СЪВМЕСТНОТО ТВОРЧЕСТВО КАТО ИЗТОЧНИК НА УСТОЙЧИВОСТ В ИНОВАЦИИТЕ

Али Макки,

Докторант, Варненски свободен университет, катедра "Администрация, управление и политически науки" ali.hussein@vfu.bg

Резюме: Съвместното творчество се счита за една от няколкото стратегии, които могат да повишат иновативността на компанията. В тази статия са представени резултатите от изследване, направено в Ливан,. Целта е да се установи дали респондентите от различни области на Ливан имат различно отношение към съвместното творчество. За събиране на първични данни беше използван подход на проучване, базиращ се на структуриран въпросник, в който участваха 500 клиенти на МСП и стартиращи фирми. Въпреки малкия опит на респондентите за съвместно творчество, техните отговори показват желание и положително отношение към него.

Ключови думи:съвместно творчество; иновация; устойчивост; МСП; стартиращи фирми.

CO-CREATION AS A SOURCE OF SUSTAINABILITY IN INNOVATIONS

Ali Makki

PhD. Candidate, Varna Free University, Bulgaria, Administration, Management and Political Science, Faculty of International Economics and Administration ali.hussein@yfu.bg

Abstract: Co-creation is considered as one of several strategies that might increase a company's innovativeness. The outcomes of are search done in Lebanon are presented in this article. The purpose is to identify if respondents from various areas of Lebanon have different attitudes towards co-creation. A survey approach using a structured questionnaire was used to collect primary data, where 500 customers of SMEs and startups participated. Despite respondents' little experience with co-creation, their responses demonstrate willingness and positive attitude towards it.

Keywords: co-creation; innovation; sustainability; SME; startups

1.INTRODUCTION

Sustainability management sets, implements, and monitors significant business goals and activities both internally and externally. It also ensures that goals and activities evolve with the organization. Sustainability management must assess the company's impact on the environment, people, and the economy (Amini & Bienstock, 2014; Maletic, Maletic, Dahlgaard, Dahlgaard-Park, & Gomiscek, 2014). It should oversee new ideas, interactions, and boundary procedures. Ploetner and Ehret (2006) stress the importance of long-term relationships between a corporation and a select number of key stakeholders. In practice, cocreation, relationship, and sustainability management approaches rarely overlap. Also,

nothing is known about how relationships develop in the context of sustainability (Payne, Storbacka, & Frow, 2008). Early user involvement or co-creation could help new sustainability concepts succeed in the market. It's not always clear which department is in charge of long-term co-creation that focuses on sustainability. The key reason for integrating co-creation, sustainability, and CRM is that it makes sense. Co-creation transfers the focus from the organization to the production (value) "chain" and the inter-organizational vertical chain production. According to the co-creation theory, more people need to work together to make goods and services more valuable. According to Payne et al. (2008), firms must track how they make money. Thus, this article seeks to contribute both conceptually and experimentally to this field of study by asking: How do organizations employ co-creation and relationship management to be more eco-friendly?

To shape human systems, make money, produce and live in a way that considers the Earth's ecosystems' ability to absorb, buffer and regenerate is sustainable development. Building systems that can survive environmental, economic, and social change is called sustainability. This entails keeping in mind ecological capacity and viability restrictions (Ofstad, Westly, Bratelli, & Miljøverndepartementet., 1994). Sustainability is about making businesses more social-ecological and sustainable throughout the value chain. "Once a product's design is decided, its environmental qualities are often set" (Ny, MacDonald, Broman, Yamamoto, & K.-H., 2006). There are ways to think about sustainability in a strategic fashion, including the back casting from sustainability principles framework, which incorporates numerous interrelated but different layers of sustainability in a strategic sense. Businesses that want to put up environmentally friendly procedures must first establish strong partnerships. Users can aid innovation processes by increasing product popularity, decreasing flop risk, bridging consumer and producer information gaps, improving product efficiency

and quality, and so on (McNally, Akdeniz, & Calantone, 2011; Manikutty, 2010; Etgar, 2008; Hoffmann, 2007; Prahalad & Ramaswamy, 2004).

Environmental awareness creates new business opportunities, innovation, and value creation (Miranda, Moletta, Pedroso, Pilatti, & Picinin, 2021). Achieving sustainable development is integrated into product design and development. especially for SMEs. Consumers are increasingly interested in value co-creation. Firms can participate in value co-creation to gain new customers, revenue, and skills. In green innovation, value co-creation is critical (Chang, 2019). In order to create value, businesses and products must consider the environment. Thus, they establish long-term relationships and become preferred suppliers (Kim, Trimi, Hong, & Lim, 2020). Due to the environmental component, GPI is said to be more difficult and technical than traditional innovation. A single company rarely has all of the required resources (Horbach, Oltra, & Belin, 2013).

