Social Media, Entrepreneurship, and the Role of Institutions: A Cross-National Study

By

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Declaration

I hereby certify that this material, which I now submit for assessment on the Programme of study leading to the award of Doctor of Philosophy is entirely my own work, that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

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Glossary of Abbreviations

APS	Adult Population Survey
CPM	Communication Private Management
FDI	Foreign Direct Investment
GDI	Global Digital Insights
GDP	Gross Domestic Product
GEM	Global entrepreneurship monitor
ICTs	Information Communication Technologies
ITU	International Technology Union
NES	National Expert Survey
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Square
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
RBV	Resource-Based View
SMEs	Small and Medium Enterprises
TAM	Technology Acceptance Model
TEA	Total Early-Stage Entrepreneurial Activity
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action

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Abstract

The rise and popularity of social media has led to changes in the way business is conducted. Studies examining the relationship between the use of social media and the rise of entrepreneurship largely focus on how entrepreneurs are using social media to grow their business. There exists a gap in the literature examining perceptions and intentions to use social media as a way to start a new business and the role that institutional quality plays in influencing these perceptions. This study aims to narrow this gap by investigating the effect of social media on perceived opportunities, perceived capabilities and entrepreneurial intentions. It also investigates whether institutional quality plays a moderating role in determining entrepreneurial intentions. Drawing on institutional theory and empirical analysis of both individual and cross-country level data from the Global Entrepreneurship Monitor (GEM) and the World Bank's Worldwide Governance Indicators (WGI), covering 105 countries, the results of this study show that the prevalence of social media influences entrepreneurs' perceptions and behaviour regarding business opportunities and capabilities, which, in turn, affects entrepreneurial intentions. Regarding the role of institutional quality, the intention to start a business using social media is greatest in countries with strong institutional quality. These findings imply that institutional quality serves as a catalyst in terms of the effect of social media on the decision to start a business. The contribution of this study is twofold: First, by showing that social media has a positive impact on entrepreneurial perceptions, opportunities, and capabilities, this study contributes to the wider literature on "techno-optimism". Second, by investigating the role of institutions in determining how social media influences entrepreneurial intentions, this study shows that institutions play an important role in fostering the use of digital technologies for entrepreneurial growth in a country.

Chapter 1: Introduction

1.1 Introduction

Over the years, technology has affected every aspect of human life. From connecting with others to thriving in business, technology has profoundly influenced modern society. Through the use of different technologies and the internet, people have access to more information than at any time in human history (Kaplan and Haenlein, 2010). There is no doubt that social media has become a global phenomenon and its popularity around the world has challenged the modern business environment. The use of social media is accelerating rapidly and, similar to any new technology, it has brought with it a range of entrepreneurial opportunities (Landström et al., 2012). In fact, there are already examples that many individuals who were non-entrepreneurs earlier have now become entrepreneurs because of the advent of social media (Wang et al., 2020). One of the factors that has led to the increased shift to using social media to start new businesses and implement different business strategies is the availability of different features from these technologies that enable entrepreneurs to gain competitive advantages. For example, changing consumer tastes and preferences in the business world have led to increased demand for interaction with customers to understand and respond to their needs. Social media has become one of the most effective channels of communication to engage with different types of clients and business customers. There is, therefore, a strong link between the growth of social media and entrepreneurial intentions, as the former plays a critical role in promoting entrepreneurship because, the more a product is made known to the target audience or customers, the better it creates opportunities for economic growth through entrepreneurship.

The intention to start a business is often considered a necessary antecedent of any entrepreneurial act. This is mainly because it is a vital component that, in fact, determines the actual efforts that an entrepreneur might invest in starting and growing a business. The creation of businesses, in turn, has often been found to drive economic prosperity in different countries around the world (Reynolds et al., 2003). This can be seen from the fact that new businesses often contribute towards economic growth by increasing employment opportunities and creating new jobs, which provide

opportunities to generate wealth, foster innovation, increase competition, reduce prices, contribute towards increasing export activities, and help increase consumer choices (Storey et al., 1987, p.1).

In their work, Krueger et al. (2000) state that an entrepreneur's intention to start a business is often derived from factors such as the perception of desirability, perception of feasibility, and the individual's propensity to act upon opportunities. Perceived desirability refers to the attractiveness of starting a business, whereas perceived feasibility is an individual's understanding of their ability to start a business. On the other hand, the propensity to act is an individual's personal disposition to act on his or her decision (Krueger et al., 2000).

The impact of social media, specifically on entrepreneurship, has been observed but scientific documentation towards this claim is lacking; there are several gaps in research on the significance of social media in the growth of entrepreneurship. Hence, the main aim of this research project is to contribute to the literature by addressing these gaps, which I outline below after providing some background to this study.

1.2 Background of the study

The modern concept of entrepreneurship can be traced back to the late seventeenth and early eighteenth centuries, following the emergence of industrialization. However, this concept has evolved considerably in the twenty-first century due to technological advancements and an increase in globalization (Kotler and Keller, 2009). As Acs and Varga (2005) point out, entrepreneurship is the process of creating, launching and operating a new business. Also, entrepreneurship is characterized by the ability and readiness to advance, organize and manage a business, taking into consideration all risks, with the aim of making profits. Generally, individuals who create such businesses are known as entrepreneurs and they usually start out as small, sole-proprietorship ventures. According to Audretsch et al. (2015), a person or company can be classified as being entrepreneurial based on their organizational or ownership status. Some authors have conceptualised entrepreneurship as a process involving multiple stages over time (Shane and Khurana 2003). Moreover, the dynamic nature of entrepreneurship was expressed by David (2016) as a dynamic process of vision, change, and creation which requires the application of energy and passion towards creation and implementation of new ideas and creative solutions.

"Social media" refers to computer-mediated systems or tools that allow individuals or users to share their views openly, create and exchange views and other forms of information in pictures or even through videos with the virtual world (Koellinger and Thurik, 2012). According to Fuchs (2014), social media are computer-based applications or technologies that propagate the creation and sharing of ideas, information, interests, and various forms of expressions through virtual networks and communities. Social media has become a way of life in the sense that many people make daily posts on the various social media platforms, and use these platforms to access news, updates about corporates' development and other daily life activities (Kaplan and Haenlein, 2010).

Social media has transformed human interactions and communications, and has become important for businesses (Kaplan and Haenlein, 2010). In the context of the global business environment, Sonnier et al. (2011) suggest that social media has become an essential component of firms' operational strategy. Logan et al. (2012) argue that the proliferation of social media is having a significant impact on the way advertising messages are delivered by companies and received by consumers. As the cost of delivering advertising messages to a mass audience using traditional media increases, advertisers are moving away from the sole use of traditional media, and are turning to social networking sites (SNSs) because they support brand building for organizations (Pitta et al., 2016).

The presence of perceived opportunities can be enhanced using social posts as interview questions to drive discussion about the possible options. It is possible to investigate the value of an opportunity by assessing the strengths and weaknesses of the current market forces and future developments. It has been observed that social media users normally provide information in a similar form to traditional communication settings. There are common areas in which social media has a great impact, such as cultivating strategic partnerships, increasing business-worthiness and contacts with suppliers and customers. It has also been used as a marketing and communication tool, translating to greater growth of businesses, especially small and medium enterprises (SMEs) (Kiveu, 2013).

Social media users on Facebook and Twitter have the freedom to share and exchange content on views, and these sites facilitate sharing of knowledge, creativity and open communication. In other

words, social media has become a creative environment for learning that is conducive to the growth of entrepreneurship and innovation skills (Draycott and Rae, 2011). The current generation is made up of digital natives who have at least basic knowledge of the use of social media, making it possible for businesses to reach customers using these platforms. Through Twitter, businesses and firms have shifted into microblogging, which involves short updates that are pushed by the businesses and received by subscribers to the channel in question. On the entry of a new product into the market, the platforms become transformed into social news channels, where businesses and firms update their customers about their new items and even allow the customers to share their views on their products (Kietzmann et al., 2011).

1.2.1 Perceived opportunities

Entrepreneurs should be able to perceive opportunities and take advantage of them. Identifying the opportunities, however, can be extremely difficult. Most people are usually surprised when a new product is launched, because they could not predict if such products could be made or if such products could be successful. Entrepreneurs with the ability to identify new opportunities and work on them have been able to build businesses that are extremely successful (Baron, 2006). Others have failed in areas that have been phased out or gone out of business because of competition. An entrepreneur's ability to identify new opportunities is influenced by many factors, such as education, technology, culture and personal experiences (Audretsch et al., 2016). The exact mix of these factors will determine what kind of products entrepreneurs come up with. The growth of social media has significantly affected the mix, as it has become critical in determining the success of businesses.

Entrepreneurs always face challenges that vary from human resources, finances or availability of physical resources to government policies (Audretsch and Thurik, 2000). In order to navigate against these and come up with goods and services that appeal to customers, entrepreneurs must be able to use a creative cognition approach so that they can transform their ideas into products (Ward, 2004). Social media helps in improving the ability of entrepreneurs to identify opportunities. Using social media platforms, entrepreneurs can predict the needs, tastes and interests of potential customers. People on social media continuously post information on the

issues they are facing and the solutions they want. Based on this information, an entrepreneur is able to determine what products can be successful (Wennekers and Thurik, 1999) and differentiate them from products that would be a waste of time and resources.

When a new opportunity is identified, an entrepreneur can use social media to determine how consumers will respond to the product by conducting social media marketing. Social media users tend to be very frank and usually provide crucial information to an entrepreneur in the form of responses to a marketing post; this kind of instantaneous feedback does not exist with other forms of marketing. A positive response to the marketing campaign will indicate that the product is, indeed, a good one and effectively satisfies the needs of the customers. Otherwise, the entrepreneur will be forced to redesign the product, rather than continuing with its development and launch.

1.2.2 Perceived capabilities

The growth of internet access has been accompanied by an increasing number of people using the internet for various purposes, such as a source of information, entertainment and communication. The production of cheaper devices that can be used to access the internet, such as laptops, tablets and smartphones, has also played a role in increased access to the internet. Like any other source of information and entertainment, the internet has influenced human beings in various ways. These changes have been both negative and positive. It is important to note that using the internet has a different impact on different people; some are affected more, whereas some are affected less; some positively, others negatively.

Internet users are continuously learning new things. Depending on the user, one can be learning something technical or social. Individuals who are interested in entrepreneurship will be learning things related to business. Consequently, an internet user becomes highly informed with time. Being informed is critical to identifying available business opportunities. An entrepreneur who uses the internet, therefore, is better equipped than one who doesn’t use it. The creativity of an individual is also greatly improved through using the internet. A user is able to observe what products other users are offering online, learn how they are made, and how they work. Through these observations, one's creativity is improved as his ability to use various technologies or resources to their full potential improves. As entrepreneurial creativity improves, one is able to

come up with cost-effective products by using the best production technology (Sussan and Acs, 2017). Creativity expands the limit that exists in the market.

Online marketing is a rapidly growing field, with millions of products being sold online daily (Michaelidou et al., 2011). Although physical stores have seen centuries of success, their success is being threatened by online stores that are cheaper to run and can sell products to customers living in almost every corner of the globe (McGowan and Durkin, 2002). Online, entrepreneurs can adapt and implement video ads, backlinks, and affiliate marketing strategies. For individuals with no specific product to sell, the use of online traffic on their websites, podcasts and video channels to make money is common practice. These entrepreneurs make content that internet users find useful and carefully include links and ads that are paid for by other entrepreneurs who need the traffic on their product pages (Gustafsson and Khan, 2017). Creativity and being informed are critical to the survival of these modern entrepreneurs.

Online users can easily monitor the strategies entrepreneurs are using online and replicate them. It is also possible to observe one's business ideas and replicate them in ways that do not expose the user to copyright issues. One of the most replicated business ideas online is having a clothing line. A user who feels he has what it takes to conquer the industry can easily invest in the area. Due to online stores, entrepreneurs can readily access merchandise they need for their products. For example, some fashion stores allow users to design their own products and have them manufactured for them. Non-internet users do not have such information and, hence, are limited in their ability to take advantage of these opportunities.

1.2.3 Entrepreneurial intentions

It is important to note that new businesses or new ventures are not started on a reflex. There is a considerable thought process involved in starting a business or turning a perceived opportunity into a viable business proposition. However, how is an entrepreneur who starts a new business able to identify the perceived opportunity? In other words, what are the factors that motivate an individual to become an entrepreneur? The answer to this question is entrepreneurial intention, which Bird (1988) defines as the expressed behavioural intention to become an entrepreneur. An individual will not be able to identify a business opportunity unless he or she has an intention to

do so. Hence, as Krueger et al. (2000) note, identifying business opportunities is more of an intentional process and that understanding the entrepreneurial intention clearly helps to not just explain but also predict entrepreneurship. The authors add that entrepreneurial intention is one of the best predictors of entrepreneurship behaviour.

Considering the importance of entrepreneurial intention to the field of entrepreneurship, a stream of research has emerged (Krueger, 2007, 2009; Sequeira et al., 2007; Zhao et al., 2009; Ostapenko, 2017) that examines the factors or antecedents that influence entrepreneurial intentions. The findings of this research conclude that there are numerous factors or antecedents that influence entrepreneurial intentions. These factors can be broadly categorised into two: individual and situational factors. Individual antecedents mostly comprise of variables such as the demographic characteristics or personality traits of an individual (level of education, social networks, attitude, etc.), whereas situational antecedents comprise of variables such as employment status, the role of context and institutions and the entrepreneurial process (Fayolle and Linan, 2013).

