement. Ultimately, in the GPP guideline for item 1.3 "Training and guidance", the authors stress that to successfully implement the guideline, staff must have a good understanding of the subject via practical skills, knowledge, and access to information.
Comments: Undoubtedly, the SPP training approach is the most practical and informative. Thus, for this particular aspect, the SPP approach appears to be the most suitable for SMEs' needs. Besides, in its training scope, we can also find "suppliers" as the target audience and this implies that "Engagement of stakeholders" is a particularly relevant topic for the guideline.

2.9 Sustainability approach

The ISO 20400 authors present a broad range of information about sustainability.
Via its fourth clause, "Understanding the fundamentals", the ISO guideline exposes the fundamental concept of sustainable procurement and gives important explanations about the "Principles", "Core subjects", "Drivers", and "Key Considerations" of the sustainable procurement. This initial instructions seem to be the foundation of ISO's sustainability

approach. Regarding the SPP guideline, in the introduction, three items provide support for its all sustainability approach, "What is Sustainable Public Procurement (SPP)", "The Principles of the Marrakech Task Force Approach to SPP", and "The Benefits of Sustainable Public Procurement" (UNEP 2012, 6). In the case of the Procura+, for items "1.3 Sustainable procurement: the benefits" and "2.1 Building the case for sustainable procurement", the guideline also provides a fundamental approach on sustainable matters. With respect to the GPP guideline, little information about sustainability concepts is provided. The authors simply clarify the question "Why buy green?", which gives the impression that they assume that their readers have previous knowledge about this subject.

Comments: As previously mentioned, when supportive sustainability clarification is not provided because it is assumed that readers have sufficient knowledge about it, we can inadvertently lose many sustainable agents and undermine the supplier's engagement process. For this reason, when considering this criterion to design an SPTM, it makes more sense to apply the most comprehensive sustainability approach to SMEs; that is to say, something similar to ISO 20400's approach. This consideration is essential, owing to the fact that sustainability awareness can only be achieved if staff members understand the systemic principles of sustainability and their potential impact on their own life.

2.10 Innovation and Sustainability Integration

The ISO 20400 and SPP do not offer special comments in this regard. The authors have written brief phrases, noting that SPP could stimulate, support, and/or encourage innovation. Alternatively, the Procura+ authors assert that sustainability and innovation concepts must be linked. According to the authors:

> There are strong links between innovation and more sustainable performance – for example where new technology extends the lifetime of a product, or where better access to information means services to people can be performed more effectively and inclusively ….we need to embrace and encourage innovation on

> the market. If technical specifications, selection or award criteria suggest to bidders that they are not expected to propose new, more sustainable ways of doing things, they are unlikely to do so (ICLEI 2016, 10–11).

The authors also highlighted that under the 2014 directives, all public procurement would have to be fully electronic by October 2018 (ICLEI 2016, 68). This transition to complete e-procurement in Europe was particularly important for European SMEs because it facilitates the participation in calls for tender by a broad range of enterprises. In the same way, the GPP guideline recognizes the importance of the 2014 directives and it also emphasizes that "e-procurement systems can allow you to track the use of GPP criteria and to verify that suppliers have provided the required information to demonstrate their compliance" (European Commission 2016, 17). The authors also noted that this measure makes it easier to check whether or not the GPP policy is effective.

Comments: This criterion is certainly relevant, and "Innovation" can really impact sustainability in multiple ways. Thus, when embracing innovation, we need to understand the consequences it could bring to sustainability. In the case of the e-procurement adoption by the EU (EU Directives 2014), I view it as a positive measure for improving SMEs' participation in biddings. Similarly, e-procurement could positively affect SMEs' consumption behavior due to its convenient approach for monitoring sustainability requirements.

2.11 Technical Criteria for Products /Services

When considering "Technical Criteria of Products and Services", unfortunately ISO 20400 and the SPP do not present any technical information related to products and services. Nonetheless, the SPP guideline authors explain that through the UNEP's Training Toolkit, readers could obtain all relevant SPP framework-related material. The Procura+ gives clarification about six products/services: "construction, information and communication

technology (ICT), cleaning, food and catering, vehicles and electricity" (ICLEI 2016, 82). Besides, the authors of the guideline also show how to include them in the sustainable procurement criteria according to procurement stages.