Companies that participate in GPI (Global Payments Innovation) initiatives should focus on learning new skills and improving teamwork (Hojnik & Ruzzier, 2016). Companies are engaging with customers to lessen the danger of them failing (De Marchi, 2012; Cainelli, De Marchi, & Grandinetti, 2015). Small firms have less money to spend on being green than big businesses. Meanwhile, they will encounter technological issues due to a lack of technical knowledge and information. This demonstrates the GPI's complexity and cost to SMEs (De Marchi, 2012). So, green manufacturing SMEs must collaborate more closely with their suppliers on R&D. Small businesses can receive outside help and learn new things to enhance their GPI, implement a green strategy, and keep up with the competition (Foroudi, Yu, Gupta, & Foroudi, 2019; Füller, Hutter, & Faullant, 2011; Oh, Chen, Wang, & Liu, 2015). In a competitive market, small firms should collaborate with big businesses on value creation and innovation.

A number of earlier studies have linked internal and external drivers, organizational context variables, and GPI, but few have examined value co-creation an environmental management perspective, particularly in small organizations. The field is still debating how to break down the "cooperation barrier" between SMEs and customers to promote GVCC (green value co-creation). In recent years, academics have focused on using proximity to solve GPI challenges in industry clusters, as well as R&D and commercial cooperation problems. Scholars have also focused on cognitive, social, and institutional components of proximity ((Boschma, 2005; Knoben & Oerlemans, 2006). Social and cognitive proximities are important organizational proximities in GVCC. It's vital to note that small enterprises' social and cognitive proximity to their clients varies. Maybe this explains the disparity between green value creation and green innovation. Also, the geographical distance between partners can influence the generation of new ideas due to the varying environmental knowledge available in different regions (Ardito, Messeni Petruzzelli, Pascucci, & Peruffo, 2019; Presutti, Boari, Majocchi, & Molina-morales, 2019; Verdolini & Galeotti, 2011). However, it is unclear if and how customers' distance from GVCC affects the influence of social and cognitive proximities. In the area of GPI, spatial and non-spatial proximities are rarely discussed. Instead, it just considers it as a situational component with varying outcomes. There is no empirical research on the relationship between proximity dimensions and GVCC in the GPI, so this is what we know.

In addition, certain situations require co-production, like climate change, through shared knowledge, resources (capabilities), and value (Bianchi, Borini, & dos Santos, 2018; Kruger, Caiado, França, & Quelhas, 2018). Design science approaches are used to create new commodities (e.g., the Double Diamond Model)(Design Council, 2020), where co-creation is encouraged (Kruger, Caiado, França, & Quelhas, 2018; Sanders & Stappers, 2008), especially on stakeholder

engagement and innovation (Gouillart, 2014; Keeys & Huemann, 2017). Working with a diverse group of people has pros and cons(Edmondson & Nembhard, 2009). Diverse perspectives and backgrounds can help address challenges to make co-creation networks and collaborative creativity in focus. That's why, we will look into how stakeholder management affects high-tech innovation. What are the best practices for co-creating high-tech innovations? How do you engage stakeholders in high-tech co-creation? We looked at it from a transdisciplinary perspective. The method used a design model that includes working with diverse populations. The environmental performance of horticulture is improved by modern growing techniques and technology (Rantala, Ukko, Saunila, & Havukainen, 2018). Other studies suggest co-creation and open innovation as high-tech circumstances.

2. CO-CREATION: A STRATEGY TO IMPROVE THE PLANET

Long-term growth requires new or combined resources, expertise, or ideas, as well as fundamental changes in business strategy and goals (Hoffmann, 2007). Firms and customers collaborate to improve things by sharing, combining, and renewing resources, skills, and information. These new ways of interacting, serving, and learning add value(Zwass, 2010). As a result of co-creation, both firms and their customers gain shared values. This is called "co-creation" and it differs from the old "active firm-passive client" concept. It calls its methods "trends in innovation management" (Etgar, 2008). Previously, companies used to invent new products and services, where the research and practice processes were kept closed(Vargo, Maglio, & Akaka, 2008). However, nowadays, users and corporations are increasingly collaborating on innovative ideas. With varied technologies, the new main premise of "co-creation" or "open innovation" combines outside and inside skills in the creative process (e.g., innovation workshops, idea competitions). This procedure has been tested before, but there is

no standard framework for cocreation because users have been working on industrial and consumer products for 15 years(Hoffmann, 2007). The open innovation model is built on user demands and co-creation activities. Thus, open innovation, crowdsourcing, open-source innovation, and other concepts about how to improve this model are discussed in the literature (Hoffmann, 2007; Payne, Storbacka, & Frow, 2008; Manikutty, 2010; Zwass, 2010).

User integration refers to targeted co-creation procedures that include (future) customers and users. This comprises everything from the first idea to market debut and adoption. Co-creation promotes product awareness and acceptance, allowing the finished product to be accepted and widely distributed. Some tools that companies can use when brainstorming with others include a realistic framework and a well-structured technique to come up with and discuss long-term solutions that can create substantial changes in products or services (Arnold & Hockerts, 2011). Sustainability innovation is about improving the environment and the lives of people today and in the future. They strive to prevent harm to people and the environment by utilizing what people already know and how they think. To accomplish this, they need specific tools and a special partner. People involved in co-creation processes should have demands for sustainable concepts or activities well before the process begins, according to Lüthje and Herstatt (2004) and von Hippel (2005).

