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**Entrepreneurial Learning and Sustainable Development:  
Comparing Macau and Liverpool**

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# **Entrepreneurial Learning and Sustainable Development: Comparing Macau and Liverpool**

## **Abstract**

As the field of sustainable entrepreneurship is relatively new, this research aims to explore the opportunity identification process leading to the creation of sustainable businesses. We also intend to explore respondents' perception and prioritisation of stakeholders. Based on young entrepreneurs in two distinct locations (Liverpool and Macau) we examine how their narratives fit with various theories associated with sustainable entrepreneurship, entrepreneurial opportunity identification and effectuation. The preliminary findings show that entrepreneurs engage in the effectual process during opportunity development. Bootstrapping strategies and effective utilisation of social capital play an important role in the process. Prior entrepreneurial knowledge and sustainability-related knowledge were commonly possessed by these entrepreneurs. The findings also suggest that the entrepreneurs have a narrow perception of their stakeholder network and their impact on those stakeholders. However, many show altruistic attitudes towards others and perceive environmental issues as a threat to human-kind. Implications for policies are proposed to stimulate the growth of more sustainable business in Liverpool and Macau.

# **Entrepreneurial Learning and Sustainable Development:**

## **Comparing Macau and Liverpool**

### **Introduction**

The concept of sustainable entrepreneurship is gaining momentum in academic communities. Social and environmental responsibilities are viewed as means of developing future entrepreneurial potential (Cohen and Winn, 2007; Dean and McMullen, 2007; Hockerts and Wüstenhagen, 2010; Pacheco et al., 2010; York and Venkataramam, 2010). This research was designed to explore the process of opportunity identification leading to the creation of sustainable businesses by drawing on existing theories. For example, one of the most significant research problems in entrepreneurship concerns the debate about whether opportunities are identified (Shane, 2003; Arend et al., 2015) or created (Sarasvathy, 2001). Recently, Ramoglou and Tsang (2015) attempt to reconcile these conflicting positions, which they suggest have been ‘hindered by inadequate theorizing and overpowered by empiricist preconceptions’. Given difficulties associated with access to resources for young entrepreneurs (Hickie, 2011), we suggest that an effectual approach will prove to be the most effective approach to the creation of sustainable businesses established by young entrepreneurs (Jones and Li, 2017).

Advocates of stakeholder theory suggest that businesses should not only focus on shareholder value (Freeman, 1984). However, this leads to a number of questions: are the interests of a wider range of stakeholders a concern for young entrepreneurs establishing sustainable businesses? How much do they know about the depth and breadth of their stakeholders? How do they balance the so called three pillars of sustainability (economic, social and environmental bottom-line)? Which pillar is more important and what factors influence entrepreneurial choices? For example, Lourenço et al. (2013a) suggest that economically-driven entrepreneurs focus on economic sustainability whereas sustainability-driven entrepreneurs are more concerned to develop solutions which have an equal balance between the three pillars. This study aims to explore these questions in order to shed more light on the nature of opportunity identification and development among young entrepreneurs establishing sustainable and economically-driven business start-ups.

In essence, based on young entrepreneurs in two distinct locations, Liverpool, UK and Macau, China. We examine how their narratives fit with various theories associated with sustainable entrepreneurship, entrepreneurial opportunity identification and learning. These locations have comparable populations, policies to stimulate young entrepreneurship, as well as a desire to promote

the sustainability agenda. Nevertheless, there are differences between these locations. Stimulating young entrepreneurship is a policy aimed at tackling the shortage of good quality graduate jobs (Hickie, 2011) and reducing youth unemployment in the UK. However, policies to stimulate young entrepreneurship in Macau focus on economic diversification and broadening the career perspectives of younger people. Currently Macau is heavily reliant on taxation income from the tourism and hospitality sectors. In Macau understanding the importance of sustainability and the associated technologies lags major cities in developed countries. The main objective of this study is to compare the differences between Liverpool and Macau in terms of how young entrepreneurs value develop sustainable business opportunities.

## **Literature Review**

### **Sustainable Entrepreneurship**

The most widely used definition of sustainability comes from the former Norwegian Prime Minister, Gro Harlem Brundtland. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). Attaining the goal of sustainable development means that it is essential to give equal importance to the economic, social and environmental bottom-lines (Elkington, 1999; Haugh and Talwar, 2010). Nevertheless, the field is still fragmented and concepts undefined. It is noted recently that there are around three hundred definitions of sustainability and sustainable development (Santillo, 2017). Essentially, the core of sustainable development is that all natural systems have limits and in order to sustain the wellbeing of human beings for generations to come, it is necessary to live within those limits (Hall et al., 2010)

Initially environmental and social concerns were perceived by the business world as adding costs by imposing legal and ethical burdens (Starik et al., 2010). However, many organizations now recognize the need to incorporate sustainable business practices based on the principles of the triple-bottom-line (Gast *et al.*, 2017). It is common to find a section on sustainability, environmental protection and/or corporate social responsibility on most large firm's websites, in their annual reports, and many organisations have created jobs dedicated to improving sustainability (Hall et al., 2010). Within Universities, there are new faculties and programmes with a focus on sustainability; business schools have chairs, institutes and centres for sustainability (Hall et al., 2010). Mainstream management and entrepreneurship journals, as well as journals from other disciplines, have an increasing amount of papers on sustainability (Hall *et al.*, 2010).

A recent systematic literature review of sustainable entrepreneurship in journals between 1996 and 2015 indicated an upturn in publications (Gast *et al.*, 2017). However, the field of sustainable

entrepreneurship is still emerging and core assumptions remain ill-defined (Shepherd and Patzelt, 2011). The main obstacle is that scholars are still trying to understand the role of entrepreneurship in sustainable development and how it helps tackle environmental issues (Hall et al., 2010). However, there are many sustainability-related entrepreneurship concepts in the literature. For example, ecopreneurship, environmental entrepreneurship, environpreneurship, green entrepreneurship, social entrepreneurship, social enterprise and sustainable entrepreneurship (Gast et al., 2017). It is suggested that environmental entrepreneurs are motivated to earn financial benefits by tackling environmental and ecological degradation. Whereas, sustainable entrepreneurs aim to tackle environmental and societal problem *via* their entrepreneurial activities (Gast et al., 2017).

