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Entrepreneurial bricolage theory: The use of recycled steel containers as an alternative mode of entry

Teoría del bricolaje empresarial: El uso de contenedores de acero reciclados como modo alternativo de entrada

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ABSTRACT

Traditional business development has been undergone in physical stores in small towns and shopping centers. Recently, entrepreneurs selected entry modes such as shipping containers, mobile and tow trucks to open stores for food consumption and other consumer goods and services. We used entrepreneurial bricolage theory to explore if the motivations for this selection are based on a sustainable perspective or convenience and costs. We conducted a survey of university students and found that young entrepreneurs still favor opening stores in traditional locations such as city centers in small towns as well as the adoption of alternative modes of entry such as steel shipping containers. This paper expands the limited literature on the reutilization of shipping containers for business development.

Keywords: entrepreneurship, alternative modes of entry, steel containers, recycled, entrepreneurial bricolage.

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RESUMEN

El Desarrollo tradicional de negocios ha sido mediante tiendas físicas en pueblos pequeños y centros comerciales. Actualmente, emprendedores seleccionan modos de entrada como contenedores marítimos, camiones y remolques para abrir tiendas de venta de alimentos, bienes de consumo y servicios. Utilizamos la teoría de entrepreneurial bricolage para explorar si las motivaciones para esta selección están basadas en la sostenibilidad, conveniencia y costos. Efectuamos una encuesta a estudiantes universitarios y encontramos que jóvenes emprendedores favorecen abrir negocios en centros de las ciudades, pueblos pequeños al igual que la utilización de modos alternos como contenedores de acero marítimos. Este articulo expande la limitada literatura en la reutilización de contenedores marítimos para el desarrollo comercial.

Palabras claves: emprendimiento, modos alternos de entrada, contenedores de acero, reciclaje, entrepreneurial bricolage.

I. INTRODUCTION

Traditional business development has been linked to physical stores. This has been a trend in metropolitan and suburban areas. In the US, we have seen how entrepreneurs have shaped city centers with their entrepreneurial projects; similarly, this has been a trend worldwide as suburban areas have been developed as city centers were transformed into business areas and housing was inaccessible. For many years, fixed locations were accessible for new projects, yet nowadays, using traditional storefronts and spaces in shopping centers is restrictive for new entrepreneurs. In addition, after the covid pandemic, many people are considering opening their own business and these new entrepreneurs are more environmentally conscious and consider using recycled and sustainable resources for their new endeavors.

Historically, business development has been linked to a physical storefront in most countries. This has been a norm for the sale of consumer goods and for the establishment of service companies. When we take a glimpse worldwide, over 80% of the businesses found are family businesses (Rosado-Serrano, 2017) which are the underpin for economic transformation and job creation. In addition, family endeavors are the first example of business creation in transition economies (Rosado-Serrano & Navarro-García, 2019).

For different reasons, individuals and families decide to develop their own business. For many, having a family business represents part of their way of living, which often is embedded with their moral and spiritual values in addition to having a safe place for raising their children and taking care of their elderly. These values are instilled in the way they operate their business as well as the products they offer. Some of these values are derived from cultural interactions within a society and others through religion. For example, in Judaism, there are 613 divine commandments identified by Rabbis in the Bible, and more than 100 of them are related to how to govern their economic matters (Green, 1997). In the case of protecting consumers from economic exploitation, some Rabbis may lean toward the concept of just price

and reasonable profit (Green, 1997). Moral and spiritual traditions need to be dynamic and renovate at the same time as society evolves (Naughton & Cornwall, 2006). Naughton and Cornwall (2006) indicate that Catholicism is a religion that is publicly argued. This theological vision indicates that Catholic Christianity tradition seeks to make its principles and ideal easy to comprehend to people of all backgrounds and it evolves through the wisdom that resides in both Christian and non-Christian sources. We can say that Catholic social tradition is institutionally embodied, i.e. that is lived in many social entities that may start from the family to the productive organizations and the government. Therefore, economic development is closely related to moral and spiritual traditions and governmental actors and private business are impacted by religion even though on occasions it is not widely publicized.

Business entities are the cornerstone of societal organization and through our recorded history. Today we can find examples of businesses that have been in operation for over a hundred years. For example, in Spain you can find in food service Chocolateria San Gines in Madrid and Confitería la Campana in Seville. These businesses have become tourist destinations and iconic segments of their urban communities. At first glance it is difficult to say that an existing business has a strong underpin on moral and spiritual traditions. We can see companies that use the Catholic social thought as they are formed and grow such as Mondragon (Naughton & Cornwall, 2006). In Puerto Rico, there is a family business called “El Meson Sandwiches”. This company has deeply rooted catholic values and although you don’t directly see the application in the day-to-day operation of the company, each time one new store opens, it is blessed by a catholic priest. Its founder, Felipe Perez, has passed the management to the new generation from the family, still he is actively involved in visiting the headquarters as well as servicing its local parish as a deacon.