People with high market credibility and trust are more likely to buy long-term. Co-creation tools go beyond the usual technique of coming up with fresh ideas and feature a lot of integration and engagement. The level of integration reflects a stakeholder's deep and full involvement in the innovation process. The level of interaction is the extent of collaboration with other stakeholders and companies. In other words, your level of involvement determines how much you can influence content and processes. This grouping is closely tied to relationship concepts,

notably relationship goals and boundaries. It focuses on the relationships between companies and their main actors (Vargo, Maglio, & Akaka, 2008). In practice, however, it depends on who or which business unit decides on significant clients or users. Co-creation goes beyond open innovation and letting people participate in the process. A corporation with strong relationship management can share information with all employees. It can also work with customers and the public. In this way, it can serve as a framework for collaborative processes and a crossfunctional interface to help sustain co-creation. For a company, the co-creation of products with the customer becomes an effective tool for innovative company solutions (Vermeulen, Hubers, de Vries, & Brazier, 2020). The traditional view of customers in the innovation process is that they are either passive or "speaking only when spoken to" (Design Council, 2020)in the course of market research or concept testing.

This point of view has recently been challenged by many researchers who note that there is also a more active role of customers in innovation processes (Sanders & Stappers, 2008). Development through implementation of co-creation enables reaching a competitive advantage. The sources of this advantage include gains in effectiveness and productivity gains through efficiency (Arnold M., 2017). Moreover, one of the gains in effectiveness of the co-created product is increased innovativeness (Gouillart, 2014). Thanks to consumer reviews, the company can improve the quality of their product. Co-creation also enables the company to provide products that are tailored to customer's individual needs (Arnold M., 2017; Keeys & Huemann, 2017), so another benefit of applying co-creation is better understanding of those needs (Corsaro, Cantù, & Tunisini, 2012). Moreover, understanding customer needs and then developing products to meet those needs are the basis for successful innovation. Nowadays, companies endeavor to be more profitable and to achieve growth through innovation. This causes an increasing

number of failed products. In order to minimize the risk of failures, the company has to cooperate. Cooperation with the customer is useful to generate information about new product development. This information might be gathered in three different ways: "listen into" the customer domain, "ask" customers, and "build" with customers. All those modes are used while co-creating a new product with the customer. A company can also apply co-creation as a new way of establishing relationships with clients by including them in the business(Rantala, Ukko, Saunila, & Havukainen, 2018). Furthermore, studies show that there is a positive relationship between the value of co-creation and the customer's trust, loyalty, or satisfaction. Trust adds value to customers and influences their loyalty towards the company(Hsieh & Hsieh, 2015; Hörisch, Freeman, & Schaltegger, 2014).

The literature also features a model of co-creation comprising participation, co-creation, satisfaction, and trust, where trust and satisfaction are analyzed as results. Therefore, the process of co-creation is beneficial to both sides (Teece, 2010). It is indicated that co-creation is a response to a challenge caused by innovation. However, it is only possible if all the collective potential of groups can lead to changes wherein every participant is empowered (Marcelis & Heuvelink, 2019). Other studies demonstrate that involved customers are frequently willing to cooperate and share their knowledge and experiences. However, they are unable to do so since they encounter numerous economic and technological limitations as well as problems related to the lack of knowledge about the process of co-creation (Reypens, Lievens, & Blazevic, 2016). It is stressed in the literature that the essential characteristics of a co-creating customer include their experiences, degree of involvement, and the type of interaction between the company and the customer(Alves, Fernandes, & Raposo, 2016). The fact that the customer creates products for himself and that he is an essential subject of co-creation is an important element of this process (Galvagno & Dalli, 2014).

Cooperation with customers gives the company an opportunity to create products in accordance with customer expectations. Such activity fits with the concept of sustainable marketing tools. In this concept, the traditional marketing mix (product, price, place, promotion, people) is transformed into sustainable 5C (costumer solution, customer cost, convenience, communication, co-relations). It means that by adopting the concept of the sustainable marketing mix, the company simultaneously accepts customers as the co-creators of the product and other company activities (Leclercq, Hammedi, & Poncin, 2016). Therefore, the concept of product co-creation constitutes a new, innovative tool for activities of a sustainable nature, including Sustainability sustainable organization development. A model that shows the relationship between sustainable marketing and co-creation is displayed in the below figure, showing a strong conceptual link between the two items displayed.



Figure 1: The relationship between Sustainable Marketing & Co-Creation (by author)

A marketing mix that is both eco-friendly and collaborative, also known as the 5 Cs, is critical. Co-creation is an intermediate step in developing a sustainable product, price, distribution, promotion, and staff as seen in Figure 1. Thus, co-creation has a huge impact on business sustainability and long-term growth. The capacity to locate people who are both skilled and informed about the process is linked to the success of co-created products (Von Hippel, 1986). The consumer should be involved in every step of the co-creation process, from the conception of a new product or service to its execution. To ensure a seamless procedure, all stakeholders may need to work together because the process's success is dependent on everyone's cooperation (Prahalad & Ramaswamy, 2004; Matthyssens & Vandenbempt, 2008).