In order to clarify the concept of sustainable entrepreneurship, it is suggested that sustainability can be divided into two aspects (Shepherd and Patzelt, 2011): what is to be sustained and what is to be developed (Parris and Kates, 2003; Leiserowitz et al., 2006). What is to be sustained consists of nature, life support and community (Parris and Kates, 2003; Leiserowitz et al., 2006). Nature includes the earth, biodiversity and the ecosystem which forms part of the overall physical world. Human existence and life on earth are threatened if nature is not preserved and sustained. Life support is represented by ecosystem services, resources and environment which provide important life support services to humankind. It was estimated that these services were worth US\$33 trillion per year in 1995 and US\$125 trillion in 2011 (Costanza et al., 1997; Costanza et al., 2014). In order to sustain life support, it is necessary to preserve nature. Community relates to a “complex web of relationships between a set of individuals who share values, norms, meanings, history, and identify” (Shepherd and Patzelt, 2011, 139). The essence of communities are their distinct cultures, groups and place. Sustainable entrepreneurship aims to create mechanisms for sustaining nature, life support and community (Shepherd and Patzelt, 2011). Economic gains focus on the generation of wealth, employment, increasing gross national product, development of productive sectors and consumerism. Non-economic gains relate to human development which focus on child survival, life expectancy, education, equity and equal opportunities (Parris and Kates, 2003; Leiserowitz et al., 2006). Moreover, on a collective level, non-economic gains also include social development to enhance the wellbeing of nations, regions, states, institutions and to enhance social capital and community ties. For example, enhancing life-satisfaction and happiness, protection against security threats from outside and inside, the rate of violence and corruption and interpersonal relationship.

Shepherd and Patzelt (2011: 140) combine Venkataraman's (1997) definition of entrepreneurship with the concept of sustainable development: “sustainable entrepreneurship is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is

broadly construed to include economic and non-economic gains to individuals, the economy and society". Concepts such as ecopreneurship, social entrepreneurship and corporate social responsibility are related but not necessarily sustainable entrepreneurship. Some suggest that entrepreneurs can discover or create opportunities by tackling social and/or environmental issues to generate financial wealth based on market failure (Dean and McMullen, 2007). According to Cohen and Winn (2007) there are four 'market imperfections' that create opportunities for sustainable entrepreneurs: inefficient firms, flawed pricing mechanisms, externalities and information asymmetries. The process of opportunity development relies on entrepreneurs combining information and resources to create innovations to exploit those market opportunities (Cohen and Winn, 2007; Patzelt and Shepherd, 2010); to develop longer-term competitive advantage (Jenkins, 2009; Parrish, 2010; Clercq and Voronov, 2011). Others adopt an institutional theory perspective to suggest ways for entrepreneurs to create better conditions to develop and grow markets for sustainable businesses (Pacheco et al., 2010; York and Venkataramam, 2010). Alternatively, new entrants can disrupt the market with innovatory practices that begin to influence incumbent enterprises to grow the market for sustainable businesses, products and services (Hockerts and Wüstenhagen, 2010; York and Venkataramam, 2010). Motivating students to consider sustainable opportunities via entrepreneurship education have also been discussed (Lourenço, 2013; Lourenço et al., 2013a). Currently, the concept of sustainable entrepreneurship is gaining momentum in the academic community. Social and environmental responsibilities are viewed as means of developing future entrepreneurial potential (Lourenço, 2013; Lourenço et al., 2013a).

There is a gap in literature exploring the process of opportunity identification and development by examining entrepreneurial attitudes towards stakeholders and exploring their understanding of their stakeholders. To what extent do sustainable entrepreneurs have a concern for a wider-range of stakeholders? How do they balance the so called three pillars of sustainability (economic, social and environmental bottom-line)? Which pillar is more important and what factors influence entrepreneurial choices? For example, Lourenço et al. (2013a) suggest that economically-driven entrepreneurs will focus on economic sustainability whereas sustainability-driven entrepreneurs are more concerned to develop solutions which have an equal balance between the three pillars. Using GEM data from 20 developing countries, Dhahri and Omri (2018) found a negative relationship between entrepreneurship and environmental sustainability. However, that relationship was mitigated by encouraging more 'opportunity entrepreneurship' based on the exploitation of new technologies. A similar study of 20 African countries found that that the 'informal' sector was dominant with a focus on minimising costs by avoiding taxes, social security/pension payments as well as ignoring environmental standards and regulations (Youssef *et al.*, 2018). This study also confirmed

that encouraging higher levels of new technological innovation and the creation of stronger institutions were key mechanisms for entrepreneurs to have a positive, rather than a negative, environmental impact.

Gaining legitimacy with various stakeholder is an essential element in the creation of new business ventures. Those entrepreneurs who are skilled cultural operators (Lounsbury and Glynn, 2000) use symbolic actions (Zott and Huy, 2007) to increase legitimacy for their nascent businesses. According to O'Neil and Ucbasaran (2016) there are three key steps associated with the process of new venture legitimation: what matters to me (standing out), what matters to them (fitting in) and balancing me and them (legitimate distinctiveness). Effective entrepreneurs are able to develop the ability to 'reflexively engage' with feedback and make appropriate changes to their legitimation work. Initially, entrepreneurs 'enact their values and beliefs' and gradually ensure they demonstrate congruence with stakeholders' values and beliefs in what O'Neil and Ucbasaran (2016: 416) regard as entrepreneurial learning. Reynolds *et al.* (2018) examine the way in which three 'archetypal' elements of sustainable entrepreneurship (prior knowledge, sustainability orientation and sustainability intention) influence legitimating behaviours. Based on 10 sustainability-orientated entrepreneurs, the authors found that 'learning to demonstrate prior knowledge' was important for gaining legitimacy at the early stages of start-up. In the longer-term, sustainability intention was the most important factor in maintaining legitimacy amongst diverse stakeholders. Intention was demonstrated *via* language and through the creation of 'professional identities', which help overcome stakeholder negativity associated with the perception that entrepreneurs place too much emphasis on their sustainability values and convictions (Reynolds *et al.*, 2018: 445). According to Munoz (2018) there has been little research focus on the cognitive reasoning of those engaged in sustainability-oriented new ventures (Hockerts, 2015). Based on a detailed study of 37 sustainability entrepreneurs, Munoz (2018) identified a typology of five archetypes: purpose-driven, determined, purpose-driven, hesitant, value-based vacillating, value-based, unintended and single-motive, single-solution. The core cognitive conditions associated with all archetypes were sustainability-oriented values and motivation. Munoz (2018: 802) concludes: 'one cannot sustain the argument that strong presence of attitudes and convictions regarding the role of the new business in the society leads (always or almost always) to implementing measures, targets and strategies aimed at improving the business's impact on people and the environment'.

Based on a study of 293 Canadian university students, St-Jean and Labelle (2018) also found that a 'sustainability orientation' could have a negative impact on entrepreneurial action. The authors suggest two main reasons for this negative relationship, which are in contrast to the findings of Kuckert and Wagner (2010). First, entrepreneurs may be seen as creating rather than resolving environmental



problems. Secondly, Canadian culture tends to focus on the shorter-term and, hence, environmental issues are not seen as an immediate issue. However, a strong belief in the 'instrumentality' of entrepreneurship (to change the world) mitigates the negative effect of SO on entrepreneurship as a career choice (St-Jean and Labelle, 2018: 1083). Based on a study of five Tuscany-based micro firms involved with the development of geothermal heat pumps (GHP), Gasbarro *et al.* (2018) examined how entrepreneurs reacted to an environment in which institutions did not support sustainability. By acting as 'sustainability institutional entrepreneurs' key actors are able to legitimate sustainable solutions by triggering change in normative and cultural-cognitive institutions and eventually, the regulatory institutions (Gasbarro *et al.*, 2018: 494).