Like a hundred years ago, business development is the key to transforming society and families alike. Albeit this, this type of entrepreneurial activity is very hard to develop today due to the high costs of real estate in city centers in these high traffic locations. Young people and mature adults with interest in opening their own business face hardships when they try to find a feasible location for their entrepreneurial venture.

This also affects the decision to open in shopping centers and other suburban locations. Entrepreneurs must look for lower cost of entry modes to start and expand their business projects. After COVID 19, many people decided to value their free time and considered developing their own business to find a safe place to have a quality of life and concern over their impact on the environment, therefore the study on how entrepreneurs may find reasonable and accessible locations is a critical agenda.

The purpose of this research is to provide an exploratory view of the interest of current university students in developing their own business by using sustainable resources, particularly recycled steel shipping containers. For this reason, this research is structured as follows: in section two we present our literature review where we present different theoretical assumptions, we need to understand the decision of using sustainable resources toward opening a new business. In the third section, we follow with our methodological process used on this research. In the fourth section, we present the results of the survey undertaken by university students, and in the fifth section we discuss our findings and provide avenues for future research.

II. THEORETICAL FRAMEWORK

Entrepreneurial Bricolage Theory

Entrepreneurship can be defined as an attitude or state of mind where a visionary and flexible person gathers different resources and organizes them toward the development of a business. Further it can be said these entrepreneurs struggle with limited resources and on occasions they manifest emotional intelligence to adapt when unexpected events come into play. Nowadays, entrepreneurs are more environmentally conscious and consider the use of existing resources to minimize destruction and other society an environmental problem (Nuseir & Aljumah, 2022). One way to approach reducing existing problems is by the reutilization of existing structures, some are fixed, others are mobile, and in occasions were created for other purposes. This repurpose of resources for the development of new economic activities can be called entrepreneurial bricolage. Bricolage is a concept of making do with what is at hand (Lévi-Strauss, 1967). This concept has evolved to what we now call

entrepreneurial bricolage. Sivathanu and Pillai (2019) indicate that entrepreneurial bricolage is using a different combination of available resources to address new opportunities and challenges. Baker and Nelson (2005) explored this concept through a field study of 29 resource constrained firms. They found that new small firms were able to create something from nothing by exploiting physical, social, and or institutional inputs. Therefore, their findings indicate that by using an alternative approach to existing resources, new opportunities arise that are more sustainable in resource constraints environments.

Alternative Modes of Entry

Alternative modes of entry are a variation of the traditional entry mode that is used to develop new projects that may be with economic interests and for nonprofits (Rosado-Serrano & Navarro-García, 2022b). The most used alternative mode of entry is the store in store, where a brand of consumer goods or services places a store or 'corner' inside a big box retailer (Rosado-Serrano, 2017), supermarket, or other facilities that may be independent or franchised (Rosado-Serrano, 2016, 2017; Rosado-Serrano & Navarro-García, 2022a, 2022b). Similarly, there are temporary stores or pop-ups, steel containers and mobile trucks that are used to create and sell food products and other services (Rosado-Serrano and Navarro-Garcia, 2022a). The use of steel containers for economic activities is not only a constraint to the food service and other consumer goods. For many years, used and new steel containers have been used as offices, warehouses, and recently as rooms for AirBnB rental (Airbnb, 2024) due to the flexibility of deployment and high costs of rental space and construction.

Alternative modes of entry have been successful for entrepreneurs in developing new projects that are constraint by low economic resources, restrictions on construction and other external forces. Similarly, this strategy is aligned with the pastoral letter Laudato Si where Pope Francis encourages to take care of our common home as he shares in the following excerpt:

"Account must also be taken of the pollution produced by residue, including dangerous waste present in different areas. Each year hundreds of millions of tons of

waste are generated, much of its non-biodegradable, highly toxic and radioactive, from homes and businesses, from construction and demolition sites, from clinical, electronic and industrial sources. The earth, our home, is beginning to look more and more like an immense pile of filth." (Pope Francis, 2015).