Entrepreneurial intention as a field of research has evolved over the years, with a large number of studies recognising the potential value of intention in the field of entrepreneurship. However, this research has largely focused on the impact that these antecedents have had on entrepreneurial intentions after the launch of the business. There seems to be a gap in this research, as it largely ignores the influence that these antecedents might have on entrepreneurial intention in the pre-launch stage or what makes individuals become entrepreneurs. Considering the importance of entrepreneurial intention to entrepreneurship, this research study also utilises the entrepreneurial intention approach. However, by examining the influence that social media or social networks and institutional quality has on entrepreneurial opportunities, perceptions and intentions at the pre-launch stage, this research study aims to address this gap in the literature and understand the role that situational antecedents have in influencing entrepreneurial intentions towards launching a new business.

1.2.4 Female entrepreneurs

There is a common belief that female entrepreneurs are not as successful as male entrepreneurs. This is mainly because of the low number of women managing medium-level and big businesses.

It is speculated that the difference is mainly due to the difference in motives, attitudes and intentions towards the future between the two genders (Rey-Martí, Porcar and Mas-Tur, 2015). Women's risk aversion can be attributed to their lack of faith in their business ability. Women focus more on the risks involved in expanding business and only make moves that they are confident in. The result is a focus on longer-business growth. Men, on the other hand, focus on growing their businesses as big as possible in the shortest time. They will, hence, make moves and expansions that are considered high-risk. Secondly, when the rule of law is weaker in a country, fewer females are involved in entrepreneurship (Estrin and Mickiewicz, 2011). Moreover, female entrepreneurs face the challenge of balancing their family and work lives. The problem is especially conspicuous among married women, as society normally expects married women to take care of their husbands and children. Men do not experience this burden. Social media is eliminating these challenges faced by female entrepreneurs (Ali, 2018).

Social media has provided female entrepreneurs with the platforms through which they can test their big business ideas before doing big rollouts. An entrepreneur can do simple social media marketing and see the amount of positive response their products have. From this information, the entrepreneur will be able to determine if it is right to go big with the idea or go back to the drawing board. As a result, female entrepreneurs can also transform their business from a small business into a large business using social media (Bardasi et al., 2011). Secondly, with social media, some female entrepreneurs are able to run their businesses right from home. Such businesswomen get the opportunity to cater to the needs of their family without sacrificing their entrepreneurship dreams (Hechavarría et al., 2017). Social media platforms, therefore, are enabling female entrepreneurs to make well-calculated moves and have enabled them to limit the negative impact that their businesses may have on their families.

Female entrepreneurs are using social media to their advantage. On the platforms, female entrepreneurs are able to access a much wider customer base than they can achieve anywhere else. Since it is almost free to set up social media accounts and business campaigns, entrepreneurs have the opportunity to reach more people cheaply. Other users sharing business campaigns posted by an entrepreneur provide the businesswomen with free marketing. On social media, users tend to share products they like, even if they are not in a position to buy them (Brown et al., 2007). Creative

entrepreneurs are able to take advantage of this and grow their businesses (Almus and Nerlinger, 1999).

Through social media, female entrepreneurs are able to sell their skills and products around the world. For example, an entrepreneur in Canada can easily sell hot weather clothes to people living in warm and hot regions like California. Without social media, such entrepreneurs would be forced to look for new ideas, since their products are not marketable in their home areas. More female entrepreneurs have also developed their confidence and desire to enter entrepreneurship by seeing other women succeed in the field (Wilson et al., 2007). From the above discussion, it would also not be wrong to argue that social media and the internet provide more opportunities for female entrepreneurs (Fritsch and Wyrwich, 2016).

1.2.5 Regulations and political issues relating to entrepreneurship

Regulations and political context are viewed as key factors that can influence the economic performance of a country. Government regulations and political issues affect the rate at which new business enterprises are created and their success (Dreher and Gassebner, 2013). Entrepreneurs should be aware of different regulations and political issues that may affect their business operations.

Regulations may negatively affect entrepreneurs and their businesses. Examples of regulations that may affect entrepreneurship include entry regulations, minimum capital requirements, licensing requirements, labour and environment regulations. Some countries have restrictive regulations that prevent small businesses established by entrepreneurs from penetrating marketplaces controlled by existing firms (Dreher and Gassebner, 2013). It is imperative to note that entrepreneurs start new ventures with the desire to find new markets and compete favourably with existing firms. However, government regulations such as huge capital requirements make it impossible for entrepreneurs to penetrate the marketplace. This is based on a perception that entrepreneurs start their entrepreneurial ventures with a small amount of capital, due to their limited access to sufficient financing compared to well-established companies. In addition, some unique capabilities and competencies may be required to enter a certain market or industry. These capabilities could be in terms of resources, technical expertise or skills, as well as the number of employees. This

makes it difficult for entrepreneurs who lack these capabilities and competencies to venture into some lines of business.

Business enterprises should observe licensing, labour and environment regulations. In the United States, the federal government requires small and medium businesses to be licensed before commencing their operations (Goldschlag and Tabarrok, 2018). There is no business which can operate without a license; any small business that operates without a license is subject to stern legal action. When forming new businesses, therefore, entrepreneurs must obtain a permit or license to continue with their operations without any legal constraint. Entrepreneurs are required to observe labour regulations when hiring employees. These labour regulations include health and safety regulations, disciplinary procedures, employment regulations and termination regulations, and others (Adomako and Danso, 2014). They are required to embrace a working environment that provides a great opportunity for an employee's prosperity. From the environmental perspective, entrepreneurs are required to conserve the environment and natural resources by preventing polluting emissions and disposing of waste products in the right way (Fereidouni and Masron, 2012). Entrepreneurs are required to put measures that would make the environment greener.

There exist political issues that affect the entrepreneurship process. Some of the political issues that may affect entrepreneurs include regulatory reform, taxes and federal monetary policies, and political goodwill. These political issues affect the success of any business formed by entrepreneurs (Goldschlag and Tabarrok, 2018). For example, political stances on taxes charged on profits earned by small businesses may force the government to reduce the taxes, making entrepreneurs realise higher income and expand their business operations (Fereidouni and Masron, 2012). Also, political stances on monetary policies may encourage the government to reduce interest rates, making it easier for entrepreneurs to obtain loans to finance their new businesses and innovations. Political goodwill helps to create a stable and peaceful country. For example, political goodwill has helped small businesses in the United States to thrive. Therefore, entrepreneurs should critically analyse these political issues before starting a new business to avoid business failure.

1.2.6 Regulations in using the internet and social media for business

The internet and social media have the potential to play a significant role in transforming business ventures and making them more successful. The internet provides numerous benefits to new business ventures by offering direct links with suppliers and customers and facilitating faster transactions (Adam et al., 1997). In addition, the internet enables businesses formed by entrepreneurs to develop new products for new and current customers based on the collection and analysis of market research. In addition, it provides opportunities for new businesses to market their products across the world without physical contact. On the other hand, social media platforms change the way a new business connects with its customers and other stakeholders (Berthon et al., 2012). New businesses use social media to market products and communicate their plans to their target customers.

There exist regulations and political issues in using the internet and social media for business. Regulations in using the internet entail protection of confidentiality, authenticity and balancing data security issues that may affect business performance (Kaynak et al., 2005). New businesses formed by entrepreneurs are required to develop standards and policies that will protect the information provided by their customers through the internet (Goldschlag and Tabarrok, 2018). Copyright regulation is a key legislative procedure that ensures new businesses do not use the trade names, logos, marks and brands of existing firms without their express permission (Berthon et al., 2012). Also, new businesses should protect their information found on the internet from antisocial use by terrorists and criminals. Entrepreneurs are required to balance data security issues against business performance to ensure the data provided by customers is not used for unauthorised purposes.

Social media platforms raise a significant number of information administration concerns, particularly in areas such as security, accuracy and key issues that might endanger a customer's personal or private data or information. By adopting the use of social media platforms, businesses formed by entrepreneurs should endorse the security, privacy and other key policies used by those social media (Goldschlag and Tabarrok, 2018); in particular, the regulations governing the use of social media in respect of privacy and security. Privacy regulations require entrepreneurial

businesses to protect personal information provided by customers through social media platforms (Bertot et al., 2012). They are prohibited from sharing it with unauthorized persons. Security protection regulations require small businesses to protect information provided through their social media platforms from any kind of cybercrime. In addition, they should post accurate and timely data on their social media platforms.

1.3 Research purpose

The main purpose of this research study is to examine the impact that social media has had on entrepreneurial intentions, perceptions and capabilities. In particular, this study aims to examine whether social media has a positive or a negative impact on the probability that individuals will use social media to identify business opportunities, develop skills and capabilities, as well as influencing their intention to start a business or entrepreneurial activity. Additionally, it also seeks to determine the impact that institutional quality – defined by the prevalence of the rule of law in a country – has on entrepreneurial intentions.

1.4 Research questions

In order to achieve the research purpose of this research study, the following research questions will be examined.

RQ1: Is there an association between the prevalence of social media influence and perceptions of the nature of the entrepreneurship process?

RQ2: Does institutional quality serve as a moderator for the effect of social media use on entrepreneurial intentions?

1.5 Theoretical framework

The research study is motivated by two theoretical frameworks. The first is the theory of reasoned action proposed by Ajzen and Fishbein (1970; 1980). The theory of reasoned action presupposes a causal sequence that proceeds from beliefs, through attitudes, the social norms and intention, to behaviour. According to this theory, the behaviour of an individual is determined by his or her intentions towards taking a specific action. This fact is relevant to the study because an

entrepreneur's intention to start a business through social media may largely depend on his or her personal beliefs or the belief that social media offers several benefits that will not only help the entrepreneur to identify a business opportunity, but also develop capabilities, undertake entrepreneurial activities and reap other benefits.

The other theoretical framework that this study uses is that of institutional theory. Institutional theory posits that the quality of institutions prevailing in any country determines not only the evolution of economic activities but also the behaviour of firms (Robinson et al., 2005). In fact, it has been found that the quality of institutions determines the institutional environment of any country and this quality of the institutional environment has a large impact in determining entrepreneurial activity in any country (Dove, 2019). This theory is relevant to my study because social media might have a reduced impact on entrepreneurial intentions where the use of social media is highly regulated or restricted because of weak institutions.

1.6 The research methodology

1.6.1 Data

The Global Entrepreneurship Monitor (GEM) represents a number of important elements that could have an impact on the rate of entrepreneurship around the world. The GEM data is compiled through two types of survey. The first one is an adult population survey (APS), which measures the level and nature of entrepreneurial activity around the world through a sample of at least 2,000 respondents. The second is a national expert survey (NES) which measures people's dynamics using 36 experts from each country. Based on these two surveys, I construct my dependent variables, which measure the entrepreneurial intentions of respondents. Mainly three types of entrepreneurial intentions constitute my dependent variables: "Perception of good business opportunities in the near future", "perception of having required skills and capabilities to run a business", and "intention to start a business in the next three years". These variables are at the individual level and collected from 105 countries over the period of 2007 to 2017. Since I wish to analyse the relationship between social media use in a country and entrepreneurial perceptions, social media use is my main independent variable. Social media use data is obtained through the Pew Research Centre and Datareportal and it is at the country level. Therefore, this variable

represents the average use of social media in a given country. As an alternative measure of internet use, I also obtain internet use data from the International Technology Union (ITU) and use this variable for robustness analysis.

As in any empirical study, control variables are key to estimating the exact relationship between dependent and independent variables. I use individual- and country-level control variables, depending on the estimation strategy (country level or individual level). Individual level control variables come from the GEM survey and they are the age and sex of the respondent. Country or macro level control variables are ease of doing business, which measures the ease of doing business in a country; GDP per capita, which measures the overall income level; education, which is the gross enrolment rate for tertiary education; and unemployment, which refers to the country-level variable that measures the unemployment rate in a country for a given year. To further evaluate the dynamics of the relationship between entrepreneurial intentions and social media use, I use the institutional quality of a country for any potential moderating effect. Worldwide Governance Indicators (WGI) report many indicators that are related to the institutional quality of a country. Among these, the rule of law is the most comprehensive and it measures the perceptions of the incidence of crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts.