As stated in the literature, a person's attitude is a continual, cognitive evaluation of sensations or acts that reveal their preferences. So, researchers think of "attitude" as a learning quality that allows people to observe things together (Ehrenfeld, 2008). Co-creation is an example of a subject that changes one's mindset. They will feel better if they are involved in the process. If the outcome is terrible, people dislike co-creation (Manzini, 2003). According to the research findings, simply providing an opportunity or invitation to engage in the co-creation process is sufficient to ensure participation and a good attitude towards co-creation since working in corporation and coming up with brand ideas is deemed to be both exciting and challenging. All a company needs focus on inviting customers into the co-creation process. Thus, studying co-creation is becoming a more popular study subject. However, the research hasn't taken into account how people from different startups and SMEs perceive the co-creation process due to a shortage of empirical studies on global co-creation attitudes. So, this study is essential since it looks at Lebanese Culture. This study, on the other hand, addresses a research gap about how Lebanese startups and SMEs customers feel about co-creation. This study's major goal is to promote co-creation as a new strategy to expand enterprises in Lebanon. In this way, co-creation as an entrepreneurial, forward-looking enterprise could lead to development (Kazadi, Lievens, & Mahr, 2016).

3. RESEARCH METHODOLOGY

Quantitative research approach is adopted by this paper, whereby, researchers depend on narrow question to gather quantifiable data from the customers of startups and SMEs in Lebanon, to be used in further analysis, depending on appropriate statistical methods (Creswell, 2009). Thus, the recent study population consists of all customers of startups and SMEs in Lebanon. However, since the population can be infinite, it is necessary to determine the current study sample size. This study depended on Sekaran and Bougie(2016), which demonstrated that the minimum sample size for a population that exceeds 75,000 units is equal to 384 respondents. Thus, the current study sample contains 500respondents, and the response rate was 100%. This research group represents those who, by virtue of their psycho-physical characteristics, are more eager to share their experiences and engage in various activities.

Although all stakeholders should be involved in the co-creation process, this research has focused on the role of students in this process and how the place of residence affects their attitude towards co-creation. Taking into account that gaining customer participation is a key factor in the success of implementing co-creation as an innovative way to develop an organization, this pilot research might be useful to acquire the knowledge on factors that would encourage them to participate in co-creation. In order to examine the research objectives base on convenience sampling technique. Online questionnaire survey was used to collect data, that enable collecting large amount of data within a short period of time. Moreover, recently

online questionnaire survey gains higher interest due COVID-19 pandemic(Hlatshwako, et al., 2021).

The first research objective is to examine the involvement in co-creation based on social—demographic characteristics such as gender, place of living, and family business traditions. The second, second research objective is to discover the reasons that encourage participation in co-creation. The options included being the customers' favorite brand, the invitation to improving product usability, prestige attached to cooperating with a company, getting the invitation to a sample version of a new product, getting a prize, the chance to generate ideas for brands is absolutely fantastic and challenging, one's own satisfaction, or other reasons. The third research objective is to determine the meaning of co-creation in the customers point of view.

Results

The research questionnaire focused mainly on qualitative variables, which consisted of nominal and ordinal scales. The questionnaire used a five-point Likert scale to measure different variables. Chi-square and descriptive statistics were applied in this study to help researchers discover similarities and differences between the engagement of startup and SME customers from different areas in cocreation participation. From this point of view, it is worth determine the sociodemographic characteristics of the sample have been presented in the below tables.

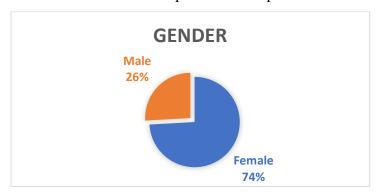


Figure 1: Gender Distribution of the Respondents

From the above figure (Figure 2), the gender distribution among the sample group is illustrated in percentages. According to the presented data, it can be concluded that the sample was mainly female. In addition, Figure 3 shows that the majority of respondents were young with 70% being between 18 and 34 years old.

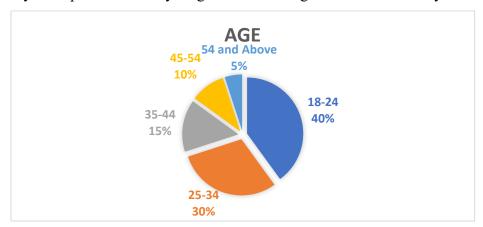


Figure 2: Age Distribution of Respondents

The following figure, Figure 4, illustrates the place of residence in percentages. It is seen that the group of respondents is varied in terms of their place of residence. The majority of respondents resided in the sub-urban areas (53%), followed by those residing in urban areas (29%) and the least resided in rural areas (18%).