Sustainability and Recycled Resources

During the last twenty years we have seen a global interest regarding excessive consumption habits, the discard of resources and the high levels of contamination in all countries. On May 24, 2015, Pope Francis published the Encyclical letter Laudato si', about "on care for our common home". On this encyclical the pope said that: "The urgent challenge to protect our common home includes a concern to bring the whole human family together to seek a sustainable and integral development, for we know that things can change." (Pope Francis, 2015). He argued about the need of a circular model because:

> "We have not yet managed to adopt a circular model of production capable of preserving resources for present and future generations, while limiting as much as possible the use of non-renewable resources, moderating their consumption, maximizing their efficient use, reusing and recycling them. A serious consideration of this issue would be one way of counteracting the throwaway culture which affects the entire planet, but it must be said that only limited progress has been made in this regard" (Pope Francis, 2015).

On September 25, 2015, the United Nations approved Agenda 2030 with the purpose of developing a plan with 17 sustainable development objectives to promote responsible consumption and reutilization of existing resources (Naciones Unidas, 2015).

Many companies have embraced the creation of institutional programs toward sustainability, particularly the ones that have a global footprint and their economic activity resides with the environment and scarce carbon resources. Similarly, social perception toward environmental issues have also changed dramatically, particularly in the last decade. The younger generation is more conscious regarding the

environment and are keener to participate in social initiatives toward addressing climate change and social issues.

Pope Francis in the Apostolic Exhortation Laudate Deum, to all people of good will on the climate crisis published on October 4, 2023, explicate that:

> “Efforts by households to reduce pollution and waste, and to consume with prudence, are creating a new culture. The mere fact that personal, family and community habits are changing is contributing to greater concern about the unfulfilled responsibilities of the political sectors and indignation at the lack of interest shown by the powerful. Let us realize, then, that even though this does not immediately produce a notable effect from the quantitative standpoint, we are helping to bring about large processes of transformation rising from deep within society” (Pope Francis, 2023).

Not all the changes in the perception toward sustainability are based on the expectation of a fairer and better society, others are just based on economic interests. Many companies, due to the limitation of access to prime resources and high costs of alternatives are looking for alternatives to reduce costs, maximize their resources and optimize their manufacturing and operational process. One visible area of implementation of recycled materials and processes is around processed and unprocessed foods. There has been an increase in the packaging used for food products that indicated they used recycled materials; albeit this, there is a possibility these recycled packages contain toxic materials. Whitt et al., 2012 found the use of recycled materials by international suppliers increase the possibility of contamination of the prime resources used for the construction of food packaging. On the other hand, another resource that is actively reutilized for industrial and commercial applications are the steel cargo containers (Pruzan-Jorgersen & Farrag, 2010). Baur et al 2015 analyzed shipping containers and other forms of transport from the toxicological perspective. They found that to preserve quality and the spread of epidemics, there was a high use of chemicals and radiation to reduce these types of risks. Because of this exposure, it has been found that shipping port employees and cargo handling

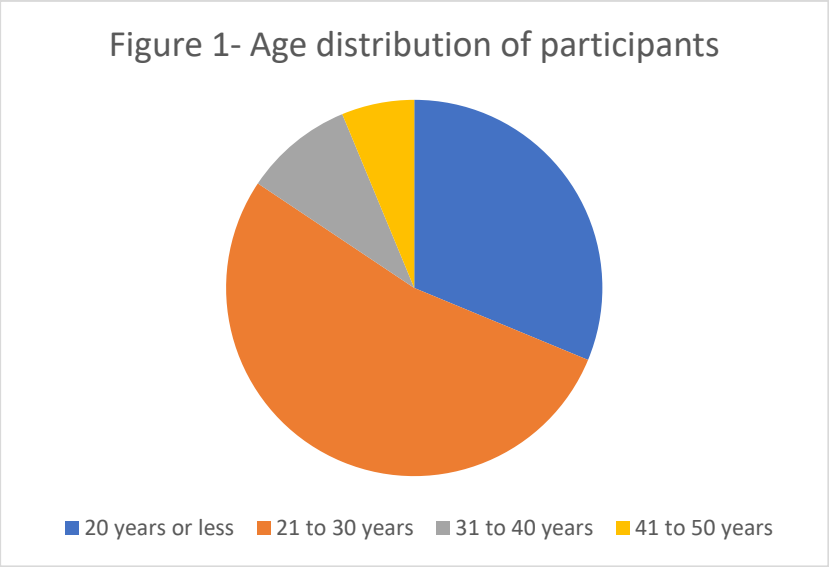
personnel have been affected by these sanitation and risk reducing procedures. Currently, there are no scientific studies that analyze the use of recycled shipping containers as retail stores for consumer goods, food preparation or other uses such as housing or hospitality rental. It can be said the use of recycled shipping containers is widely adopted in many industries worldwide, yet the impact of their use toward the health of the consumers and employees is not clearly known.

