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Ecopreneurship in selected Philippine SMEs: Theory and Evidence

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ABSTRACT

This paper examines the theory and evidence of ecopreneurship in Philippine SMEs which participated in the Green Philippines Islands of Sustainability (GPIoS) Project funded by the European Union's SWITCH Asia Program. Using the Green Value Added Framework, this study provides evidence to the mechanism by which an entrepreneur, through environmentally responsible business practices, creates both environmental value and economic value. The practices of the selected firms have shown that environmental value and economic value can indeed co-exist.

I. INTRODUCTION

Entrepreneurship is the act of innovating so as to enable resources to generate value. In the process of innovating through new combinations causing discontinuity, value is generated. New combinations can take the form of anything new in usually five areas, namely: product, production method, market, supplier and industry structure (Bull & Willard, 1993).

The field of entrepreneurship is usually associated with small business (Nowduri, 2012). Through entrepreneurship, significant value is created necessary for the proper functioning of the economic system (Bruyat & Julien, 2000). Especially in Asia, growth of economies is significantly attributable to entrepreneurship. In the case of micro, small and medium enterprises (MSME) in the Philippines alone, they account for 99.6% of total establishments in the country, contribute 61.2% of the country's total employment and 35.7% of total value added (DTI, 2012).

Economic development is closely linked with the environment. Different business activities, which spur economic growth, either deplete or degrade the environment in varying degrees (WCED, 1987). After a century of industrial development, the world is now encountering pressing problems of global warming, ozone depletion, air and water pollution, soil erosion and deforestation (Banerjee, 2001). In recent decades, attention has been given to the environmental impacts of business and what can be done by business to contribute to sustainable development. More and more companies are becoming active as prime movers of sustainable development. Their contribution to the sustainable development of the economy is indeed counted on as they provide solutions to environmental problems by offering environmentally superior products serving the mass market and society at large (Schaltegger & Wagner,2011). The need for innovations to reduce environmental impact to be carried out through entrepreneurship has become more pronounced (Agarwal, 2011; Blumenauer, 2000). As in any entrepreneurial activity, economic value is created by these innovations.

Thus, the nature of entrepreneurship from what is traditionally and exclusively linked to profit making or generating maximum economic value for the entrepreneur (Campbell, 1992; Caisson, 2003: in Nowduri, 2012; Majid, 2012) has extended to those other than what is economic. It has

received attention fom the public sector, the media, the population at large, as well as from scholars (Bacq, etal, 2011) and has given rise to a subfield known as Ecopreneurship.

Ecopreneurship, according to Schaltegger (2002), can be roughly defined as "entrepreneurship through an environmental lens" (p.3). It manages both market and environmental impacts of the business and is essentially oriented towards the generation of profit without jeopardizing the care of the environment (Schaltegger, 2002).

Ecopreneurship's environmental orientation produces environmental value along with economic value. Indeed, evidence from past studies point to a strong relationship between environmentally friendly business practices and firm performance (Ndbusi & Nair, 2009). Cost savings as well as staff involvement, training and outreach to society are among the means by which these innovations create value for the firm (Toyne, 2003, cited in Kasim & Nor, 2008).

Currently, entrepreneurial activities are carried out that benefits the environment and create environmental value. The Green Supplier Network of the state of Missouri is an organization of 20 small and medium-sized manufacturers in Missouri committed to sustainability goals such as the reduction of hazardous waste, energy and water consumption and pollution prevention and control (Agarwal, 2011). In the Philippines, Green Philippines Islands of Sustainability (GPIos) Project is composed of companies that generate economic profit by simultaneously increasing resource efficiency and minimizing environmental impact through well designed capacity building progress along with technical consulting and coaching approach.

Ecopreneurship also leads to value creation by way of market influence. Through the practice of ecopreneurship, significant market influence can be exercised through an improved market share

as a result of adopting environmentally superior production processes, products and services (Schaltegger, 2002).

It is worthwhile to look into the state of practice of ecopreneurship that selected Philippine SMEs under the Green Philippines Islands of Sustainability (GPIos) Project so as to better understand ecopreneurship as an emerging field of entrepreneurship.

II. STATEMENT OF THE PROBLEM

What is the state of practice of ecopreneurship among selected SMEs in the Green Philippines Islands of Sustainability (GPIoS) project?

III. OBJECTIVE

The aim of this research is to describe the various entrepreneurial approaches and innovations by using data from selected SMEs in the Green Philippines Islands of Sustainability (GPIoS) project as they relate to the theory of ecopreneurship that integrates ecological advancement and economic benefits in the conduct of business.

IV. SIGNIFICANCE

This advances the research on business and the natural environment by looking into the innovations adopted by SMEs that create economic as well as environmental value. Findings on the SME sector contribute to the scant research on the SME-environment field. It can also increase awareness of entrepreneurial approaches that address environmental concern and create value. It aims to promote a better understanding of ecopreneurship from examples of actual industry practice.

V. SCOPE AND LIMITATIONS

The study will be limited to the analysis of published data about selected SMEs which participated in the Green Philippines Islands of Sustainability (GPIoS) project. The results serve to provide preliminary insights with which to subsequently make an in depth study on by way of primary data collection through survey and/or case studies.

VI. REVIEW OF RELATED LITERATURE

According to Nowduri (2012), entrepreneurship consists of putting up a new business and transforming innovations into economic goods in the process. Through venture creation, entrepreneurs, create new value necessary for economic system to function properly (Bruyat & Julien, 2000). Entrepreneurship, however, is not confined to the creation of a new venture. A person with an established business but is innovative, competitive and growth minded is also considered an entrepreneur (Madarang & Habito, 2007). Value is created by the entrepreneur by carrying out new combinations in the areas of product, production method, market, supplier and industry structure (Bull & Willard, 1993).

Innovation is the process of conceptualizing and implementing new and improved ways of product/service design and delivery, including the product itself, process and method (Alsaaty, 2011). Innovations can be classified into four: product, process, marketing and organization. Product innovations pertain to changes in the product or service offerings. Process innovations refer to changes in delivery or production methods. Marketing innovations deal with new ways to reach the customer and innovations related to the organization usually involves organizational methods (OECD, 2005: in Alsaaty, 2011, p.7)

In the pursuit of profit, the natural environment has been degraded to a large extent by business activities. Nowadays, there is a need to consciously reduce energy consumption, pollution and wastes while still generating economic value. According to Blumenauer (2000), entrepreneurship can create solutions to environmental problems. The entrepreneur can make a conscious decision to incorporate environmental goals and implement best case practices into daily operations. He consciously aligns company activities with environmental protection. He can innovate to address environmental concerns and develop competitive advantage at the same time (Melay & Kraus, 2012). This is the essence of the practice of ecopreneurship

Ecopreneurship is the creation of superior innovations in production processes, products and services that achieve environmental goals and make a major market impact (Schaltegger, 2002). The term was first used by Richard James Blue in 1990 to refer to an individual's awareness of the environment. Since then, the field has expanded to include definitions from various scholars that advanced the understanding of ecopreneurship:

Author	Definition
Pastakia (1998; 2002)	Individuals or institutions that attempt to popularise eco-friendly ideas and innovations through either market or non-market routes may be referred to as *ecopreneurs*.
Isaak (2010)	*Ecopreneurs* are defined as individuals who create green-green businesses in order to radically transform the economic sector in which they operate. Similarly,

	ecopreneurship is seen as an existential form of business behaviour committed to sustainability.
Linnanen (2002)	*Ecopreneurs* can be classified according to two criteria. First, their desire to change the world and to improve the quality of the environment and life, and second, their desire to make money and grow as a business venture.
Schaltegger (2002)	*Ecopreneurship* can be described as an innovative, market-oriented and personality-driven form of value creation through environmental innovations and products exceeding the start-up phase of a company. *Ecopreneurship* thus distinguishes itself from other forms of corporate environmental development by the venture's clear commitment to environmental progress and its strong desire for business growth.
Walley and Taylor (2002)	*Ecopreneurs* are individuals who found or set up green-green businesses who, along with an environmental orientation, have economic (i.e. financial) profit-maximising or -optimising objectives.
Dixon and Clifford (2007)	*Ecopreneur* is defined as an individual who balances triple drivers within the venture: environmental, social and economic.
Allen and Malin (2008)	*Ecopreneurs* act as agents for societal change, due in large part to their unique and enthusiastic vision and/or their feelings of obligation to budding societal norms. They are innovators who see their business as embracing environmental values as a central component of their identity and as an aid to their competitive advantage in the marketplace.
Gibbs (2009)	*Ecopreneurs* are defined as those entrepreneurs who combine environmental awareness with their business activities in a drive to shift the basis of economic development towards one that is more environmentally friendly.
Walton and Kirkwood (2009)	*Ecopreneurs* found new businesses based on the principle of sustainability.
Russo and Lundquist (2003)	Definition of *ecopreneurship*: sustainable entrepreneurship in SMEs.
Holt (2011)	*Ecopreneurial* businesses can be defined as profit-generating businesses where environmental considerations are the key to the business culture, product or service.

Source: Melay, I., & Kraus, S. (2012). Green entrepreneurship: definitions of related concepts. *International Journal of Strategic Management*, *12*(2), 1-12, pages 6-7

The practice of ecopreneurship generates value through market influence and cost leadership. Environmentally superior innovations are able to achieve business success by capturing a sizable share of the market and achieving operational advantages from efficient use of resources resulting to cost reduction.

Case studies of 14 enterprises in New Zealand reveal that by using environmentally sensitive raw materials and operating in an environmentally sensitive manner, running a successful business can be integrated with environmental concerns. In another study involving five firms in the state of Missouri, Agarwal (2011) studied innovations of companies to conserve energy and water and reduce hazardous and non-hazardous wastes. He found out that these innovations implemented by companies to address the weaknesses of its production systems, led to substantial savings and less adverse impact on the environment.

Through the practice of ecopreneurship, the entrepreneur builds an organization that pursues environmental efficiency and is committed to deliver green products and services. In so doing, Green Value Added (GVA) is developed for the benefit of the key stakeholders of the organization and the protection of the natural environment (Ndubisi & Nair, 2009). The GVA systems framework shown in Figure 1 depicts the mechanism by which an entrepreneur builds his organization based on environmentally responsible business practices.

FIGURE 1. THE GVA SYSTEM MODEL.

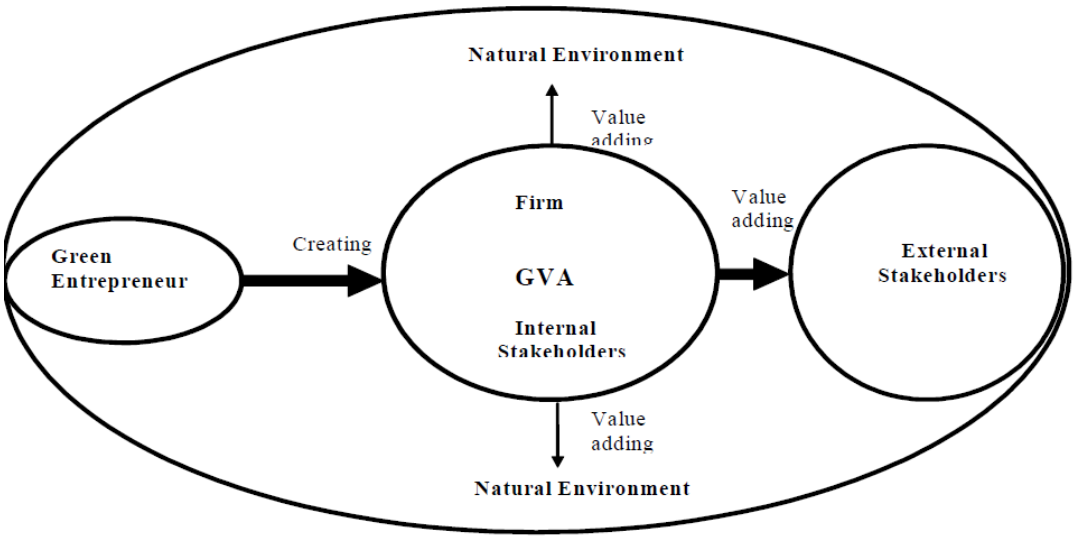

Figure 1.1 The GVA System Model

Source: Ndubisi, N. & Nair, S. (2009). Green entrepreneurship (GE) and Green Value Added (GVA): A conceptual framework. *International Journal of Entrepreneurship*, 13 (2009), page 23.

Cost reduction as a result of greater resource efficiency benefits the internal stakeholders such as owners and employees while the provision of environmentally superior production processes, products and services benefit the primary external stakeholder, that is, the market or customers.

VII. METHODOLOGY

The European Union's SWITCH Asia Program funded the Green Philippines Islands of Sustainability (GPIoS) Project to help improve the environmental and sustainable industrial development of MetroManila and CALABARZON areas. This is done by building up the capacity of participating companies along with technical consulting and coaching approach.

Participating companies should be able to generate economic profit by being more efficient in resource use and by minimizing environmental impact.

Phase 1 of the project occurred from 2010 to 2011. Results of the implementation are published in the Green Philippines website. The researcher selected nine SMEs from those who participated in the Green Philippines Islands of Sustainability (GPIos) Project and have factsheets published in the website. Implemented measures, results, annual savings were consolidated to describe various entrepreneurial approaches and innovations as they relate to the theory of ecopreneurship that integrates ecological advancement and economic benefits in the conduct of business.