### **Young entrepreneurs and experiential learning**

Young entrepreneurs are defined as business founders below the age of 25 (Hulsink and Koek, 2014). In the 21<sup>st</sup> century with more competition in the job market and an increase in teaching entrepreneurship in higher education (Jones *et al.*, 2014), many young people are considering setting-up their own businesses (Hickie, 2011). Families are their earliest and most immediate influence on most young entrepreneurs (Edelman *et al.*, 2016; Jones and Li, 2017) with some growing-up within entrepreneurial families (Hickie, 2011) where they learn about business creation through parents, close relatives and friends (Hulsink and Koek, 2014). Existing literature suggests that it is riskier for young people to become entrepreneurs due to their lack of business experience, limited financial support and weak credibility (Conway, 2014) as well as a lack of creativity (Lorrain and Raymond, 1991). However, others feel that that young people are suited to engage in entrepreneurship (Edelman *et al.*, 2016). Since many new graduates cannot trade their degree for a well-paid job, increasingly universities are encouraging students to consider careers in entrepreneurship (Lourenço *et al.*, 2013b).

The importance of understanding the context in which entrepreneurial learning takes place has been stressed by a number of key authors (Cope, 2005; Rae and Carswell, 2001; Cope and Watts, 2000; Gibb, 1997; 2002). Kolb's (1984) ideas about experiential learning have been very influential in the field of entrepreneurship. In developing his learning cycle Kolb drew extensively on the work of Dewey (1938), Lewin (1951) and Piaget (1951). The experiential learning cycle is based the principle that knowledge is created by a combination of two dialectical processes: making sense of experience (prehension) and applying that experience (transformation). The prehension dimension varies from abstract conceptualization (comprehension) to concrete experience (apprehension). Combining the two dimensions illustrates four distinct and elementary forms of knowledge (Kolb 1984). The core dialectic of apprehension and comprehension means that knowledge is based on concrete knowing and abstract knowing (Kolb 1984). There is constant tension between subjective, intuitive and

emotional understanding and objective, abstract and rational understanding. The second dialectic of extension and intention means that there is a tension between the application of new knowledge (action) and a sense-making or mean-making process (reflection).

Cope's (2003) influential work draws heavily on heavily on KELT (Kolb's Experiential Learning Theory) to stress the importance of basing entrepreneurial learning on an action-oriented process of co-participation (Pittaway and Cope 2007, Politis 2005). In terms of 'learning in practice', Cope and Down (2010) attempt to 'accommodate' the cognitive and social learning approaches to entrepreneurship education. They build on the work of Marshall (2008: 419) who suggests that the cognitive and practice perspectives are complementary because they provide a deeper understanding 'how unfolding social realities are constituted and enacted'. Cope and Down (2010) also draw on Burgoyne's (1995) attempt to reconcile the cognitive and social perspectives on learning. The model illustrates that nascent entrepreneurs do not make decisions or undertake tasks related to starting their businesses in isolation from other social actors. Participation refers to the active encounters which are the basis of effective entrepreneurial learning. Such encounters can be formal elements of a module in which students are expected to engage in group-work: for example, brainstorming business ideas or preparing a business plan. This idea of 'conversations' informing various activities associated with the learning cycle fits with the approach proposed by Baker et al (2005).

Entrepreneurial practice is not simply about doing things (capabilities), it also concerns learning the appropriate social skills such as negotiation with suppliers, customers, funders and other stakeholders. Rae (2004) suggests that immersion in practice enables entrepreneurs to develop a theory of what works which can be described as know-how, know-what and know-who (Dohse and Walter 2012). In a study of fast-growing business set-up by young entrepreneurs, Hickie (2011) notes that 11 of the 15 participants in his study developed informal ventures while still at school. This might be difficult to replicate in the classroom with students who have had little practical exposure to entrepreneurship. However, some practices can be replicated by encouraging students to engage in meaningful tasks such as writing and presenting a business plan or setting-up a business. What is crucial about such activities is that the participants must be encourage to reflect on the whole experience to help them link practice, learning and identity through participation in a community of practice.

Entrepreneurs engaging in the processes of business creation are unlikely to succeed without absorbing new knowledge as a result of their learning activities (Wang and Chugh, 2013). Previous research confirms links between sensemaking and learning when individuals and teams are operating in highly uncertain environments (Haas, 2006). It is particularly important that during start-up

entrepreneurs engage in activities that are creative and innovatory (Maitlis and Christianson, 2014; Jay, 2013). Sensemaking is concerned with how actors deal with the equivocality and flux associated with new organizations (Gartner *et al.*, 1992). In a recent study of two young entrepreneurial brothers, Jones and Li (2017) contend that their ability to manage the transition from school-boy hobby into a successful business was the result of parental influences and their own experiential learning capacities (Bradley and Corwyn, 2002; Jayawarna *et al.*, 2014). Dispositions, based on habits, heuristics and routines, important in any entrepreneurial context, are particularly relevant in start-ups founded by young, inexperienced entrepreneurs (Aldrich and Yang, 2012).

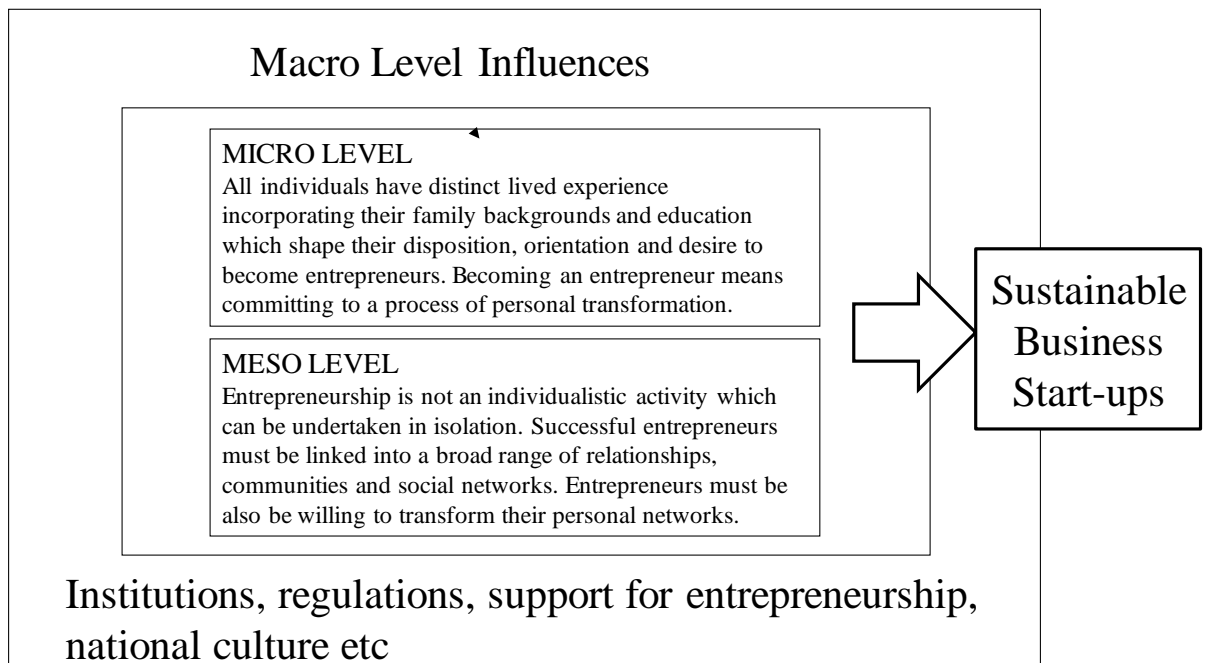
There are opposing views about the nature of entrepreneurial learning which can be contrasted between cognitive approaches (Gavetti and Levinthal, 2000) and those who argue that learning is based on actions and activities (Billinger *et al.*, 2014; Fiol and Lyles, 1985). Berends *et al.* (2016) argue that learning is partly based on 'forward-looking processes' in which entrepreneurs choose actions based on cognitive representations. While experiential learning is 'backward-looking' as previous experiences are encoded in organizational activities and routines (Berends *et al.*, 2016; Hernes and Irgen, 2012). In cognitive learning, understanding precedes action whereas in experiential learning action precedes cognition. As Berends *et al.* (2016: 184) posit: 'thus, both cognitive search and experiential learning involve action and cognition, but in opposite sequences.'