1.6.2 Methodology

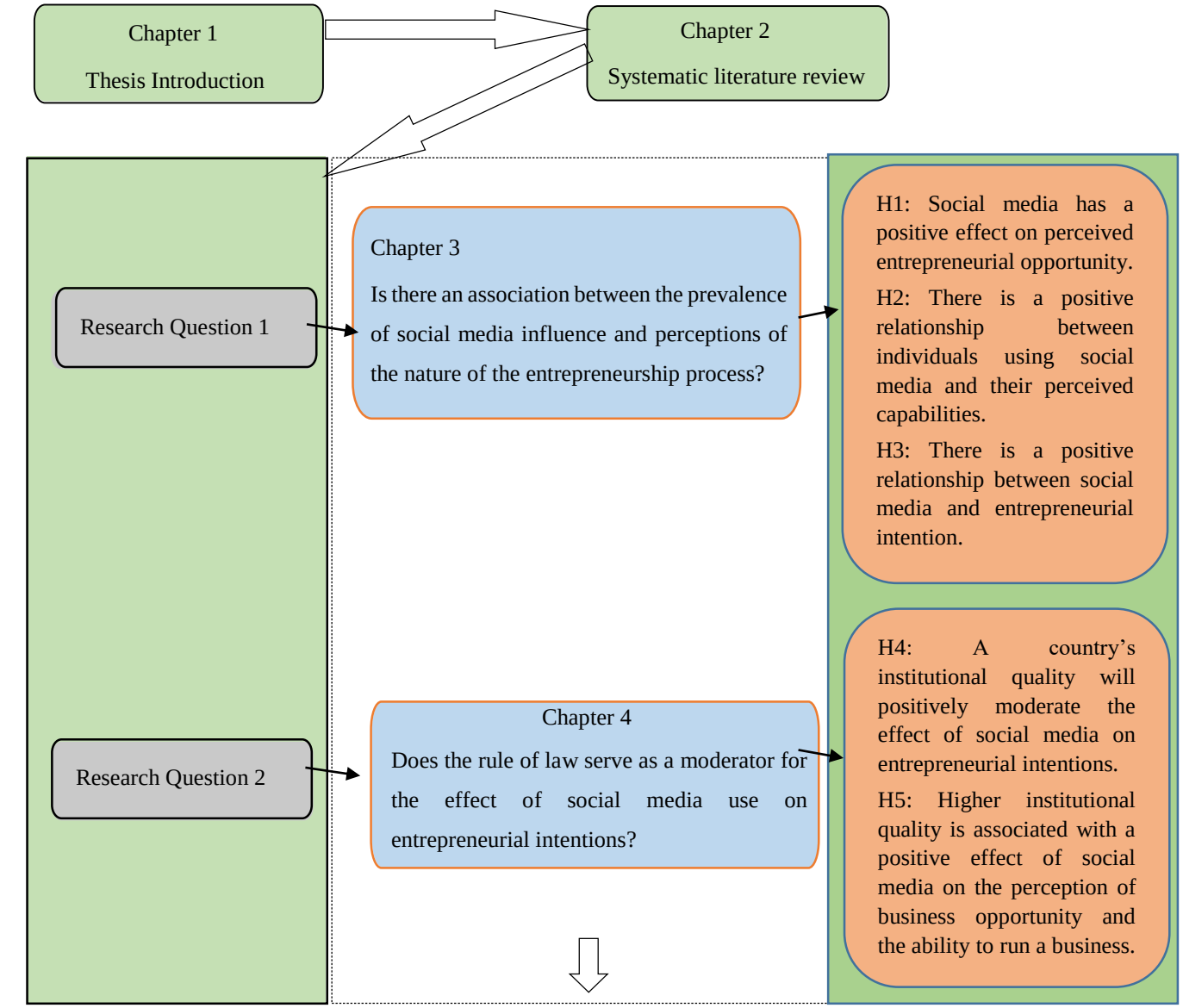
The methodological approach for this study includes the following strategies. First, I pursue a preliminary descriptive analysis to see general trends in the data. Descriptive analysis might allow us to see a correlation between variables, but it does not lead to a causal conclusion. Therefore, I use regression analysis to analyse the determinants of entrepreneurial intentions, the variable of interest being social media use. I start with using pooled data at the individual level and then move to country-level analysis.

For both analyses, I adopt panel data regression methodology with country and time fixed effects. Next, I run separate regressions for different subsamples based on the income level of countries. This will allow us to see whether the effect of social media on entrepreneurial intentions is different in low-income countries versus high income countries. I also run individual-level regressions with

male/female subsamples to see potential differences in the way social media affects entrepreneurial intentions between males and females.

In another chapter, I deepen my analysis of social media and entrepreneurial intentions by including institutional quality in my analysis. Following the panel data regression procedure and focusing on only macro-level data, I not only look at the direct effect of institutional quality on entrepreneurial intentions but also investigate its moderating effect. Inclusion of an interaction variable (social media and rule of law) allows us to see how the effect of social media changes under different institutional quality settings. Throughout my analysis for robustness, I use three alternative dependent variables and internet use as an alternative to social media use. This will help us strengthen my analysis and make the results more robust. More specifics about the exact model and regression equations, as well as the hypothesis, are provided in each chapter separately.

1.7 The structure of the thesis



1.8 The key findings and contributions

This study demonstrates that the increased growth of social media has a positive impact on entrepreneurial intentions. The increased use of social media has led individuals to identify good business opportunities, which positively impacts the intention to start a business. In other words, it has been found that social media has a positive impact on increasing entrepreneurial intentions. It was also found during this research study that increased use of social media has allowed entrepreneurs to not just start a business but also enhance their skills and capabilities that are required to grow and sustain their business. The examination of the role that institutional quality plays in influencing entrepreneurial intentions found that the quality of institutional environment was noticeable in determining the ways through which social media impacts entrepreneurial intentions. The higher the institutional quality, the greater is the protection from corruption and less intellectual property rights are violated on social media. All of these factors positively influences entrepreneurial intentions and their business activities on social media; more and more entrepreneurs indicate the positive impact of social media in influencing entrepreneurial intentions.

1.9 Limitations

All the elements discussed have a significant impact in terms of entrepreneurship. However, the focus of this study is to examine the extent to which social media platforms and different forms of networking affect the growth of entrepreneurship. GEM data does not provide this information. With the advent of various social media platforms, it became apparent that each platform has specific features in terms of its influence on business perceptions. For example, using Facebook might lead to different business perceptions than using Instagram. Treating all social media platforms together makes the analysis possible in this study, but recognition of the differences implies a more in-depth analysis is needed, based on the specific type of platform used.

Another limitation is that the “social media use” variable is at the country level. An individual-level variable would allow us to make a better estimate, since similar experiences may affect individuals differently. I use three alternative entrepreneurial perception variables, i.e., opportunity, capability and starting a business, and these variables do not exactly measure the same thing. This leads to some inconsistency of the sign and significance of predictors among the three

dependent variables. Ideally, one composite index or measure for the entrepreneurial perception variable would help us reach clearer conclusions.

1.10 Conclusion

In conclusion, technological advancements have brought the world closer and made entrepreneurship an area that is continually evolving. Also, as technology continually becomes part and parcel of human life, reliance on social media has become inevitable. As can be seen in the chapters below, the following conclusions can be drawn: First, in Chapter 2, it is shown that the increased popularity and use of social media allows people in various countries around the world to identify good business opportunities. Second, the various tools and features available on social media, such as the ability to market products or services to a large number of people at a relatively lower cost than traditional media, ability to interact with customers, and easy access to international markets, not only have a positive impact on entrepreneurial intentions but also allow entrepreneurs to develop capabilities that help them to grow their business and increase their profitability.

As shown in Chapter 3, the ability of social media to influence entrepreneurial intentions, opportunities and perceptions clearly indicates the view of “techno-optimists” who argue that social media brings positive changes in society, as against the “techno-pessimist” view which argues that social media are used to create political unrest. However, it has to be noted that institutional quality plays a key role in influencing entrepreneurial intentions. As can be seen in Chapter 4, the quality of the institutional environment plays a huge role when it comes to influencing entrepreneurial intentions to start a new business using social media. The findings reveal that countries with higher institutional quality, i.e., countries that offer entrepreneurs and businesses more protection from corruption and ensure that there are fewer violations of intellectual property rights on social media, are more likely to have a positive influence on entrepreneurial intentions.

Chapter 2: Systematic literature review

2.1 Introduction

The ways in which business is done and the ways through which companies market their products and/or services is changing rapidly. The evident use of social media, even by large companies, is heralding a new approach, not just in the ways these companies are marketing their products or services, but also in the ways they are doing business around the world. There is extensive research examining the ways through which large companies or businesses are using social media to market their products or services, and even ways through which entrepreneurs are using or can use social media to start a new business. However, the ways through which social media is influencing entrepreneurs' perceptions and intentions to start a new business have often received less attention. The question that now arises is how entrepreneurs who used social media to start a new venture were motivated to use social media in the first place. The intentions and perceptions towards using social media as a way to start a new business are conspicuously absent from the dominant literature on entrepreneurship. As a result, understanding these intentions and perceptions might help in shedding light on the puzzle about how changes in technologies affect entrepreneurial intentions to start a new business, and in some cases, even influence entrepreneurial culture in some countries.

This systematic review is an attempt to examine the impact that new technologies might have on producing more entrepreneurs. Specifically, it seeks to address concerns that people who might want to become entrepreneurs might miss out on the opportunities that social media might provide to them, since it has been ascertained that starting a new business venture is often costly and requires huge amounts of investment and capital. The emergence of social media platforms and the several benefits they offer to entrepreneurs, especially at the launch and post-launch stages of entrepreneurial processes, should not be ignored (Wang et al., 2020).

However, what remains under-researched is the impact that social media might have on the pre-launch stage of the entrepreneurial process. Hence, the systematic review seeks to address this research gap. By highlighting the benefits as well as disadvantages of social media; the systematic review will seek to answer the question of the role that social media plays in determining the pre-launch stage of the entrepreneurial process or how it influences the intentions and shapes the

perceptions of people in becoming an entrepreneur. One of the major reasons for examining the influence of social media on entrepreneurial intentions and perceptions is the fact that, by providing an opportunity to increase their social networks, facilitate individual knowledge and information seeking activities, social media has had a significant impact on entrepreneurship; it has allowed entrepreneurs to move beyond their geographical area and conduct business with relatively less effort and monetary costs as compared to traditional ways of starting a business.

The popularity of social media has challenged the traditional belief that starting a new venture requires significant effort and monetary costs. It is evident, therefore, that the changes that have come up in the business practice because of social media necessitate an examination of the influence that these changes might have had on the intentions and attitudes of entrepreneurs (Andzulis et al., 2012).

There is considerable evidence to suggest that social media use is influencing entrepreneurial entry by providing valuable social capital and other tools (Olanrewaju et al., 2020; Secundo et al., 2020; Song, 2015; Wang et al., 2020; Zafar et al., 2012). For example, in one study, Olanrewaju et al. (2020) examined the state of social media and entrepreneurship research. The results of the study revealed that social media use has transcended marketing and many entrepreneurs are using social media for business networking, information search, and to raise funds for their business through crowdfunding. In addition, it has also been argued that social media has opened new opportunities for entrepreneurs and can play a crucial role in shaping entrepreneurial intentions (Zafar et al., 2012).

The role that entrepreneurs and entrepreneurship play in driving economic growth in any country is widely recognised. However, despite this, some countries continue to produce new entrepreneurs, whereas in others this happens less often. Indeed, we have already reached the stage when internet tools and technologies, especially social media, are being used by people in almost every country in the world, albeit to varying degrees.

For this reason, another aim of this systematic review is to explore the role that national governments play in facilitating or decreasing the use of social media, which in turn may have an

impact by influencing the intentions and perceptions of entrepreneurs on using such technologies to start a new business. Whereas research in social media and entrepreneurship is common in various fields, it is difficult to find a systematic review which focuses on how social media is shaping the intentions and perceptions of entrepreneurs. Certainly, there is a vast gap to explore in examining how social media can benefit entrepreneurs and the ways it can influence their intentions and perceptions is vast.

Thus, this systematic literature review analyses a series of sources that have content on specific sub-sections of this topic, and uses such content to provide an understanding of whether there is an influence on entrepreneurs' perceptions and intentions caused by social media. It also illuminates areas of interest for researchers on how the practice of business has changed because of social media influence.

As mentioned earlier, social media have penetrated each and every country and play a crucial role in business practices. Considering this, it is important to understand all the factors that might shape the intentions and perceptions of entrepreneurs when using social media to start a new business venture. This systematic review is conducted to answer the specifics of the effects of such influence, which can then be used by academicians and researchers to further explore the relationship between social media and entrepreneurship. By doing so, this systematic review also opens up various avenues for further research, especially studies conducted to validate the role of social media in increasing entrepreneurial opportunities and to highlight the impact of social media on entrepreneurial intentions and capabilities.

This will not just add to the existing body of knowledge on the role of new technologies and their impact on entrepreneurial activity, but also add to the much broader literature of business and entrepreneurship in the future. One such avenue is that of international business or international entrepreneurship. For example, in an article, Chakravarty et al. (2021) argue that the adoption of social media leads to the development of informational capabilities, which, in addition to other factors such as the capabilities of foreign partners, enables the international growth of entrepreneurs. The benefits of using social media also help to overcome some of the liabilities that come with starting a new business.

In addition, this systematic review might also be used to access insights or gain direction that may provide a medium for researchers and academicians to bring about an attitude change towards the use of social media in the most feasible or culturally appropriate way, especially in countries that are not just averse to the use of modern technologies but also averse to entrepreneurship and entrepreneurial activity.

This chapter is organised as follows. The chapter will first introduce definitions of entrepreneurship, small and medium enterprises (SMEs), and social media that have been identified in the literature. Following the definitions, the role of entrepreneurship in the economy is also presented. The chapter will then outline the methodology that will be used to conduct the systematic literature review.

2.2 Definitions

2.2.1 Entrepreneurship

Entrepreneurship is defined as the process of creating an enterprise or business and bearing all the risks that are associated with such a venture, with the motive of making profit. The person or entity that creates the enterprise or business is called the entrepreneur. In an earlier work, Schumpeter (1965, p. 51) defined entrepreneurship as "doing things that are not generally done in the ordinary course of business routine, it is essentially a phenomenon that comes under the wider aspect of leadership". The business that develops from the intention of an entrepreneur can take several forms, including a sole proprietorship, a partnership, a company, or a corporation (Hajli et al., 2017).

Depending on the nature of the business and the available income for taking up an entrepreneurial activity, there are certain critical decisions that entrepreneurs must make to succeed in their intentions. One of these decisions is on the nature of the business and the risks involved (Revell-Love and Revell-Love, 2016). This leads to the analysis of some of the entrepreneurial business that entrepreneurs can engage in, which includes manufacturing, wholesaling, retailing, service, agriculture, and mining and extraction of minerals (Kraus et al., 2019). Each of the six entrepreneurial businesses has diverse capital requirements; mining and manufacturing

opportunities, for instance, require large capital investments, while the remaining four entrepreneurial opportunities are feasible for low-income entrepreneurs.

However, irrespective of the type of entrepreneurial business that an entrepreneur might choose, there are other factors that could determine the trajectory of the achievements that the entrepreneur might experience. One such factor is the approach that the entrepreneur takes in communicating the product and marketing it to potential consumers in the market (Ancillai et al., 2019). There are different approaches that entrepreneurs could use, one of them being the use of posters and television ads. However, recent developments in the use of technology have seen entrepreneurs prefer social media as one of the possible options that can be used for marketing purposes (Zhou and Duan, 2015).