III. METHODOLOGY

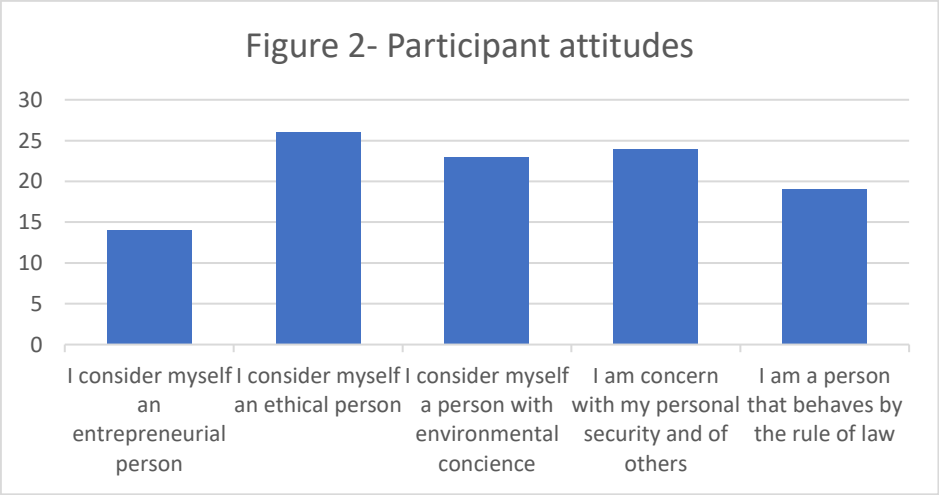
To gain an exploratory perspective toward the decision to use recycled steel containers to develop new business around food consumption, we conducted a survey to university students in a general course called entrepreneurial culture. This course is taken by all students that are pursuing a bachelor's degree in stem, social sciences, nursing, and economic and administrative sciences. Since the population is a varied one that represents the spectrum of possible people that can feel inclined to purse an entrepreneurial project, we feel it may provide a general view of the decision to open a new business and their view of the use of recycled shipping containers. The population is 55 students and 33 participated in the survey. The questionnaire was comprised of 12 questions. The first six questions were to establish demographic information and consumer preferences toward the consumption in traditional store formats and alternative modes such as food trucks and shipping containers. Questions seven to twelve are regarding their interest in developing their own business and the decision on which format to develop it.

IV. RESULTS

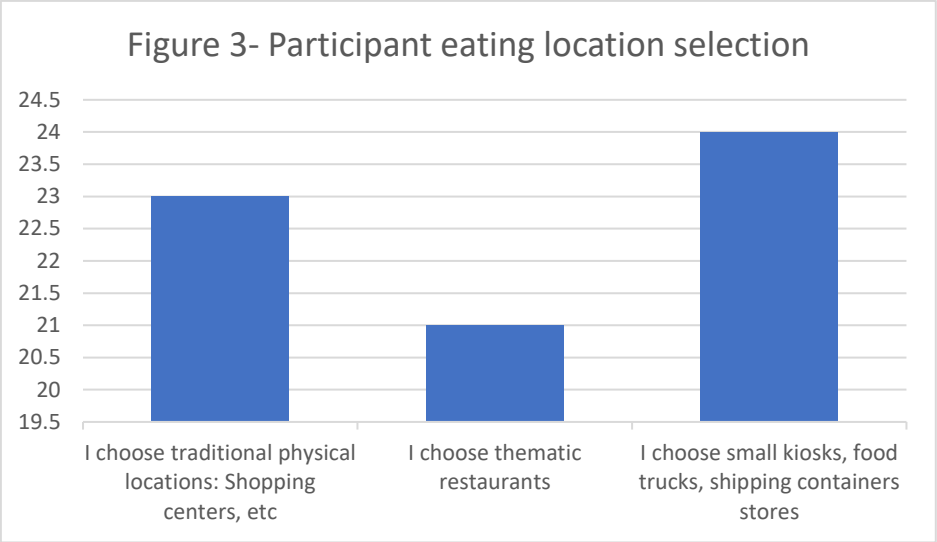
The first set of questions was to establish the profile of the participants in the study. On Figure 1 we see the distribution of the age group that participated in the survey.