If new ventures are to become viable, it is essential that entrepreneurs create legitimacy with potential customers and suppliers. According to Suchman (1995), there are three forms of legitimacy: pragmatic, moral and cognitive. Bojovic *et al.* (2018) adopt a more managerialist perspective based on strategic actions to gain legitimacy with various stakeholders (Tornikowski and Newbert, 2007). Such legitimacy is crucial if entrepreneurial ventures are to overcome the liabilities of newness (Stinchcombe 1965) and smallness (Aldrich and Auster 1986). In an extensive review of the new venture literature, Überbacher (2014) creates a typology based on two dimensions, locus of control (actor-centred versus audience-centred) and level (micro versus macro), to identify four types of legitimacy: contextual judgement, organizational judgement, collective action and strategic action. The 'strategic action' perspective focuses on the way in which entrepreneurs (actors) attempt to

influence the legitimation process (Überbacher, 2014). This fits with the ‘impression management’ approach in which entrepreneurs control information-flows to build a favourable image amongst various stakeholders (Suchman, 1995; Zott and Huy, 2007). Essentially, creating an effective business model can help new organizations establish legitimacy by influencing the environment (Bojovic *et al.*, 2018). For example, Zott and Huy (2007) demonstrate how entrepreneurs use symbolic actions to build legitimacy and acquire resources. Such symbolic actions can include establishing the entrepreneur’s personal credibility, building high-quality stakeholder relationships and professionalizing their organizational activities (Tornikowski and Newbert, 2007; Zott and Huy, 2007). Based on two comparative case studies, Bojovic *et al.* (2018) suggest that experimentation has three distinct elements: learning (understanding the environment) as well as signalling and convincing, which are ‘symbolic and legitimating’. The latter two roles contribute to strategic legitimation by demonstrating the business model to various stakeholders.

The work of French social theorist Pierre Bourdieu is the basis of a recent attempt to locate entrepreneurial learning within the context of a multi-layered relational framework. Karatas-Ozkan and Chell (2010) distinguish between the micro, the meso levels and the macro levels based on a detailed, longitudinal study of two start-up businesses. The value of this approach is that the orientations and dispositions of individuals (micro) are located within the context of their relationships and social networks (meso) and the broader institutional context which includes regulatory factors as well as market and sectoral influences. These ideas are summarised in Figure 1 in which the three levels of entrepreneurial learning are identified (Jones *et al.*, 2014). Cognitive learning is a central element of business education whether at the undergraduate or postgraduate levels. An individual’s ‘absorptive capacity’ will influence their ability to learn and apply new ideas and new ways of thinking. In our study, we make use of this framework to understand the differences between the creation of sustainable entrepreneurial businesses in Macau and Liverpool.

**Figure 1 Influences on Entrepreneurial Learning (for sustainable businesses)**



## **Research Methods**

### **Research Context**

This study takes an exploratory approach and examines a small cohort of young entrepreneurs (between 20 and 30 years of age when they started the first business) in Liverpool (UK) and in Macau (China) to better understand the process of opportunity identification in the area of sustainable entrepreneurship. Both Liverpool and Macau have policies to stimulate young entrepreneurship as well as a desire to promote the sustainability agenda. Nevertheless, there are differences between these locations in terms of promoting young entrepreneurship. In the UK young entrepreneurship is generally promoted as a policy to tackle the shortage of good quality graduate jobs (Hickie, 2011) and reduce youth unemployment. Macau, the Las Vegas of Asia, promotes youth entrepreneurship to stimulate economic diversification and broaden the career opportunities for young people. Although unemployment in Macau is relatively low, the City is heavily reliant on the tourism and hospitality sectors. Revenue from gaming accounts for 85% of total tax income in the City. Knowledge and exposure to sustainability concepts and technologies in Macau lags major cities in developed countries including the U.K. Although Macau has its unique characteristics when it comes to entrepreneurship, it is under-researched, and no comparative research has carried out to identify how the concept of sustainable entrepreneurship varies with the West. Hence this study will aim to compare findings from Liverpool and Macau to shed light into how young entrepreneurs value sustainability and develop opportunities in these two locations. The finding will contribute to the area of entrepreneurial

research and practice communities by capturing and depicting the processes of entrepreneurs from contrasting locations to inform future policies as well as theory development.

## **Research Design**

Due to limited research on sustainable entrepreneurship this exploratory study adopts a qualitative research method to investigate young entrepreneurs who have recently established new businesses based on the principles of sustainable entrepreneurship. Rather than aiming at generalisability, this study is designed to further our understanding of sustainable entrepreneurship amongst young entrepreneurs. Individual interviews were chosen over focus group as they provided the opportunity for each individual (entrepreneur) to share their business start-up experiences and their views on sustainable entrepreneurship without external influence. In total, the researchers identified 10 young entrepreneurs in Liverpool and Macau using existing networks in each location. Young entrepreneurs were identified by the researchers, in the first instance, using purposive sampling to identify entrepreneurs who started a sustainable or non-sustainable business in both locations. The criteria for the selection were as follows:

- 1) Each entrepreneur had either started a sustainable/green or non-sustainable business;
- 2) The entrepreneurs were under the age of 30 when they started the businesses (to be considered as young entrepreneurs)

A total of 20 semi-structured interviews with young entrepreneurs were conducted, including five conventional start-ups in each location. Each interview lasted between one-hour and one-hour and thirty minutes. All interviews were audio recorded and transcribed. Interview protocol was produced in advance and the focus of the interviews was: a) the young entrepreneurs' opportunity process; b) the support and barriers associated to the entrepreneurial process; c) their attitudes towards young entrepreneurship; d) their attitudes and perceptions of their contribution towards multiple stakeholders via their entrepreneurial actions. Thematic analysis and content analysis were conducted to analyse the data generated from the interviews to draw out key views and findings. Although a total of 20 interviews were conducted, only 10 interviews (with the sustainable entrepreneurs) are used for this report due to the sheer size of the data set. This report primarily explores the entrepreneurs who started sustainable business in terms of their process of opportunity identification and perceptions towards stakeholder contribution. The characteristics of each interviewee are depicted in Table 1.