VIII. RESULTS AND DISCUSSION

Table 1 below gives the details of the GPIoS Project implementation for 9 SMEs

Table 1. Details of GPIoS Project Implementation among selected SMEs

COMPANY	NATURE OF BUSINESS	NO. OF EMPLOYEES	IMPLEMENTED MEASURES	RESULTS
1	Manufacturing of Block Ice and Tube Ice	38	1. Reuse of waste water 2. Collection of MSDS from suppliers of chemicals 3. Collection	1. Reduction of 500 m^3 of water consumption 2. Annu

			of data on machines operating	al savings of Php8,000.00
2	Catering services, Events Venue	58	1. Proper storage of soap and chemicals 2. Set standards for proper food handling 3. Bulk buying: minimized ordering and delivery 4. Use of vinegar instead of chlorinated cleaning agents 5. Standardized menu for proper less food wastes.	1. Reduction of electricity consumption by 35%, annual savings of PHP 118,500 2. Reduction of water consumption by 40%, annual savings of PHP 110,300

			6. Proper waste segregation for recycling and additional income 7. Use of Isopropyl Alcohol as pest control instead of aerosol spray 8. Repaired Refrigerator magnets/gaskets 9. Daily energy/water consumption monitoring 10. Use of reusable sack/bags instead of using plastic bags for transporting	3. Reduction of use of hazardous chemicals, annual savings of PHP 16,100 4. Reduction of food waste and residual waste, annual savings of PHP 59,000

			linens 11. Painting the ballroom roof area to white for less heat absorption 12. Utilizing rain water catchment	
3	Environmental Testing Laboratory	43	1. Adjusted float valve to use small volume of water 2. Use of refilled printer cartridges 3. Recycling of used office papers 4. Installed additional fume hoods to ensure worker's health and safety from	1. Reduction of electricity consumption by 14,400 kWh, annual savings of PHP 75,000 2. Reduction of water

			exposure to volatile chemicals 5. Improved storage and segregation of solid wastes 6. Invested on WASP bar code to improve the labelling system of samples	consumption by 19,000 liters, annual savings of PHP 16,000 3. Optimised waste management, annual savings of PHP 25,000
4	Service Provider/Treatment and Disposal of Hazardous waste	31	1. Regular maintenance and cleaning of AC units and filling gaps on walls to prevent cold air loss	1. Reduction of electricity consumption, annual savings of PHP

			2. Re- using of water coming from washing of uniform, drums and bin. 3. Increase capture velocity to minimize dispersion of dust 4. Reused of treated waste 5. Use of an environmental friendly fuel (biofuel) 6. Use of an environmental friendly material for toilet bowl cleaning instead of Acid	2,450 2. Reduction of water consumption, annual savings of PHP 30,600

5	Manufacturing of Livestock Feeds	60	1. Turning off lights and PC during breaktime 2. Repair of worn out power outlets inside the production area for safety precaution 3. Conduct of proper maintenance for equipment to reduce emission 4. Conduct of SO2 emission test by external parties 5. Proper waste segregation scheme for possible	1. Reduction of mixed waste quantity by 50% 2. Annual Savings of Php9,000.00

			recycling	
6	Aircraft Wheels and Brakes repair services	27	1. Energy reduction by turning off equipments and lighting when not in used (during break time) 2. Fixed compressed air leaks 3. Adjustment of urinal float for less water 4. Fixed of leaks on water pipes 5. Maximized chemical &water solution usage 6. Maximized usage of plastic	1. Reduction of electricity consumption by 8,4%, annual savings of PHP 149,700 2. Reduction of water consumption by 11%, annual savings of PHP 3,500 3. Reduction of hazardous

			media 7. Implemented proper waste segregation 8. Fully consumed all spray can chemicals	waste by 5,000 kg, annual savings of PHP 92,000
7	Electronics Manufacturing of Cartridges for Coin Dispenser, ATMs, Connector harnesses/Wirings for Card Readers	36	1. Recycled of all paper, cardboard, aluminum/plastic/glass containers, toner cartridges/consumable supplies and office equipment used internally 2. Reduced water	1. Reduction of water consumption by 60m³, annual savings of PHP 1,870 2. Reduction of mixed waste by 51%,

			consumption by regular monitoring of water and fixing leaks and change of toilet flasher with water adjustment to lessen the water consumption during flashing 3. Reduced mixed waste disposal.	annual savings of PHP 3,270 3. Recycling of solid waste, annual savings of PHP 3,600
8	Leasing of Mall Spaces/Stalls	57	1. Waste disposal agreement between hauler and mall 2. Secured MSDS from suppliers of	1. Reduction of 36700 kwh electricity consumption, savings of

			chemicals for better handling/use 3. Variable speed drive on cooling tower, pump and the chillers when the dew point is low 4. Reduced operating hours of some AC equipment 5. Use odor eliminator/disinfectant in the garbage room instead of aircon 6. Installed better water gasket	Php312,500 2. Reduction of 700,000 liters of water consumption, savings of Php 9,000

9	Medical Waste Management/ Treater	8	1. Regular monitoring of equipment: time used, electricity and water consumed 2. Monitoring of consumable items: maximized resource efficiency 3. Installation of wash bins for soaking / sanitizing exchange collection bins 4. Use of chlorinated water in soaking of equipments to washing of transport	1. Reduction of water consumption by 20%, annual savings of PHP 15,600 2. Reduction of use of auxiliary material, annual savings of PHP 8,300 3. Recycling of solid waste, annual

			vehicles. 5. Segregate treated plungers and sell it to junk shops that buys plastic for recycle and not re-use 6. Transport monitoring: the Klms per Liter are calculated and feed back is given to the driver 7. To use treated placenta as compost ingredient for fertilizer	savings of PHP 33,800 4. Reduction of fuel consumption by 6%, annual savings of PHP 7,070

Their environmentally responsible practices are as varied as their nature of business but they all heed the call to reduce energy consumption, pollution and wastes, evident in the progress they made after incorporating best practices into their operations. It is apparent that all of them incorporate environmentally responsible practices for cost leadership. Innovations involved can

be considered process-related. They have made conscious efforts to reduce emissions, effluents and waste to some extent. They all generated environmental value by minimizing the impact of their operations to the natural environment. The benefit to the internal stakeholders is more apparent.

IX. CONCLUSION

Entrepreneurship is a process by which businesses create value through innovation. Value created is usually economic in nature. In recent times, however, due to rising environmental problems, entrepreneurship has also been called upon to generate environmental value to contribute to a more sustainable future. Businesses heeded the call, starting with achieving efficiencies in resource use through the minimization of emissions, effluents and waste. This study, as well previous studies, has shown that the generation of environmental value goes hand in hand with economic value. Indeed, entreprenurship is practiced and benefits stakeholders.

X. RECOMMENDATIONS

The researcher recommends that dissemination of the success of projects such as GPIoS be carried out so as to encourage the practice of ecopreneurship. The study has clearly established the cost leadership that can be achieved by practicing ecopreneurship. Future studies can explore the market influence aspect.

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Sustainable Manufacturing Practices of Small and Medium Furniture Enterprises in New Zealand

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Abstract:

In the last two decades, the number of furniture manufacturing companies in New Zealand has plummeted due to the impact of imported products. New Zealand's manufacturing companies are thus trying to be more productive and competitive in the international market, by improvement of design innovation, creativity, high-quality products, and services. As the number of companies and employees in this industry in New Zealand continues to shrink, the question is how small and medium-sized furniture enterprises can get rid of cost competition to survive and prosper. The sustainable manufacturing is the direction of research aim to explore.

This exploratory research, focused on the sustainable manufacturing status of Small and Medium Furniture Enterprises (SMFEs), and employed a semi-structured interview method. It was discovered that regarding the impact of sustainable manufacturing practices on companies, most current managers did not have a strong desire for such practices. The raw materials used in such companies, whether local or imported, were mostly derived through sustainable management. However, the outlook for sustainability is not confined to just optimism about raw materials. Lack

of experience, time, capital, and employees are the biggest obstacles encountered in the practice of sustainable manufacturing.

In response to the obstacles faced by the sustainable manufacturing of SMFEs, this research puts forward some feasible suggestions. These include raising the sustainability awareness of key employees inside, the companies seeking cooperation with research institutions, financial support from the government and treating investments in sustainable projects as corporate social responsibility.

1. Introduction

Manufacturing is a means of converting raw materials into consumable commodities. As the main driver of productivity growth, it is an important part of national economic development. As New Zealand's economy has developed, the role of manufacturing in innovation, trade, and employment growth has become more important (Manyika, 2012). In New Zealand, more than 240,000 people are employed in manufacturing creating 12% of the national economy (MBIE, 2018). Now the manufacturing sector is trying to be more productive and competitive in the international market, through improvement of design innovation and creativity of high-quality products and services. However, compared with enterprises of larger scale and close to key markets, New Zealand lacks the competitive advantage, due to its distant geographical location (MBIE, 2018).

Recently, sustainable development and social responsibility have become new themes of business strategy in various industries. Sustainability can be defined as the ability of people to meet the needs of current development without harming future generations (Willers, 1994). The impact of global warming on human life has caused consumers to pay more attention to the demand for

green products. At the same time, rising energy costs and changes to market demand have also prompted manufacturers to pay more attention to their social responsibilities (Kolk, 2003). The European manufacturing industry regards sustainability as one of its most important competitive factors, and this view has been recognized in other countries worldwide (Gunasekaran & Spalanzani, 2012).

The number of furniture manufacturing companies in New Zealand has significantly decreased due to the impact of imported products in last two decades (Rochford, 2010). The number of employees in this industry has dropped from 9,500 in 2004 to 5,900 in 2019 (FigureNZ, 2020). Manufacturers from Southeast Asian countries, such as China and Vietnam, taking advantage of the low cost of their local labour are more competitive in the global furniture markets (Rees & Wilson, 2008). The furniture manufacturing industry worldwide has brought about increasing demand for raw materials. While creating economic benefits, the industry in New Zealand must also face social challenges, such as reducing energy consumption, and greenhouse gas emissions. According to Statistics New Zealand, only 3% of New Zealand's manufacturing companies employ more than 50 employees, most of them still composed of small and medium-sized enterprises (MBIE, 2018). As these numbers continue to shrink, how small and medium-sized furniture enterprises can rid themselves of cost competition to survive and prosper through sustainable manufacturing, is the direction of this project.

This report targeted New Zealand's Small and Medium-sized Furniture Enterprises (SMFEs) as research object and investigated the current status of their sustainable manufacturing practices, to make recommendations on the problems and challenges facing them. To achieve the research goals, this report investigated the following questions:

1. Are the raw materials chosen by SMFEs sustainable?
2. Are the necessary links in the furniture manufacturing process sustainable, such as energy use and waste disposal?
3. How does the concept of sustainable manufacturing affect SMFEs?

2. Literature Review

The sustainability of the wood processing and manufacturing industry is a common concern with governments, industries, and societies around the world. Since the raw materials are mainly derived from natural forest or renewable resources, the products created by the industry have a great impact on the sustainable development of society, economy, and environment. Within the furniture industry this aspect accounts for a large proportion of global trade. There is also the problem of large amounts of volatile organic compounds (VOCs) emitted during the manufacturing process by using chemical adhesives and coatings, and this has always been a question of environmental pollution (Azizi et al., 2016). As consumers increasingly pay attention to environmental issues, the design of furniture and the use of materials affect their judgment. The impact of the concept of sustainability in a product is not separable from the social and economic environment in which it is placed. For example, a German manufacturing company with strong environmental awareness, sustainability is a necessary standard for customers to consider goods and services; however, for developing countries with weak environmental protection legislation, this impact is not so great (Ratnasingam & Ioras, 2003). One of the recognised strategic goals of the European furniture industry is to recover wood from processed and living products to improve the utilisation of forest resources (Daian & Ozarska, 2009). Recycled wood is considered to provide abundant resources for recyclable products and new materials, and is one of the main research areas. According to McKeiver and Gadenne (2005), small and medium-sized enterprises generally believe the investment and benefits of wood waste management are unbalanced, there is

a lack of knowledge and experience in wood recycling. Therefore, considering the importance of the industry to society, economy, and the environment, it is important to explore standards affecting the sustainable development of the industry on a global scale.

The Asian wood industry has the advantage of its labour force, and based on the expansion of industrial clusters, and increased research and development activities, the added value of products has been further improved by product design and marketing (Ratnasingam & Lorass, 2003). The sustainable development of the Asian wood furniture industry is further promoted by multiple factors. In addition, compared with developing countries in Asia Malaysia, for example the labour technology capabilities of developed countries such as Germany and Italy are more advanced, coupled with strong design and sales capabilities, furniture industries in developed countries have a higher additional value (Gazo & Quesada, 2005). In terms of competitive strategy, the industry in Malaysia has gained competitive advantage through furniture industry clusters, government support, lower labour costs, creative and easy-to-use products (Ng & Thiruchelvam, 2012). Enterprises in the same industrial cluster can achieve lower advertising costs attracting more targeted customers and obtaining support and services from the cluster. Furthermore, the establishment of cooperative and mutual assistance relationships between enterprises play an important role in the overall development of the industry (Boon-Kwee & Thiruchelvam, 2011). However, the growth of sustainable furniture manufacturing in Asian is hindered by design capability and competition. Makhloufi & Al-Erjal (2014) believe that competition phenomenon and lack of strategic marketing skills are the main factors affecting Malaysia furniture exports. According to a survey of the British furniture industry, the main factors affecting the business are stable product design, control of pre-built imported furniture, management of waste, management of pollution transportation, and sustainable labour education (Azizi et al., 2016).

The Canadian furniture industry has standards for controlling VOCs strictly managing energy and material recycling. Moreover, Canada's tough and complex customs procedures have weakened competition from cheap foreign manufacturers (Omer, 2008). The New Zealand Business Council for Sustainable Development stated that New Zealand's manufacturing industry is interested in sustainability that its products and services match the image of a clean and green country (Seidel et al., 2007). According to a report from New Zealand's Ministry of Agriculture and Forestry in 2008, 80% of imported wood used for outdoor furniture and flooring may be illegally harvested (MPI, 2019). The Imported Tropical Timber Group, an organisation of New Zealand importers and retailers, covering 80% of the related business, is committed to using certified legal timber, using the Forestry Stewardship Council (FSC) schemes (MPI, 2013). Under the supervision of FSC certification, the transaction of illegal timber has been significantly reduced. In addition to raw wood for furniture, the sustainability of accessories and fabric processing is equally important. For example, the use of chemical materials such as flame retardants and adhesives during processing may also adversely affect the environment and operators (Laszlo & Zhexembayeva, 2017).

Competition from imported products has forced New Zealand small and medium-sized furniture manufacturers, to adopt a variety of strategies to survive. The New Zealand Furniture and Cabinet Manufacturing Association stated that the previous traditional design is vulnerable to the imitation of imported products, and New Zealand furniture manufacturing has gradually turned to design-led, and shifted to the high-end market. As there is no polyethylene recycling facility in New Zealand, some companies tries to reduce the use of polyethylene in packaging to reduce environmental pollution (Shahbazpour & Seidel, 2006). However, reducing the use of polyethylene caused product damage due to a lack of buffering during transportation. In terms of cost, reducing energy use and product waste quickly brought economic benefits to SMFEs.

However, the costs of staff training, environmental protection system development, and environmental labeling for implementing green manufacturing projects have already increased (Seidel, 2011).

Through literature review, it was found that New Zealand furniture companies are facing fierce competition, and striving to break through the cost pressure from imported products, trying to capture the market in various ways. While sustainability improves product innovation, there are some challenges and obstacles to be met, such as the lack of polyethylene recycling facilities in New Zealand. This study focuses on New Zealand SMFEs as the target group to explored the challenges and obstacles encountered in sustainable manufacturing practices and proposes feasible suggestions.

3. Methodology

The purpose of this study was to investigate the current status of sustainable manufacturing practices, to provide recommendations for these practices to SMFEs in New Zealand. The combination of secondary research and semi-structured interviews was used in this research. Existing published data were collected and analysed in order to understand current sustainable manufacturing practices and future trends for the furniture manufacturing industry worldwide. For exploratory research on the current status of SMFEs, it adopted a semi-structured interview method. To interview in this way is a qualitative research method. The interviewer prepared questions and then ask more in-depth focused questions during the interview based on the respondents' answers in order to gain further clarifications (Longhurst, 2003). Participants were interviewed from five SMFEs in New Zealand. These SMFEs responses were coded (and used in discussion section) as SMFE1, SMFE2, SMFE3, SMFE4 and SMFE5. From each company, two participants were invited to take part of this research representing one from the management

(responsible for company's raw material decision-making and process management), the other from technical staff (involved in the furniture manufacturing process) making ten participants in total. The two participants from each organisation were coded as SMFE1M (M to represent management) and SMFE1T (T to represent technical staff). Each interviewee answered ten open-ended questions, and based on their answers, there were additional questions to gain further in-depth understanding of their responses.