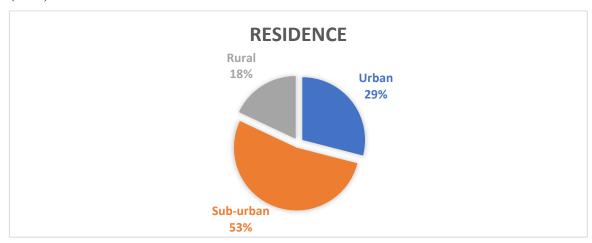


Figure 3: Residence of the Respondents

The author refers to entrepreneurial traditions as the family background in which the closest relatives were or have been entrepreneurs. Among the examined respondents, 66% claimed that their relatives were or have been entrepreneurs, which means they also have the tendency to follow their footsteps.

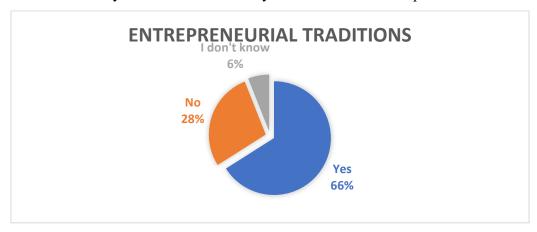


Figure 4: Entrepreneurial Traditions of Respondents

Taking into account the added value of the conducted research, which considers the possibility of learning the respondent attitudes towards the process of co-creation, it seems important that their previous experience in this regard be verified, which is demonstrated in Figure 6. The results showed that there was no significant participation in the co-creation process due to the higher percentage of non-participants (65%).

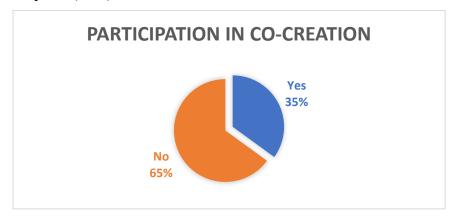


Figure 5: Participation in Co-creation

Because the share of respondents that participated in co-creation was small, it is worth emphasizing the reasons that would encourage them to be involved in the process of co-creation (Table 1). According to the data presented in Table 1, the highest percentage observed was for the variable "it is my favorite brand, so I would eagerly participate", which is 25%. Following it, the customers claimed that "prestige attached to cooperating with a company" also affect their choice to participate in co-creation with a percentage of 23%. Combined together, these two reasons take up more than 50% of the sample distribution.

Table 1: Customer Encouragement for Participating in Co-Creation

Reasons for Being Involved in Co-Creation

				Valid	Cumulativ
	F	requency	Percent	Percent	e Percent
Valid	It is my favorite brand, so I would1 eagerly participate.	25	25	25	25
	The invitation to improving product6 usability.	5	13	13	38
	Prestige attached to cooperating with al company.	15	23	23	61
	Getting the invitation to a sample5 version of a new product.	0	10	10	71
	Getting a prize. 6	0	12	12	83
	The chance to generate ideas for brands is absolutely fantastic and challenging. 5	4	9	9	92
	One's own satisfaction.	0	6	6	98
	Other 1	0	2	2	100.0
	Total 5	00	100.0	100.0	

In order to learn about the attitude of customers towards co-creation, respondents were asked to share their opinion by selecting the most suitable

definition or understanding of "co-creation". Options included playing, appreciation by a company, sharing ideas with a company, maintaining relationships with regular clients, one's own satisfaction, or other.

Table 2: The Meaning of Co-Creation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Playing	40	8	8	8
	Appreciation by a company	140	28	28	36
	Sharing ideas with a company	170	34	34	70
	Maintaining relationships with regular clients.	100	20	20	90
	One's own satisfaction.	30	6	6	96
	Other	20	4	4	100.0
	Total	500	100.0	100.0	

According to Table 2, the highest percentages observed were those of "sharing ideas with a company" and "appreciation by a company", where they made up 62% of the sample distribution, followed by the answer of "maintaining relationships with regular clients" with 20%. Thus, it can be concluded thatthe majority of respondents mentioned the variable "sharing ideas with a company" as the most common factor contributing to the meaning of co-creation.

An interesting aspect of the research is the characteristics of individuals who participated in co-creation. In following tables, the author analyzed the relationship between basic data describing respondents to their participation in co-creation. The

below table (Table 3) shows a crosstabulation between the gender of participants and their participation in co-creation. The results showed that females were more likely to participate in co-creation unlike males. This can be also confirmed since the significance of the study was 0.000 < 0.05, as seen in Table 4.

Table 3: Crosstabulation: Gender & Co-Creation Participation

Count

		Participation		
		Yes	No	Total
Gender	Female	145	195	340
	Male	30	130	160
Total		175	325	500

Table 4: Chi-Square: Gender & Co-creation Participation Chi-Sauare Tests

Cili-Square	1 6313

			Asymptotic					
			Significance	(2-Exact	Sig.	(2-Exact	Sig.	(1-
	Value	df	sided)	sided)		sided)		
Pearson Chi-Square	94.595ª	1	.000					
Continuity Correction ^b	92.527	1	.000					
Likelihood Ratio	135.599	1	.000					
Fisher's Exact Test				.000		.000		
N of Valid Cases	500							

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 45.50.