Interviewee and age	Age when started	Gender / Family status	Education	Business nature	Sustaining	Developing	Staff / Turnover in GBP
1. Ms. MH Macao 29 YO	29	F / Not married	Polytechnic Institute of Macao, Bachelor in Law	Online platform (rental of products and services)	Concept of shared economy: reduce consumption and disposal of unwanted goods, encourage reuse and to extend the life of products	Create opportunities for anyone to offer product and services to the public (social development), personal economic-gains	2 partners / under one £100,000
2. Mr. GC Macao 32 YO	30	M / Not married	Universidade Nova de Lisboa, Faculdade de Ciencias e Tecnologia, Bachelor in Computer Science and Engineering	Diversified portfolio of business (IT services, webdesign, phone application). Has a company offering green packaging products.	Profit sharing scheme for his biodegradable plastic bags where shops would stock and sell the bags to consumers	Profit sharing with collaborators (economic-gains), personal economic-gains	1 owner and 1 PT employee / under one £100,000
3. Mr. SC Macao 25 YO	24	M / Not married	The Chinese University of Hong Kong, bachelor in Environmental Science	Workshops, tours and research	Sustainability activities and workshops such as eco-tours / sustainability research	Environmental education (social development) / creating employment opportunity for environmentalists (social development), personal economic-gains	2 partners and 3 employees / under one £100,000
4. Mr. KL Macao 28 YO	27	M / Married with children	University of Macau and Jinan University, bachelor and Master in Media Studies	Construction material with green line of product	Promoting and selling green-tiles	Personal economic-gains	3 partners and 2 employees / under 3 million
5. Mr. AC Macao 36 YO	30	M / Married with children	The Hong Kong University, bachelor and Master in Mechanical Engineering, Diploma in Finance	Diverse portfolio: Property development, property management and services, marketing, a line of green building design and consultancy service	Green building design, green building certification and consultancy	Personal economic-gains	undisclosed
6. MS. GP U.K. 33 YO	30 (first business startup at 14)	F / Married with children	University in Brazil, Bachelor Degree in Design	Women shoes	Utilises registered green suppliers and manufacturers (Brazil)	Ensures fair wages to workers in Brazil (social development); Personal economic-gains	1 owner-designer, with suppliers in Brazil / under one £100,000
7. Mr. J U.K. 24 YO	22	M / Not married	University of Liverpool, studied Economics	Hand woven handbags	Aims to source most processes and material locally, assembled locally	Fair pay schemes to the chinese workers; bag for education material to children in China (social development); personal economic-gains	2 partners (sister only PT) / undisclosed
8. Mr. P U.K. 25 YO	23 (first business startup at 17)	M / undisclosed	University of Liverpool, PhD in Microengineering	Urban farms, aquaponics, workshops	Grow locally, minimise footprints, sustainable food	Education (social development); personal economic-gains	2 partners (sister only PT) / under one £100,000
9. Mrs. GR U.K. 37 YO	30	F / undisclosed	HND on Spatial design	sustainable modular building	Sustainable design; sustainable product; sustainable sources and material	Efficient design leading to savings on electricity consumption to consumers (economic gains); personal economic-gains	3 employees and 7 self-employed contractors / £800,000
10. Mr GM U.K. 38 YO	28	M / Married with children	Uteesside University, bachelor in Design Marketing	Sustainable gift (trees)	Sell tree related products to consumers and also as corporate gifts; plantation of trees as gift	personal economic-gains	3 employees / £400,000

Table 1 - Characteristics of the interviewees

## The Findings

### Sustainable entrepreneurship

Following the definition of sustainable entrepreneurship (Shepherd and Patzelt, 2011), five out of ten entrepreneurs fit with the idea of sustainable businesses since these are based on opportunities to generate economic gain whilst having plans to sustain the environment and to develop non-economic gains (interviewee 1, 3, 6, 7 and 8). The remaining entrepreneurs have their business opportunities designed to generate economic gain whilst sustaining the environment only and can be defined as 'green entrepreneurs, ecopreneurs or environmental entrepreneurs' (Table 1).

Entrepreneurial opportunities can be recognised, discovered or created (Sarasvathy *et al.*, 2010). Opportunities are recognised when entrepreneur bring together supply and demand to exploit an existing market. Opportunities are discovered when either supply or demand exist and the entrepreneur has to provide the missing aspect. An opportunity is created when neither supply nor demand exist and entrepreneurs must generate a product or service for a non-existent market. For example, interviewees 1 and 5 recognised their opportunities. Interviewee 1 obtained the licenced to use a well-established online platform (supply) to serve a local market demanding an online platform to classify old goods for sale or rent. Interviewees 3, 4 and 10 discovered their opportunities; interviewee 10 is repackaging the supply of tree products to create a demand for sustainable gifts. Interviewees 2, 5 to 9, created their opportunities; interviewee 9 developed sustainable modular buildings (supply) to create demand in the UK. Among our sample, opportunities are influenced by a trend, gap, need and/or problem found in the marketplace and/or industry in general (Table 2).

All respondents were trying to target 'market failure or market imperfection' (Cohen and Winn, 2007; Dean and McMullen, 2007) with a better product or service. For example, interviewee 1 promotes a 'shared economy' to combat excessive waste as a result of business activity. Interviewee 8 aims to create a sustainable food production system with the use of aquaponics to minimise food miles and reduce the associated carbon footprint. Most interviewees expressed the view that 'sustainability' within their businesses helped create 'competitive advantage' (Jenkins, 2009; Parrish, 2010; Clercq and Voronov, 2011) and eventually would help to sustain their firms in the longer-term (Table 2).