The semi-structured interviews in this research consisted of three topics. The first three questions were based on the topic of raw materials in the business, and second four questions explored the topic of sustainable application in the production process. The final four questions investigated the impact of sustainability on the organisation. According to the literature, the sustainability of forest resources which are the main raw materials of the furniture manufacture, directly affects the development of the furniture industry (Ratnasingam et al, 2018). Based on the answers for the first three question (topic - raw materials of the furniture manufacturing), current materials used in the manufacturing, constraints in terms to finding sustainable raw materials, and how sustainable the raw materials used were investigated. Additionally, further specific questions were used to gain further insight into how the use of sustainable raw materials has given completive advantage in the current market. The reasoning behind the second four questions (topic - sustainable application in the production process) was to explore whether the process of making raw materials into finished furniture was sustainable. These questions were also used to identify how the enterprises utilised energy and their disposal of production waste. Furthermore, the gap between the efforts that companies made to improve the sustainability of manufacturing processes and the challenges they encountered provided directions for making recommendations. From the last four questions, the impact of manufacturing sustainability in the organisation was explored. The first two questions of this section were used to obtain understanding of the sustainable

practices of the enterprise manufacturing process impact on organisational culture and the effects of management decisions on improving sustainability. The last two questions were used to understand employees' views of sustainable manufacturing concepts and the possible benefits of it. These questions were mainly used to explore the human factors influencing sustainable practices.

The data collected through interviews were classified using the thematic analysis method, this being used to discover important or interesting patterns in the data as themes and use to address research questions (Maguire & Delahunt, 2017). Thematic analysis is one of the most commonly used methods in qualitative analysis, used not only in the calculation of topic keywords but also to further analyse deeper meaning in the data (Terry et al., 2017). This project involved the collection of raw data from the general public, thus an ethics application was submitted to and approved by Otago Polytechnic Research Ethics Committee.

4. Findings and Discussions

The data and information from ten interviews (from five companies) were collected for this research, and findings of these research interviews were discussed under three main domains namely raw materials, production process and sustainability impact.

4.1 Raw Materials

Regarding the source of raw materials, the interviewed companies indicated that the local or imported raw material sources they used, were sustainable. However, the standards for sustainable raw materials were different. Sharma et al., (2016) argued that there is a common misrepresentation about the processes and technologies adopted in developing countries were inferior because they do not follow standards developed in the West.

As one of the main raw materials of the furniture industry, Medium Density Fibre (MDF) releases formaldehyde from the board is considered to be not environmentally friendly (Savov et al., 2020). However, an interviewed manager stated that "Compared to solid wood furniture, the MDF boards imported from Indonesia renewable forest resources and waste wood products were more sustainable" (SMFE2M). The MDF from Indonesia holds a local export certificate of environmentally friendly raw materials from the country of origin, and SMFE2 tried to convey this product feature to consumers during the sales. However, this propaganda did not help them gain competitive advantage, as consumers believed that environmental standards in Indonesia different from those of New Zealand. SMFE2M stated that low prices are far more attractive than sustainable raw materials for most consumers.

Another furniture manufacturer (SMFE3) that used New Zealand rimu as the raw material said that "The rimu we used was strictly controlled by the Ministry for Primary Industry (MPI) and obtained under the MPI plans and permits" (SMFEM3M). To accommodate the growing population in the last century and the lack of strict control over rimu and kauri felling, New Zealand's rare woods that can be used now in manufacturing gradually became scarce. Currently, there are very few manufacturers in New Zealand that can harvest and obtain rimu as raw material, so there are not many competitors. However, what was of concern to them was that the local New Zealand market is small, and that the number of customers who could afford high-priced rimu furniture was also limited.

All interviewees believed that the sustainability of raw material was one of the factors that attracted consumers, but that investment in sustainable raw materials would not bring quantifiable short-term or even long-term benefits.

A sofa manufacturer (SMFE4) importing fabrics from Australia to produce furniture stated that they tried to balance the relationship between company ethics and environmental integrity, to provide customers with as much information as possible in the product supply chain. “As an ethical company, we have obtained economic benefits and got customers who prefer environmentally friendly products” (SMFE4M). However, the higher cost of investment in sustainable raw materials makes in their product pricing a lack of competitive advantage. Under the economic downturn, whether they will choose sustainable raw materials in the future, is still uncertain.

The imbalance between investment and income is the main reason why SMFE1 did not choose sustainable raw materials. Although some companies (e.g., SMFE2, SMFE4 and SMFE5) were more optimistic about the future potential of sustainable raw materials, they still held a wait-and-see attitude towards actual investment. A manager (SMFE5) interviewed, said that “the sustainable raw materials have great potential for development in the future, however, because the short-term or long-term benefits cannot be quantified, it is difficult for us to persuade shareholders to invest limited funds in sustainable raw materials” (SMFE5M). For most SMEs, the funds’ issue is the biggest factor preventing them from choosing sustainable raw materials (e.g., SMFE2, SMFE3, SMFE4 and SMFE5).

In general, raw materials used in the manufacturing of the interviewed companies, whether local or imported, mostly derived from sustainable management. The impact of global warming on the supply and distribution of raw materials has forced the global furniture manufacturing industry to pay attention to the sustainability of raw materials (Iritani et al., 2015). However, the imbalance between investment and income is still the biggest obstacle in the choice of sustainable raw materials for New Zealand.

4.2 Production Process

In the context of sustainable production process, not all respondents' attitudes were positive. Out of four companies interviewed, only one of them (SMFE5) had obtained an environmental management system certification. They used water-based lacquer in the manufacturing process of solid wood furniture to reduce waste emissions. They provided customers with a ten-year furniture warranty and used sustainable waste disposal methods to reuse recycled furniture. In the past five years, their investment in production technology and equipment had not only increased production capacity, but also reduced pollutant emissions. However, with the results they had achieved they experienced some setbacks. In the early days due to a lack of experience in sustainable practice, they spent a lot of time and money learning from European companies and purchasing new equipment. When this new equipment began to be put into use, it became necessary to train and supervise employees on the production line. Although they did not recover their investment through sustainable practices so far, they believed that these would bring greater benefits shortly.

Not all companies were as fortunate as they were. Managers from two furniture manufacturing companies (SMFE2 and SMFE4) stated that with sustainable products becoming more and more popular, they spent much investment in production equipment. However, “because sustainable production is limited to product design, the initial products did not bring good benefits” (SMFE2T). Furthermore, they needed to continuously invest in equipment maintenance and upgrades every year. A big burden for them.

In the process of waste disposal, it was gratifying to learn that all the interviewed companies stated that, under New Zealand's strict waste management requirements, as responsible companies, they had production waste management policies. At present, the disposal of

production waste is mainly sent to landfills. To encourage waste reduction to reduce environmental damage, the government levies taxes on waste disposed in landfills (Business NZ, 2020). This also forces companies to reduce the waste generation in the manufacturing and the reuse of recyclable waste. SMFE2M stated that "MDF board off-cuts and sawdust could be used as energy or recycled back into other wood products". Therefore, the sawdust and cutting chips generated in the manufacturing process were recovered and disposed of. As a responsible enterprise, the manufacturer was responsible for recycling materials to avoid pressure on the environment. However, for this problem, an employee of the same company expressed different views from the manager. An employee of the manufacturing department said that the company had proposed waste disposal requirements but had not given the necessary support. "Sometimes in order to complete the customer's order faster, the waste recycling process was simplified or even canceled" (SMFE2T). Since there was no professional training in the disposal of waste, this employee expressed concerns about the secondary pollution generated in waste disposal and recycling.

Most of the companies interviewed were not very confident about the future benefits of a sustainable manufacturing process. First, if the company wanted to optimise this process, they needed to invest with a long-term view, in training employees and in funds. However, this is the same attitude as investing in sustainable raw materials that in order to optimise sustainable practices, but again this would not bring quantifiable direct benefits.

Second, even if renewable resources and waste management policies are used in production, this does not assist them produce sustainable products. For consumers, environmental labels from sustainable raw materials can attract more interest.

Regarding the obstacles encountered (in the sustainable manufacturing process), all interviewees (both management and technical staff) stated that they lacked practical experience in sustainable manufacturing, and they required more time and staff to implement such projects. A small and medium-sized furniture manufacturer with only two employees said that "Sustainable manufacturing is a luxury for us because it is difficult to survive in the current market" (SMFE1M).

In summary, the practice of sustainability in the manufacturing process was not as optimistic as it was with raw materials. Currently, under government supervision and initiatives, there are corresponding policies for the use of renewable resources and the treatment of production waste (Business NZ, 2020). However, almost all of the interviewed companies felt less confident in the future benefits of a sustainable manufacturing process. Lack of experience, time, and employees were the biggest obstacles encountered.

4.3 Sustainability Impact

Regarding the impact of sustainable manufacturing practices, all of the SMFE's wish for sustainable manufacturing was not strong. At the same time, their employees were not positive about the company's sustainable manufacturing practices.

Among the five companies interviewed, the managers of three stated the operators were more concerned about the competitiveness of the products. Under the impact of imported products, the situation for the local furniture manufacturing industry had been difficult. Compared to the past few years, consumers preferred to replace furniture when it was broken instead of finding ways to repair it. Therefore, low-priced imported products became more popular while local small and medium-sized enterprises lacked competitive advantage as they needed to cover higher labour

costs. “We have tried to improve our competitiveness by enhancing product innovation, but consumer demand dominates the direction of the market, so we used limited financial resources very cautiously” (SMFE1T).

In interviews with employees in the production department, researchers found that they were not very clear about the company's sustainable manufacturing practices. And the values that sustainable manufacturing can bring to the company is uncertain. The training of sustainable manufacturing was very limited. In the manufacturing process, there were no assessment standards for sustainability practices. From a personal perspective, “We recognise the significance of sustainable development to humans” (SMFE4T). However, at work, they feel they can do nothing that impacts on a company’s sustainable manufacturing.

The only company that has put in place and environmental management system certification said that “Sustainable practices have become a very important part of company culture.” (SMFE5T). From managers to employees of SMFE5 they were proud of being able to produce sustainable products. They have many customers who love environmentally friendly products. Meanwhile, they provide the customers with long-term free furniture maintenance services to extend the service life of products, and to guide customers into healthy consumption habits. As a manufacturing company in New Zealand, they feel obliged to create a sustainable environment for the lives of future generations.

Only one company the five involved in this research, stated that “We would consider environmental initiatives or certifications in the manufacturing process” and “The negative aspects of the application process are complex and time-consuming” (SFME3T). It was difficult to arrange dedicated staff to invest time to apply for certification. Furthermore, in the current New

Zealand furniture market, manufacturers who have accredited certification from the environmental protection department are not many. In the absence of market drivers, it was difficult for them to implement the solution in practice. The support that may be obtained for applying for environmental certification from the government was also very limited.

Another finding was that in some interviewed companies (three out of five), managers and employees had different views about the attitudes towards sustainable manufacturing practices. Managers are confident in the company's current waste management policy, but employees expressed concerns that show they are aware of the loopholes in management policies and practices. Additionally, managers expressed plans for the company's future policies, but employees in the production department said they were unclear about these.

In regarding the impact of sustainable practices on the company, most managers did not have a strong desire for them. At the same time, employees in this sector lacked sustainable manufacturing skills and training.

5. Conclusions and Recommendations

5.1 Conclusions

Based on the findings of this research, sustainable raw materials have been widely used in New Zealand's SMFEs. Both imported and local raw materials were used in the manufacturing process. Although various countries have different environmental standards, the raw materials used in the global furniture manufacturing industry have become an inevitable trend. At the same time, under the initiative and supervision of the environmental protection department of the New Zealand government, local furniture manufacturers have strictly managed production waste in the manufacturing process (Business NZ, 2020). Furthermore, a few companies have begun to optimise manufacturing equipment, to make the entire process more environmentally friendly and

sustainable. However, the sustainable manufacturing practices of New Zealand SMFE still face some problems and obstacles.

First, the awareness of sustainable practices from management to employees in their organisations ware not strong. Although suitable practices have occurred, they have not received enough attention from customers and mangers of the companies. Compared with the sustainability of manufacturing, operators were more concerned about whether sustainable manufacturing practices could bring competitiveness to products. Research showed that stakeholders, including employees, were usually skeptical about the company's motivation to participate in sustainable development plans (Du et al., 2010). If employees in key positions lacked awareness of sustainable practices, it would be difficult for the company to achieve sustainability goals (Bos-Brouwers, 2010).

Second, New Zealand furniture manufacturers lack experience and skills in sustainable practices, these involve all aspects of the manufacturing process, from the use of energy to the disposal of production waste. Due to the lack of experience of furniture manufacturers in New Zealand, there had been much necessity in terms of investment in sustainable processes in the past few years. Furniture manufacturers were cautious about investing in sustainable manufacturing equipment and technology in the future. At the same time, companies seldom educated their employees in sustainable manufacturing knowledge and skills. When employees observed that sustainability and were not integrated into job descriptions and plans, it was difficult for them to align personal value with corporate value (Ramus, 2001). Lack of professional skills training would not only reduce the efficiency of sustainable practices, but also affect employee engagement, thereby directly reducing the financial benefits brought by sustainable practices (Govindan, et al., 2014).

Finally, a lack of funds and staff to implement such projects was one of the obstacles encountered by SMFEs in New Zealand. Due to the threat of high-quality, low-cost imported products to the local markets, it was difficult for SMFEs to balance investment and the benefits of sustainability. The potential of sustainability is unquestionable, but the economic benefits that sustainable manufacturing can bring are difficult to quantify. At the same time, compared with Asian countries with lower labour costs, New Zealand's higher labour costs also limit the implementation of sustainable projects. Economy, society, and the environment are the three pillars of the concept of sustainability (Giddings et al., 2002). Investment needs to consider not only the short-term economy, but also long-term benefits and the impact on society and the environment (Eccles & Krzus, 2010).

The results of this investigation show the current sustainable manufacturing practices of New Zealand's small and medium-sized furniture enterprises have initiated well. However, companies also need to optimise internal management and seek external support to solve current problems.

5.2 Recommendations

Based on the above conclusions, the following suggestions are proposed for the challenges encountered by New Zealand SMFEs in sustainable manufacturing practices.

5.2.1. Raise awareness of sustainable practices

The requirements of successful business management are not only to provide customers with high-quality products and services, but also to meet the expectations of stakeholders, including the commitment to environmental responsibility (Alniacik et al., 2011). From sustainable project decision-making to final implementation, the awareness of key participants is the key to the success of the project. When a company has formulated an ambitious sustainable development

policy or project, but employees do not understand its meaning, it is difficult for them to agree with the company's value concept, then the expected goal will not be achieved in the end. For example, in 2006, the Hilton Hotel set a goal to reduce the consumption of public utilities in Europe and Africa by 5%, and in the first half of the year, trained more than 6000 core members, by simply turning off lights and computers reduced the hotel's carbon emissions by more than 1,000 tons (Hotelier, 2007). Similarly, an awareness creation campaign must be incorporated to all sustainable projects that SMFEs going to implement. This campaign should have strong elements of employees' capacity building and creating awareness about the benefits of the projects to their key stakeholders.