There are other entrepreneurs that have combined the traditional strategies that were used in targeting potential consumers with social media. Such decisions are often made by entrepreneurs depending on the type of consumer segment that the advertisement targets. For instance, social media is popular with the younger generation, while the older generation still rely on traditional forms of communication and information sources, such as posters and television and radio ads (Fischer and Reuber, 2011). Where an entrepreneur targets the older generation, the medium used will revolve around a source of communication that is likely to be popular with the older generation. Conversely, where the objective of the entrepreneur is to target the younger generation, the type of medium chosen will be one that is most popular with the younger generation; this results in the use of social media and other forms of communication that are popular with the younger generation.

2.2.2 Small and Medium Enterprises (SMEs)

Before moving ahead towards defining social media, it will be important to first define small and medium enterprises (SMEs), and understand how they are similar and different from entrepreneurship. This is mainly because, as Al-Abri and Rahim (2020) note, entrepreneurships and SMEs are so closely intertwined that they are confused, considered to be one and the same thing, and more often than not used interchangeably. The authors attribute this confusion between entrepreneurship and SMEs to their inconsistent and, in some cases, even confusing definitions.

The only similarity between entrepreneurship and SMEs is that, by providing jobs and income, both play an important role in bringing about societal change. This plays a huge role in the economic growth of developing countries.

However, it has to be noted that, despite these similarities and the importance of entrepreneurship and SMEs to countries, entrepreneurship and SMEs are not synonymous (Al-Abri and Rahim, 2020). Unlike the definition of entrepreneurship, which is more or less the same in different countries, the definition of SMEs can differ from country to country and might vary from economy to economy. For example, in developed economies, various aspects of the firm, such as sales turnover, number of employees, financial assets and other factors might be used to define a SME (Pauceanu, 2016). On the other hand, in under-developed or developing economies, these aspects may be totally different (Al Maimani and Johari, 2015).

Based on the discussion above, and for the purposes of this systematic review, SMEs are considered as different from entrepreneurship. SMEs are defined as businesses that emerge from the fundamental process of entrepreneurship (e.g., taking risks, finding innovative ideas and ways to start or perform existing business activities, etc.) while entrepreneurship serves as the foundation for SMEs, ultimately shaping the industry and, in some cases, even large businesses (Okyere, 2017).

One of the major reasons for differentiating entrepreneurship from SMEs for the purpose of this systematic review is that, even though the two concepts might overlap, there are certain characteristics that make them different from one another. For example, for the purpose of this systematic review, entrepreneurs are considered as those who are focused more on starting new businesses or finding innovative ways to do business. On the other hand, SMEs, for the purpose of this systematic review, are considered as those business that are focused more on managing their business and using social media to sustain it.

2.2.3 Social media

Social media refers to any digital tool or interactive computer-mediated technologies that can be used to create and share forms of expression, such as ideas, career interests, and other pieces of

information, with the public (Li and Shiu, 2012). Some of the most common social media platforms that are used for interaction among people include Facebook, LinkedIn, Instagram and Twitter.

Each of these social media platforms has its advantages and disadvantages, and may be used by entrepreneurs depending on their interests, intentions, and needs (Recker and Lekse, 2016). There are social media platforms that provide a better response to the marketing goals of an entrepreneur, depending on the type of entrepreneurial business that an entrepreneur is engaged in (Li et al., 2013). For instance, for individuals whose entrepreneurial businesses are in the service industry, specifically professional services, the social media platform most often used is LinkedIn. Most professionals use this platform because it enables them to communicate directly with professionals in specific disciplines. Consumers of service businesses have also adopted LinkedIn as their marketing option because of such attributes.

For some entrepreneurs who operate in other industries, such as the clothing industry, the preferred social media platform for marketing purposes is often Instagram. This is because of the prevalence of most celebrities on Instagram as their preferred social media platform.

Depending on the approach that is taken by entrepreneurs for marketing purposes, social media features serve as a tool that provides a quicker and better way in the modern era for businesses to engage with the market and communicate their products and services to consumers (Lorenzo-Romero et al., 2014). Even when a business has its own website, there is always a tendency to maintain active social media accounts where potential consumers can be reached and their interests or questions addressed by the company (Sherchan et al., 2013). Several entrepreneurial businesses consider social media as the first point for meeting consumers, before directing them to the business's website or other online platforms for purchase options.

Given this reliance on social media by entrepreneurs, it is likely that it influences the interests, intentions, and attitudes of entrepreneurs when they decide on what kind of entrepreneurial business they would want to operate (Nawi et al., 2017). For instance, a business that seeks to provide services will consider how best it can reach its potential consumers, and this might involve

identifying which of the available social media platforms would give the best outcome for their intentions, both short- and long-term.

Some businesses also identify the type of clientele that they seek to serve, and which of the available social media platforms is the preferred option for this demographic (Lashgari et al., 2018). This has been the case for most businesses that seek to attract people from a certain class in society, and how they have been known to use social media over the past decades (Rippa and Secundo, 2019). For instance, most Twitter users are individuals who have a certain minimum educational level, and who consider making short text engagements when communicating (Fischer and Reuber, 2011). This leads entrepreneurs marketing their products through Twitter to adopt a certain framework or strategy that is different from that used in other social media platforms.

2.3 Entrepreneurship Diversity and the Difference between Opportunity and Necessity Entrepreneurship

The Global Entrepreneurship Monitor (2021) indicates that since entrepreneurship is a global phenomenon, there exists diversity among entrepreneurs. The report further states that, in order to measure or compare total early-stage entrepreneurial activity (TEA) in nations, which the GEM defines as "the proportion of the adult population who are either starting or running a new business" (GEM, 2021, p. 194), it is important to explore the diversity among entrepreneurs based on key demographics, such as gender, age, education and levels of unemployment.

2.3.1 Gender and Entrepreneurship

The criticism of past studies of treating entrepreneurs as a homogenous group led to the emergence of the concept of entrepreneurship diversity or diversity in entrepreneurship, which refers to the extensive variation between entrepreneurs based on socioeconomic diversity such as age, gender, level of education, employment status, and other factors that determine entrepreneurial intentions, goals, and participation in entrepreneurial activity (Verheul and van Stel, 2007). Since then, there has been an increase in studies examining the role that various factors such as gender (Shinnar et al., 2012; Nasiri and Hamelin, 2018; Sanchez-Escobedo et al., 2014; Westhead and Solesvik, 2016; Dilli and Westerhuis, 2018; El-Hadary, 2018; Soomro et al., 2018; Ryu and Kim, 2020, Velilla,

2017; Zali et al., 2018), age (Pinkovtskaia et al., 2019; Sweis and ElTamiimi, 2020; Zali et al., 2018), level of education (Naseri and Hamelin, 2018), employment (Nasiri and Hamelin, 2018) and economic growth or stage of economic growth of a country (Sanchez-Escobedo et al., 2014), and even culture of a country (Shinnar et al., 2012) play in shaping entrepreneurial intentions, perceptions, and opportunities in different countries around the world. As can be seen that out of the various factors, gender diversity has received the most attention in the entrepreneurship literature.

Studies (Shinnar et al., 2012; Nasiri and Hamelin, 2018; Sanchez-Escobedo et al., 2014; Dilli and Westerhuis, 2018; El-Hadary, 2018; Soomro et al., 2018; Ryu and Kim, 2020, Zali et al., 2018) examining gender diversity in entrepreneurship indicate constant gender gaps in entrepreneurial activity in almost all the regions of the world. In fact, in a study, Westhead and Solsevik (2016) have found that entrepreneurial intention is higher in men as compared to women. A number of factors responsible for this gender gap in entrepreneurial activity have been identified in the literature. For example, studies (Gupta et al., 2009; Sanchez-Escobedo et al., 2014) indicate that a major factor that contributes to the gender gap in entrepreneurial activity is the gender-based stereotypes which affect entrepreneurial intention among women. Gupta et al. (2009) point out that the culture of a country plays a key role in determining the gender-based stereotypes and in turn the entrepreneurial intention of women.

In addition to gender stereotypes, other socioeconomic factors (e.g. age, level of education, economic development, work status, education etc.) and psychosocial factors (e.g. self-efficacy, opportunity identification, fear of failure and social networks) have also been found to shape entrepreneurial intentions among men and women (Sanchez-Escobedo et al., 2014). However, in their study, Sanchez-Escobedo et al. (2014) found that many of these factors determining entrepreneurial intention among men and women often differ based on the level of economic development of the country. For example, the authors note that in developed countries, factors such as self-efficacy, the level of education, social networks and status of employment often shape entrepreneurial intentions among men whereas the level of education, being unemployed and fear of failure often determines entrepreneurial intentions for women. On the other hand, in middle-income countries, the work status, self-efficacy in addition to income determine entrepreneurial

intentions in men as compared to being unemployed and level of education in women in such countries. In least developed countries, age, social networks and work status determine entrepreneurial intentions in men whereas being unemployed and level of education determine the entrepreneurial intentions for women (Sanchez-Escobedo et al., 2014).

Based on the studies examined above, it could be argued that gender differences continue to exist within the field of entrepreneurship. Even though gender stereotypes based on the culture of the country play a crucial role in determining entrepreneurial intentions among women and help to explain the gender differences in entrepreneurship; other factors such as age, the level of education, the work status, household income, and stage of economic development of a country also influence entrepreneurial intentions not just among women but also among men. It is worth noting that socioeconomic factors shaping entrepreneurial intentions among both men as well as women differ in different countries and might also be influenced by psychosocial factors such as the fear of failure, self-efficacy, and the extent of social networks. All of these factors, it could also be argued, also help in explaining the diversity in entrepreneurship, diversity among entrepreneurs, and their ventures (Verheul and van Stel, 2007).

2.3.2 Age and Entrepreneurship

Similar to gender, age is another factor that needs to be taken into consideration when measuring TEA in any country. This is mainly because entrepreneurial activity can vary between age groups. In other words, since younger people may have more energy and drive, may be more knowledgeable about the latest technologies and trends, and have more time to reap the benefits of starting a business, they are more likely to start a business as compared to older people. In contrast, older people are more likely to have more experience, skills, and knowledge, as well as better awareness about the markets, and access to information and networks needed to start a business. However, unlike younger people, older people might have more responsibilities, such as dependent family members, mortgages and hence have more to lose than gain by giving up a well-paid job and starting their own business. Considering this, age can play a greater role when determining TEA in any country and hence it is important to include age as a factor when measuring TEA (GEM, 2021).

According to Pinkovetskaia, Nikitina, and Gromova (2019), a survey from GEM shows that the ages when people engage in interparental activities are between 25 to 44 years. The age range from 25 to 34 years is where emerging entrepreneurs are most active, while the age groups of 18 to 24 and 45 to 54 show lower entrepreneurial values. For the oldest age group, values are typically noticeably lower, maintaining the inverse U-shaped link between age and entrepreneurial activity during these years. The low proportion of entrepreneurs between the ages of 45 and 64 is a result of the general lack of entrepreneurial knowledge among people in this age range, as well as the prevailing mindset (Pinkovetskaia et al, 2019). Not only are the majority of older people who grew up in a socialist society, where taking initiative was frowned upon, probably psychologically unsuited to start their own business, but their attitudes also negatively affect their younger relatives.

2.3.3 Education and Entrepreneurship

Another factor that may determine TEA in any country is the level of education of the population. This is mainly because the level of education, as well as the quality of education, varies across different countries around the world owing to factors such as the provision of education by the government, the definition of different levels of education among countries and others. Hence, it is important to consider education when comparing TEA across countries. It has been found that countries with a population having a degree or higher level of education are more likely to start a business. Hence, increasing the supply of graduates can be considered as a vital step towards achieving higher levels of TEA in any country (GEM, 2021).

2.3.4 Unemployment and Entrepreneurship

Similar to education, the relationship between unemployment and entrepreneurship is also complex both within and across countries (Thurik et al., 2008). For example, people from high-income countries with low rates of unemployment have more entrepreneurial opportunities in addition to better access to the resources required to grab these entrepreneurial opportunities as compared to people living in countries with high levels of unemployment. However, starting a business in high-income countries also have high opportunity costs such as losing salary, social security benefits, and other benefits. Hence, people in countries with low levels of unemployment

may find it difficult to grab the entrepreneurial opportunities that exist in the country owing to high opportunity costs. On the other hand, in low-income countries with high levels of unemployment, people are less likely to have alternative sources of employment and hence may start their own business as a result of economic necessity (Cowling and Bygrave, 2002; GEM, 2021).

2.3.5 Necessity versus Opportunity Entrepreneurship

An early definition of necessity versus opportunity entrepreneurship was provided by the Global Entrepreneurship Monitor (GEM) when in its survey it asked the respondents about whether they were involved in entrepreneurship in order to take advantage of business opportunity or just because they had no better choices for work. For example, since the year 2001, the GEM paid special attention towards motivations that drive people to start a business and has created separate measures of opportunity driven entrepreneurship and necessity driven entrepreneurship. A report published by the GEM (2018) revealed that in the past few decades, entrepreneurship in many countries has been triggered out of opportunity rather than necessity. The GEM (2018) attributed this shift to the emergence of new technologies and factors such as changes in attitudes towards entrepreneurship as well as changes in regulations across nations. On a similar note, Warnecke (2013, p. 459) defined opportunity entrepreneurship as those individuals who "are able to identify available opportunities and exploit them". The authors add that these individuals are highly educated, have good solid job alternatives, and possess prior managerial experience. On the other hand, the author defines necessity entrepreneurship as those who turn to entrepreneurship as a response to loss of employment or when they lack options for work or participation in the economy. Necessity entrepreneurs are generally not educated, lack managerial experience and access to capital and business networks. The main reason to define opportunity and necessity entrepreneurship is to understand the difference between the two concepts because the difference between opportunity and necessity entrepreneurship can be valuable when considering the gender dimension in entrepreneurship because in many of the countries women are more likely to be necessity entrepreneurs as compared to men (Warnecke, 2013).