On the basis of data presented in Table 5, it is worth emphasizing that the customers living in urban areas were more inclined to participate in the co-creation

b. Computed only for a 2x2 table

process than those living in sub-urban and rural areas. This is also confirmed in the significance level is 0.000 < 0.05 observed in Table 6.

Place of Residence * Participation in Co-creation Crosstabulation Count

		Participati		
		Yes	No	Total
Place of Residence	Urban	125	43	168
	Sub-urban	30	183	213
	Rural	20	99	119
Total		175	325	500

Table 5: Crosstabulation: Place of Residence & Co-Creation

Participation

Chi-Square Tests

			Asymptotic
			Significance (2-
	Value	df	sided)
Pearson Chi-Square	383.585a	2	.000
Likelihood Ratio	462.469	2	.000
N of Valid Cases	500		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 34.65.

Table 6: Chi-Square: Place of Residence & Co-Creation Participation

Involvement in co-creation based on entrepreneurial traditions is demonstrated in Table 7. The basic conclusion is that the "family business traditions" factor does significantly affect co-creation involvement.

$\label{lem:condition} \textbf{Entrepreneurial Traditions * Participation in Co-creation Crosstabulation}$

Count

		Participation in		
		Yes	No	Total
Entrepreneurial Traditions	Yes	132	105	237
	No	30	145	175
	I don't know	13	75	88
Total		175	325	500

Participation

Table 7: Crosstabulation: Entrepreneurial Traditions & Co-creation

Chi-Square Tests

			Asymptotic
			Significance (2-
	Value	df	sided)
Pearson Chi-Square	138.695ª	2	.000
Likelihood Ratio	191.182	2	.000
N of Valid Cases	500		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 10.50.

Table 8: Chi-square: Entrepreneurial Traditions & Co-Creation

Participation

4.CONCLUSION

The fundamental observation that can be drawn from the conducted research in Lebanon is the fact that participation in the co-creation process is still not widely adopted. While conducting this research, it was observed, on numerous occasions, that respondents had trouble understanding the studied concept. From this point of view, further education in the comprehension of the studied concept is important along with the promotion of co-creation as an innovative tool for a company's sustainable development. This is definitely an area in which practice

needs to be combined with theory, and it ought to involve not only companies but also universities or institutions dealing with knowledge sharing. Since success of the co-creation process depends on the participation of all stakeholders, the author suggests build awareness in society regarding the co-creation process.

It would be worth conducting qualitative research there, the results of which would be used for the purpose of knowledge sharing and which would constitute descriptions of good examples. In addition, previous studies stress that knowledge and experience are factors positively influencing the willingness to participate in the process of co-creation. In turn, lack of suitable knowledge and opportunities, particularly in combination with product complexity, constitutes a barrier and discourages co-creation. Considering the respondents' limited experience in co-creation so far, the fact that they did not have a negative attitude towards this process needs to be taken into account. Respondents' replies indicate their willingness, openness, and positive attitude towards co-creation. Literature on the subject frequently lists the benefits arising from the application of co-creation; however, knowledge is not yet sufficiently propagated. Therefore, the author sees potential for further research and for publications to sort the knowledge on not only the advantages of co-creation but also the barriers or difficulties that hamper the development of the studied phenomenon.

Taking into account the objective of this article, which was to find the differences and similarities among the respondents from various areas of a country considering their proclivity towards the process of co-creation, it must be stressed that the results chiefly point out slight differences in the attitude towards co-creation between those who live in urban, suburban, and rural areas. In Lebanon, the results of previous studies on co-creation were confirmed, according to which obtaining particular traditional benefits is one the main factors influencing the involvement into the process of co-creation. Discrepancies in the results are reflected in the

literature on the subject, where consent is lacking as to how the process of cocreation ought to be implemented (including how to sustainability motivate participation in the process). In turn, the studies conducted so far confirm that a positive attitude toward co-creation encourages participation in the process.

References

- 1. Alves, H., Fernandes, C., & Raposo, M. (2016). Value co-creation: Concept and contexts of application and study. *Journal of Business Research*, 1626–1633.
- 2. Amini, M., & Bienstock, C. (2014). Corporate sustainability: an integrative definition and framework to evaluate corporate practice and guide academic research. *Journal of Cleaner Production*, 12-19.
- 3. Ardito, L., Messeni Petruzzelli, A., Pascucci, F., & Peruffo, E. (2019). nter-firm R&D collaborations and green innovation value: The role of family firms' involvement and the moderating effects of proximity dimensions. *Business Strategy and the Environment*, 185–197.
- 4. Arnold, M. (2017). Fostering sustainability by linking co-creation and relationship management concepts. . *Journal of Cleanear Production*, 179–188.
- 5. Arnold, M., & Hockerts, K. (2011). The greening dutchman: Philips' process of green flagging to drive sustainable innovations. *Business Strategy and the Environment*, 394–407.
- 6. Bianchi, C., Borini, F., & dos Santos, A. (2018). Open Innovation and Cocreation in the Development of New Products: The role of design thinking. *International Journal of Innovation*, 112-123.
- 7. Boschma, R. (2005). Proximity and innovation: A critical assessment . *Regional Studies*, 61–74.