5.2.2. Technical support from research institutions

A lack of skills and experience in sustainable manufacturing practices is one of the obstacles commonly encountered in SMFEs. The cooperation with universities and research institutions would help to achieve their sustainability goals. For example, SMFE5 cooperates with a leading university in New Zealand by helping students to develop sustainable development projects in their organisation (Seidel, 2006). These projects have provided professional and technical knowledge to SMFE5 by improving their sustainable practices. Additionally, students have provided manpower to organizational sustainability projects. These projects helped SMFE5 to introduce new sustainability project using less cost. Improving technology-driven efficiency through innovative technologies can effectively help the manufacturing industry to reduce energy consumption and carbon emissions (Jin et al., 2017). The sustainable project that SMFEs cooperates with universities can also provide professional knowledge and technical training, so that the organisation can obtain continuous capacity building, thereby benefiting workers (Rodrigo & Arenas, 2008).

5.2.3. Seeking funds

There are a few government institutions available to provide support for research, science and technology projects to encourage and support organisations. The objective of these establishments is to connect companies and higher education providers to create more wealth and well-being for New Zealanders (MBIE, 2020). According to a statistic of MBIE (2020), from January 2019 to February 2020, there are 207 projects that have received support from such organisations. Unfortunately, none of these funds have been used by SMFEs engaged with this project. The cooperation between SMFEs and universities is not only to obtain technical and professional support but also could use to apply research and development funding.

5.2.4. Treat investments in sustainable projects as corporate social responsibility

It usually takes a long time for an enterprise to achieve sustainable development goals (López ey al., 2007). Therefore, SMFEs must carefully evaluate long-term benefits that sustainable projects can bring to the organisation before the allocation of financial resources. According to a recent study by Stanley (2018) that investments in sustainable development projects can usually be achieved and often exceeds the performance of comparable traditional investments. Therefore, business operators can confidentially invest financial resources in sustainable manufacturing projects. Investment in sustainable projects can also be considered as socially responsible investments, which can not only promote the market, but can also generate positive social and environmental impacts in future (Escrig-Olmedo et al., 2013).

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Effect of gender and prior exposure to family business on entrepreneurial intentions: Empirical evidences from India

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ABSTRACT

Policy interventions to promote entrepreneurship in developing country like India require the need of research in this direction. The present study is an attempt to explain the entrepreneurial intention of college going students utilising the framework of 'Theory of planned behaviour'. It also seeks to explore the role of gender and prior family business exposure in shaping the intention to venture into new business. Data were collected using a structured questionnaire from 388 undergraduate and postgraduate students of engineering and management background. Proposed model was tested by using the structural equation modelling through AMOS 20.0. Results indicated that 'Theory of planned behaviour' was successfully applied to explain the

entrepreneurial intentions of college students. Results of the path analysis showed that the relationship between entrepreneurial self-efficacy and perceived feasibility was found significant. Moreover, the effect of three major determinants (as hypothesised in the proposed model) i.e. attitude towards entrepreneurship, subjective norms and perceived feasibility was also found significant. On estimating the moderating effect of gender and prior exposure to family business, the results indicated that gender was moderating the relationship between subjective norms and entrepreneurial intentions whereas prior exposure to family business moderated the effect of perceived feasibility on entrepreneurial intentions. The results of study may assist the policy makers, strategies and economist to plan targeted interventions as per the gender and business exposure level of the beneficiaries. Apart from it, study also contributes theoretically to the existing knowledge on entrepreneurship realm by extending the theory of planned behaviour.

Introduction

An entrepreneur is an individual, who look for new ideas and put that idea into action for reaping the benefit and nurturing the economic growth (Dhaliwal, 2016; Kumar & Shukla, 2019). An entrepreneur is very important for the development of the industrial sector as well as farms and tertiary sectors that eventually leads to economic development of the nation (Ball, 2005 Chaston, 2012; Dhaliwal, 2016). However, academic has long discussed the importance of entrepreneurship in economic development of any country (Entrepreneurs Help, 2012; Mahmood, Zahari, Ibrahim, Jaafar & Yaacob, 2021). Entrepreneurs are basically social actor who put their idea into socio-economic order of the society to create value and siginificant difference in community (Kang, Li, Cheng & Kraus, 2021). Accompained by behavioural and personality evolution of entrepreneurship, research emerged in many directions including ecological and social entreprenership developments and management (Kang, Li, Cheng & Kraus, 2021). Every country, irrespective of its economic orientation endevour to promote entrepreneurship and new

business venturing. Being one of the highest populated country in the world, India is also witenessing the similar trend in its economic policy and orientation. Increasing number of strat ups and emerging need of employment generation to sustain demographic dividend indicating the importance of entrepreneurial development in India. However, economic benefits of entrepreneruship will only be realised on the long term success of new start ups. Thus, research in this direction become imperative for Indican economy to effectively channelise all the efforts of government to promote entrepreneuriship.

Economic Survey of India (2016) indicated that more than 1900 technology enabled startups are incubating in India. Approximatly 3.5 billion USD funding has been raised by startups in first half of FY2015 with increased number of active investor from 220 to 490 between FY2014 to FY2015 (Gooptu, 2016). Statistics of companies registered that rose to more than 15.27 lacs in January 2017 also shows the positive trend. Policy initiatives like '*Make in India'* , '*Start-Up India'*and *'Atmanirbhar Bharat'* shows the pro-active approach of the government towards entrepreneurship promotion (Is entrepreneurship, 2015; Number of registered, 2016; Gooptu, 2016; Union Budget, 2017). Management institutions are also focusing more on value and skill-based education to promote the entrepreneurial intention among the students. However, successful realization of intention into outcomes depends upon a number of critical factors. Given the significance of increased government interventions and universities emphasis on entrepreneurial courses, it becomes imperative to identify factors inducing entrepreneurial intentions among college students. It is required to develop a 'common framework' to evaluate and design effective entrepreneurial programs. The study tried to answer the two research questions. First, what is the nature of the relationship between family business exposure and entrepreneurial intention? and is this relationship different between students who have prior family business exposure and who do not have any prior family business exposure? Second, what is the relationship between gender and

entrepreneurial intention and is this relationship different between male and female students? Thus, the purpose of the present study is to examine entrepreneurial intentions of college students who are the potential entrepreneurs (Veciana, Aponto & Urbano, 2005;Yusof, Sandhu, & Jain, 2007; Wang, Lu & Milliongton, 2011), using the 'Theory of planned behaviour' (TPB model) as an underpinning model. Study extends the TPB model to explain college student's intention to start their own business and proposes the moderating role of gender and prior family business exposure.

Paper is divided in to seven sections. Literature review and theoretical framework of the study has been disccussed in first section. Second section deals with rational behind the study, whereas third section is all about methodology of the research work. Fourth and fifth sections have discussed the results, interepretations and findings of the study. Thereafter, limitations and future directions for research have been discussed in section sixth of the paper. Final section concludes the study and represents the implications of present research work into entrepreneurial realm.

Review of Literature and Theoretical Framework

Entrepreneurial 'intention' refers to the inclination of individuals towards venturing into new business/startup rather than going for salaried occupation/job (Dana & Dana, 2005; Gerba, 2012; Dana & Dumez, 2015). TPB model is an extension of Fishbein and Ajzen's (1975) 'Theory of reasoned' (or TRA model) which assumes that attitude and subjective norms are two significant determinants of behavioural intentions. However, TRA model was found to be limited only to the behaviours which are under an individual's volitional control. Therefore, Ajzen added one more construct called 'perceived behavioural control' to extend TRA model to explain behaviours which are not under volitional control and named it as the 'Theory of planned behaviour' or TPB model. Attitude is conceptualized as a significant determinant of intention in TRA model

(Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980; Albarracin et al., 2001; Sareye, & Haji-Othman, 2017; Shukla & Kumar, 2020). Katz (1960) has defined attitude as "the predisposition of the individual to evaluate a particular object favourably or unfavourably" (p.168). Moreover, Aloulou (2016) also reported subjective norms as the most important antecedent of entrepreneurial intention among three predictors of theory of planned behaviour. With the pace of time, many researchers added some variables in TPB to increase the predictability of the model.

Gender and Entrepreneurial Intentions

Relationship between entrepreneurial intention and gender has been studied widely by researchers (Perrone, Sedlacek, & Alexander, 2001; Altman, 2004; Ming-Yen & Siong-Choy, 2007; Papastergiou, 2008) across the globe. It is commonly accepted that female are more susceptible to subjective norms and self-efficacy to choose entrepreneurship as their career choice. As in developing nation like India, where female are subjected to number social restrictions and responsibilities, pursuing entrepreneurship career of their choice may be a challenging track for them (Altman, 2004, Perrone, Sedlacek, & Alexander, 2001). Even, factors influencing career barriers are also affected by gender-based biases (Perrone, Sedlacek, & Alexander, 2001). Thus, feasibility to open business may also vary as per the gender differences. Theoretical perspectives on gender-specific socializations (Eagly, 1987; Dryler, 1998) and feminist theories (Cron, Bruton, & Slocum, 2006; Fischer, Reuber, & Dyke, 1993) also advocate that females are often encountered by different or fewer opportunities owing to the prevailing political and social context. Some career options are considered as male-oriented professions, and female generally does not want to pursue those careers and limit themselves in term of self-efficacy as well (Papastergiou, 2008). Later on, females tend to develop a negative attitude towards such male-oriented career options especially opening a business.

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Prior Family Business Exposure and Entrepreneurial Intention

Family constitutes an importance socializing impact on an individual's value, attitude and behavior that people adopt over the period. Similarly, prior exposure of family business on students may be one of the important factors while choosing career options. Apart from succession, family business exposure shapes the attitude (negative or positive) an individual holds towards business ownership. Car & Sequeira (2007) found that prior business exposure has an intergenerational influence on the entrepreneurial intention of individuals. Prior exposure of family business induces business skills and abilities among individual and tend to affect the self-efficacy of individual and perceived feasibility towards business venturing. Being a member of a business family individual (student in this case) might not encounter with negative subjective norms towards business ownership. However, the relationship between prior business exposure and entrepreneurial has not been much explored. Few studies (Stavrou & Swiercz, 1999; Dyer & Handler, 1994) are there that considerably agreed on the importance of prior business exposure on the entrepreneurial intention of the students and individuals. The present study provides a more grounded explanation and moderating effect of prior family business exposure on student's intention to business ownership. Thus, the following research model is proposed;

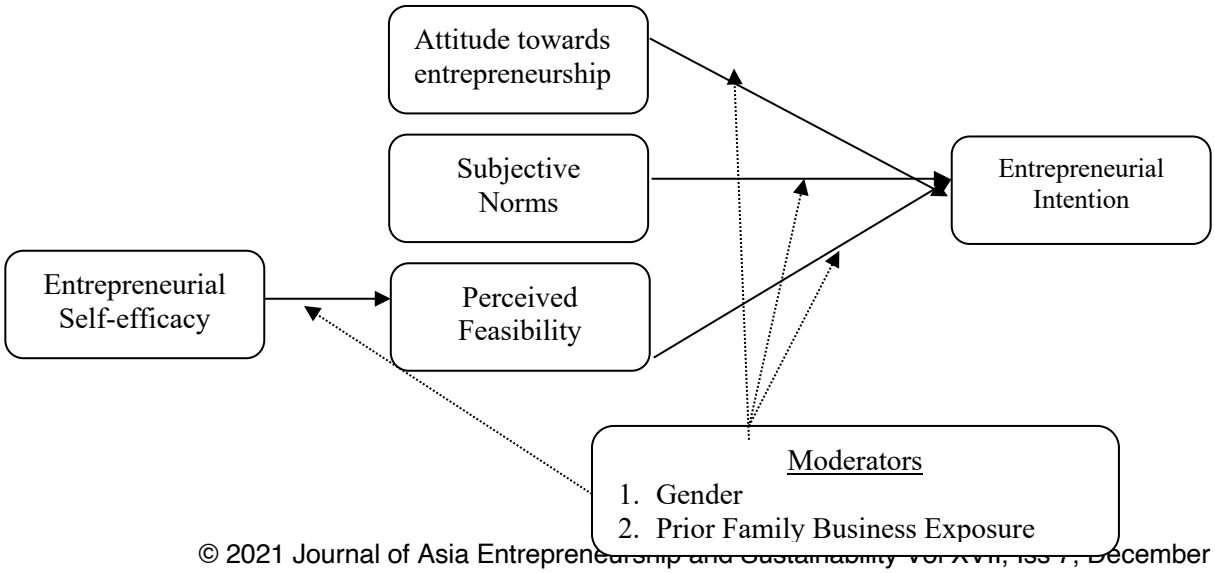

Figure 1- Proposed Research Model

Rationale of Study

Recent research study notes the importance of all intention-based models that used the process-oriented perspective to identify antecedents of entrepreneurial spirit. Situational and personality measures have also been used to predict the entrepreneurial intentions among students in different fields. However, no such study has been found that have used the process-oriented approach with inclusion of situation as well as personality measures to understand the interplay of different factors and their impact of entrepreneurial intention of college going students. In present scenario, such study could bring forth the many new perspectives for increasing the effectiveness of government initiative and universities programs on entrepreneurship.

Research Method

Research Design and Sampling

Present study used a quantitative research approach to address stated research objectives and test the proposed relationships among variables understudy. Theory of planned behaviour (TPB) has been used as underpinning model for present study. Non-probability sampling method has been used for selecting the sample. The student from management discipline has been taken as the sampling unit. Being the potential entrepreneur students were the apt sampling unit for present study. Large number of studies across the globe have taken students as their respondents in order to predict the entrepreneurial intention in their economies (Veciana, Aponto & Urbano, 2005; Yusof, Sandhu, & Jain, 2007; Wang, Lu & Milliongton, 2011).Total 388 students (n=388) have been contacted for data collection.

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Variables and Data Collection

Measures of the study were adopted from the previous research studies. Attitude towards entrepreneurial intention was measured using four items which were taken from Liñán & Chen, (2009); Shook & Bratianu, (2010) and Schwarz, Wdowiak, Almer-Jarz & Breitenecker (2009). Six items to measure entrepreneurial self-efficacy was taken from Shook & Bratianu, (2010). Further five items entrepreneurial intention scale was adopted from Liñán & Chen (2009) and perceived feasibility was measured with three items taken from Shook & Bratianu, (2010) and Zhang (2012). Data has been collected using the structured questionnaire. A five-point Likert scale has been used to fetch the responses from students (where 1= Strongly Disagree, and 5=Strongly Agree).

Respondents Profile

Table 1 depicts the profiling of the respondents. As it is reflected than male constitute 66 percent of sample whereas female respondents were 34 percent. Maximum number of respondent were at the age of 20 to 25 years that is 63.40 percent. Among all 50.8 percent respondent were having no prior exposure business in their families.

Table 1-Demographic Profile of Respondents

Demography		Number	Percentage
Gender	Male	256	66%
	Female	132	34%

	Below 20	131	33.76%
Age (in years)	20-25	246	63.40
	25-30	09	2.31%
	Above 30	02	0.51%
Prior Exposure to Family Business	Yes	191	49.2%
	No	197	50.8%

Results and Analysis

Measurement Model

Confirmatory factor analysis was employed to test the goodness of fit of the data on the hypothesised measurement model and to ascertain validity and reliability of the model constructs. The measurement model produced overall good fit with fit indices; $\chi^2/df_{(160)}$=1.967 (<3); GFI=0.928 (>0.9); AGFI = 0.905 (>0.9); CFI = 0.959 (>0.95); SRMR=0.044(<0.08) RMSEA = 0.050(<0.06)& PCLOSE=0.490(>0.05) and all fit indices are as per the recommended threshold values as suggested by Hu & Bentler (1999).Further to check presence of Common Method Bias, Harman's (1976)Single Factor Method (Podsakoff, MacKenzie, Lee & Podsakoff, 2003)was applied. When all the variables were attributed to one single factor only, total variance explaine din exploratory factor analysis was 28.10% which indicates that majority of the variance is not explained by one factor. Also presence of method bias was checked in confirmatory factor analysis as well(also used by Anderson & Bateman, 1997)which resulted very poor fit to the model ($\chi^2/df_{(170)}$=13.816; GFI= 0.527; AGFI= 0.426; CFI= 0.419; SRMR=0.154; RMSEA=

0.182& PCLOSE=0.000). Therefore it is clear that majority of the variance is not accounted to a single factor and data is free from common method bias.