2.4 The Role of Entrepreneurship in the Economy

Every economy thrives when the demands of consumers in the market are realised by businesses that provide products and services within the same market. When consumers can receive most of the services and products that they might need from a market, at the prices that they are able and willing to pay for such products and services, then such a market is considered as thriving (He et al., 2017). However, when consumers of commodities and services cannot receive some of the products and services that they require from the market, either because such products or services are unavailable, or because of the prices that are set for them, then such an economy is considered as either dormant or declining (Tse et al., 2018).

Several factors can contribute to how an economy progresses over time, and the state or cycle of an economy. Regardless of the nature of the economy, for it to exist, there must be consumers and suppliers of both products and services. Entrepreneurs contribute to the availability of the services and products that are needed in the market by consumers, and the nature of the prices that such products and services are offered to consumers (Müller et al., 2018). For instance, in an economy or market where there are many suppliers of a product or service, the price of such a product or service will be much lower because of the competition that exists between suppliers, than in a market or economy where such a product is scarce and there is minimal competition (Xu et al., 2012). This discussion indicates that one of the roles of entrepreneurship is the establishment of an economy, since a market can exist only when there are products and services that are available to consumers at certain prices.

The other role that entrepreneurship plays in an economy is that it facilitates the circulation of money. As people trade within the market, money circulates from suppliers of products and services to wholesalers and producers of such products and services, and to and from consumers of those products and services (Laurell and Sandstrom, 2014). This effect leads to income generation, while also satisfying the desires of consumers within the economy. Countries that have managed to have stronger economies enable entrepreneurs to have an easy and predictable path towards starting an entrepreneurial business, and this provides a platform where there is minimal monopoly in the provision of most services and products in those economies (Hsiao et al., 2020).

The effect is an economy where the products and services that are provided in the market are at prices that can be afforded by targeted consumers, and this facilitates the circulation of money. Economies that make it difficult for businesses to start or thrive often struggle with the objective of enabling circulation of money, since there are no purchases and sales within the market that would move funds from consumers to producers, or from retailers to manufacturers, whichever direction the movement of money could follow.

Entrepreneurship also creates employment opportunities in an economy. Depending on the type of entrepreneurial business that an entrepreneur begins, there could be a need to employ additional assistance, and this might lead to recruitment of people who can provide such assistance for the entrepreneur (Voramontri and Klieb, 2019). Where people are employed and are paid commensurately to the services that they provide, the effect is that the dependency ratio within the economy will be reduced. Consequently, more people will have the disposable income that they can spend to purchase other products and services that they need from the economy. For instance, people who have gainful employment and receive a certain amount every month, or according to the agreement that they have with their employers, have the ability to purchase some of the commodities that they need for their daily upkeep, unlike those who do not have similar employment engagements (Hsiao et al., 2020). Consequently, entrepreneurship contributes significantly to the enabling effect for the market to receive more people who can purchase the products and services that are availed there. Countries with low unemployment rates often have vibrant economies, while those that have higher unemployment rates often struggle to ensure that businesses thrive (Voramontri and Klieb, 2019). This is because of the lack of income from targeted consumers to purchase available products and services at the established prices.

The other contribution of entrepreneurship to an economy is the tax or income generation that it provides to governments. Entrepreneurship often leads to the use of the resources that exist within an economy to generate profit, while providing services and products to potential consumers (Fischer and Reuber, 2011). The use of resources within a country, either by using the existing infrastructure, such as roads and electricity, will require payments made for the use of such services (Hsiao et al., 2020). Additionally, there is a contribution in the form of tax that is made to the local authorities or the central government from where a business operates, which adds to the tax

collected by the government to finance projects that cannot be provided by the market. This could include military equipment, other infrastructural projects, or provision of some essential services that are necessary for individuals to have some form of basic lifestyle (Hsiao et al., 2020). Countries that have several businesses operating within their economies have a significant income generation platform from tax collection, which enables their governments to provide essential services that cannot be provided by economies that lack such tax generation capabilities (Voramontri and Klieb, 2019). Most developed countries have an advanced tax collection regime from entrepreneurial activities that occur in those economies, which do not discriminate against specific entrepreneurs, but also allow those governments to benefit from the amounts that they collect from businesses.

The successes that entrepreneurs gain from their involvement in any economy, which maximises the benefits that an economy can receive from the activities of entrepreneurs, depend on the strategies used to reach potential consumers and maximise their sales (Voramontri and Klieb, 2019). The most common strategy for achieving this objective is marketing. In marketing, there are traditional and modern approaches. Traditional methods include face-to-face marketing, television and radio ads, posters, and billboards, while most modern approaches include online ads, pay-per-click strategies, social media platforms, and other digital-oriented marketing strategies (Fischer and Reuber, 2011).

In contemporary society, technology has penetrated all facets of people's livelihoods, and the amount of time that is spent in trying to connect with friends and relatives through social media surpasses the traditional methods of visiting and physically spending time with families and friends. This makes entrepreneurs keenly intent on establishing a social media strategy to engage potential consumers within their social media platforms of choice, where they can convince them to purchase the products and services on offer (Voramontri and Klieb, 2019). The intention of this approach is to increase the sales received by attracting more consumers to a service or product by remaining visible in online platforms. This ultimately benefits the economy of a country, as well as the entrepreneurs.

2.5 The Link between Rule of Law and Entrepreneurship

The influence of the rule of law on the level of entrepreneurship has been widely researched in the past in both developed as well as developing countries (Agostino et al., 2018; Hartog et al., 2010; Levie and Autio, 2011; Mickiewicz et al., 2021; Salinas et al., 2019; Shagbazian and Aistov, 2017). According to Mickiewicz et al. (2021) this past research has examined institutional differences to explain the variation in levels of entrepreneurship across countries. For example, in a study, Levie and Autio (2011) examined the impact of business regulations and rule of law on strategic and non-strategic entrepreneurial entry across a panel of 54 countries. The results of this study revealed that a lighter burden of regulations was linked to a higher rate of strategic entrepreneurial activity, indicating a moderating role for the rule of law. Through their study, the authors concluded that a strong rule of law often has a moderating effect on entrepreneurial entry. However, an interesting study in this regard was conducted by Hartog et al. (2010), where the authors examined the impact that rule of law had on the variations in entrepreneurship across 20 developed countries at different levels of entrepreneurship, such as pre-start, early-stage, and established enterprises. The results of the study conducted by Hartog et al. (2010) revealed that countries with a better rule of law had low levels of entrepreneurship, indicating that the benefits of the rule of law were largely accrued by large enterprises. However, there is little if any research examining the influence of rule of law and the level of entrepreneurship in countries after the advent of social media in many countries around the world. With this in mind, the aim here is to also explore the relationship or the ways through which the rule of law across countries affects social media use and, in turn, entrepreneurial intentions.

2.6 Methodology for Systematic Literature Review

In this study, I conduct a systematic literature review which critically appraises, selects and identifies research to provide a response on a well formulated research question. The objective of choosing a systematic literature review in answering the study's research question is because it is a transparent and comprehensive search of content over multiple databases (Bhimani et al., 2019). The search provides varying items that critique one another, hence expanding the scope and understanding of the various schools of thought and empirical research on the topic. As Neves and

Brito (2020) posit, a systematic literature review also focuses on evidence-based content, meaning that the sources used have content that is backed by actual studies in the field. The approach taken by a systematic literature review is to provide a plan or protocol, from which criteria are developed on how the review will take place (Olanrewaju et al., 2020).

For the purpose of this systematic literature review, the general protocol used for conducting systematic literature reviews is the procedure identified by Boell and Cecez-Kecmanovic (2015). The main aim of the protocol is to help researchers to address a specific research question. Once a protocol is developed, the researchers conduct a database search to identify relevant publications. The relevant publications are then screened for quality of method and narrowed down to only those publications that are appropriate for the review. Based on these publications, the researchers then summarize the findings (Boell and Cecez-Kecmanovic, 2015). The following table (Table 2.1) gives an overview of the review protocol.

Table 2-1: The Systematic Literature Review Protocol

Protocol Elements	*Translation to this Systematic Literature Review*
Research Question	How do business owners, particularly entrepreneurs, benefit from social media prevalence? What factors could affect their perceptions and intentions towards social media?
Sources Searched	Scopus, EBSCO (Business Source Complete), Web of Science
Search Terms	“social media" OR Facebook OR Twitter OR Instagram OR Snapchat OR "social networking sites" OR “online social networks”) AND ("entrepren*" OR "entrepreneurial opportunity" OR "SME*" OR "small business" OR "small and medium business" OR "Startups" OR "new business ventures" OR "establishing business" OR "entrepreneur* performance" OR "entrepreneur* intentions" OR "entrepreneur* growth" OR "enterpris*"
Search Strategy	Peer-reviewed journal articles, date of publication restricted to 2000-2020
Inclusion Criteria	a) Articles published on topics within research disciplines of Business, Management and Accounting, Economics, Econometrics and Finance and Psychology b) Articles published in English c) Articles with full access
Exclusion Criteria	a) Articles published on topics such as crowdfunding, social capital, employee social network (ESN), social entrepreneurship leadership, innovation, acquisition, big data and social learning b) Articles with limited access
Quality Criteria	Articles published in high-ranked journals

2.6.1 Systematic Literature Review Research Questions

The research question for this systematic literature review is, ‘How do business owners, particularly entrepreneurs, benefit from social media prevalence and what factors could affect their perceptions and intentions towards social media?’ Some of the sub-topics that will assist in examining the correct response to the above research question include entrepreneurial opportunities, entrepreneurial capabilities and entrepreneurial intentions. These sub-topics will be examined in detail for entrepreneurs with both low and high incomes.

2.6.2 Systematic Literature Review Search Strategy

The following figure 2.1 illustrates the framework used to select publications for the systematic literature review. The first step was a systematic literature search. This review focuses on academic peer-reviewed journals that were retrieved from three business/ management databases: Scopus; EBSCO (Business Source Complete), and Web of Science. The Web of Science database was included because it offers access to multiple databases that reference cross-disciplinary research, which allows specialised sub-fields to be explored in depth within an academic or scientific discipline. Second, the date of publication was restricted to studies published in the last twenty years, or from 2000-2020, in each of these databases and the search results were filtered to cover only the research disciplines relevant to this study; namely, Business, Management and Accounting, Economics, Econometrics and Finance and Psychology.

To determine that the articles were relevant to the research questions of the study, different search terms were applied. Thus, the search was founded on a combination of search terms, such as: "social media" OR Facebook OR Twitter OR Instagram OR Snapchat OR "social networking sites" OR “online social networks”) AND ("entrepren*" OR "entrepreneurial opportunity" OR "SME*" OR "small business" OR "small and medium business" OR "Start?ups" OR "new business ventures" OR "establishing business" OR "entrepreneur* performance" OR "entrepreneur* intentions" OR "entrepreneur* growth" OR "enterpris*").

The first search of the Scopus database produced a total of 1,589 articles between the years of 2000-2020. To increase the consistency and robustness of the findings, the search results on this

database were filtered based on the areas related to the research disciplines (Business, Management and accounting, economics, econometrics and finance and psychology) which resulted in 744 articles. The search results were further filtered to include articles published in high-rank journals, based on SJR, focusing on Q1 and Q2; 84 articles then remained.

In the second step of the search strategy, the EBSCO (Business Source Complete) database was searched for journal articles from 2000-2020, using the same search terms. These search results produced a total of 1,978 articles. Additional approaches were also employed, such as the selection of areas related to the research topic [e.g., social media, online social networks, Facebook (web resource), Twitter (web resource), blogs, computer network resources, virtual communities, internet users, social network theory, digital technology, business enterprises -- United States, social media research, trust, motivation (psychology), developing countries, digital media, creative ability, internet of things, LinkedIn (web resource), network analysis (communication), attitude (psychology), business enterprises, virtual reality] to capture all relevant studies. This search produced a total of 824 articles, which were further filtered to include articles published only in high-ranked journals; a total of 351 articles remained. To focus on the main research purpose, articles published on similar topics mentioned in the previous database were excluded, which further brought down the results to a total of 69 articles.

The search of the third and final database, Web of Science, with the same search terms, produced a total of 1,600 articles between the years of 2000-2020. These results were further filtered to include only English language sources and articles published within the areas of business, management, communication, telecommunication, economics, psychology, multidisciplinary and operations research management science. The search produced a total of 436 articles, which was then refined to include articles from high-rank journals. The search results yielded a total of 205 articles. After screening the articles for the purpose of the research, a total of 33 articles remained.

2.6.3 Inclusion and Exclusion Criteria

The search of the three databases yielded a total of 185 articles from 75 journals. A list of journals and the number of articles included from each journal is provided in Appendix A. Out of the 185 articles, a total of 61 articles were identified as duplicates, after which a total of 124 articles

remained. These articles were screened to ensure that they fitted with the research purpose of the study. Articles that did not focus on the research purpose were excluded, as they elaborated on topics such as crowdfunding, social capital, employee social network (ESN), social entrepreneurship leadership, innovation, acquisition, big data and social learning and did not address the study question. Further reasons to exclude articles were that they were focused on the research question in other ways (e.g., articles referring to the working and processes of offline social networks, or technologies other than social media, such as e-commerce and online marketplaces). This further narrowed the articles used in the systematic literature review to include only the most potentially relevant ones. The overall framework used to conduct the systematic literature review is summarised in Figure 2.1 below (next page).