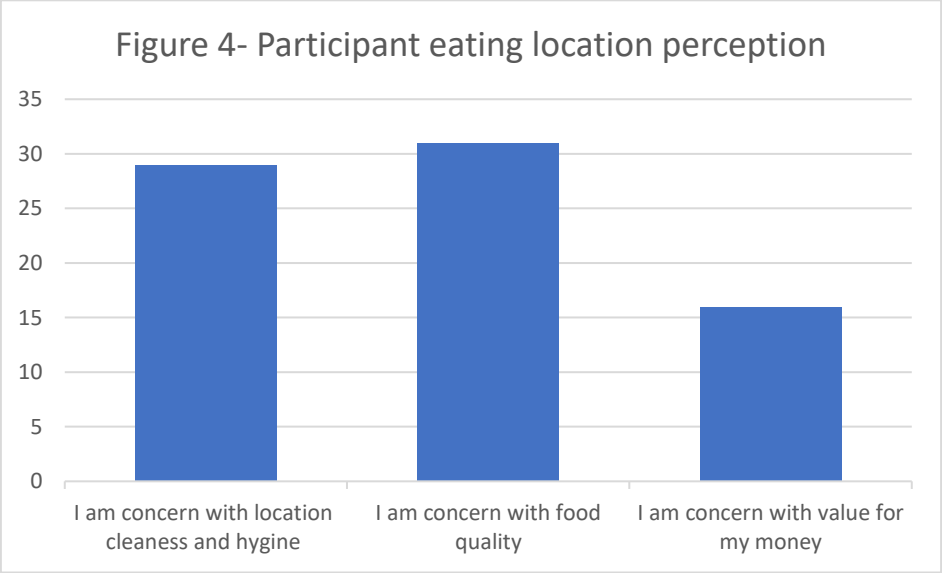
On Figure 2 we see the how respondents see themselves regarding entrepreneurial attitudes, ethical behavior and their perception toward hygiene and rule of law. It is important to clarify that participants would select more than one category in this figure.



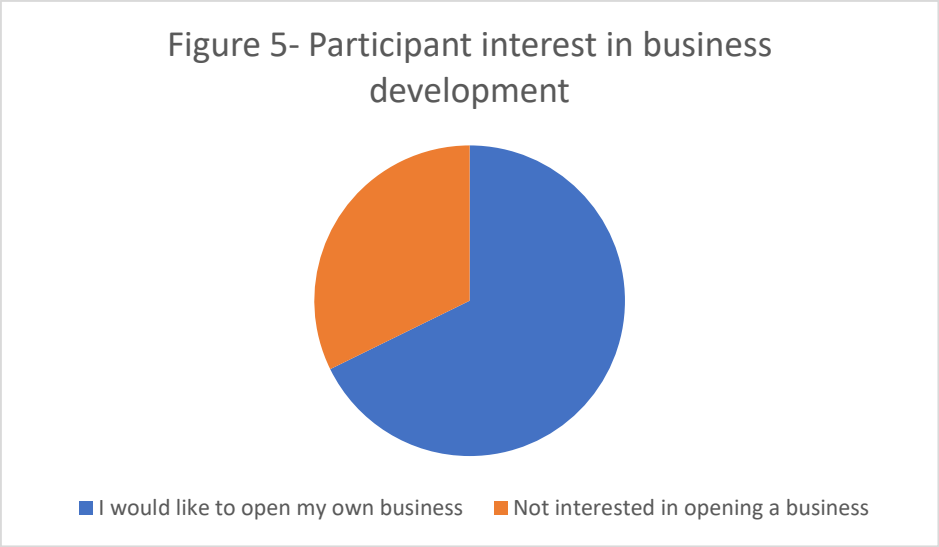
On Figure 3, participants responded on their preference when deciding for a place to eat. It is important to clarify that participants would select more than one category in this figure.



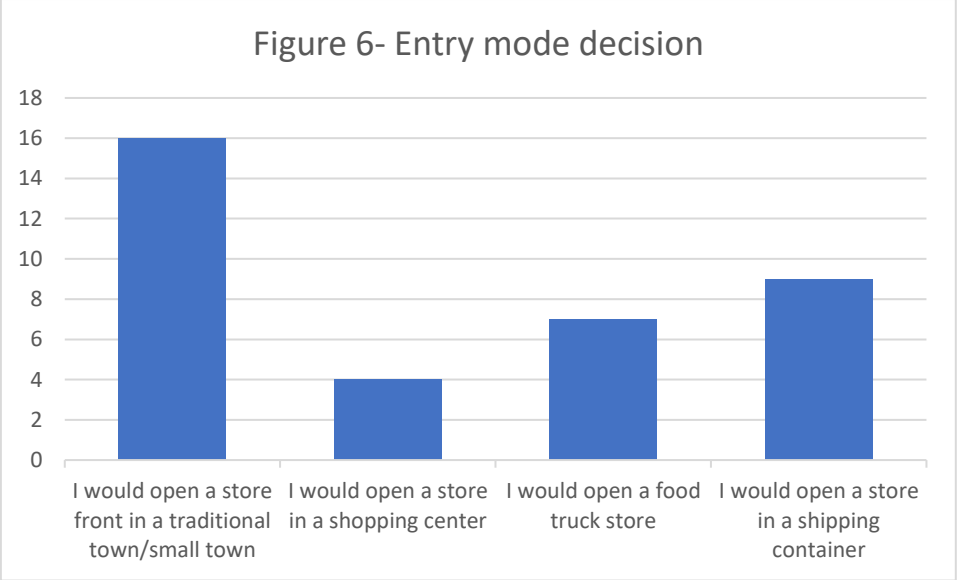
On Figure 4 participants shared their perception toward the appearance of the location. It is important to clarify that participants would select more than one category in this figure.