	2BL or 3BL	Opportunity	Nature of opportunity	Market Failure	Market development	Competitive advantage	Institutional pressure	Institutional entrepreneurship
1. Ms. MH (Macao)	3BL	Recognise	Trend, gap, need	Better system: service economy	Niche service	N/A	N/A	N/A
2. Mr. GC (Macao)	2BL	Create	Trend	Better product	Niche product	green/shared profit	Regulative and incentives	All types
3. Mr. SC (Macao)	3BL	Discovery (supply>demand)	Gap, trend	Better product and service	Niche product	N/A	N/A	Cognitive and normative
4. Mr. KL (Macao)	2BL	Discovery (supply>demand)	Gap, trend	Better product	Niche product	New range	N/A	Cognitive and normative
5. Mr. AC (Macao)	2BL	Recognise	Gap, trend	Better service	Green certification and green building design	Exclusive service	Regulative, Market and Industry	Regulative
6. Ms. GP (U.K.)	3BL	Create	N/A	Better product	Niche product	Sustainable fashion and supplier	N/A	N/A
7. Mr. J (U.K.)	3BL	Create	N/A	Better product	Niche product	Heritage	N/A	N/A
8. Mr. P (U.K.)	3BL	Create	N/A	Better product	Niche product and services	N/A	N/A	N/A
9. Mrs G (U.K.)	2BL	Create	Trend, market opportunity, problem	Better product	Niche product	Lead by example in sustainable design	N/A	Aim to change the industry and is a leading company in the field
10> Mr GM (U.K.)	2BL	Discovery (supply>demand)	Gap, problem	Better product	Niche product	Better alternative product	N/A	N/A

Table 2 - Nature of opportunities

## Market development and institutional entrepreneurship

All respondents aimed to develop a market for niche products/services. Interviewee 2 is developing a market for biodegradable food packaging and bags; interviewee 3 is developing a market for eco-tours; interviewee 6 is developing a market for aquaponics products/services. There are five institutional entrepreneurs (interviewee 2, 3, 4, 5 and 9) with aims to facilitate changes in existing institutions to pave way for their niche businesses. Interviewee 2 engaged in talks with multiple governmental departments, created Facebook community to educate the public, had exposure on media outlets such as television, digital channels, radio, magazine and newspaper to stimulate institutional change (Table 2). Institutional entrepreneurs have a role to play by influencing regulatory change, creating incentives and changing social norms to build a more favourable environment for sustainable businesses to become competitive (Pacheco et al., 2010; York and Venkataramam, 2010). This process has the potential to attract incumbent enterprises to follow the footsteps of the new entrants (sustainable businesses) to work towards sustainability as the opportunity becomes more attractive (Hockerts and Wüstenhagen, 2010). Interviewee 9 reflects this particular point as the entrepreneur emphasised that she wants to revolutionise the industry and to become the driving force behind the sustainability movement.

## Knowledge and experience

According to Patzelt and Shepherd (2010), recognising opportunities for sustainable development can be influenced by knowledge of sustainability, perception of environmental threats, altruism or entrepreneurial knowledge. Knowledge related to sustainability can be acquired *via* education, experience or self-interest. Amongst our sample, the level of education, experience, entrepreneurial and sustainability knowledge was, not surprisingly, very high and up-to-date. Moreover, most interviewee had an understanding of current threats to the environment and demonstrated altruist values underpinning their businesses (Table 3).

	Experience	Education	Entrepreneurial knowledge	Knowledge SD	Information asymetry	Researching and business plan	Perception of environmental threat	Altruism towards others
1. Ms. MH (Macao)	Irrelevant	Irrelevant	No	Common sense	A tested online platform	Visits and internet	N/A	N/A
2. Mr. GC (Macao)	Irrelevant	Irrelevant	Business start-ups	Enthusiast	Biodegradable products	Visits and internet	Yes	Help the world and city
3. Mr. SC (Macao)	Relevant	Relevant	Entrepreneurship courses	Education and experience	Knowledge gained from former employeers in Hong Kong	Research	Yes	Help the world and city
4. Mr. KL (Macao)	Relevant	Irrelevant	Business start-ups	No	Product from Japan	Visits	Yes	Help the world and city
5. Mr. AC (Macao)	Relevant	Relevant	Business start-ups	Education and experience	Accredited Training from China	Courses and Certification	Yes	N/A
6. Ms. GP (U.K.)	Relevant	Relevant	Business start-ups	Experience	Sustainable supplier from Brazil	Visits and internet	N/A	Fairness to workers
7. Mr. J (U.K.)	Irrelevant but family runs takeaway business	Relevant (in economics)	Family business	No	Technique	Business plan, visits and internet	N/A	Fairness to workers, help rural people and their children
8. Mr. P (U.K.)	Relevant	Relevant	Business start-ups	Education	PhD, landscaping and aquaponics knowledge	Business plan	Yes	N/A
9. Mrs G (U.K.)	Relevant	Relevant	Courses and previous projects	Education and experience	Sustainable design knowledge	Business plan	Yes	Creating less impact on the environment and society
10> Mr GM (U.K.)	Irrelevant	Relevant (joined many startup programmes)	Business start-ups and courses	Experience	Knowledge of trees	Business plan	Yes	Creating less impact on the environment and society

Table 3 - Prior knowledge, experience, preparation and attitudes

Undertaking research particularly *via* the internet was common amongst all ten respondents. However, only four entrepreneurs developed a conventional business plan (Table 3). ‘Information

asymmetry' (Cohen and Winn, 2007; Patzelt and Shepherd, 2010) plays a role in their identification of entrepreneurial opportunities. Interviewee 1 tested a successful platform from Hong Kong; interviewee 5 established the only company in Macau offering green building certification. In summary, previous knowledge, experience and information asymmetry played an important role along with the attitudes and perception of these young entrepreneurs towards their entrepreneurial opportunities (Table 3).

### **Entrepreneurial Learning**

All interviews were coded for influences on the entrepreneurs' learning based on the three levels: micro, meso and macro (Bourdieu, 1986; Karatas-Ozkan and Chell, 2010). The results of the coding are summarized in Table 1 and, in total, there were 149 codes for those from Macau and 152 for the Liverpool-based entrepreneurs (Table 4). Overall, the Macau-based entrepreneurs had 67 (48%) codes for the micro-level, 35 (24%) at the meso-level and 47 (32%) at the macro level. The proportions for the Liverpool-based entrepreneurs were broadly similar except that the meso-level codes were higher (34%) and the macro-level codes substantially lower (17%). Taking each of the factors individually, unsurprisingly, motivation was entirely influenced by the micro-level. Broader influencing factors on the decision to start a business were also concentrated in the micro and meso levels for both groups although the Macau entrepreneurs were primarily micro (86%) whereas the Liverpool group were more evenly split between the micro (52%) and the meso (48%).

The macro-level (institutions and markets) did have varying levels of influence on the remaining four categories (opportunity identification, barriers, advantages and growth). Macro influences on the advantages and disadvantages of being a young entrepreneur were marginal with only 8% for Macau and 7% for Liverpool. Responses from Liverpool-based entrepreneurs were concentrated at the individual level (86%) compared to 68% for Macau (7% and 24% respectively for the meso-level). With regards to opportunity identification, the micro-level (48%) was much more important for the Liverpool group compared to Macau (21%). In contrast, the Macau entrepreneurs were strongly influenced by the macro-level (51%) compared to only 14% for Liverpool. The macro-level did have a more powerful influence on barriers to entrepreneurship and growth. However, growth was addressed to a very limited extent by both groups of entrepreneurs with only six responses from Macau and 12 from Liverpool. As with responses to motivation being concentrated at micro-level it is no surprise that the macro-level was a strong influence on the perceived barriers to entrepreneurship. For Macau, 58% of the responses were attributable to the macro-level, 36% at the meso-level and 6% at the micro-level. The Liverpool responses were broadly similar with 48% (macro),

38% (meso) and 14% (micro). The implications of these finding for entrepreneurial learning are discussed below.