- 8. Cainelli, G., De Marchi, V., & Grandinetti, R. (2015). Does the development of environmental innovation require differ-ent resources? Evidence from Spanish manufacturing firms. . *Journal of Cleaner Production*, 211–220.
- 9. Chang, C. H. (2019). Do green motives influence green product innovation? The mediating role of green value co-creation. *Corporate Social Responsibility and Environmental Management*, 330–340.
- 10. Corsaro, D., Cantù, C., & Tunisini, A. (2012). Actors' heterogeneity in innovation networks. *Industrial Marketing Management*, 780–789.
- 11. Creswell, J. W. (2009). *Research Design: Quantitative, Qualitative and Mixed-methods Approaches.* London, UK. : Sage Publications.
- 12. De Marchi, V. (2012). Environmental innovation and R&D cooperation: Empirical evidence from Spanish manufacturing firms. *Research Policy*, 614–623.
- 13. Design Council. (2020). *The 'Double Diamond' Design Process Model*. Retrieved from Design Council: https://www.designcouncil.org.uk/news-opinion/what-framework-innovation-design-councils-evolved-double-diamond
- 14. Edmondson, A., & Nembhard, I. (2009). Product development and learning in project teams: The challenges are the benefits. . *Journal of Product Innovation Management*, 123–138.
- 15. Ehrenfeld, J. (2008). Sustainability by Design: A Subversive Strategy for Transforming Our Consumer Culture. New Haven, CO, USA, .: Yale University Press.
- 16. Etgar, M. (2008). A descriptive model of the consumer co-Production Process. . *Journal of the Academy of Marketing Science*, 97-108.
- 17. Foroudi, P., Yu, Q., Gupta, S., & Foroudi, M. M. (2019). Enhancing university brand image and reputation through customer value co-creation behaviour. *Technological Forecasting and Social Change*, 218–227.

- 18. Füller, J., Hutter, K., & Faullant, R. (2011). Why co-creation experience matters? Creative experience and its impact on the quantity and quality of creative contributions. *R&D Management*, 259–273.
- 19. Galvagno, M., & Dalli, D. (2014). Theory of value co-creation: A systematic literature review. *Managing Service Quality*, 643–683.
- 20. Gouillart, F. (2014). The race to implement co-creation of value with stakeholders: Five approaches to competitive advantage. *Strategy Leadership*.
- 21. Hlatshwako, T. G., Shah, S. J., Kosana, P., Adebayo, E., Hendriks, J., Larsson, E. C., . . . Tucker, J. D. (2021). Online health survey research during COVID-19. *Elsevier Ltd*.
- 22. Hoffmann, E. (2007). Consumer integration in sustainable product development. *Business Strategy and the Environment*, 322-338.
- 23. Hojnik, J., & Ruzzier, M. (2016). What drives eco-innovation? A review of an emerging literature. *Environmental Innovation and Societal Transitions*, 31–41.
- 24. Horbach, J., Oltra, V., & Belin, J. (2013). Determinants and specificities of eco-innovations compared to other innovations—an econometric analysis for the French and German industry based on the community innovation survey. *Industry and Innovation*, 523–543.
- 25. Hörisch, J., Freeman, R., & Schaltegger, S. (2014). Applying stakeholder theory in sustainability management: Links, similarities, dissimilarities, and a conceptual framework. *Organizarional Environment*, 328–346.
- 26. Hsieh, J.-K., & Hsieh, Y.-C. (2015). Dialogic co-creation and service innovation performance in high-tech companies. *Journal of Business Research*, 2266–2271.

- 27. Kazadi, K., Lievens, A., & Mahr, D. (2016). Stakeholder co-creation during the innovation process: Identifying capabilities for knowledge creation among multiple stakeholders. *Journal of Business Research*, 525–540.
- 28. Keeys, L., & Huemann, M. (2017). Project benefits co-creation: Shaping sustainable development benefits. *International Journal of Project Management*, 1196–1212.
- 29. Kim, D. W., Trimi, S., Hong, S. G., & Lim, S. (2020). Effects of cocreation on organizational performance of small and medium manufacturers. *Journal of Business Research*, 109, 574–584., 574-584.
- 30. Knoben, J., & Oerlemans, L. A. (2006). Proximity and interorganizational collaboration: A literature review. . *International Journal of Management Reviews*, 71–89.
- 31. Kruger, C., Caiado, R., França, S., & Quelhas, O. (2018). A holistic model integrating value co-creation methodologies towards the sustainable development. *Journal of Cleaner Production*, 400–416.
- 32. Leclercq, T., Hammedi, W., & Poncin, I. (2016). Ten years of value cocreation: An integrative review. . *Recherche et Applications en Marketing*, 26–60.
- 33. Lüthje, C., & Herstatt, C. .. (2004). The lead user method: An outline of empirical findings and issues for future research. *R&D Management*, 553–568.
- 34. Maletic, M., Maletic, D., Dahlgaard, J., Dahlgaard-Park, S., & Gomiscek, B. (2014). Sustainability exploration and sustainability exploitation: from a literature review towards a conceptual framework. . *Journal of Cleaner Production*, 182-194.
- 35. Manikutty, S. (2010). CK Prahalad and His Work: An Assessment. *Vikalpa The Journal for Decision Makers*, 2-7.