Ultimately, the GPP authors offer information about four products/services: buildings, food and catering services, road transport vehicles, and energy-using products. In addition to these products/services, the GPP guideline enables users to access technical information related to 21 products and services. The information provided is scientifically based and considers the life-cycle approach. Furthermore, the GPP information in regard to these 21 products can be downloaded from the GPP website.

Comments: Technical information about materials and services are critical for SMEs in their approach to sustainability. Most SMEs do not have sufficient financial resources to hire a specialist in material life-cycle approaches; therefore, they need increased access to technical information. Despite GPP's orientation towards only one sustainability pillar, it should be recognized that GPP provision of technical information is a highly effective initiative that can be implemented in new SPTMs.

2.12 Sustainable Labels Information

All guidelines provide sufficient information about labels. They clarify the three types of labels and how to present them in a tendering process. The SPP (UNEP 2012, 40) guideline uses the terminology "Eco-labels"; however, this is somewhat confusing as long as the SPP aims to promote all aspects of sustainability.

Comments: Labels are useful for SMEs. They are important tools for dealing with compliance within the supply chain system and can also facilitate SMEs' participation in biddings. Consequently, they should be included on SPTMs as well.

2.13 Engaging Suppliers

The ISO guideline has established item "6.3 Identifying and engaging stakeholders" and suggests the mapping of stakeholders' in order to understand whether they should be engaged in the sustainable procurement. The objective is to promote the engagement of suppliers and subcontractors through initiatives that go beyond the contractual requirements (ISO 2017, 17). The authors describe them as "business-to-business initiatives based on good faith". In its training section (Step 4), the SPP guideline suggests that the engagement of suppliers could be achieved through training offerings. The authors note that by using this approach, suppliers will be better able to understand and, therefore, react according to SPP expectations. Then, through the item "Market engagement", Procura+ suggests that increasing trust with suppliers enables the market to better understand the client business and, thus, improve relationships. However, they do not explain how to engage these suppliers and the potential sustainability impact derived from their engagement. The GPP guideline authors indicate that supplier engagement is an important process to be performed during the biddings, but I did not find further information about strengthening relations for future agreements and how to accomplish this strengthening.

Comments: Engaging suppliers should involve more than simply elucidating questions about biddings. Engaging suppliers is a way to strengthen partnerships by increasing cooperation through information exchanges and the dissemination of good supply chain practices. As I mentioned previously, it is advisable to have the same conception of ISO 20400 (i.e., procuring entities (contracting authorities) should promote the engagement of suppliers and subcontractors through initiatives that go beyond the contractual requirements).

2.14 Control and Assessment Measures

To control the procurement process more effectively, ISO 20400 recommends the establishment of metrics and defining indicators by the procurement entity. Then, a baseline measurement with sustainability goals and KPIs should be defined. As a result, procurement authorities could continuously assess and improve their own performance. ISO 20400 also advises the use of benchmarks for the organization against competitors and establish communication with stakeholders. The guideline then explains how to use indicators (KPIs) based on company metrics.

In regard to performance evaluation, the authors consider it to be particularly important to review documentation, adopt inspections and audits, use certification and management systems, and test execution, among others. Finally, ISO recommends a two-way evaluation that requires " - the organization to inform suppliers how they are being evaluated (e.g., criteria, KPIs, audit terms), - the suppliers to have the ability to provide feedback and openly communicate their perception of the organization" (ISO 2017, 38). With respect to SPP, procurement entities should evaluate the supplier's approach in detail to determine whether they meet the SPP aspects of contracts and also verify "how they apply sustainability principles with their suppliers down the supply chain" (UNEP 2012, 44). SPP also clarifies the auditing process within suppliers and how to effectively achieve it. In the case of Procura+, the authors consider the assessment of the targets' progress as a crucial part of the guideline. According to them, the monitoring process should be done more than once a year. They also highly recommend using the monitoring system from simple database records to more complex integrated systems.

Regarding the Procura+ Management Cycle, the authors note in Step 1, "what targets are you setting, and what key performance indicators will you have for determining success?"