Construct Validity and Reliability

Two important statistical measures to assess construct validity are – convergent validity and discriminant validity. Convergent validity refers to the extent to which observed variables converges to the corresponding construct (Hair et al., 2010). Values of average variance extracted (AVE) are more than the threshold of 0.5 (Fornell & Larckel, 1981), which ensures convergent validity (see table 2).

Discriminant validity, on the other hand, refers to the extent to which a given construct is unique and distinct from other constructs (Hair et al., 2010). For a set of constructs to have discriminant validity, the square root of AVE should be more than inter-construct correlations (Fornell & Larckel, 1981). Constructs under study hold discriminant validity as they satisfy the above-mentioned criterion (table 2). Also, construct reliability was ascertained using composite reliability (CR) and Cronbach's Alpha coefficient. As shown in table 2 these values are above the critical value 0.7as recommended by Hair et al. (2010) and Nunnally (1978).

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Table 2: Validity and Reliability

	CR	AVE	ESE	ATT	SN	PF	EI
ES	0.8	0.5	**0.7**				
E	91	76	**59**				
AT	0.8	0.6	0.2	**0.7**			
T	60	07	58	**79**			
	0.8	0.6	0.1	0.3	**0.7**		
SN	19	01	16	40	**75**		
	0.7	0.5	0.1	0.2	0.3	**0.7**	
PF	90	59	54	83	00	**47**	
	0.8	0.6	0.3	0.4	0.3	0.4	**0.8**
EI	81	50	81	00	86	20	**06**

Note: Values in diagonals are square root of AVE

Values below diagonals are inter-construct correlation

(ESE-Entrepreneurial Self Efficacy; ATT- Attitude towards Entrepreneurship; SN- Subjective Norms; PF- Perceived Feasibility; EI- Entrepreneurial Intentions)

Structural Model

The structural model containing the relationships among constructs (as hypothesized in the research model) was tested in Amos 20.0. The results show that structural model also produced a good fit ($\chi^2/df_{(163)=}$ 2.285; GFI= 0.916; AGFI= 0.891; CFI= 0.944; RMSEA= 0.058; SRMR=0.085 & PCLOSE=0.052). Further results of the structural model (as shown in figure 1) show that all the three independent variables (attitude, subjective norms and perceived feasibility) which were hypothesized to affect entrepreneurial intention were found to be significant

($p<0.001$). Also, entrepreneurial self-efficacy was found to have a significant influence on perceived feasibility ($p<0.001$). Attitude, subjective norms and perceived feasibility together explain 27.6% of the total variance in entrepreneurial intention. Among the three predictors of entrepreneurial intention, perceived feasibility was found to be the strongest predictor followed by the attitude towards entrepreneurship and subjective norms.

Table 3: Results of Structural Model (Regression Analysis)

	Estimate	**S.E.**	**C.R.**	**P**	**Standardized Estimates**	**R^2**
ESE → PF	0.155	0.052	3.008	0.003	0.180	
ATT → EI	0.273	0.060	4.537	***	0.266	27.6%
SN → EI	0.223	0.057	3.929	***	0.234	
PF→ EI	0.337	0.063	5.379	***	0.312	

Note: (ESE-Entrepreneurial Self Efficacy; ATT- Attitude towards Entrepreneurship; SN-Subjective Norms; PF- Perceived Feasibility; EI- Entrepreneurial Intentions)

Measurement Invariance Test and Multi Group Moderation

Before applying multi-group moderation, it is important to test whether the instrument is equivalent in measuring all the constructs across all the groups or not (Byrne & van de Vijver,

2010; Byrne, 2008; Barrera, Garcia & Moreno, 2014). Prior to apply invariance test, goodness of fit of measurement model was examined for all groups (Pappas et al., 2014). Measurement model produced acceptable fit for both Male respondents (χ^2/df= 1.935; GFI= 0.898; CFI= 0.942& RMSEA= 0.061) and female respondents (χ^2/df= 1.309; GFI= 0.870; CFI= 0.960& RMSEA= 0.049) as well as for those who had prior family business exposure (χ^2/df= 1.640; GFI= 0.887; CFI= 0.946 & RMSEA= 0.058) and those who didn't had exposure to family business (χ^2/df= 1.822; GFI= 0.879; CFI= 0.933& RMSEA= 0.065). Further to test measurement invariance,comparison between baseline model (configural model with no constrains) and restricted model (with constrains) is made using difference of χ^2 value for two models. A statistically non-significant χ^2 value suggests that two models are equivalent across group (Barrera et al., 2014).The results of χ^2difference test and corresponding p value are given in Table 4 for gender and prior family business exposure. It is evident from the table that instrument measurements are invariant i.e. equivalent across the groups.

Table 4: Invariance Test (for Gender Male v/s Female)

	Gender (Male /Female)		Prior Family Business Exposure (Yes/No)	
Overall Model	χ^2	df	χ^2	df
Unconstrained	519.2	320	553.9	320
Fully constrained	542.9	340	577.9	340
$\Delta\chi^2/\Delta$df	23.7/20		24/20	

p-value	0.256	0.242

Further Moderation analysis was applied to test the effect of gender and exposure to prior family business on the hypothesized relationships of the research model. A pair-wise comparison of relationships coefficients was made through critical ratio for differences in Amos (Pappas et al. 2014). Results are detailed in table 4. Results of moderation analysis show that out of four relationships only one (i.e. the effect of subjective norms on entrepreneurial intention) was found significantly different for male and female respondents. Similarly, significant difference was found only in one relationship (effect of perceived feasibility on entrepreneurial intention) between respondents having exposure or no exposure to family business.

Table 5: Results of the Moderating Effect of Gender and Prior Family Business Exposure

Gender					**Prior Family Business Exposure**			
Male		Female			Exposure		No Exposure	
Estimate	P	Estimate	P	z-score	Estimate	P	Estimate	P
0.224	0.002	0.037	0.579	-1.912*	0.117	0.044	0.180	0.032
0.272	0.000	0.284	0.002	-0.101	0.357	0.000	0.153	0.126

				2.5				
0.1	0.0	0.4	0.0	69*	0.16	0.02	0.3	0.0
32	37	74	00	*	6	1	17	00
0.2	0.0	0.4	0.0	0.7	0.15	0.07	0.4	0.0
99	00	08	01	40	9	5	32	00

Notes: *** p-value < 0.01; ** p-value < 0.05; * p-value < 0.10

Discussion

As stated earlier, the purpose of the present study was to explore the moderating role of gender and prior family business exposure in shaping the entrepreneurial intention of the college students by using the TPB model. In the present study, prior family business exposure was found moderating the relationship between perceived feasibility and entrepreneurial intention only which if students feel that opening a business is feasible in their contextual setting, there are high chances of becoming an entrepreneur. Therefore, the government can play a proactive role in providing the possible environmental setting (legal, political and social) to the potential entrepreneur for nurturing the entrepreneurial intention among college students. Studies all across the globe also supported the role of government in promoting the entrepreneurial intentions (Rose, Kumar & Yen, 2006).

Second moderating variables, i.e. gender was not found to affect the all relationships (perceived self-efficacy with perceived feasibility, attitude with entrepreneurial intention and perceived feasibility with entrepreneurial intention) except the effect of subjective norms on entrepreneurial intention. Owing to the different perception of society towards female and male entrepreneurship, females tend to be less in business ownership. In a developing country like India, females are subjected to many social norms and rules, and they are not even allowed to own a property in

social legacy. Owing to the difference in social regulations and constraints, there is less number of females participating in venturing of business. Based on the results of the study, if primary aim of any entrepreneurial program is not only promote the opening of business by already convinced students but also increase the number of the female student considering this options, more robust education policy need to be developed.Female should be given more and differential consideration in legal norms and regulations related to the licensing process, land acquisition, tax impositions and more specifically loan disbursements to put them into the mainstream of business venturing. Thus, gender and prior family business exposure provide the explanation for relation between entrepreneurial intention and four most identified antecedent of entrepreneurial intention that are self-efficacy, perceived feasibility, subjective norms and attitude.

Limitations and Future Direction for Research

As with any research, the present study is also not free from limitations that we suggest be addressed in future studies. First is that entrepreneurial intention has been taken as a proxy for actual behavior construct. Some external variables might have an influential impact on the successful realisation of intention into actual behaviour or action. This opens the possible future line of enquiry to measure the actual entrepreneurial behavior with respect to intentions of being a businessperson. The second limitation is the operationalisation of entrepreneurial concept. As per Hernández-Perlines (2016), entrepreneurship means innovativeness, risk-taking, and proactivity. However, in the present study starting a new venture and co-owning a business has been taken as an indicator of entrepreneurship. So for future research, we suggest the topic that covers these dimensions of entrepreneurship.

Third, study is conducted in the context of developing nation India. There may be the possibility that some variables that works in developed and under-developed nations have not been taken

into consideration. That limits the ability of present study to generalize the findings into other geographical context. Thus, replicating the same model in different geography, social context (Anderson & Gaddefors, 2017) and leadership style (Chheda & Banga, 2013)may increase the understanding of this domain.

Conclusion and Implications

From this paper, it seems clear that there are various factors that influecne the entrepreneurial process and development. In case of developing country India, where different societal norms affect the individual attitude and behaviour, shaping entrepreneurial intention is complex. Several questions remains, however, as to influence of prior family business exposure and gender type on intention to venture into new business significantly affect the outcomes (i.e. Intention to venture new startup). That is, prior exposure to family business that has impact on attitude and perceived feasibility (cognitive effect) would be anticipated to create stronger intention to venture into new business/startups. Apart from it, in India, societal norms (subjective norms) varies as per the gender, thus considering gender while formulating schemes of entrepreneurial development may yield better outcomes. Women led start-ups and business organizations are increasing in India and playing significant role in society in terms of employment generation, value creation and strengthening the eco system. Thus, planning of various entreprenerial schemes in light with above findings may proof more effective.

The study concludes that in order to increase the entrepreneurship in the country, the government need to focus on the difference of opportunities to the citizen on the basis of gender. The female student needs to be promoted more concerning self-efficacy by proving training customised as per subjective norms. Students who are having any prior family business exposure they tend to be high on self-efficacy and have a positive attitude towards opening a business. Thus, government

and policy maker can trap that opportunity to in order to turn students into successful entrepreneurs by proving different training sessions, exposure to real market and real-time projects. A major theoretical contribution of the paper is more comprehensive and robust integrated model of entrepreneurial intention by combining gender and prior family business exposure as moderating variables.

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Emerging Social Power of Coaches in Digital Entrepreneurship

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ABSTRACT

Due to the worldwide pandemic, though many businesses shut down, many opportunities also arose. Since people were housebound and browsing social media increased, the conditions were ripe to improving skills and learning new ones. Digital coaches emerged all over social media, showing audiences how to lose weight, how to look for the next job, how to invest money, how to trade in stocks, how to read tarot cards and many other domains. They even started teaching courses on how to start home based businesses and how to promote them. The coaches enrolled the audience as students and taught the courses as online classes. This study contributes to the understanding of how digital coaches influence emerging entrepreneurs. This is important to examine this phenomenon as it affects the financial and mental state of the budding entrepreneurs and has long term impact on the society. This study proposes two new constructs for understanding the concept of coaching digital entrepreneurs better. In practice, digital coaches may use the constructs in this paper to refine their influence further. Budding entrepreneurs may use the inputs from this study to choose the coach best aligned to their needs.

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INTRODUCTION

After the COVID-19 pandemic forced the world to go into a lockdown, many lost jobs, and many had their earnings curtailed. People started exploring how to earn without being able to venture out (WHO, Situation Report 8). This gave a new impetus to businesses being started from home using technology to connect with audiences. The digital businesses included using technological tools and the internet, to coach others in skills they were adept at. Coaching (Kanatouri, 2020) in fitness, health, beauty, mental wellbeing, astrology, cooking, finances, gardening and many more areas, over video calls, eliminated the need for clients to visit brick and mortar centres and offices. Digital entrepreneurs (Antonizzi and Smuts, 2020) mushroomed with coaches of all competence levels promoting their products and services to get students to enrol in their courses. The students of these coaches are a captive audience, and coaches keep them engaged for upselling further services and products. Since it has been observed that cross-age and peer tutoring programs are more effective than traditional instructional methods (Fitz-Gibbon, 1983), these digital coaches have increasingly gained traction as they have built credibility and influence in a particular skill set.

It is important to understand how entrepreneurial digital coaches influence budding entrepreneurs. This is not only relevant but also critical to examine as it is likely to affect the financial, and mental state of the coachee. Digital coaches usually use their power to inspire and motivate the learners. Peer to peer instruction is usually conducted in an informal manner, implying informal communication. Though it may be informal, communication between a coach and coachee needs to be consistent, to build trust between the two. Informal interactions are two-way as well as collaborative. Successful coaches use power to empower others, instead of using it as a source of control. Hence it becomes a source of energy. It becomes even more important to study to role of emerging social power of coaches in digital entrepreneurship, as the individuals groomed by these

coaches must have the right approach and mindset to contribute to the growth of the society in a wholistic manner.

Hence, we frame the first research question or RQ 1 as, 'What factors enable a digital coach to influence budding entrepreneurs?'

A situation requiring instruction may be considered as an instance of social influence, as the instructor impacts the attitude and behaviour of the student, through supply of information, modelling or reward and reprimand. There is invariably a certain amount of social power in this coach-coachee relationship which empowers the coach to instruct the coachee to do the activities as prescribed by the coach, influence them, and change their behaviour (Boyatzis et al., 2019). Such a manifestation of influence can be viewed as power. Max Weber (1970) viewed influence and power as synonymous. Power according to him, was the probability that an actor will be able to realize his own objectives against opposition from others with whom he is in a social relationship. Steven Lukes (2004), Robert A. Dahl (1957), and David A. Baldwin (1980), prominent power theorists argue that influence and power can be used interchangeably and refer to actor A's ability to get actor B to "do something that B would not otherwise do." These discourses of power are usually seen as adversarial rather than mutualistic. In peer-to-peer learning mutualistic power usually plays a significant role. In this study, we examine the social power of coaches by exploring their relationship with their students, who enrol with them for starting their own ventures in the online domain which may also be referred to as digital.

This led us to frame the second research question or RQ 2 as, 'What kind of power dynamics are involved in the interactions between a digital coach and a coachee?

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Power is a multifaceted phenomenon and figure 1 given below enables a comprehensive schema for identifying relational and distributive dimensions of power and can have significant implications for social practice. The first step here would be to recognize 'power-over' and 'power-with', which is also mutualistic, as sub-categories of power as a capacity, or mutualistic power. The second category may be classified as adversarial power.