- 36. Manzini, E. (2003). Scenarios of sustainable wellbeing. . *Design Philosophy Papers*, 5–21.
- 37. Marcelis, L., & Heuvelink, E. (2019). *Achieving Sustainable Greenhouse Cultivation*. Cambridge, UK: Burleigh Dodds Science Publishing Limited.
- 38. Matthyssens, P., & Vandenbempt, K. (2008). Moving from basic offerings to value-added solutions: Strategies, barriers and alignment. *Industrial Marketing Management*, 316–328.
- 39. McNally, R., Akdeniz, M., & Calantone, R. (2011). New Product Development Processes and New Product Profitability: Exploring the Mediating Role of Speed to Market and Product Quality. J. *Journal of Product Innovation Management*, 63-77.
- 40. Miranda, I. T., Moletta, J., Pedroso, B., Pilatti, L. A., & Picinin, C. (2021). A review on green technology practices at BRICS countries: Brazil, Russia, India, China, and South Africa. *SAGE*. doi:https://doi.org/10.1177%2F21582440211013780
- 41. Ny, H., MacDonald, J., Broman, G., Yamamoto, R., & K.-H., R. (2006). Sustainability Constraints as System Boundaries. An Approach to Making Life-Cycle Management Strategic. *Journal of Industrial Ecology*, 61-77.
- 42. Ofstad, S., Westly, L., Bratelli, T., & Miljøverndepartementet., N. (1994). *Symposium: sustainable consumption*. Oslo, Norway: Norwegian Ministry of Environment.
- 43. Oh, E. T., Chen, K. M., Wang, L. M., & Liu, R. J. (2015). Value creation in regional innovation systems: The case of Taiwan's machine tool enterprises. *Technological Forecasting and Social Change*, 118-129.
- 44. Payne, A., Storbacka, K., & Frow, P. (2008). Managing the cocreation of value. *Journal of the Academy of Marketing Science*, 83–96.

- 45. Ploetner, O., & Ehret, M. (2006). From relationships to partnerships—New forms of cooperation between buyers and sellers. *Industrial Marketing Management*, 4–9.
- 46. Prahalad, C., & Ramaswamy, V. (2004). Future of Competition: Cocreating Unique Value with Customers. Boston: HBS Press.
- 47. Presutti, M., Boari, C., Majocchi, A., & Molina-morales, X. (2019). Distance to customers, absorptive capacity, and innovation in high-tech firms: The dark face of geographical proximity. *Journal of Small Business Management*, 343–361.
- 48. Rantala, T., Ukko, J., Saunila, M., & Havukainen, J. (2018). The effect of sustainability in the adoption of technological, service, and business model innovations. *Journal of Cleaner Production*, 46–55.
- 49. Reypens, C., Lievens, A., & Blazevic, V. (2016). Leveraging value in multi-stakeholder innovation networks: A process framework for value cocreation and capture. *Industrial Marketing Management*, 40–50.
- 50. Sanders, E.-N., & Stappers, P. (2008). Co-creation and the new landscapes of design. *Co-Design*, 5–18.
- 51. Sekaran, U., & Bougie, R. (2016). *Research Methods for Business:* A Skill-Building Approach. West Sussex: Wiley & Sons.
- 52. Teece, D. (2010). Business models, business strategy and innovation. . *Long Range Plan.*, 172–194.
- 53. Vargo, S., Maglio, P., & Akaka, M. (2008). On value and value cocreation: a service systems and service logic perspective. *European Management Journal*, 145–152.
- 54. Verdolini, E., & Galeotti, M. (2011). At home and abroad: An empirical analysis of innovation and diffusion in energy technologies. *Journal of Environmental Economics and Management*, 119–134.

- 55. Vermeulen, A., Hubers, C., de Vries, L., & Brazier, F. (2020). What horticulture and space exploration can learn from each other: The Mission to Mars initiative in The Netherlands. *Acta Astronaut.*, 421–424.
- 56. Von Hippel, E. (1986). Lead users: A source of novel product concepts. . *Management Science*, 791–805. .
- 57. von Hippel, E. (2005). *Democratizing innovation*. Massachusetts: MIT Press Cambridge.
- 58. Zwass, V. (2010). Co-Creation: Towards a Taxonomy and an Integrated Research Perspective. *International Journal of Electronic Commerce.*, 11-48.