(ICLEI 2016, 29) and in Step 4, "(…)It should also be used as an opportunity for communicating progress and raising general awareness to external stakeholders such as local users of public services, suppliers and other public authorities" (ICLEI 2016, 40). The GPP guideline advises procurement entities to establish a monitoring system that includes the impacts of purchasing decisions upon the environment. By doing so, they could understand their quantified progress and promote a qualitative review of the guideline. The authors also described various forms that could be used to monitor contract compliance, additionally through the use of KPIs.

Interestingly, the GPP authors assert that it is also relevant to monitor subcontractors and comment that "If a contract includes elements of subcontracting, you will want to ensure that GPP commitments are enforced along the supply chain and that responsibility is clearly assigned" (European Commission 2016, 67).

Comments: The assessment is a way to control the company/organization's progress towards a target. For the sustainable procurement process, the target is measured via KPIs and other tangible indicators. Therefore, it is critical for sustainable procurement to have a clear and measurable process as all guidelines have suggested herein. With respect to SMEs, I believe that it is essential to establish closer cooperation among the stakeholders, because SMEs lack of knowledge and structure could represent an initial barrier to efficiency and procurement stakeholders should be understanding of this matter.

Legacy for SMEs' Sustainable Consumption Practices

After a thorough analysis of the four guidelines, I wish to express my impressions and discuss the potential legacy of these approaches towards improving the sustainable consumption practices in SMEs.

Before providing my considerations, I should emphasize that this work does not aim to evaluate the quality of the guidelines, not least because they have a totally different focus (i.e. public organizations (SPP, Procura+ and GPP) and public/lead companies from the private sector (ISO 20400)). This work aims to understand how complex guidelines could contribute to the development of new SPTMs focused on SMEs.

Therefore, I begin my comments by discussing suppliers' engagement. As I have asserted since the beginning of this work, a myriad of barriers takes SMEs away from sustainable consumption. Information access is a particularly relevant SME barrier, and SMEs can only overcome this issue with information support. In the criteria analysis, I have noticed an important measure adopted by the SPP—the inclusion of suppliers in the training sections in order to improve supplier's engagement for the sustainable procurement process. This is a good example of a simple measure that can trigger the dissemination of sustainable consumption practices in the entire supply chain system.

It is important to bear in mind that procurement affects not only procurement entities and the tenderers (tier 1 supplier) but also all suppliers/customers down the supply chain. Hence, the training sections offering, and the sustainability information sharing, are dynamic tools to engage stakeholders and, consequently, promote behavioral changes all around. When promoting training for sustainable procurement, relevant subjects should be addressed by the instructors (training entity), and this is the case of the technical criteria for products/services, innovation-sustainability integration, and label information. In regard to

technical criteria for products/services, the GPP has done excellent work by disclosing 21 products/services information (based on the life-cycle approach). It is likely that most SMEs do not have sufficient resources to pay a specialist in materials durability and life cycling of materials. Another important point to emphasize after my analysis is the "use of a supplier approach" designed in the ISO 20400, in which the authors propose mapping the sustainability issues to suppliers and, thus, tendering entities could see which suppliers contribute appropriately to each issue. As stated by the ISO authors:

> (…) Understanding supply chains below tier 1 can be facilitated by considering the following:
> — understanding which suppliers below tier 1 have a high-level of sustainability maturity and can positively contribute or which suppliers below tier 1 have a low-level of sustainability maturity and can be an obstacle.
> — evaluating and working with suppliers below tier 1 transparently to identify key risks (including opportunities) further down the supply chain improving supplier capacity.
> — working with organizations with a significant influence in operational relationships, e.g. tier 1 suppliers, traders, dealers, merchants, intermediaries, distributors.
> — analyzing how organizations´ prices and commercial conditions make it easier for suppliers to manage their supply chains.
> — examining which suppliers the organization has developed a strategic relationship with, including the quality and depth of it (ISO 2017, 20).

The ISO authors have also contributed with an enlightening clause "5. Integrating sustainability into the organization´s procurement policy and strategy" (ISO 2017, 11), in which they highlight the necessity of top management's commitment towards the sustainable procurement management and implementation. In the case of SMEs, top management support is even more relevant, and without their commitment, nothing can be achieved.