Power as Capacity			
Adversarial Relations 'power-against' Competition		**Mutualistic Relations** 'power-with' Cooperation	
1 INEQUALITY **'Power-over'** Coercion Domination Oppression Win/lose	2 EQUALITY **'Balance of power'** Stalemate Compromise Frustration Lose/lose	3 INEQUALITY **'Assisted empowerment'** Education Nurturance Assistance Win/win	4 EQUALITY **'Mutual empowerment'** Synergy collaboration coordination win/win

Figure 1: Unified Schema of Power

Source: Adapted from Karlberg M., The power of discourse and the discourse of power: Pursuing peace through discourse intervention, *International Journal of Peace Studies*, Spring/Summer 2005, Vol 10, N. 1, pp. 1-25.

In coaching for digital entrepreneurs, the observed social power is of Type 3, mutualistic and 'assisted empowerment', where the coach educates, nurtures, assists the student to ensure a win/win situation. Giving attention and seeking it, is a subtle way of negotiating power relations. We can thus arrive at the statement that social power is simultaneously objective and subjective.

Social power is defined as the ability to influence agents (i.e. an individual or a group of people) to bring about changes in beliefs, psychological or behavioural aspects of the target audience (Tong et al., 2017). Social power theory suggests that an individual or a group of people (i.e. the agent) with some forms of social power can change the psychological or behavioural aspects of another person (i.e. the target) (Raven et al., 1998). Studies have demonstrated the effects of social power on trust (Jain et al., 2014), commitment (Pierro et al., 2013), satisfaction and work performance (Ramaseshan et al., 2006) in various dyadic relationships (e.g. retailer-supplier and supervisor-subordinate relationships).

This paper contributes to understanding social power in the context of entrepreneurial coaching through the development of twelve sub-themes which are clustered under three broad themes. Ten of these sub-themes are mapped to extant literature. Our contribution to theory is in the form of two new sub-themes. This paper is structured as follows. First, we review literature on entrepreneurship and power dynamics between coaches and emerging entrepreneurs. We then describe the qualitative methodology applied and present the findings. We discuss the findings and present our contributions and limitations of this study along with areas of future research.

LITERATURE REVIEW

Entrepreneurship is viewed as a driver of innovation, growth, and economic welfare (Acs and Audretsch, 2005; van Praag and Versloot, 2007). Over the past few years and across the world, digitization has increased access of individuals to information, learning, and social networks, thereby improving the individual's ability to discern profitable opportunities (Smith et al., 2017). Digitization has rapidly gained traction due to the reduction in entry barriers, improved access to financial capital, and reduction in costs related to space and manpower. In the entrepreneurial context, start-up processes have been facilitated by digital technologies (von Briel et al. 2018). Researchers have called for more studies on effects of digitized transformation of entrepreneurship (Nambisan, 2017), which may lead to new opportunities.

Understanding digital entrepreneurship

Digital entrepreneurship has been defined as the act of identifying and leveraging new opportunities offered by internet technologies (Davidson and Vaast, 2010). An important difference between digital and traditional entrepreneurship is the business model and strategies for promotion and distribution of products (Hair, 2012). A business which uses Information communication technology (ICT) to communicate between customers and stakeholders is referred to as a digital business (Reuber and Fische, 2011). The products or services in such a business are digitized. The benefit of digital business is in the speed, cost, and ease of delivery of product or service across the globe. The growing convergence of entrepreneurship and digital technologies is giving rise to a new type of entrepreneurs that use the internet for most of their processes (Giones and Brem, 2017). From this it may be inferred that digital entrepreneurship is the business which depends on digital technology, whereas traditional entrepreneurship does not depend on technology to a large extent.

Impact of COVID-19

One of the fallouts of Covid-19 was closure of physical offices and business locations. This constrained most people to work from home. Due to wide proliferation of the internet, for many it was an opportunity to learn new skills. Access to online learning encouraged a lot of people to start side-hustles or new businesses. A lot of digital coaches emerged who promoted their services on social media and encouraged others to take up their coaching to start their own businesses. Informal interactions between friends and acquaintances started being monetized by students wanting to promote their services or products. This increased traction for coaches encouraged others to start their coaching services as well. As people were bound to their homes and social interactions took place only online, this phenomenon gained increasing acceptance among people from diverse backgrounds and skills. As with any sector, not all service providers were genuine and not all offered good quality. In addition, the new entrants also faced a lot of challenges in setting up their ventures. Smith et al. (2017) view the interactions which provide access to resources as a digital ecosystem. The effectiveness of such an ecosystem can be assessed through the degree of bridging and bonding in the system. When individuals in the network reach out to gain knowledge, the behaviour of actors within the network, is known as bridging. When these actors exhibit the behaviour of sharing solidarity, expressing support, and enriching relationships with commitment, it is referred to as bonding.

As the field of digital coaching is new, there is scant literature available. We could find only one research of relevance to this specific topic, a study by Hunt et al. (2019) which explores the use of coaching as a tool to develop female entrepreneurs. They found that coaching positively impacted women's entrepreneurial self-efficacy and provided vital support to the female entrepreneurs.

Power dynamics between coaches and emerging entrepreneurs

Budding entrepreneurs who were motivated to use technology, but had no prior relevant exposure, signed up for digital coaches from whom they learnt to convert their product or service into online businesses, use appropriate digital tools and use social media for promoting their ventures. Thus, for the technology novice, digital coaches became a means to promote their businesses. Coaches exercise a certain degree of power to get their coachees to follow their instructions or advise. This may be subtle or overt. Bachrach and Baratz (1970) argued that power can be exercised in subtle ways involving 'mobilization of bias' within a social system. We examine this power in a nurturing, collaborative, and beneficial context.

Power for nurturing: Giddens (1984) argues that power is 'transformative' or 'capacity to achieve outcomes', which is consistent with 'power-to' locution. There is, indeed, power in collaboration even though it may be unequally distributed for instance, in a nurturing parent and child. Miller (1982) promotes the redefinition of power with the basis 'capacity to produce change', which includes nurturing and empowering others, as a part of its activities.

Power for collaboration: Kenneth Boulding (1990), a prominent systems theorist and peace researcher, articulated the 'Integrative theory of power', in which he stated that integrative power is 'the capacity to build organizations, create groups, inspire loyalty, bind people together, to develop legitimacy'. The Integrative theory, manifests friendship, reciprocity, collective identity, cooperation and a sense of community and the belief that one's welfare is enhanced by focusing on the welfare of others.

Power for benefit: The Exchange theory defines power as the ability to impact the quality of another's outcomes (Thibaut and Kelly, 1959). This view espoused by George Homans (1974) and

Peter Blau (1964) addresses power relations to a high degree. The exchange view is based on the premise that individuals behave in a situation so as to maximize their perceived benefit and minimize perceived costs. Prior experience will determine the individual's choice of course of action, wherein the individual will choose the path which in the past the situation yielded rewards and will avoid the path where in the past high costs were incurred. March and Simon (1958) substituted 'maximizing' benefits with 'sacrificing' and 'perceived best interest' with 'bounded rationality'. A noticeable advantage of the exchange view is its focus on the bargaining aspect of social relationships.

In this paper we examine the social power of coaches in digital entrepreneurship from the perspective of the exchange theory of power (Blau, 1964). In a social context, some actors control more resources which can lead to an inequality as social debts are incurred, which Blau (1964) argued can be discharged by acts of subordination. As these acts become self-perpetuating, power differentiation is strengthened. In a study on interpersonal relationships, Peplau (1991) posited that the social exchange theory predicts that the partner with larger personal resources such as education or income should have greater power. In the context of digital coaches, we interpret this as the partner having greater experience and exposure to digital entrepreneurship should have greater power and are in a position to influence budding entrepreneurs. The main assumptions of the exchange theory as summarized by Molm (1997), include, a) behaviour is motivated by desire to enhance gain and avoid loss; b) exchange develops in an environment of mutual dependence; c) actors engage with specific partners over time; d) outcomes follow law of diminishing marginal utility. These assumptions help in predicting the behaviour of actors engaged in the social exchange. Emerson (1976) stated that actors strive to maintain or increase their power to enhance their benefits which causes power conditions in the relationship to change over time. In later studies, theorists have examined the dynamics of power and other variables such as commitment,

and cohesion (Molm, Takahashi and Peterson, 2000). Digital coaches strive to keep their coachees committed in their communities through various initiatives. Situations where interactions are mediated by computers, and digital technologies such as the internet, are increasing in relevance for studying social exchange and power-dependence relationships. The exchange of digital goods such as text, videos or tools between coaches and their communities are contemporary examples of group-generalized exchanges in the real world today. Such exchanges are seen in the power dynamics between coaches and their coachees. Since online coaches are individuals who have been through the struggle of setting up their own business in their chosen domain, they are a few steps ahead of their potential coachees. Such coaches may be compared with peer instructors. Berenda (1950) researched that peer power is more potent than adult instructors. It would thus be relevant to explore the type of social power possessed by peer educators.

For studying power dynamics, we considered Critical Discourse Analysis (CDA) as the ideal approach, as it focuses on social issues such as power or domination (Van Dijk, 2003). It is interpretative and explanatory (Jahedi et al., 2014), and analyses relation between language and power. CDA includes dimensions of ‘power’, dominance’, ‘hegemony’, ‘social order’, ‘reproduction’, ‘struggle’, ‘discrimination’ and ‘ideology’. As a part of analysis for this paper, we examine the content with the above terms and those similar to it or implying a similar meaning.

METHODOLOGY

To study the phenomenon of social power of coaches in digital entrepreneurship, a qualitative methodology was used to analyse the data collated through 70 video interviews of students in conversation with their coach. These students were individuals who had started their business ventures using digital technology and were promoting their businesses using digital tools, and social media platforms. The ventures of these entrepreneurs were at different stages of growth,

albeit all of them having started from scratch. These businesses are in different domains such as fitness, finance, business growth, stock trading, insurance, health, digital marketing, authoring, mental health, branding, and teachers. The gender segmentation of the interviews was 57 men, 10 women, 2 couples, and 1 mother and son duo.

DATA COLLECTION AND ANALYSIS

The video interviews of digital entrepreneurs in conversation with their coach were transcribed. The transcriptions were then uploaded to Word Stat to do a word frequency analysis, derive an initial word tree, and word cloud. The transcriptions were then analysed using QDA Miner. Using open coding, we assigned codes to the statements. Thereafter, we conducted axial coding and clustered codes having similar meaning. After reviewing each transcript again, the sub-themes were categorized, and codes were specified for specific themes. Further analysis was conducted using QDA Miner.

Since we were studying the social power of coaches in digital entrepreneurship, we chose three categories namely, ‘Coach’, ‘Entrepreneur’ and ‘Social Power’. For the ‘Coach’ category, the codes were ‘Process’, ‘Content’, ‘Learning’, ‘Online’. The codes for the ‘Entrepreneur’ category were ‘Network’, ‘Mindset’, ‘Ecosystem’, and ‘Resilience’. The codes for the category ‘Social Power’ were, ‘’Power’, ‘Dominance, ‘Social order’, and ‘Struggle’.

The transcription for each transcript was coded as per above codes and categories. The codified text was then analysed using proximity plots, code distribution in all cases, heatmap between the codes, coding co-occurrence dendrogram, correspondence analysis using 3D maps to study proximity of each domain with the codes, code frequency analysis by variables of gender and domain, and bubble chart of all codes to study the frequency of codes with all domains and cases.

RESULTS

The transcripts of 70 interviews were loaded into Word Stat to conduct a preliminary analysis based on the words and phrases used. The word cloud in the first level analysis showed 'Online' as the word with the highest frequency (622) being mentioned in 62 of the 70 cases. This implied the presence or importance of online in coaching digital entrepreneurs. This word cloud was developed to understand the most frequently occurring words in all the cases. A phrase cloud was developed to understand the phrases with the highest frequencies among all 70 cases. 'Coaching Process' had the highest frequency (122) occurring in 52 of the cases. This implied the criticality of a process while coaching in digital entrepreneurship.

After coding all the transcripts, the next step involved analysing the transcribed interviews in QDA Miner. 3 Categories were defined as 'S1', 'C1', and 'E1'. Based on literature, the codes for S1 were defined as a) 'S11' b) 'S12' c) 'S13' d) 'S14'. The codes for C1 were defined as a) C11, b) C12, c) C13, d) C14. The codes for E1 category were defined as a) E11, b) E12, c) E13, d) E14.

As a next step, proximity plots were developed to identify words which occurred in close proximity to the shortlisted words. The next step involved making a proximity plot on 'Coach'. The top four words in proximity of 'Coach' were 'Process', 'Content', 'Learning', 'Online'. The word 'mindset' also featured in the proximity plot of 'Entrepreneur', implying its relevance with 'Coach'. The proximity plot of 'Entrepreneur' showed 'Mindset', 'Ecosystem', 'Network', and 'Resilience' as the top four words in closest proximity.

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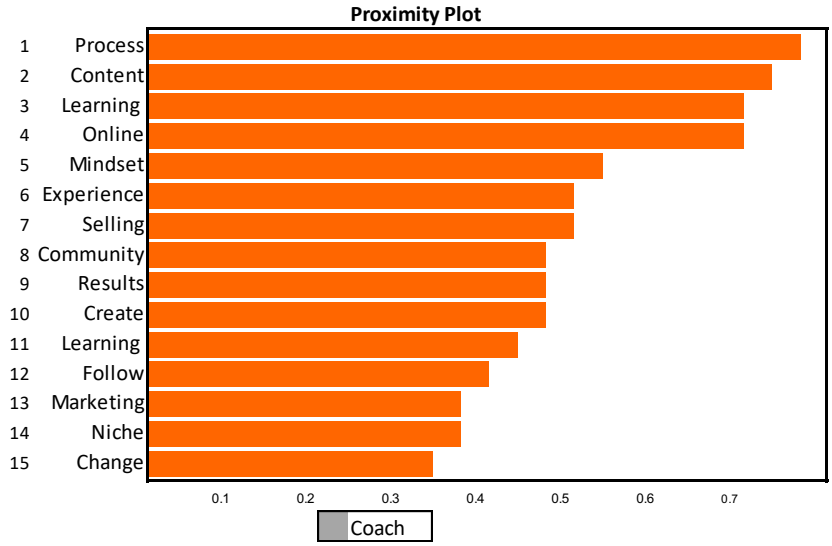

Figure 2: Proximity Plot

We examined the occurrence of codes in the transcripts and summarized the number of cases in which the code occurred. This can be seen in the figure plotted below.

	Count	% Codes	Cases	% Cases
Social Power				
Power	24	1.1%	13	18.6%
Dominance	451	20.3%	70	100.0%
Social Order	320	14.4%	63	90.0%
Struggle	131	5.9%	43	61.4%
Coach				
Process	182	8.2%	54	77.1%
Content	225	10.1%	62	88.6%
Learning	307	13.8%	66	94.3%
Online	152	6.8%	55	78.6%
Entrepreneur				
Mindset	133	6.0%	49	70.0%
Ecosystem	62	2.8%	35	50.0%
Network	115	5.2%	50	71.4%
Resilience	120	5.4%	55	78.6%

Figure 3: Code Occurrence

The distribution of codes was examined to assess the frequency of codes among all cases, and it showed the predominance of the code ‘S12’, across the cases.