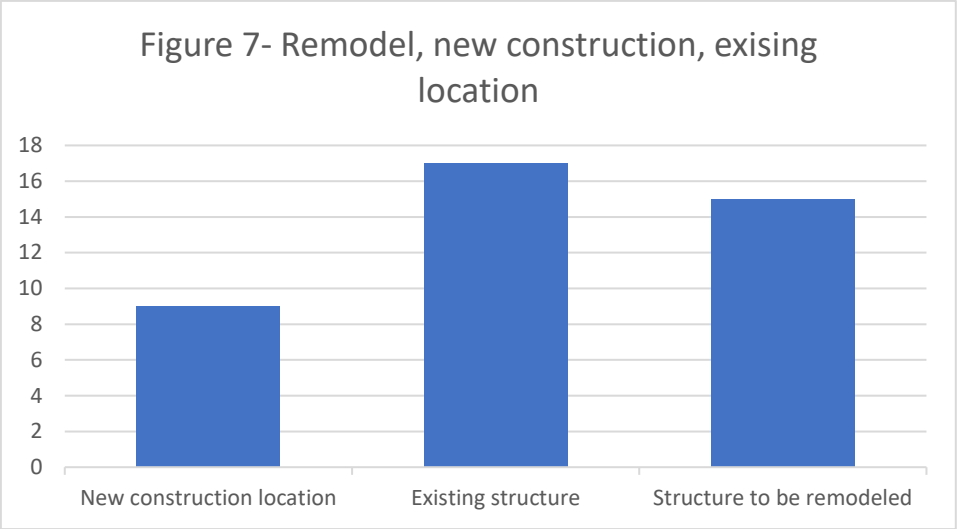
On Figure 5 we see the respondent's interest in developing their own business.



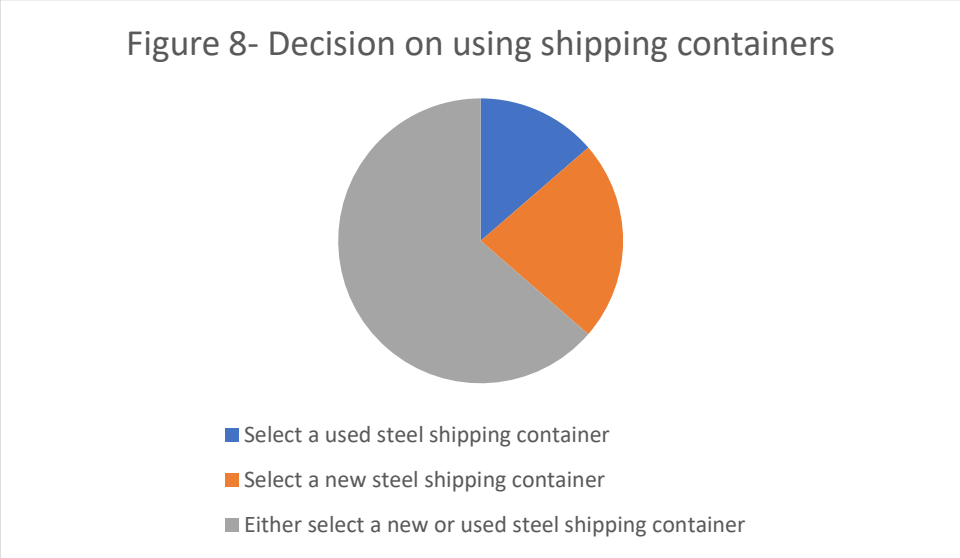
On Figure 6 we found respondents entry mode decision if they decide to open their own business. It is important to clarify that participants would select more than one category in this figure.