Moreover, a further contribution from the Procura+ guideline should be underscored. The guideline has approached an important subject, directly related to suppliers and SMEs (i.e., joint purchasing). Joint purchasing or purchasing consortium (as mentioned previously)

involves aggregated procurement/purchasing, where two or more buyers or suppliers are involved. The authors state:

> (…) Larger volumes of demand can help incentivize suppliers to meet requirements, especially where there are up-front costs involved in attaining certification or auditing supply chains, for example.
> In addition, joint procurement and purchasing through central purchasing organizations allows smaller authorities, or those with fewer resources, to access the sustainable procurement expertise offered by larger organizations or those with more developed sustainable procurement policies. Centralized procurement may substantially improve the capacity of the contracting organization and may also lead to a greater professionalization of procurement and ensure that good procurement practices are applied (ICLEI 2016, 52).

Joint purchasing is a clear sign that SMEs are moving towards a more sustainable economic approach, and it could be a tool for improvements in environmental and social matters too. Supply chain networking really can spread responsible purchasing practices all around.

The GPP guideline also devotes the item "1.5 Using e-procurement systems" to explain the compulsory adoption of e-procurement in European public entities, in accordance with the 2014 EU procurement directives. This measure helps procurement entities and suppliers via a faster, accessible, and more transparent procurement process (European Commission 2017, 17). The SPP guideline authors have provided deep clarification about the first steps of the sustainable procurement adoption, as the status assessment, prioritization exercise, market readiness, policy adoption, and action plan. With regard to the prioritization, the guideline recommends a deep "prioritization exercise" that encompasses the policy priorities and also the sustainability risks related to the procurement category areas. The dimensions of this prioritization exercise consist of policy priorities, spend areas, market availability, market influence, scope for improvement, certain procurement, "quick wins", and goods and services (UNEP 2012,23). Indeed, prioritization is a relevant analysis to be accomplished before the adhesion to a sustainable procurement. Further, although SMEs do

not need to perform a deep approach like this for public entities, they certainly should adopt a careful prioritization exercise.

When considering the guidelines' design and format, many conclusions can be taken from my analysis. As mentioned initially, the guidelines are long and somewhat intricate, but they present many positive points that we could take advantage of. One example is the adoption of a simple and assertive language, with no repetition of information and no use of flowery words (i.e., in the same way that the GPP and ISO 20400 presented). Then, in regard to "Document structure", the implementation steps of the Procura+ and GPP were placed at the beginning of the guidelines, and this measure is useful for quickly attracting readers' attention. In addition, the "Methodology" based on mixing theoretical and practical approaches instead of only theoretical seems to be the most efficient. For example, SPP made available a valuable status assessment questionnaire, in which it is possible to fill in the blanks and rapidly identify the gaps and the necessities of the organization in order to achieve the sustainable procurement integration. The SPP guideline authors also offer an implementation steps' summary that enables readers to use it as a checklist. Unfortunately, when discussing the audience criterion, the majority of the guidelines (three of them) are devoted to public entities and only one (ISO20400) is dedicated to private and public sectors. However, the broad audience of ISO 20400 could be unsuitable for SMEs, considering the size and complexity of the guideline methodology. It seems that if, on the one hand, we benefit from comprehensiveness, on the other, we lose convenience; nevertheless, a balance ought to be provided between both aspects.

Table 2 summarises the analysis and the contribution of the four sustainable procurement guidelines to enhance SME's sustainable consumption.

TABLE 2 - Analysis and Contribution of Different Sustainable Procurement Guidelines for SMEs' Sustainable Consumption