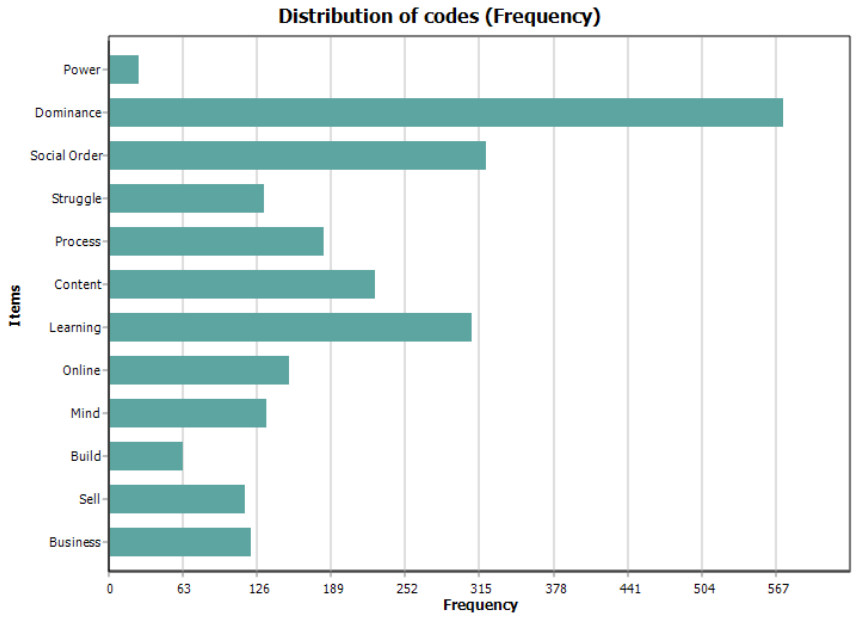

Figure 4: Code Distribution

A heatmap based on coding co-occurrences based on similarity gave the following results, wherein the intersection of codes ‘S12’ with ‘C13’ and ‘S12’ with ‘S13’ had the most prominent heatmap presence. This implied a strong correlation between ‘dominance’ and ‘learning’. A heatmap on coding co-occurrences based on similarity showed the ‘S12’ code of category ‘S1’ having strongest co-relations with ‘C13’, ‘C12’, ‘C14’, ‘C11’ (all codes of C1) and ‘E14’, ‘E11’, ‘E13’ (3 codes of E1). ‘S13’ codes of category ‘S1’ was seen to have the maximum correlation with ‘C13’, ‘C12’, C14’, ‘E14’, and ‘C11’ codes.

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	Ecosystem	Resilience	Content	Dominance	Learning	Mindset	Online	Power	Process	Network	Social Order	Struggle
Ecosystem	1											
Resilience	0.48	1.00										
Content	0.45	0.67	1.00									
Dominance	0.50	0.79	0.89	1.00								
Learning	0.49	0.75	0.86	0.94	1.00							
Mindset	0.45	0.58	0.63	0.70	0.64	1.00						
Online	0.50	0.69	0.67	0.79	0.75	0.58	1.00					
Power	0.20	0.17	0.17	0.19	0.20	0.19	0.21	1.00				
Process	0.44	0.68	0.66	0.77	0.74	0.64	0.65	0.18	1.00			
Network	0.47	0.59	0.60	0.71	0.68	0.62	0.64	0.21	0.65	1.00		
Social Order	0.49	0.74	0.81	0.90	0.87	0.67	0.74	0.21	0.72	0.66	1.00	
Struggle	0.42	0.53	0.59	0.61	0.58	0.53	0.53	0.22	0.54	0.50	0.61	1.00

Figure 5: Heatmap

The coding co-occurrences dendrogram, showed S12 as having linkages with ‘C13’, ‘S13’, ‘C12’, ‘C14’ and ‘E14’ as the top five compound correlations. The coding co-occurrences dendrogram showed the clade of ‘S12’ and ‘C13’ as the lowest implying maximum similarity. This may be interpreted as dominance in digital entrepreneurship as being the key to learning between a coach and the student. The leaf of ‘S13’ joined this clade as the second most similar code, the leaf of ‘C12’ joined this clade, as the third most similar code, and the leaf of ‘C14’ joined this clade as the fourth most similar code. This may be interpreted in a manner that learning is facilitated when there is social order, driven by useful content, in an online mode. Resilience is interpreted in this context as the adaptability of the digital entrepreneur in overcoming difficult situations.

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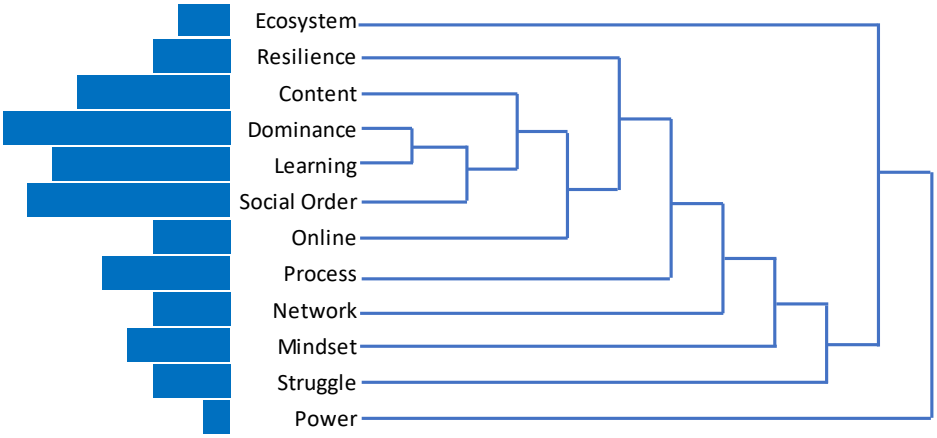

Figure 6: Coding Co-occurrence Dendrogram

A 3D map of correspondence analysis featuring each of the cases on the axis of all code groups is given below:

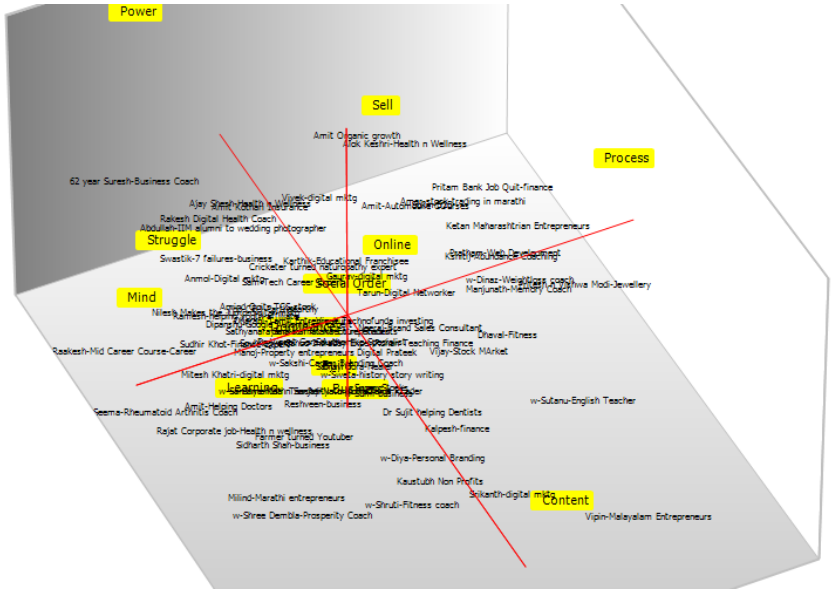

Figure 7: Correspondence Analysis – All Codes

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This displayed all 12 codes and the presence of each case near the respective code it most identifies with. The 3D map of correspondence analysis showed each case in relevance to the codes. Since this was too dense, a correspondence analysis of the codes of 'S1' in the context of the domains were analyzed, as we wanted to understand the 'social power' of coaches. This showed the domains of Authoring, Career, Teaching, Finance and Investments, Business Coaching, and Physical products as having closest correspondence to 'S12' code of 'S1' category. Insurance was seen as having closest correspondence to 'S13' code of 'S1' category. A correspondence analysis of domains along four codes in 'S1' category gave the following results:

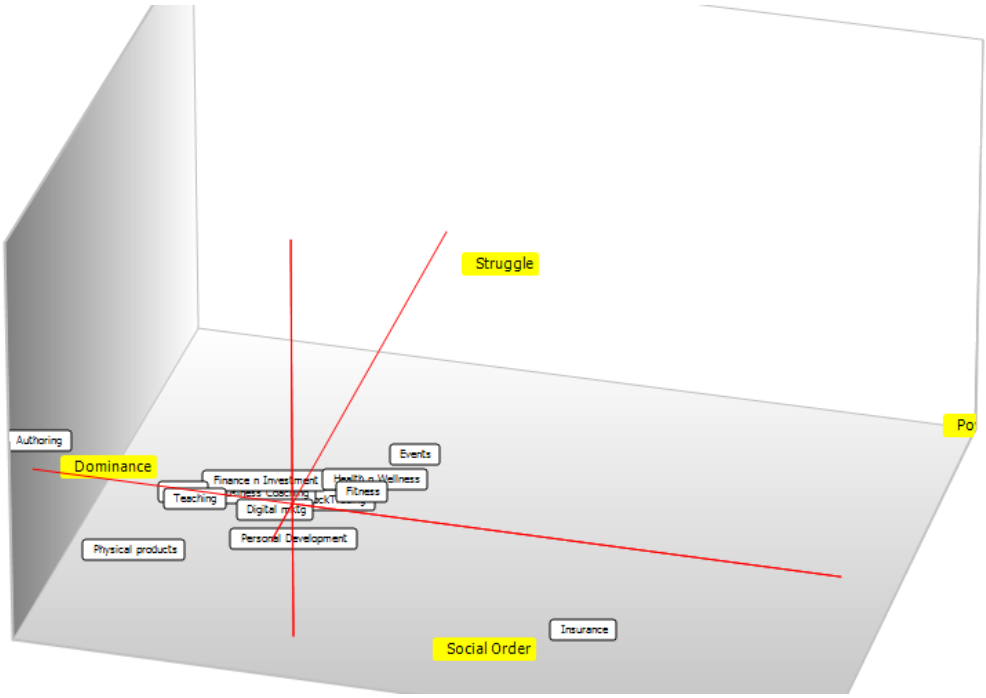

Figure 8: Correspondence Analysis – S1 Category

While examining coding by variable for all three categories by domain, it was observed that 'S12' was the most frequently occurring code among all domains, with two exceptions; one of Insurance

domain where ‘S13’ was most frequent and second in fitness domain where ‘C12’ was most frequent. This was further examined in detail with the four codes of ‘S1’ being studied in the context of all domains. Here ‘S12’ was seen to dominate among all other codes in all the domains except for the domain ‘Insurance’, in which ‘S13’ was predominant.

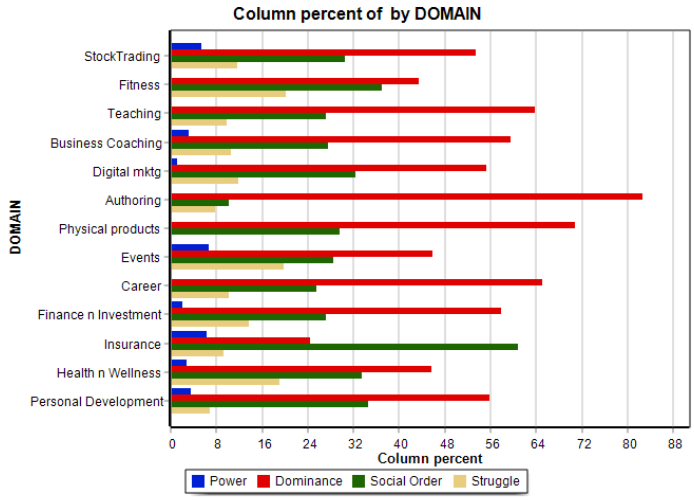

Figure 9: Coding by Variable – S1 category

Overall, when a bubble chart was prepared to analyze the twelve codes from three themes in relation to each domain, it was observed that the size of bubbles in ‘S12’ were largest among all domains. This showed the presence of ‘S12’ as an overarching code within ‘S1’, prevalent among all domains of digital entrepreneurship.

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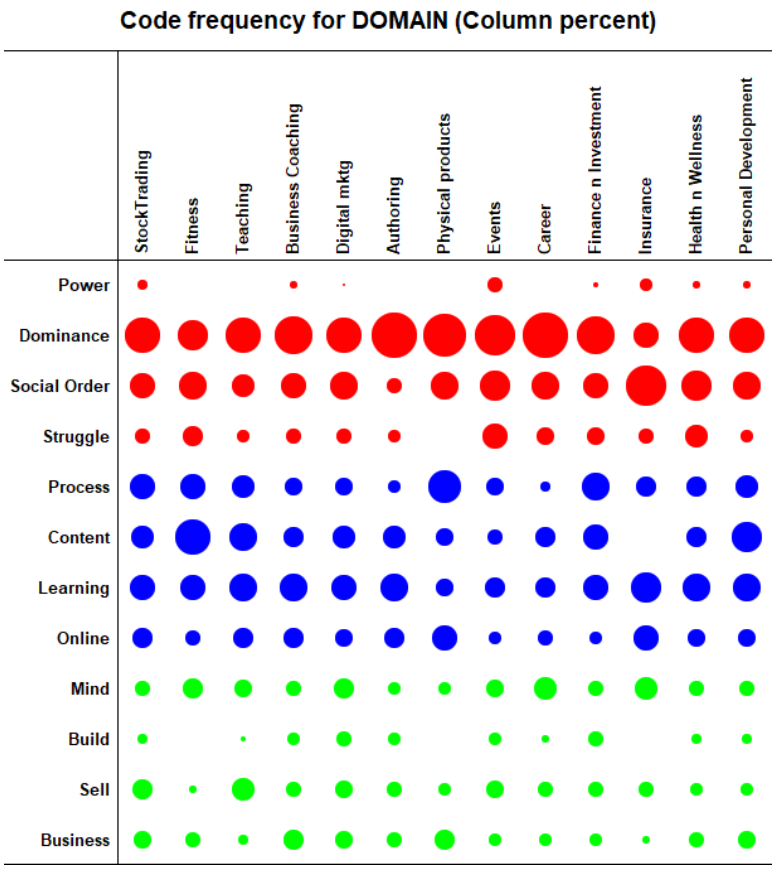

Figure 10: Bubble Chart – All Domains

DISCUSSION

This paper explores the Social Power of coaches in digital entrepreneurship by examining the communication between the coach and the coachee in a conversation about the progress of the new digital venture of the coachee. As we examined these variables in detail, a relationship between 'entrepreneur' and 'coach' became increasingly visible. As seen in the dendrogram in figure 9, the relationship between social power and coach and between coach and entrepreneur was unveiled. With 'dominance' closest to 'learning' and 'social order' linking to 'content' a strong linkage was

established between social power and coach. Thereon, ‘online’ with ‘resilience’ and ‘resilience’ with ‘process’, which further linked to ‘network’ and ‘mindset’, unveiled the relationships between ‘coach’ and ‘entrepreneur’.

While we attempt to resolve the research questions, we propose the following conceptual model to help understand these relations.