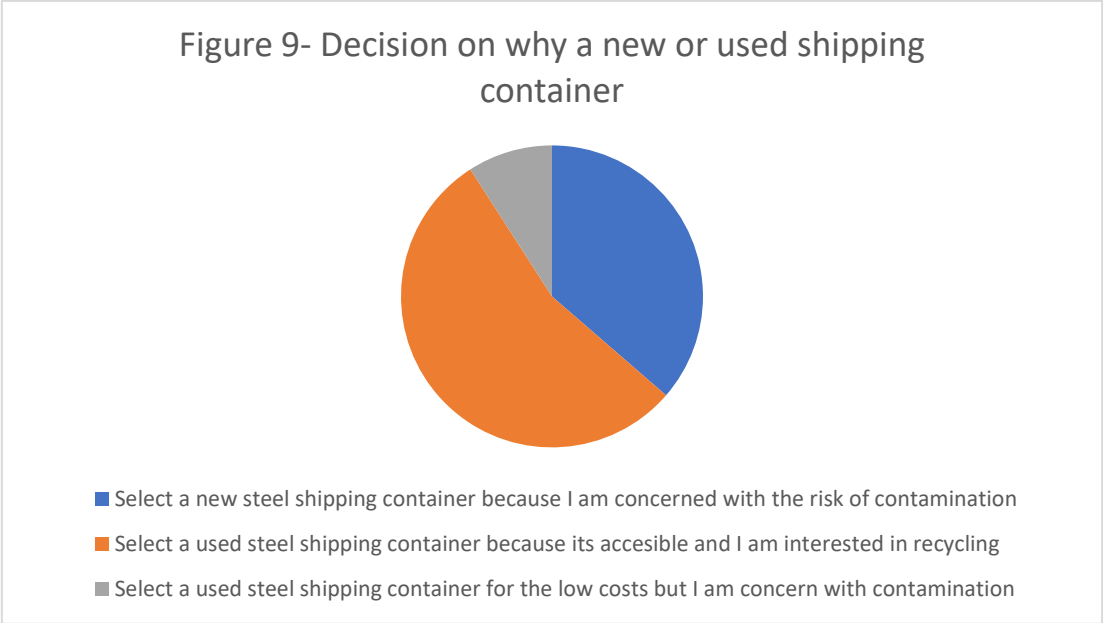
On Figure 7 we found respondents answers regarding de decision to remodel an existing physical location or a new buildup. It is important to clarify that participants would select more than one category in this figure.



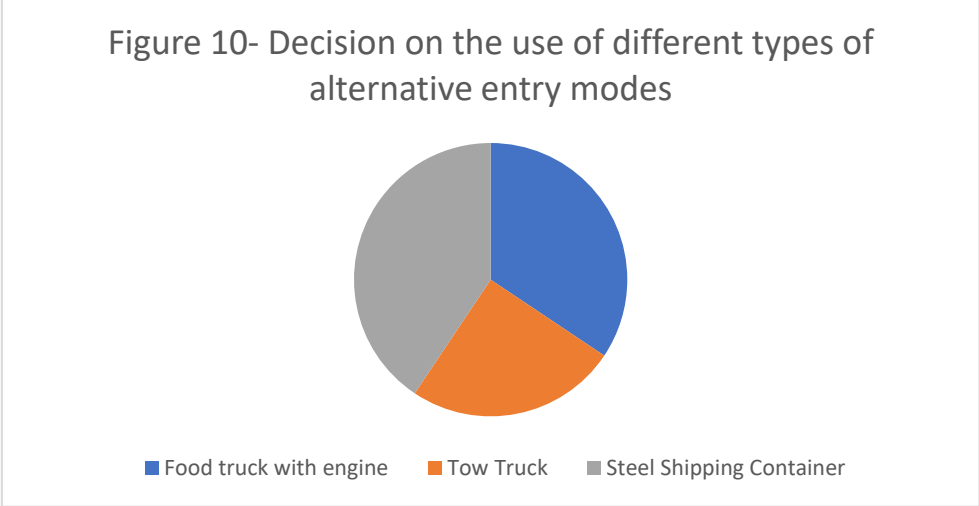
On Figure 8 we see the respondent's decision toward using steel shipping containers. On this question, participants only could select one option.



On Figure 9 we see the respondents' decision on why they selected a new or used shipping container. On this question, participants only could select one option.



On Figure 10 we found the respondents decision to use other alternative modes of entry. On his option, participants may have selected more than one option.