	Analysis Criteria	Sustainable Procurement Guidelines			
		ISO 20400	UNEP SPP	ICLEI Procura +	EU GPP
Guidelines Design and Format	Document Structure	52 pages, 7 clauses	78 pages, 8 chapters	107 pages, 5 chapters (Implementation steps placed at the beginning)	79 pages, 7 chapters (Implementation steps placed at the beginning)
	Audience	Public and Private companies	Public entities (But, it can also be used by other stakeholders in the supplychain system)	Public entities (But, it can also be used by other stakeholders in the supplychain system)	Public entities (But, it can also be used by other stakeholders in the supplychain system)
	Language	Direct, but with excessive use of bullet points	Discursive, with information repetition ocurrences	Discursive, with information repetition ocurrences	Direct and more understandable
	Sustainability Frame	General Sustainability	General Sustainability	General Sustainability	Environmental Sustainability
	Methodology	Theoretical and comprehensive (with detailed content) . The excessive use of bullets could undermine the comprehension.	Mix of theoretical and practical approach(excellent), focused mainly on the preparation an the initial issues of the sustainable procurement implementation.	Mix of theories and practical measures, with practical examples and user-friendly tables to help the implementation.	Very organized and comprehensive, with a clear step by step to achieve the integration/implementation.
Guidelines Content	Main Objectives	To provide guidance to organizations, independent of their activity or size, on integrating on integrating sustainability within procurement.	Give direction to governments via designing and implementing sustainable public procurement (SPP) policies and action plans.	The guideline aims to position sustainable procurement in the current economic, political and legal framework.	To achieve environmental policy goals relating to climate change, resource use and sustainable consumption and production by promoting sustainable procurement practices in public entities, specially in the
	Resources needs	The guideline did not specify the amount of resources for the implementation. Depends on the organization characteristics (size, structure, etc.)	The guideline did not specify the amount of resources for the implementation. Depends on the organization characteristics (size, structure, etc.)	The guideline did not specify the amount of resources for the implementation. Depends on the organization characteristics (size, structure, etc.)	The guideline did not specify the amount of resources for the implementation. Depends on the organization characteristics (size, structure, etc.)
	Training needs	There is a brief clarification in this regard in the item 6.2 Enabling people(6.2.1 Organizational culture)	The SPP emphasizes the importance of training and has devoted 3 pages to explain all the aspects of training, including the training of stakeholders.	A brief consideration in this regard in the page 34.	The item 1.3 "training and guidance" clarifies the necessity of training for staff members.
	Sustainability approach	ISO provides a broad range of information in this regard. The Principles, Core subjects , Drivers and Key considerations about sustainability.	At the beginning of the guideline three items give support to SPP's approach on sustainability.	The Procura+ explains about its fundamental approach over sustainability, through the items 1.3 and 2.1 from the guideline.	Very few information on this regard, so the guidelines only provide an answer for the proposal's question: "Why buying Green?"
	Innovation and Sustainability Integration	There is no especial item devoted to Innovation, just brief comments throughout the guideline.	In the same way that ISO, the SPP does not offer special comments in this regard.	Procura+ authors assert that Innovation and Sustainability should must linked. And they also explain about the transition towards the E-procurement.	GPP recognizes the importance of innovation and it cites the e-procurement transition promoted by the 2014 EU directives.
	Technical Criteria for Products/ Services	Ther is available technical information about products and services.	No. It only mentions other sources where one could find those information(in the BOX 22, page 40 of the guideline)	Yes, for 6 products (Construction, ICT, cleaning, food and catering, vehicles and electricity). (from page 82 to 103)	Yes, for 21 products and services.
	Sustainable Labels Information	Yes, in "Evaluating that sustainability requirements are met" the criteria, there is a clarification about the types of labels and how to use them in a tendering.(pages 31 and 32)	Yes. There is a brief explanation about the objectives and types of eco-labels and how to use them in a procurement tendering. (from page 40 to 42)	Yes, it enables the user to get basic information on the types of labels and how to use them in a tendering. (from page 59 to 62)	Yes, there is a long explanation about the type of the labels and the way to use them in a tendering process. (pages 16,17, 37,38, and 39)
	Engaging Suppliers	ISO suggests the mapping of stakeholders' in order to understand whether they should be engaged in the sustainable procurement.	SPP asserts that training methods could help the process of suppliers engagement.	Procura+ recognizes the importance of suppliers engagemnet, but they did not propose a solution for the issue.	GPP only mentioned that supplier's engagement is important for tendering process, but do not discuss about the importance for future
	Control and Assessment Measures	ISO 20400 recommends the use of metrics and indicators. They also advise to review documentation, make inspections and audits, and use certification/ management systems.	SPP also clarifies about the auditing process in suppliers and how to effectively achieve it.	the Procura+, the authors consider the assess of Targets' Progress a crucial part of the guideline. The monitoring process should be done more than once a year.	The GPP advise procurement entities to establish a monitoring system that includes the impacts of purchasing decisions over the environment.