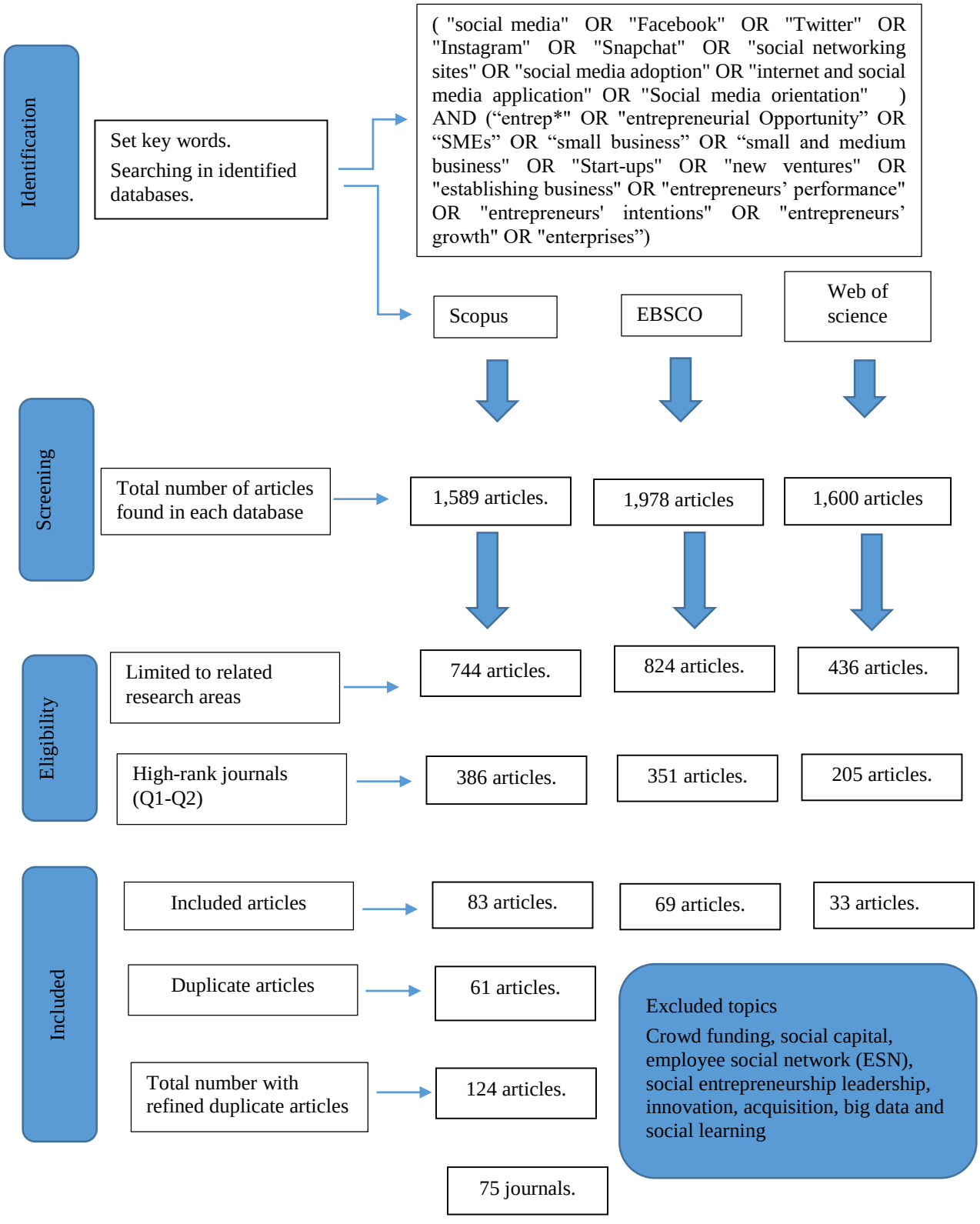


Figure 2.1: Systematic Literature Review Framework

2.7 Data Synthesis and Analysis

The full text of all the potentially relevant articles was read in depth to determine whether they were best suited to explain the influence that social media technologies might have had on the intentions and perceptions of entrepreneurs. These relevant articles were then coded based on different themes that emerged after defining the focus of this systematic literature review. Afterwards, other sub-themes considered to have an important impact on the influence on the intentions and perceptions of entrepreneurs were further identified under each suitable theme. Based on the synthesis and analysis conducted above, the following themes and sub-themes emerged:

2.7.1 Features and benefits of using social media in business

Social media platforms offer a host of features, which ultimately benefit entrepreneurs and their businesses. Some of the features of social media that entrepreneurs can use for the benefit of their business include: a) Low or no cost; b) Increased visibility; and c) High levels of interactivity.

a) Low or no cost

One of the important features of using social media in business is that businesses can join social media networks for free. Of all the biggest social media networks, none has established a fee that is required by users to register before signing up (Jones et al., 2015). This cost benefit offered by social media has led to more collective ways of pursuing entrepreneurship (Nambisan, 2017); allowed entrepreneurs to join a platform where they could easily promote their products or services (He et al., 2015); enabled them to interact with a series of potential consumers without having to pay any fee (Augar et al., 2014); and even allowed them to use it to develop their identity and their startups strategically (Horst et al., 2019).

The affordable nature of social media platforms makes them the most appropriate tools for marketing for firms with limited resources, (Nakara et al., 2012), as this can greatly help them, not just by reducing costs on marketing and customer service (Ainin et al., 2015), but also by playing an important role in the marketing and branding of their business, (Schembri and Latimer, 2016) at a relatively lower cost than compared to other technologies (Elephant and Maphela, 2018).

Another cost benefit offered by social media is that it can help firms to increase their firm-equity value. For instance, in their study, Luo, Zhang, and Duan (2012) suggest that social media-based metrics, such as consumer ratings, can be significant leading indicators of firm equity value. The authors add that social media metrics also have a faster predictive relationship with firm equity than other conventional online behavioural metrics, such as website traffic and Google searches. This can offer numerous advantages to entrepreneurs and small-businesses, as startups and small businesses usually tend to have lower equity value than larger firms.

b) Increased visibility

In addition to allowing entrepreneurs to create their own identity, another important feature of social media is that it allows entrepreneurs and businesses to increase the visibility of the business. By using different features offered by social media platforms, such as photos and videos, entrepreneurs can create viral content, which means that the content will reach many people at once. The benefit of viral content is that it increases the visibility of a company, product or service over an extended period when the content remains viral within the social media network (Jones et al., 2015).

Additionally, the entrepreneur can receive interactions from potential consumers who might want to know more about the entrepreneur's business, product, or service, and how they can benefit from consuming it (Luo et al., 2019). Depending on how the entrepreneur relates with the potential consumers, he or she can develop loyal consumers from the engagement received through having viral content. The other advantage of social media for businesses is that it is possible for an entrepreneur to drive traffic to the website of the business (Eid et al., 2019). This can be done by directing potential consumers to the website, or sharing some of the features of the website on social media platforms, allowing potential consumers to visit it and learn more about the services that the entrepreneur is providing. Additionally, the entrepreneur can do this at no cost, since there are no charges or restrictions imposed by the large social media networks on using such strategies to drive traffic to another website.

c) High levels of interactivity

Other features of using social media in businesses include high levels of interactivity, especially with consumers. Social media provides an opportunity for businesses to receive immediate feedback from consumers on the experiences that they have had from consuming some of the products and services offered by an entrepreneur (Perrigot et al., 2012). For instance, when consumers enjoy the services of a hotel company, they can provide their reviews on the hotel company's social media platforms, and depending on the number of followers or friends that the individual has, he or she can generate more traffic towards the company's social media platforms. Consequently, the visibility and reputation of the company within the social media platform will increase (Brink, 2017). This is useful for any business, because it allows an opportunity for potential consumers who were yet to decide on whether to take up a company's offers, given that an individual that they know has confirmed the satisfaction that can be received from the business's services.

There is also the opportunity to track the performance of the business within the social media platforms and identify whether the marketing strategy that is being applied is yielding the desired results (Jones et al., 2015). For instance, when a strategy used for online marketing in social media platforms does not result in traffic to the company's website, an entrepreneur might decide to revise the strategy and incorporate new features or content that would produce the desired results.

This high level of interactivity with consumers offered by social media also enables businesses to conduct consumer research. Consumer research could feature several issues, such as the changing interests of consumers on a product, or the changing dynamics of the market and what interests the consumers at any given time, or the type of service that consumers feel would increase the utility that they receive from consuming a product or service (Sipior et al., 2014). Consumer research is an important element in any business, because it can provide an avenue for a business to establish a competitive advantage over competitors. An example is where a business conducts consumer research and identifies changing consumer behaviour, and then establishes a strategy that positions the business to be more attractive to consumers, given the changing interests identified during their consumer study (Sipior et al., 2014). Most businesses in the present global economy that have followed the behaviour of consumers in the market have been able to sell more

than their rivals, mainly because the changes that they have made in their products conformed to the expectations of consumers.

2.7.2 Drawbacks/Challenges of using social media in business

One of the drawbacks of using social media in business is the negative feedback that the business might receive. Even though social media provides an opportunity for a business to develop its visibility, brand and image to potential consumers, it also has the ability to destroy the image of the company within a short time (Sipior et al., 2014). Some of the well-established companies and brands have often witnessed their brand image suffer from negative feedback on some issues that they are accused of advancing, which could be against the expectations of consumers, or where a business had an unfortunate incident between a consumer and a cashier or other attendants within a business store, and the nature of the incident extends to social media (Sipior et al., 2014).

The uproar generated by social media users could be damaging to the company's brand, especially in instances where the story trends widely to a number of users within a social media platform. The other drawback is that social media requires constant presence within the social media platforms to engage consumers at any given time, because failure to do so might mean losing a potential consumer to a rival company. Most businesses have now employed social media personnel whose job portfolios include managing the social media handles of the business (Sipior et al., 2014). In some cases, especially where the employed social media attendant does not understand the culture promoted by the company, might project the company's activities in a different light than the management would intend. This could result in an image crisis for a business.

Other drawbacks that could be witnessed include the possibility of imitation of strategies by rival companies. Depending on the approach that a business takes in responding to questions that target the strategies used by a company in producing its products or services, or attending to consumers, rival companies can discover some of the internal workings of a company and develop countermeasures, or use similar approaches to elevate their efficiency in service delivery (Sipior et al., 2014). The effect is that most businesses that do not monitor or categorise the inquiries made by consumers on which types of inquiries could receive a response on the public platform, which

could be handled by responding to a comment made by a customer, or the type of inquiries that could be responded to through the inbox, could expose their internal operations to rival companies (Sipior et al., 2014). In some cases, rival companies use proxies to understand the pricing mechanism that is used by a company, then establish other strategies that would counter the approach used by the company. These types of cyber warfare and strategies could be detrimental to a business, especially those that have not invested heavily in securing their online platforms.

In addition to the above, entrepreneurs and businesses also face several challenges at various stages of integration of social media with their business. These include the challenges faced at the time of adoption and knowing the ways to use social media (Kietzmann et al., 2011; Michaelidou et al., 2011; Durkin et al., 2013; Mack et al., 2017), and measuring the performance and effectiveness of their social media for various business purposes (Michaelidou et al., 2011; McCann and Barlow, 2015). Since social media has introduced significant changes to the ways through which consumers interact with businesses; it has presented enormous challenges for entrepreneurs. The advent of social media technologies has made customers want firms not just to listen, but also to appropriately engage and respond.

Even though social media offers enormous benefits to firms, many businesses have difficulties in using these platforms to effectively communicate and engage with their consumers (Kietzmann et al., 2011). Numerous factors have been identified that affect the decision to adopt social media for business. For instance, cognitive frameworks between novice and experienced entrepreneurs which have an impact on their ability to identify opportunities and respond to technological change are more likely to influence the decision to adopt and use social media (Mack et al., 2017). This, in turn, is likely to affect their decision to adopt social media technologies for their business. In addition to cognitive frameworks, the innovativeness of the specific organisation, personal innovativeness of the entrepreneurs, and lack of perceived relevance of social media for particular sectors are also likely to have an impact on the decision to not only adopt social media technologies, but also adopt any metrics to assess the effectiveness of social media for business (Michaelidou et al., 2011).

In addition, placing the customers' needs at the centre of the business has also been identified as one of the major challenges that entrepreneurs face when it comes to successfully adopting, using and measuring the effectiveness of social media for their business (Durkin et al., 2013).

However, several strategies that could help entrepreneurs and business owners to successfully adopt and use social media technologies, and measure their effectiveness, have been identified in the literature. For instance, the successful adoption of social media technologies has been identified to be heavily dependent on the organisation's mission, work processes, culture, and industry of operation (Guinan et al., 2014). For successful adoption of social media, the goals and objectives of an organisation not only need to be defined, but also to be measurable, and accompanied by a thorough understanding of the business process (McCann and Barlow, 2015). Hence, it is important that entrepreneurs take these things into consideration first before adopting social media for their business.

In addition, the role that founders of a firm may play in the adoption of the social media technology should not be ignored. It has been found that the social cohesion of the founders in terms of vision, or the ability of the founders to design and use social media to "stay in touch", is also one of the necessary elements if entrepreneurs are to successfully adopt social media for their business (Holzweber et al., 2015).