**Table 4 Influences on Entrepreneurial Learning**

	MICRO		MESO		MACRO	
	MACAU	LPOOL	MACAU	LPOOL	MACAU	LPOOL
MOTIVATION	14 (100%)	9 (100%)	0	0	0	0
OPP IDENTIFICATION	8 (21%)	28 (48%)	10 (27%)	22 (38%)	19 (51%)	8 (14%)
INFLUENCE	19 (86%)	16 (52%)	3 (14%)	15 (48%)	0	0
BARRIERS	2 (6%)	4 (14%)	13 (36%)	11 (38%)	21 (58%)	14 (48%)
ADS/DISADS	23 (68%)	11 (86%)	8 (24%)	1 (7%)	3 (8%)	1 (7%)
GROWTH	1 (17%)	6 (50%)	1 (17%)	2 (17%)	4 (66%)	4 (33%)
<b>TOTAL</b>	<b>67 (44%)</b>	<b>74 (48%)</b>	<b>35 (24%)</b>	<b>51 (34%)</b>	<b>47 (32%)</b>	<b>27 (17%)</b>

### Stakeholder Perceptions

The stakeholder concept generally refers to businesses with wider responsibilities than economic performance (Gonzalez-Padron et al., 2016). The findings in this research show that the sustainable entrepreneurs believe they have strong responsibilities towards environmental, social and economic aspects of sustainability, although the extent of this belief varies. When asked about the impact on stakeholders, their responses largely highlighted the positive outcomes from their business activities. Customers were perceived as the major stakeholders and their needs were usually the priority.

Some respondents were keen to promote the environmental beliefs and focus on educating others to protect the environment: interviewee 1 advocates care for the environment by providing rental services *via* an online platform; interviewee 2 also shares similar views through his biodegradable food packaging and cutlery business by highlighting the need to protect the environment; interviewee 9 runs a sustainable conservatory manufacturing business to promote environmental awareness; interviewee 3 encourage people through various workshops to consider environment protection by recycling existing resources which will in turn benefit the existing and future generation.

Sustainable entrepreneurs have specific social and environmental purposes that have been integrated into their core business models (Porter and Kramer, 2006). Some sustainable entrepreneurs are more aware of their wider social contribution to society. Others respondents stressed the importance of creating an empowering working environment as employee wellbeing

contributes to business success. A minority took a more instrumental view; interviewee 5 believed that his business brings benefits to staff by provides stable employment. Those entrepreneurs who do not have staff tend to emphasis relationships with their suppliers: interviewee 6 makes sure all the manufacturing process of her products are sustainable, the supply chain she uses is sustainable and she cares about the workers. Interviewee 7 also discusses care for suppliers (artisans), focuses on the social elements of sustainability, i.e. to supply job opportunities and provide fair pay for its workers as the job provides the only income to the artisans’.

Maximising well-being is one of the core belief of sustainability. Businesses do not simply find ways to minimise impacts on the environment but also advocate ways to extend people’s quality of life. Interviewee 9’s eco-building business is sustainable and encourages people to appreciate the natural environment by blending with nature. For some sustainable entrepreneurs, educating the next generation has been the key focus of their businesses. Interviewee 3 aims to increase the next generation’s awareness of the environment and planet through workshops and other activities. This will also strengthen relationships between parents and the children, which in turns benefit the family and society. In another business, Interviewee 7 highlights how business helps to reduce poverty and improve literacy by donating educational materials to children.

Some respondents also mentioned negative impacts on stakeholders. Respondents 6 and 7 utilize leather and both recognize the environmental and animal welfare issues associated with the production of leather but believe it is the most suitable material for their products. Interviewee 9 pointed out the negative impact of stopping importing foreign timber on her timber importer. However, her decision was based on discovery of the devastation caused by overseas loggers and clear-cutting of ancient forests in Canada and Siberia as well as the corruption associated with the certification of timber by regulatory bodies. These undermine the sustainable timber industry and she has implemented a ‘*zero-foreign timber policy*’ ensure her company is making a positive contribution to society.

## **Discussion**

As outlined above, we drew on the work of Bourdieu (1986) and Karatas-Ozkan & Chell (2010) to examine the influences (micro, meso and macro) on entrepreneurial learning. The micro-level is concerned with how the ‘lived experience’ shapes the personal transformation of becoming an entrepreneur (Edelman *et al.*, 2016). However, acknowledgement of the role played by social capital and social networks have stimulated greater research interest in the way in which family and friends influence the entrepreneurial process (Jones and Jayawarna, 2010). Similarly, it is also widely acknowledged that entrepreneurship exists within a broader institutional context influenced by the

legal, education and political organizations as well as broader national cultural influences (see Jones *et al*, 2014, chapter 11). Our data clearly demonstrate that individual level learning is primarily responsible for the motivation to start a business as well as perceptions of the broader influences and the advantages/disadvantages of being a young entrepreneur. Although the meso-level was also a factor in shaping the latter two categories; for those based in Liverpool the meso-level accounted for 48% compared to just 14% for Macau. There was agreement amongst the two groups that the macro-level was a strong influencer of the barriers to entrepreneurship (58%, Macau and 48%, Liverpool). With the meso-level accounting for slightly lower, but still consistent responses of 36% and 38% respectively. In terms of macro-level influences the most substantial difference was for opportunity identification with 51% of Macau responses compared to only 14% for Liverpool. We suggest that this is a reflection of the Macau economy, which is dominated by gambling and there is little in the way of an entrepreneurial culture. The other major difference between the two groups was related to the broader influences on the decision to start a business. Only 14% of Macau responses were related to the meso-level compared to 48% for the Liverpool-based entrepreneurs (86% and 52% respectively at the individual level). In other words, social networks (family and friends) were a much strong influence on the decision to start a business amongst the Liverpool entrepreneurs than those from Macau. Again, we suggest this is a reflection of the lack of an entrepreneurial culture within Macau where starting a business is not seen as a real option by those exerting the most influence over younger people.

It is worth noting that the entrepreneurs were committed to sustainability when setting up their businesses. This has no doubt impacted on their views about their stakeholder groups. They were able to identify the environmental impacts and contributions through their products / services offering. Some also highlighted the social and economic impacts to the environment in which they live including creating jobs and providing financial income to their employees as well as trying to make the world a better place. The pillar of sustainability has been integrated into their businesses although the extent of this varies from business to business. A possible explanation for this could be their prior understanding of sustainability, which helps to build altruism towards others and perception of environmental threat. With experience and knowledge in entrepreneurship, opportunities for sustainable business becomes more evident and viable Patzelt and Shepherd (2010).