Chapter 3

Discussion

Education, training, and information access are undoubtedly the most effective "engagement tools" for SMEs. As a result of my preview analysis, it is evident that SMEs do not have the attention that they deserve in order to become a "sustainable partner" within the supply chains.

Therefore, in this chapter, I would like to discuss the possibilities to overcome this situation by adopting new SPTMs that really fit with SMEs' requirements. Accordingly, when considering the SMEs' characteristics—small structure with centered decision-making (top managers), few employees with stressful multitasks, tight budget, and little capital—we need to consider more practical and flexible sustainable consumption measures. It should also be easy to comprehend the lack of information in SMEs, given their human resource constraints; according to the OECD (OECD 2018,19), SMEs face knowledge limitations and skill deficits. Thus, it would be more beneficial to implement a user-friendly SPTM with a self-explanatory design, uncomplicated content, and direct approach. The SPTM should also be concise and comprehensive in order to prevent mistakes in regard to the accurate approach of sustainability (environmental, social, and economic). In short, I consider fundamental aspects for SMEs' SPTMs to be simple, flexible (encourages a gradual implementation), direct, concise, for easy comprehension (user-friendly), and with self-explanatory designs (easy to handle). It is necessary to make clear that "flexibility" here is not related to permissiveness or tolerance, but instead, it is a tool to motivate the gradual and voluntary adoption of the SPTM. Moreover, the decision-making in SMEs is centered on the top executives and without their own will towards a change, it would not be possible to increase sustainability in SMEs. Thus, the gradual adoption of SPTMs helps directors and general managers to be aware of their decisions' impact, and it could encourage them to

adopt more strict requirements within sustainable standards. This "brainstorm exercise" and the ideas that come from it are not the essential point of this work, and as stated previously, through this work, I want to raise awareness among economic players, academia, government, and civil society about the urgency to implement easier and understandable sustainability methods.

My first suggestion is in line with the information provided by the Procura+ guideline regarding joint purchasing (consortium). Then, rather than only combining to implement procurement processes, SMEs could create cooperatives (on the same sector) and from that initial step, they could promote sustainable procurement training and help cooperative members to perform sustainable joint purchasing. The cooperatives should also audit and verify the compliance level of the participants in order to keep companies in the same sustainable direction. The costs of implementation would certainly be much less than otherwise, and information about new sustainable practices could be easily disseminated. Likewise, the costs of material/services acquisition would be substantially less due to their high purchasing volumes. Finally, they could also achieve sustainable product certifications/labels or management standards and have preferential treatment as suppliers in future public biddings.

A second idea was inspired by the SPP and the Procura+ guidelines as long as both of them provide tables with summary content and/or lists of questions regarding the procurement process. Hence, I developed a check-list method composed of self-inquiries, in which the top manager or staff members could apply the sustainable measures and concomitantly improve their awareness of sustainability. In the following (see TABLE 3[10]), I develop my idea:

[10] Sources for the Sustainable Procurement Principles' column, provided in TABLE 3 : (ISO 2017, 07), (European commission 2016, 21), (Commonwealth of Australia 2018, 08), and (World Bank/DCED 2017, 27).