As described above in Figure 1, the ‘unified schema of power’, we see those mutualistic relations or ‘power-with’ has ‘assisted empowerment’ which creates an environment for education, nurturance, and assistance. In digital entrepreneurship, successful coaches practice in this quadrant, developing individuals in their community to achieve their goals. It becomes a ‘win/win’ situation for both the coach, who gets favourable reviews and more students, as well as the student, who can grow their business within their chosen domain. In addition, we inferred transformative power (Sieler, 2010) as the coach seeks to nurture the coachee to develop the capacity to achieve outcomes. We found integrative power (Behrendt et al., 2021) manifested in the conversations as the coach encourages the coachees to reciprocate, bind people together and focus on the welfare of the coachees. We also found the Exchange Theory (Homans, 1961) applicable to coaching digital phenomenon as the coachees strive to maximize their benefit and minimize perceived costs by opting for the most economical tools for their business (Pihlajamaki, 2011).

In an attempt to answer our first research question (RQ1), we arrived at the factors which enable a digital coach to influence budding entrepreneurs. These can be classified further into sub-themes as given below.

Entrepreneur Theme

Holmes and Schmitz (1990) proposed a theory based on two key ideas from literature; entrepreneurs are those individuals who pursue new opportunities emerging from technological breakthroughs, and individuals differ in their ability to pursue such opportunities. Among the implications of the theory, they found occurrence of specialization of labour. This can be extended to the context of individuals switching to start their own ventures based on their expertise or skills, which they convert into products and sell online. Examples of this include individuals selling courses on how to reduce belly fat, or how to start a vegetable garden, or how to play a musical instrument, among others. Hence the relevance of coaching in such areas. The theme of entrepreneur emerged from analysis of the transcripts. The respondents discuss entrepreneurial resource gathering to share with their community. From the entrepreneur theme, the following four subthemes emerged:

Mindset

Coaching which focuses on changing the mindset is implemented at the students own place of choice through learning experiences, reflection, best practices, interaction with coach and best practices (Mayled et al., 2019). Corroborated by this study, 'mindset' emerged as a sub-theme, which can be inferred from statements such as, "they need to clear those bad files need to work on their minds and stop saying that I am NOT techy I'm not good at speaking you know I can't speak in front of people," and "people repeating these things the subconscious will keep them away from achieving the mastery stop saying that and they start affirming the positive thing" (S48- business coach); "the reason for my failure was I think I think that that great mindset my self-image was weak" (A27-Digital marketing).

Ecosystem

Sussan and Acs (2017) proposed a conceptual framework for studying entrepreneurship in the digital times by integrating the digital ecosystem and the entrepreneurial ecosystem, which corroborates the theme 'ecosystem' in the digital entrepreneurship context. This sub-theme emerged from statements such as, "build up your audience and create success stories in your ecosystem" (S48-business coach); "for the next year i am looking for building a community, and ecosystem, of around uh 5000 to 6000 people" (A23-photography); "what were you doing on a daily basis to build that the database for your ecosystem when you got started" (A41-Health).

Network

The network of an entrepreneur can provide significant social capital to the entrepreneur's efforts which in turn, improves the new venture's probability of success (Smith and Lohrke, 2008). This social capital helps them sell the concept to their audience. 'Network' as a sub-theme is apparent from statements, such as "they see the value for few days they see how we train, benefits they get from the network and once they are convinced that okay this is something that is really worth doing it is profit making it as well building then eventually they enjoin the program" (A-5 Personal Branding); "learning tips on curriculum design from the network is the biggest thing" (S68-business coach); "i sell them the idea of uh the idea of you know being a part of the network" (A34-Health).

Resilience

De Vries and Shields (2005) researched on factors which promoted resilience in entrepreneurs and found motivation, perseverance, and flexibility as determinants of resilience in an entrepreneur. In our study, a sub theme of 'resilience' emerged as a new theme from

statements such as “the best thing about digital is no bounce back and go international” (S48-business coach); “I was able to adapt my knowledge and sustain myself in the digital world despite obstacles and was able to achieve over 3.45 lakhs” (S-68-business coach); “refreshing and continuing despite odds, I continued my efforts, investing back into the business” (A33-Photography). From the analysis, four sub themes of entrepreneur emerged as ‘mindset’, ‘ecosystem’, ‘network’ and ‘resilience’.

Coach Theme

Cote and Gilbert (2009) suggested three key elements for effective coaching, coaches’ knowledge/ behaviour, outcome of implementing that knowledge/behaviour, and context of the coaching. These were also reflected in the transcripts of the conversations. Four sub themes of ‘coach’ were inferred during the analysis. From the Coach theme, the following sub themes emerged:

Process

Previous research has studied the conceptualizations of the process of coaching, in terms of how they are generated, and what has been their contribution to the coaching knowledge (Cushion, 2007). The sub theme ‘Process’ was inferred from statements such as “went through the process of understanding your own market” (A18-Digital Marketing); “creating a digital lifestyle hub that means it is going to be an ongoing process forever” (A5-Personal Branding); “they have to simplify the process to scale their business” (S48-Business Coach).

Content

Developing and promoting content is critical for the success of any digital coach today. This is inferred from various posts and advertisements on the social media. ‘Content’ emerged as a new theme which could be inferred from statements such as “you can see his content he posts some

really amazing content he came into this world" (A14-Health & Wellness); "there is a lot of demand for the right content, average kind of stuff is available like an ocean people don't drink water from" (A11-Personal Development); "people are liking my content and I have not invested much in the tools and technology" (A7-Events). This was a new theme which emerged during the study.

Learning

Business coaching is a fast-emerging industry which is used increasingly to provide learning-based interventions in companies. (Clegg et al., 2005) The sub theme of 'learning' was inferred from statements such as 'i started learning you know how to use facebook for business" (A5-Personal Branding); "you are going through the learning I mean and in the last six months you've been able to catch the knowledge that you've gained inside this community" (A34-Health); "invest 3 months in learning a free tool as well and you will get so much of enormous of value" (A27-Digital marketing).

Online

Since coaching as well as the business was online, there were many instances of respondents referring to their growing presence online, or their inadequacy in the online space being solved by the respondents. Thus, a new theme 'Online' emerged from statements such as "he did not have any idea about training coaching doing things online digital marketing" (A-16-Stock Trading); "your influences are you know you're growing it online for so many last couple of years" (A5-Personal Branding); "you would have noticed this in the online space there are two extremes of uh you know marketers" (A8-health & Wellness).

In an attempt to answer our second research question (RQ2), we delved deeper into the third category 'social power', which comprised of four sub-themes derived from literature. These can be understood in the context of all conversations, which were analysed by examining every sentence in each transcript.

Social Power Theme

Social power has been identified with influence, competence, knowledge, and dominance (Bierstedt, 1950). Hence, we derive the sub-themes of 'power', 'dominance', 'social order', and 'struggle' from literature. Since 'dominance' was the most frequently code occurring among all cases, and it had strongest correlations with the sub-themes of the 'Coach' category, we can infer the presence of dominance while coaching. The domains of authoring, career, teaching, finance and investment, business coaching, and physical products were observed to have the closest correspondence to 'dominance', thus implying a larger prevalence of dominance in these domains. 'Dominance' was the most frequently occurring code among males, females, and couples. Among all four codes of the theme 'Social Power', 'dominance' was the most predominant.

Power Potrac & Jones (2009) further our understanding of the power-ridden contested nature of coaching, albeit in a sports context. When examined in the context of digital coaching, the results were not significantly different. The participants express the role of power by the coach when they illustrate, 'I copied you exactly step by step as you told me' (A33-Stock trading); 'when I saw your videos I felt some power pushing me to take action' (A41-Health & Wellness); "so I followed each and everything then you have given your entire dissection the way you have your webinar" (A18 – Digital Marketing).

Dominance

The respondents expressed reliance on the coach to guide them through the various steps of the business model implementation. The coach instructs the coachees on specific activities to execute and the coachees are told to do exactly as specified. These excerpts give an indication of the presence of dominance (Van Dijk, 2003) in coaching; “I tell such people see they need to first of all follow my system because it's proven so they need not to renew in the wheel at all” (A15 – Business Coaching); “you devoured my videos you absorbed whatever in fact that's what i did. watching my video and my mentor's videos multiple times because you'll never know that one point that he says will stick in the head” (A7 – Events). The statement, “my tribe i asked them to make testimonial videos for me” (A1 - Health & Wellness), is evident of the coach dominating the community members by asking them to make video testimonials.

Social order

Building and mentoring their own community comes as a natural step for these entrepreneurs. They spend time and effort in nurturing their community, creating their own ecosystem and being transparent with their community members. This reflects establishing a social order as shared meanings enable actors to collaborate (Haugaard, 2003). Efforts to establish a social order are illustrated by “i gathered the sources so i can share that with my community” (A7 – Events); “because i have a tribe now and i have to build them how to nurture them and all that” (A1 – Health & Wellness); “most of my time is nurturing the people who have come into my system” (A5 – Personal Branding); “by creating my own ecosystem” (A21 – Finance & Investment);

Struggle

Power relations are about struggle, negotiation, and reciprocity (Isaac, 1992). Struggle is evident when respondents share about the challenges being faced at that point in time. The struggles of the

coachees are illustrated as, “because I know I was going through several challenges in my life, and I was looking for someone who can really help me” (A14 – Health & Wellness); “i again started struggling because my heart was not there i wanted to do something, but my idea was not clear” (A8 - Health & Wellness); ‘every time I tried to do something new I failed, but I did not give up. I had to face many difficulties; at times I did not have money for the gas cylinder for my kitchen. I have struggled a lot in the past one year’ (A-27-Digital marketing).

Thus, we see that Social Power theme is a key component in the development and growth of digital entrepreneurs by their coaches.

After examining the themes, we propose a conceptual model, integrating the sub themes in a conceptual framework for understanding the emerging social power of coaches in digital entrepreneurship.

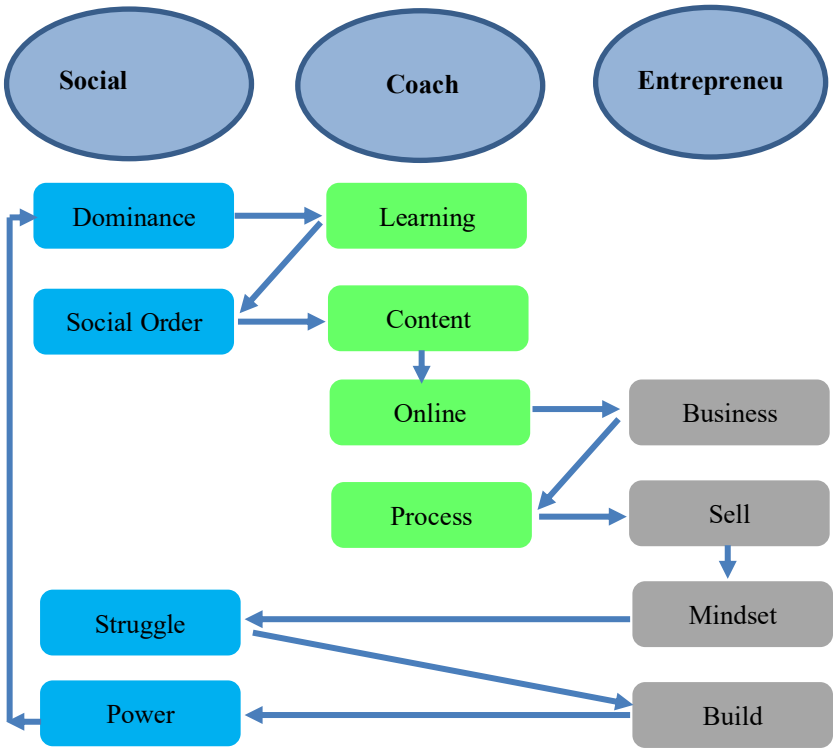

Figure 11: Conceptual Model of Social Power of Coaches in Digital Entrepreneurship

CONTRIBUTION

A key theoretical contribution of this study is that this may be the first study of its kind to examine the social power of coaches in digital entrepreneurship, in such a large dataset. Secondly, this study does not have the bias associated with self-reported studies, as it examines conversations between a coach and the coachees. The third theoretical contribution is in the form of arriving at 'dominance' as a key construct of 'social power' which influences the interactions between a

coach and a coachee. We witnessed this impact while analyzing the transcripts and have explained the phenomenon in detail in this study. The fourth theoretical contribution is in the form of two new themes namely, 'content' and 'online', which emerged during this study.

For practitioners, this study provides coaches a perspective to refine their influence on their students and how they may interact in a more proficient manner. We suggest that coaches should be conscious of the extent of dominance to be used so that it is perceived as directional and not overbearing or restrictive. For potential entrepreneurs, this study may be useful as it shares certain elements which they may incorporate while selecting the coach for their digital ventures. They may choose a coach who favors the same construct of social power, which they need or are searching for. The linkages illustrated in the conceptual model may be used to understand the dynamics of relationship building between a coach and their community.

LIMITATIONS AND FUTURE RESEARCH

Though being a first of its kind, this study has certain limitations. We could not converse with the individuals involved in a one-on-one interaction, which may have provided more depth to the analysis. Future researchers may choose to triangulate the findings by examining publicly available data, conducting one-to-one interactions, and analyzing the interviews to arrive at more robust findings. Future research opportunities include conducting a longitudinal study with the same entrepreneurs as considered in the preliminary study, or with another set of digital entrepreneurs, to understand the trajectory of their growth over the years. Researchers could also complement this study by conducting an extended qualitative and/or quantitative study to obtain responses from coachees in other regions across the world.

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Designing IoT knowledge-driven waste management assessment mechanism: An exploratory case study

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Abstract

Purpose: The purpose of this paper is to contribute to the current scholarly debate on the value of Big Data and Internet of Things for effective and efficient information and monitoring wellbeing for ecology sustainability, pollution and waste management. The aim of this exploratory study attempts to study a real life IOT based Municipal Solid Waste Management System (MSWMS) in India. There are a very small number of exploratory studies that explain the diffusion and adoption of Internet of Things (IOT) in different areas of application and at the same time, from the perspective of multiple stakeholders.

Design/methodology/approach: In order to assess the effects of IoT knowledge driven mechanism in developing countries, our research is one such attempt to understand the framework of IOT based municipal solid waste management system (MSWMS) in India and the emerging IOT ecosystems.

An exploratory analysis has been carried out in order to understand best practices related to the policy and assessment of information and monitoring waste management in largescale cities, the

understand the levels of assessment and evaluation in terms of data-analytics environmental strategy and sustainability-oriented innovation performance.

Findings: The results of the paper indicate that although cost and efficiency are important motivations for choice of cloud computing based Garbage Collection and Disposal Monitoring System by the customer, but the success of any cloud computing initiative depends upon the successful creation of an ecosystem.

Originality/value: The paper provides the framework for the successful implementation of Cloud computing-based Garbage Collection and Disposal Monitoring Ecosystem. The researchers observe the emergence of a multiple stakeholder ecosystem which is critical to the successful implementation of a cloud-based Garbage Collection and Disposal Monitoring System. This study especially suggests managerial and policy-maker implications upon the additive effect of IoT information system and big data analytics as antecedent of knowledge-driven environmental strategy to impact on waste management and Smarcity approach. Overall, the study contributes to advance previous literature on innovation and technology management delivering a portfolio of tentative best practices as it reveals the needs to define novel frameworks for waste management.

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