There were more similarities than difference among the entrepreneurs in the two locations. Nevertheless, the study suggests that most of the entrepreneurs from Liverpool wrote business plans to help the development process as well as to obtain start-up capital from various sources (investment, grants and fund). In contrary, entrepreneurs from Macau did not produce business plans. One explanation that a business plan is required to obtain external investment of any kind. Alternatively, we suggest that the level of entrepreneurship education is more established in the UK and therefore

the need to produce business plan to support the early phase of the development process is seen as common practice. Whereas in Macau, support for entrepreneurship and entrepreneurship education have only started in recent years and for this reason important tools such as business planning are largely ignored.

The findings also suggest that entrepreneurs from Macau are more actively engaged in institutional change (Hockerts and Wüstenhagen, 2010; Pacheco et al., 2010; York and Venkataramam, 2010). Perhaps, as regulations for environmental protection and sustainability are still premature in Macau whereas in the UK it is well established. Entrepreneurs in Macau acknowledge their role in pushing for more policies and regulations to create a better business environment for sustainable business to flourish. Moreover, as knowledge of sustainability among the population in Macau is not as established as the UK, there is a need to educate the market in order to build positive attitudes and norms towards their sustainable business offering. Finally, entrepreneurs from the UK tend to create demand and supply for their business propositions. Entrepreneurs from Macau establish their ideas by having an existing demand or supply which makes the process easier compared to the UK. This can be explained by the industry lifecycle as the concept of sustainable businesses is relatively new in Macau and entrepreneurs tend to exploit ideas that have been developed elsewhere. Whereas in the UK, the sustainability agenda is reasonably well-established and there are a number of substantial businesses<sup>1</sup>. In order for new businesses to break into the market and industry, entrepreneurs need to innovate and to create newer and better alternatives to compete.

## Conclusions

This study aimed to improve our understanding of entrepreneurial opportunity development for sustainable business start-ups amongst young entrepreneurs based in Liverpool and Macau. Moreover, the study also aimed to explore how these entrepreneurs perceive their stakeholders. The results show that there are more similarities than differences between the young entrepreneurs from two locations. Overall, these entrepreneurs have used the effectual process to support the opportunity identification and development process. Given difficulties associated with access to resources for young entrepreneurs (Hickie, 2011), the effectual approach seems to be an effective way to the creation of sustainable businesses (Jones and Li, 2017). This study shows that the effectual process incorporates many enterprising behaviours, skills and attributes, bootstrapping strategies and effective utilisation of social capital. This study extends the theory of sustainable entrepreneurship by

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<sup>1</sup> See for example, Ecotricity (<http://www.ecotricity.co.uk>) 'created' in 1995 by Dale Vince, well-known as the owner of Forest Green Rovers

explaining the process of opportunity identification with the effectuation concept (see Figure 1). The findings demonstrate that young entrepreneurs are aware of the key stakeholder groups and how their businesses have contributed to their needs and to society as a whole. The study also highlights the importance of prior knowledge of entrepreneurship and sustainability has on opportunity identification and development.

While we believe this study makes a strong contribution to understanding the importance of sustainable entrepreneurship there are a number of limitations. First, the study is based on a very small sample of just 10 'sustainable' entrepreneurs from Liverpool and Macau. Furthermore, we had considerable difficulty in identifying five appropriate businesses in Liverpool, which suggests that there is no local network of entrepreneurs committed to the sustainability agenda.

## **Research Opportunities**

Over the last fifteen years in the UK (and Macau/China) one of the most significant changes to the in Management/Business Schools has been the growth in the teaching of entrepreneurship and small business management (Gibb, 1993; Winkel et al., 2013; Byrne et al., 2014; Blenker et al., 2015; Klapper and Farber, 2016; Birch et al., 2017). A recent paper by Pittaway et al. (2015) outlines the various organizations involved with the enterprise education agenda. There are numerous papers exploring entrepreneurial intentions and entrepreneurial orientation (Martens et al., 2016; McNally et al., 2016). It is well-established, however, that there is a considerable gap between entrepreneurial intentions and behaviours (Lourenço et al., 2013a). There is surprising little research which examines the experience of student entrepreneurs once they have left higher-education. One of the few studies specifically focusing on young people examined 21 high-growth businesses established by entrepreneurs who were under 30 years of age (Hickie, 2011). As we discuss below, Hickie (2011) found that most of his sample had family members who managed their own firms and all had early work experience while at school. Equally, there is very little research that focuses on green businesses in the UK or China. We believe that this pilot study has provided evidence that starting a sustainable business does create a unique set of problems for those who have limited amounts of business experience. Therefore, we suggest that there is certainly a research gap related to the topic of sustainable businesses established by young entrepreneurs. However, there is one significant caveat; we had considerable difficulty in identifying five appropriate businesses for the project within Liverpool City Region. This would certainly be something to consider in any future extension of this project. Nevertheless, we believe that sustainable businesses have an important role to play in the development of all major economies and we intend to seek further funding to make a more extensive comparison between sustainable business start-ups in the UK and China.



## Policy and Practical Implications

There are certainly policy implications which emerge from this project. First, it demonstrates the importance of providing supportive mentoring for young, inexperienced entrepreneurs (see Hulsink and Koek, 2014). As with the majority of young entrepreneurs studied by Hickie (2011) most of the entrepreneurs in this study came from 'business families' where they had been exposed the problems and rewards of managing small firms. The case demonstrates the significance of embedding good habits such as hard-work and persistence during childhood (Jones and Li, 2017). However, support and guidance need not be parental but advice should be available from those who possess a good understanding of the challenges facing young, novice entrepreneurs. Our study also demonstrates the benefits of early work experience in gaining a good understanding of the way in which the world of business works. As Hickie (2011) points out, such experience can be relatively mundane including working in McDonalds (for example) but exposure to customers is crucial in building an understanding of creating appropriate products/services that satisfy the market. The importance of childhood and adolescent human capital in shaping future entrepreneurial careers is confirmed by Jayawarna et al. (2014). We believe that our study also confirms that early exposure to issues associated with sustainability will encourage the development of more focus on 'sustainable' businesses. We are certainly aware of the need for Management/Business Schools to play a role in raising students' awareness of the need to combine sustainability with entrepreneurship as well as the broader business agenda.

Our data certainly confirm that the macro-level is a strong barrier to business start-up amongst young people in Macau. While there are certainly negative implications for Liverpool-based entrepreneurs they are far less in evidence at the macro-level than in Macau. Similarly, there is also an obvious lack of support from family and friends (meso) for decisions to start a business amongst the Macau group. Therefore, policies should be designed to lower institutional barriers to entrepreneurship and provide more support via the education system to encourage younger people to consider the benefits of starting their own businesses. Moreover, opportunities to allow entrepreneurs to expand their range of stakeholders should be considered by creating more networking events. Also, various awards, competitions, grants and funding schemes should be considered to encourage entrepreneurs to research and write business plans, to meet and expand their stakeholder network, to accumulate financial capital and resources to mobilize their ideas while bearing minimal financial burden to create a sense of 'affordable loss'.

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