TABLE 3 - Sustainable Procurement - Sustainable Criteria Checking List for SMEs

Sustainability Pillars	Main Sustainable Procurement Principles	Sustainable Procurement Principles	SMEs' Self Inquiring Method (to support SMEs to achieve sustainability and to participate in tenderings)	Yes or No	If negative answer, please explain the reason "why?"	Corrective Measures
Social	Transparency and Integrity	Transparency in the whole procurement cycle	Am I transparent in the whole procurement cycle?	Yes	-	-
		Open tendering process	Am I providing all the tendering information?	Yes	-	-
		Clear tendering evaluation	Can I show how I evaluate my suppliers?	No	The evaluation involves more than one person	To centralize this process
		Fair and equitable treatment for potential suppliers	Do I give a fair treatment to my potential suppliers?	Yes	-	-
		Integrity to competitive tendering	Is this tendering a fair competition?	Yes	-	-
		Ensure the integrity in the whole process	Was the whole tendering process correct and fair?	Yes	-	-
	Anti- Corruption and Prevention of Misconduct	Prevent risks to integrity	Do I prevent risks to integrity in my company?	Yes	-	-
		Promote cooperation with suppliers to prevent misconduct	Do I check and prevent misconductions ocurrences in my company?	Yes	-	-
		Monitoring procedures	Am I monitoring the procedures?	Yes	-	-
		Apply sanctions to misconduct	Am I attentive to misconduct ocurrences in my company?	Yes	-	-
	Non-discrimination	Prohibition of discriminatory actions against suppliers	Did I prevent any discriminatory action during the tendering?	Yes	-	-
	Accountability	Designing policies that promote responsiveness and trust	Do I have a policy to promote responsiveness in my company?	Yes	-	-
		Attention to suppliers complaints in a fair manner	Do I give a fair treatment when complained?	Yes	-	-
		Establishment of effective control mechanisms of the responsabilities	Do I have effective control mechanisms of the reponsabilities in my company?	Yes	-	-
		Adoption of codes of conduct	Do I adopt codes of conduct in my company?	No	We do not have established the criteria yet.	To get a standard criteria from the internet
		Monitoring conflict of interest	Do I monitor conflicts of interest?	Yes	-	-
Economic	Value for Money (minimum purchase price with maximum efficiency of the purchase)	Fitness for purpose	Does the purchase have a clear and defined purpose?	Yes	-	-
		Quality	Do I have quality control when buying products and services?	No	We do not have a Control quality department.	To assign this responsibility to someone in the procurement/purchasing department.
		Efficiency	How do I control the efficiency of the products/services I acquire?	Yes	-	-
		Elimination of negative externalities	**Etc.**	**Etc.**	**Etc.**	**Etc.**
		Life cycle cost				
	Management Efficiency	Simplicity				
		Profitability				
		Speed				
		Reduce costs of process				
	Improvement of the Market	Development of new markets				
		Creation of jobs				
		Improvement of SMEs participation				
Environmental	Value for Money	Avoid unnecessary consumption				
		Life cycle costs of goods/services				
		Reduced energy				
		Prioritise the purchase of repaired and recycled goods				
		Decide your resource consumption throughout the life-cycle analysis				
	Materiality knowledge	Encourage sustainability innovation				
		Understand technical aspects of the life cycles				
		Choosing products or services that have lower adverse impacts associated with				
		Knowledge of Ecolabels				
	Environmental Management	Add environmental requirements in the Policy				
		Integration of sustainability measures into current procurement practice				
		Understand your(company or public entity) own necessity				
		Keep your demand to a minimum				
		Gradually progression of the sustainability practices				
		Controlling internal progresses towards the sustainability				
		Monitoring sustainable suppliers				
		Training Suppliers				

Conclusion

Despite the endless measures available for mitigating imbalances in the three sustainability dimensions (environmental, social, and economic), it seems that little attention has been paid to SMEs as potential sustainable procurement players (as consumers or suppliers) within the supply chain system. One piece of evidence to support this conjecture is the few SPTMs addressed to those SMEs. Indeed, during my research, it became clear that the guidelines' remarks on "engaging suppliers" and "engaging SMEs" are imprecise (sometimes vague), reflecting that even the guidelines' authors might not have completely understood the sustainability meaning in its broadest sense.

More than only a willingness to comply, supply chain stakeholders need to envision the positive outcomes that can result from their mutual cooperation towards the achievement of tangible targets for sustainability. It is time to engage suppliers in procurement processes and not simply engage suppliers' products.

On the other hand, positive measures towards improving sustainable procurement are in progress. For example, the implementation of the 2014 EU procurement directives (with preferential treatment for SMEs), e-procurement dissemination, establishment of joint purchasing (purchasing consortium), free provision of guidelines (as those I have analyzed herein), and many actions in favor of corporate citizenship. In regard to the guidelines, I took advantage of many important elements and information that I found, all of which are critical for the development of new strategies. Nevertheless, we need to bear in mind that the assumption that "one size fits all" is not appropriate, and we should pay attention to other significant stakeholders from the wide supply chain system if we want to change the current scenario.

Ultimately, if on the one hand, SPTMs are not as comprehensive as lengthy sustainable procurement guidelines, on the other, they can be shaped in a more practical, concise, self-explanatory, and easy-to-handle manner. Hence, SPTMs can certainly suit SMEs' needs and, consequently, encourage other stakeholders' adherence to sustainability principles and disseminate good consumption practices throughout the supply chain system.

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