In terms of using social media effectively for business purposes, managing consumer experiences, satisfying the needs of consumers by creating products, services, content and interfaces that benefit consumers, and sharing interactive content have been identified as key drivers necessary to create social media strategies that will ensure a company's success (Kim and Choi, 2019). There are various ways through which businesses can achieve success when using social media. Apart from creating a seamless digital experience that can facilitate high-quality information exchange between businesses and users, (Mancha et al., 2019) creation of an icon that can help the business generate a strong customer response have also been found to enhance potential success of social media for businesses (Holzweber et al., 2015). Furthermore, combining social media networks' resources with smart devices, such as smartphones and tablet PCs has also been identified to help businesses create new business models and generate potential revenue sources and business

opportunities. In fact, it is worth noting that young entrepreneurs in South Korea have already realised the potential that smart devices offer and have created new ventures based on innovative business models simply by combining social media networks' resources with smart devices that offer real time information-sharing and communication with customers (Shin, 2014).

Other strategies, such as generating awareness, cultivating long-term relationships, building an image and reputation (Chen et al., 2017) and leveraging network connections have also been identified as new social media engagement strategies that can benefit startups by using their social media platforms effectively, and in a way that best serves their business purpose (Srinivasan and Venkatraman, 2017).

Using social media effectively for business purpose also requires appropriate measurement of the social media performance. As a result, selecting the right metrics is important, as it helps businesses to connect data with their business's desired outcomes (Lee, 2018). It has to be noted that the decision to measure the social media performance of any business needs to be taken even before the firm decides to adopt and use social media technology. Prior to an organisation's entry into the social media arena, the organisation needs to have analytical tools in place that can help it to measure and deliver results (McCann and Barlow, 2015). There already exist a large number of analytical tools on social media that enable organisations to gather data and measure the impact of social media on their business performance. It has been recommended that businesses should use analytical tools that meet their pre-set objectives and metrics, and at the same time offer qualitative and quantitative data that can provide useful insights, which businesses can use to measure their Return on Investment (RoI) (McCann and Barlow, 2015).

Additionally, extracting and delivering value from the data obtained from social media channels can be challenging and hence requires precise measurement techniques. Approaches that can be helpful are focusing on developing key performance/evaluation metrics; selecting social media platforms that generate data; analysing data using different analytics tools offered by social media platforms; and building social media intelligence. These can greatly help entrepreneurs to measure the performance of their businesses on social media (Lee, 2018). However, considering the fact

that new social media platforms and tools emerge over time, following these processes can be iterative and may require considerable resources.

Regardless of the imperfections that exist in using social media for marketing purposes, it remains the most dominant set of platforms used by businesses for advertisement and engagement with potential consumers (Alayis et al., 2018). Over the past few years, businesses have improved their use of social media platforms, with some companies opting to integrate their social media platforms with their websites, to minimise any instances that would result in negative publicity to the company (Sipior et al., 2014). The reason for this approach is to direct consumers to a platform that can be controlled by the business, since social media platforms are controlled and managed by the social media companies who provide those platforms.

Other businesses have opted to have a contingent of experts who are specialised in both crisis management and communication, to assist in managing any comments or trending negative content against the company within social media (Alayis et al., 2018). The objective is to improve the use of the social media platforms to achieve the interests and objectives of the company, as opposed to a situation where using social media becomes an impediment to the success of the company.

2.7.3 Entrepreneurial perceived opportunities

One of the perceived entrepreneurial opportunities provided by social media is that it is an avenue where businesses can expand their visibility in the market. Different generations have different communication strategies or content that they respond or react to, and newer businesses that understand how they can package their content in social media platforms would consider social media as a tool where they can easily market their business to a wider group of potential consumers (Odoom and Mensah, 2019).

Another opportunity provided by social media platforms is the possibility of tracking the responses made by consumers to the services provided by a business, and making necessary changes to remain relevant and competitive within the market. Social media platforms also provide a medium where start-up businesses and other businesses can conduct advertising without having to make any payments to the managers of the platforms (Mizrachi and Sellitto, 2015). However, for

efficient and effective marketing strategy, businesses can also choose to explore some of the advertising options that some of the social media platforms provide at a fee.

There is also the opportunity to understand how consumers relate to a product relative to a rival's product, based on the comments and reactions from consumers on the likelihood of them substituting a product with a rival one (King, 2016). Entrepreneurs can also understand reasons why consumers would do so, whether it is a feature within the product that limits its utility, or the price range, or the durability of the product. From the information received, an entrepreneur can decide on the next steps to take to improve the positioning of his or her products and services in the market relative to the competition (Fischer and Reuber, 2011).

Another vital opportunity that social media offers to entrepreneurs is to increase the sales and revenues of their business. The use of social media by businesses has been found to have a positive relationship with the sales processes (Rodriguez et al., 2012; Wan and Ren, 2017). Some social media tools, such as sales force automation (SFA) and customer relationship management (CRM) have given an opportunity to businesses to communicate clearly with their customers, improve closing rates, and generate revenue at a faster rate than before (Rodriguez et al., 2012). Rodriguez et al. (2012) link this opportunity provided by social media to the social capital theory, which refers to the connections within and between social networks. The authors contend that firms that successfully leverage social media, increase social capital, and expand networks are more likely to shorten their transaction times and increase sales performance. However, it is worth noting that, even though social media provides an opportunity for entrepreneurs to increase the sales and revenues of their business, a lot of it depends on the social media marketing strategies that they use to market their products and interact with their customers (Wan and Ren, 2017). As a result, entrepreneurs need to regularly evaluate their social media marketing efforts, as the effects of social media marketing are not universal and vary greatly depending on the product or service, the sector within which the firm operates, and the strategies used by the firm.

Perhaps more importantly than increasing sales or revenues, social media has provided entrepreneurs with an opportunity to build and cultivate relationships with their online stakeholders. However, the key to achieving this is the application of uses and gratification (UG)

theory, which stipulates that audiences actively participate in media consumption to fulfil their personal needs and deployment of appropriate online strategies, such as information dissemination and disclosure, alongside interactivity and involvement. Some of the common features of social media platforms have given an opportunity to entrepreneurs to apply these theories and strategies in practice. For example, common features of social media, such as photos, videos and interactive polls have provided an opportunity to entrepreneurs to not just post information about their products, but also post information about their brand, educational information, and even share entertaining materials to engage with their online public; all of which help entrepreneurs to cultivate relationships with their online audience (Men and Tsai, 2012). Given this benefit that can be realised from use of social media, there seems to be a positive correlation between the use of social media and the perceived opportunities by entrepreneurs. Accordingly, I propose the following hypothesis: Social media has a positive effect on the perception of entrepreneurial opportunity.

2.7.4 Perceived entrepreneurial capabilities

From the above perceived opportunities that can be exploited by entrepreneurs through social media use, there are also certain perceived capabilities entrepreneurs might have from using social media. One such capability is the possibility of expanding the sales of a business from the social media activities that it employs (Kao et al., 2016). This is relative to the nature of the strategy that the business uses and its projected success. However, entrepreneurs believe that social media would boost the sales that they would receive from their market activities, given the visibility that the business might enjoy. There is also the expectation that social media could assist the management of a business to identify some of the opportunities that could emerge from the market, specifically on the behaviour of consumers towards an industry (Konstantopoulou et al., 2019). However, the access to this capability depends on the infrastructure employed by a business to collect data from the business's social media engagement, and tabulate the same data in ways that the business could use it to adjust its operations (Saridakis et al., 2018).

IT infrastructure and social media capabilities have been found to enable firms to explore new knowledge and exploit existing knowledge to innovate more and better (Benitez et al., 2018).

However, it has to be acknowledged that, for firms to be successful, the application of social media for innovation requires organisational capabilities and related resources, such as social media managers capable of orchestrating social media activities across innovation, as well as support from top management, team empowerment and agile processes that facilitate rapid decision-making and knowledge flows across teams (Muninger et al., 2019).

In addition, the entrepreneurs' success in realising opportunities revealed through knowledge about market needs from social media is also largely dependent on their cognitive capabilities and the way they articulate this knowledge and mobilise resources to implement social media strategies in practice (Nambisan and Zahra, 2016). Regardless of the challenges that might arise from social media use by entrepreneurs, there seems to be a positive correlation between the individuals who use social media, including businesses, and their perceived capabilities. For instance, it has been found that social media can also serve as an enabler, facilitating capabilities such as knowledge creation and innovation among entrepreneurs, which can help them to increase the competitiveness of their firms (Papa et al., 2018). Accordingly, I propose the following hypothesis: There is a positive relationship between individuals using social media and their perceived capabilities.

a) Knowledge and Innovation

The use of social media has been identified as an enabler for knowledge creation and innovation in organisations, especially in SMEs (Palacois-Marques et al., 2015; Hitchen et al., 2017). One of the most important features of social media linked to increasing the capabilities of entrepreneurs is its ability to foster open innovation. Since social media networking sites are highly interactive platforms, where individuals and businesses constantly interact and share, co-create and explore new user-generated opportunities, entrepreneurs can use social media as a strategic platform to engage users in the idea generation process (Papa et al., 2018).

However, driving innovation through knowledge gained from social media can be complex for both SMEs and large organisations alike, and as Muninger et al. (2019) suggest, extant research offers little guidance for developing their strategic use. Nijssen and Ordanini (2020) support this belief, as they report a lack of research, not just identifying and examining firms' social media

skill but also a lack of research that addresses the complex underlying mechanism and calibration of social media capabilities that are required for innovation success.

2.7.5 Entrepreneurial intentions

"Entrepreneurial intentions" refers to the objectives that an entrepreneur wishes to achieve through engaging in an entrepreneurial activity. In this case, it refers to the need to make profit, either through increasing sales by increasing the number of people who can access or relate or identify with the products and services provided by a business, or providing a product in the market that is highly required by consumers, leading to increased demand (Chen and Kuo, 2017).

The approach that entrepreneurs take to achieve their intentions, specifically through social media, includes enhancing the visibility of the business, and enabling consumers to receive immediate feedback from the inquiries that they make regarding the products and services that are provided by the company (Cordero-Gutierrez and Santos-Requejo, 2016). There is also the intention of having loyal consumers that can sustain the existence of a business for the long term, and this can be achieved through a relationship that can be developed between consumers and the business through engagement in social media platforms (Guinan et al., 2014). Most businesses have managed to achieve this intention through their robust engagement with consumers on social media platforms, and it remains one of the effective strategies that have been applied to boost consumer loyalty on products and services (Gavino et al., 2019). Businesses also view social media as a medium where they can efficiently explain to potential consumers some of the efforts that have been made to correct some of the negative experiences that consumers have witnessed, and this makes it easier to maintain their operations towards achieving their initial intentions in setting up the business (Crammond et al., 2018).

Given this feature, it seems that there is a positive correlation between social media and the intentions of entrepreneurs. However, it has to be noted that these intentions can be influenced by a variety of factors, such as factors that have led to the rise in the popularity of social media platforms, the behaviour and perceptions of entrepreneurs, as well as those who use social media. Accordingly, I propose the following hypothesis: There is a positive relationship between social media and entrepreneurial intention.

In addition, these intentions may also vary based on the demographics of the entrepreneurs, such as gender. This leads us to identify two sub-themes within this section that are likely to influence the intentions of entrepreneurs; namely, behaviours and attitudes and demographics.

a) Behaviours and Attitudes

The behaviours and attitudes of entrepreneurs can be said to have a huge influence on the approach that entrepreneurs take to achieve their intentions through social media. In fact, in some cases, the explosive growth and popularity of social media platforms have been found to influence these intentions that shape their behaviour, their actions, and the approach they take when using social media. Studies (Al-Dwairi, 2017; Tiwari et al., 2017; Alayis et al., 2018) show that the rise in popularity of social media platforms has led to an increase in entrepreneurial intention or the intention to start a new business among the youth in some countries.

Ajzen's (1991) entrepreneurial intentional model, or the Theory of Planned Behaviour (TPB), indicates that intention comes before action, and the technology acceptance model (TAM) developed by Davis (1993) measures the user's acceptance and use of an information technology based on perceived ease of use (PEOU) and perceived usefulness (PU). Using these two theoretical approaches, Al-Dwairi (2017), Tiwari et al. (2017) and Alayis et al. (2018) show that entrepreneurial intentions to use social media as a business platform for their entrepreneurial activity are influenced by the ease of use, perceived competitive usefulness, and trust provided by the social media platforms. The perceived usefulness and trustworthiness of social media are important determinants of a user's intention to use social media, which in turn is also said to determine the actual usage behaviour of social media (Rauniar et al., 2014). The perceived ease-of-use, usefulness, and trustworthiness offered by social media platforms also explain the reason behind the widespread adoption of social media, not just by entrepreneurs and businesses, but also by the online public who use social media platforms for various purposes. An understanding of these intentions works as a significant aid to entrepreneurs, as it helps them to develop marketing, advertising, and other relevant strategies for disseminating information.

In addition to perceived ease-of-use and usefulness, entrepreneurial orientation (EO) is also said to influence entrepreneurial intentions. EO inherently comprises of key elements such as entrepreneurial attitudes or an emphasis on the search for external opportunities and adaptive organisational behaviours or the ability to link the internal organisation to the external environment (Valos et al., 2017). These two elements are said to facilitate entrepreneurial orientation and are required to overcome the challenges that come with using social media. Implementing and facilitating social media performance requires three components of EO; namely, the ability to take calculated risks, be proactive, and embrace innovation. These three components are said to result in tacit knowledge acquisition which facilitates successful implementation of social media strategies. For instance, by being proactive, firms are more likely to seek opportunities to use information obtained from social media, use social media monitoring, and use those findings to deliver improved products and services. The characteristic of taking calculated business risks allows entrepreneurs to embrace social media much more easily and faster than traditional businesses. This risk-taking behaviour helps entrepreneurs to overcome the internal organisational resistance and culture barriers that often hamper the adoption of social media. Finally, the ability to embrace innovation makes it easier for entrepreneurs to use social media to facilitate active consumer involvement in new product development processes—an element that is conspicuously absent in traditional product development processes (Valos et al., 2017).

b) Demographics

The impact of demographics, such as gender, on entrepreneurial intentions has been examined due to the rise of women-owned businesses. The entrepreneurial intention in women has been found to differ significantly from men and has been influenced by a variety of factors, such as skills, access to resources, industrial type, and business performance (Chen et al., 2015). It has to be noted that women, unlike men, are more likely to face challenges in their efforts to pursue other roles than being a homemaker. Some of the challenges that women face when pursuing other roles, such as entrepreneurship, include the prevalence of negative social norms against them, limited access to capital, skills and markets, and most importantly, limited business networks (Venkatesh et al., 2017). In fact, women's networks tend to be smaller, less diverse, and may lack the resources

required to start a business. As a result, women, are more likely to depend on family and community resources to engage in entrepreneurship.