V. FACTORES QUE INFLUYEN EN LOS SESGOS COGNITIVOS

Through this analysis we aimed to explore the decision to use recycled shipping containers as a low-cost entry mode for business development, particularly in the food service industry. For our underpin, we selected entrepreneurial bricolage theory that is used to explain the behavior of entrepreneurs when they repurpose existing resources toward a new use. We selected a group of undergraduate students from different fields,

not necessarily business students. We found that 67% of participants were interested in developing their own business. From this group, 74% consider themselves to be concerned with the environment, and 77% consider themselves to be an ethical person and concerned with the security of others and themselves. It was curious enough that 61% of participants consider themselves as law abiding citizens and 41% consider themselves to be entrepreneurial people. These demographic findings are interesting as not all young people (83% of participants are aged less than 30 years old) find themselves entrepreneurial, yet they are concerned with the environment. Participants also shared their views as consumers regarding different types of food locations. The decision to sponsor different types of locations was 77% toward traditional physical locations and alternative modes such as kiosks, food trucks and shipping containers while 61% would prefer thematic concepts. As consumers, participants shared that 94% were concerned with the quality of food provided, 88% cared about the hygiene of the location and 51% to receive value for the amount paid for the food. This indicated that price is not the key decision when selecting a place to purchase their food, but all were concerned with the quality of the product received. Curiously enough, not all respondents related location hygiene with what they perceived as quality of food.

The next set of questions was regarding the decision to open their own business and which entry mode they will choose. From the sample, only 67% indicated their interest in opening their own business, and 73% indicated they would open in a traditional storefront in a small town, 26% would open in a food truck or steel shipping container, and 1% in a shopping mall/center. On this view, 73% would select an existing location and may be willing to remodel, only 36% would select a new location. This indicates there is still interest in traditional mom and pop stores, and with less interest in new alternative modes. On the selection of alternative entry modes such as steel containers, 41% indicated they would select this mode, while 34% will select a food truck and 25% a tow truck. Regarding the selection of steel shipping containers, 9% indicated they will select a used steel container, yet they would be concerned with contamination, 36% a new container because of the risk of contamination and 55% would select a used steel container for the accessibility and their interest in sustainability and recycling. It can be said that 64% would select either a new or used

steel container for developing their new business venture. This finding is aligned with our theoretical underpin of entrepreneurial bricolage theory. By using an existing resource in the location that had originally a different utility, entrepreneurs demonstrate a capacity of creating something new of a nothing resource that may be discarded if their initial purpose is not feasible.

These findings indicate although there is a clear interest in sustainability and for alternative modes of entry, there still is a more interest in developing traditional small business in small towns. This finding coincides with examples seen in Puerto Rico as new small businesses that include coffee shops, bookstores, among others are opening in traditional towns around the island by young couples and entrepreneurs. An example is El Rincón del Lector in the town of Camuy, Puerto Rico that has an online bookstore with a physical location (Rincondellector.com, 2022). Scholars must explore how new entrepreneurs between the ages of 20 to 30 years old are interested in opening traditional businesses in small towns instead of alternative modes of entry. Although these entry modes provide flexibility, there is an interest in the physical location instead of the mobile, semi-permanent locations such as steel containers, food trucks and tow trucks.

From the lens of social good, we see the adoption of alternative modes of entry and the reuse of existing resources as a path for a better society. Pope Francis shared on the second global event of Economy of Francesco on October 2, 2021, the following message:

“The quality of the development of peoples and of the Earth depends above all on our common assets. Therefore, we must seek new ways to regenerate the economy in the post-Covid-19 age, so that it may be more just, sustainable and solidarity-based, that is, more mutual. We need more circular processes, to produce and not squander our Earth’s resources, fairer ways of selling and distributing goods, and more responsible behavior when we consume. There is the need for a new, integral paradigm, capable of forming the new generations of economists and businesspeople, with respect for our interconnection with the Earth. You, in the “Economy of

Francesco", as in many other groups of young people, are working with the same intention. You can offer this new outlook to this example of a new economy". Therefore, the implementation of alternative modes of entry including the reuse of recycled Steel containers and refurbishing of existing structures promotes a responsible behavior, a fairer society and human fraternity.

Pope Francis (2020) in the Encyclical Letter Fratelli Tutti, on fraternity and social friendship shared the following: "An economy that is an integral part of a political, social, cultural and popular program directed to the common good could pave the way for "different possibilities which do not involve stifling human creativity and its ideals of progress, but rather directing that energy along new channels". Entrepreneurs, managers, and stakeholders in society must seek to integrate in their economic decisions the shared values that bring society toward an adoption of due care for our common home.

For future lines of research, scholars must explore further how moral values, and spiritual traditions influence the decision process of entrepreneurs toward the decision on which type of entry mode they will select to open their business. On this research, we did not ask or established the demographical information regarding their faith, set of values or spirituality.

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