However, the rise and popularity of social media platforms has brought significant changes to these gendered differences in entrepreneurship and has stimulated women's intention to participate in online commercial experiments (Cordero-Gutierrez and Santos-Requejo, 2016). There are also various intentions for women to use social media for entrepreneurial activity. These include soft self-promotion or the ability to promote themselves and their business, interactive intimacy to build and cultivate personal relationships to grow their business, and compulsory visibility or engaging in social media activity to build their social identity (Duffy and Pruchniewska, 2017). Therefore, it would not be wrong to argue that, due to the ease of use and marketing benefits offered by social media, women have now become the most desirable group to join social media, with an intention to engage in entrepreneurial activity.

Even though women, through their domestic networks on social media, have been found to achieve success in their entrepreneurial ventures, (Venkatesh et al., 2017) they are also more inclined than men to find success as transnational entrepreneurs once they break out of their relatively constrained family circles (Cordero-Gutierrez and Santos-Requejo, 2016). The rise and popularity of digital technologies in general and social media sites in particular has led to democratisation of entrepreneurship, opened up access to international market knowledge, and facilitated interactions with customers and partners. Some of the other benefits offered by social media sites, such as the ability to build transnational networks, provide market intelligence such as knowledge of customer needs, prevailing trends, and knowledge about competitors, have made it easier for women to also access international entrepreneurial opportunities (Pergelova et al., 2019), and in turn their intentions to use these technologies to further their entrepreneurial activities.

This success of women as transnational entrepreneurs can also be attributed to their cognitive skills and skills in effectively managing resources, in addition to the benefits offered by digital technologies such as social media. By combining the resource-based view (RBV) with a cognitive perspective, Pergelova et al. (2019) explore the effect of market intelligence provided by digital technologies such as social media on transnational entrepreneurship. They argue that gendered

societal arrangements tend to shape cognitive development more in women than they do in men. As a result, the authors argue, women entrepreneurs are more likely than men to leverage resources such as social media to access information and build transnational networks. This greatly contributes towards female entrepreneurs' firm growth, including an opportunity to grow their firm through internationalisation. In other words, the dislodging of ingrained social and cognitive limitations brought by digital technologies such as social media, the ability to make transnational networks, and efficient use of resources are said to have a more positive impact on the growth of the firms of female entrepreneurs compared to those run by men.

2.7.6 The role of government in regard to using social media in business

For businesses to effectively benefit from the use of social media, there are certain guidelines and protections that governments must provide for social media users (Phang et al., 2014). Businesses that rely on social media for marketing purposes, connecting with consumers and communicating new products and services to them, can only enjoy maximum benefits from such possibilities when no unfair business practices are conducted through social media (Michaelidou et al., 2011). Such unfair practices could include sponsoring negative ads against a rival company on social media platforms, running negative content against a rival company, or using symbols and trademark social media images developed by a company to malign its image, or promote the image of a rival company (Kuhn et al., 2016). These regulations could provide a favourable basis for businesses to enjoy the use of social media platforms to advance their intentions, achieve their capabilities, and boost the exploration of the opportunities that might arise through social media platforms.

The government can also establish regulations on how businesses can use social media content and data, and this could include limiting the use of personal data to advance business interests. Use of personal data or information could include incorporating some of the personal information of users in marketing a product or service, without the consent of those individuals (Shin, 2014). Additionally, the government can establish a framework where businesses can approach other social media users and conduct research to understand market dynamics (Palacios-Marques et al., 2015). This would boost the extent to which companies can use social media platforms to advance the interests of the entrepreneurs.

Government and formal institutions are also found to indirectly influence the use of social media in general and digital entrepreneurship in particular countries. The role of government and institutional settings becomes more profound for international companies. For international companies, institutional agents in both home as well as host countries serve as determinant factors for Foreign Direct Investment (FDI) in a country. The legal and regulatory framework prevalent in a country have been found to have a positive effect on FDI. Countries with weak institutions and poor regulatory environment tend to fare poorly in attracting FDI. This fact is also relevant for social media because weak institutions may greatly restrict the use of social media or social media activity in any particular country (Paniagua et al., 2017). This, in turn, affects not only a firm's business performance, but also its ability to attract investment from international companies looking to expand and conduct cross-border operations.

In addition, information about government and its policies also tends to influence business performance. Government-industry information obtained from social media, such as information about regulations and policies implemented at and by different levels of government, is found to have a positive impact on business performance (Li et al., 2019). Finally, the government of any country, through its laws and regulations, establishes an institutional framework. This can either facilitate digital entrepreneurship by offering field conditions, such as widespread access to broadband, smartphones and other ICTs, and ICT-enabled platforms, such as social media, which lower transaction costs, or can block changes towards a more divergent nature of entrepreneurship enabled by the use of ICT-enabled platforms, such as social media by businesses.

It has been found that government regulations and institutions that contribute towards the creation of a sharing economy, or an economy where buyers and sellers meet on ICT-enabled platforms such as social media, are more likely to facilitate digital entrepreneurship and overcome institutional resistance to innovation. However, it is important to note that digital entrepreneurship and the creation of a sharing economy are more likely to occur in big cities, especially where a diverse collection of actors are present, government policymakers are easily accessible, markets are more diverse, and networks are denser (Geissinger et al., 2019). This is true, especially for businesses using or looking to use social media to grow and expand. For instance, considering the fact that the success of social media platforms depends on network effects, the relative density of

big cities gives entrepreneurs an opportunity to create and expand the sharing economy to large and diverse segments of the population living in big cities.

2.7.7 Privacy and trust

In addition to government support, guidelines and protection for social media users, the trust, information security and privacy of users are some of the factors that might affect the performance of businesses on social media. A stream of research has emerged over the years (Hajli et al., 2017; Pratono, 2018; Yahia et al., 2018; Alshare et al., 2019), examining the impact trust, security, and privacy on users' purchase intentions and use of social media. Even though trust is considered to be crucial in shaping purchase intentions of users in online shopping environments or e-commerce websites, it is even more important in social media platforms. One of the major reasons for this is the role that peer-generated content plays in influencing the purchasing intentions of consumers. It has been found that trust in a particular social networking site increases information-seeking behaviour among users. This greatly increases familiarity with the platform and the sense of social presence, both of which are found to increase purchase intentions among users (Hajli et al., 2017).

There are a variety of factors that may influence the trust of users and perceived usage of a social media platform. Some of the most important factors that are said to have the strongest influence on the trust of users on social media include the reputation and price advantage of the business (Yahia et al., 2018). Reciprocally, to increase firm performance, firms need to build trust on social networks, as a social network with trust allows firms to gain a pricing and selling capability, which greatly relies on trust building. A firm may not be able to increase trust among users and increase performance unless it builds its trust through social networks. This phenomenon is explained by the application of social capital theory, which stipulates that a social network that gives rise to social capital in the form of information, influence, and solidarity is more likely to enhance a collective action for mutual benefits or allow an individual to achieve his expected performance, which in the business context is to purchase a product from a particular business (Pratono, 2018).

Another major factor that may influence the trust of users in social media is culture. It has been found that the use of social media differs among countries because of differences in cultural background. However, little attention has been paid to the ways businesses can sustain the trust of

culturally different users on social media, especially in developing countries, rather than developed countries (Alshare et al., 2019). Considering the fact that entrepreneurs are more likely to benefit from the various domestic and transnational business opportunities offered by social media, maintaining and sustaining the trust of users in social media can be a key aspect of growing a business using social media.

In addition to building trust with users on social media, businesses also need to protect users' privacy. Since users share personal information on social media in the form of text, digital images, and videos, this gives rise to privacy tensions between users, social media sites and businesses. For instance, when users share information on social media, they turn over the control of this personal information to the social media platforms and businesses with whom they share it (Humphreys and Wilken, 2014). This process has been best explained with the help of communication privacy management (CPM) theory, developed by Petronio (2002), which works on the principle that people are the owners of their personal information and that, when they share this information with others, the others become co-owners of such information. According to this theory, tensions of privacy arise because, when people share information with others, they lose some control of that information and become vulnerable. These concerns of security and privacy of information greatly affect users' behaviour and their perception of which information to share on social media. Hence, reducing privacy tensions is key to building the trust of users on social media (Humphreys and Wilken, 2015). It can thus be said that issues of trust and privacy are of the utmost importance for users on social media and that entrepreneurs need to take these issues into consideration and protect the privacy of their users if they are to build trust and grow their business on these platforms.

Table 2-2: Studies Included in the Systematic Literature Review

No.	Study	Journal	Design	Theory	Results & Contribution
Features and Benefits of using Social Media in Business **(a) Low or no cost** **(b) Increased visibility** (c) **High levels of interactivity**					
1.	Luo, J., Pan, X., Wang, S. and Huang, Y (2019)	Industrial Management & Data Systems	Empirical	Repost preference latent Dirichlet allocation (RPLDA) model	The result showed that a total of 20 percent of the repost users in ESN represent the key active users who are particularly interested in the latent topic of messages in ESN and fits Pareto distribution; the target audience identification framework can successfully identify different target key users
2.	Ainin, Parveen, Moghavvemi, Jaafar, and Shuib (2014)	Industrial Management & Data Systems	Empirical	Diffusion of innovation (DOI) theory	The study found that use of social media has a positive impact on financial performance of SMEs. The study makes practical contributions for businesses in using social media
3.	Augar and Zeleznikow (2014)	Australasian Journal of Information Systems	Case Study		The results of the study revealed that social media allows small businesses an easy and cost-free way to reach customers. The authors recommend further research to be conducted in allowing small businesses to fully realize the potential of social media
4.	Brink (2017)	Industrial Marketing Management	Case Study		The author identifies an open collaborative business model innovation and an integrated leadership as important antecedents to the application of social media in SMEs
5.	Eid, Abdelmoety, and Agag (2019)	Journal of Business & Industrial Marketing	Empirical	Contingency theory, Technology acceptance model (TAM), Innovation diffusion theory (IDT)	International business contacts made through social media foster export performance of small export companies. The study addresses a gap in research examining the impact of social media on performance of exporting firms

No.	Study	Journal	Design	Theory	Results & Contribution
6.	Elephant and Maphela (2018)	International Journal of Entrepreneurship	Empirical		The study revealed that social media plays an important role in marketing for small businesses and that costs of mobile technologies are one of the major obstacles of using social media among small business owners. The authors recommend governments to intervene and offer subsidies to businesses on using mobile technologies
7.	He, Wang, Chen, Zha (2015)	Information Technology and Management	Case Study	Traditional communications theory, Social exchange theory, Social capital theory	The authors examined the reasons for adoption of social media by small businesses in the US. Factors such as peer influence, marketing, increasing revenue, reaching more consumers were identified as reasons for social media adoption
8.	Horst, Jarventie-Thesleff, and Perez-Latre (2019)	Journal of Media Business Studies	Empirical		The study explores how entrepreneurs use social media to develop their identity. It concludes that social media allows entrepreneurs to develop different identity types; namely, solution driven, purpose-driven, and lifestyle-driven
9.	Jones, Borgman, and Ulusoy (2015)	Journal of Small Business and Enterprise Development	Case Study		In this exploratory study, the authors examine the role and economic impact of social media on small businesses. The study reveals social media sites help businesses to increase the number of new customers, enhance customer relationships, as well as improve the image of businesses
10.	Guinan, Parise, and Rollag (2014)	Business Horizons	Narrative		In this narrative, the authors recommend that firms that successfully use social media mostly employ strategies that align with their work processes, organisation's mission, industry they operate in, and culture
11.	Luo, Zhang, Duan (2012)	SSRN Electronic Journal	Empirical		The results of the study showed that social media-based metrics such as web blogs and consumer ratings are significant indicators of firm equity. The study offers senior business executives useful insights for firm equity valuations
12.	Nakara, Benmoussa, and Jaouen (2012)	International Journal of Entrepreneurship and Small Business	Empirical		The study showed that SMEs underuse social media for marketing. The study proposes some managerial recommendations on using social media tools for small businesses

No.	Study	Journal	Design	Theory	Results & Contribution
13.	Nambisan (2017)	Entrepreneurship Theory and Practice	Narrative	Entrepreneurship theory	In this narrative review, the author indicates that digital technologies have led to a new form of entrepreneurship called digital entrepreneurship. The author argues that digital entrepreneurship is marked by less defined processes and outcomes
14.	Perrigot, Kacker, Basset, and Cliquet (2012)	Journal of Small Business Management	Empirical	Organisational economic theory, institutional economic theory	The study revealed that factors such as advertising royalty rates, percentage of company-owned outlets were primary antecedents for businesses to adopt social media networks when they were relatively new. The study offers businesses a better understanding of when and how to adopt social media networks for stakeholder communications and to compete with large firms
15.	Wang, Pauleen, and Zhang (2016)	Industrial Marketing Management	Empirical	Media synchronicity theory	The authors showed that social media applications facilitate communications and have a positive impact on business performance of B2B businesses
Drawbacks/challenges of using social media business					
16.	Chen, Ji, and Men (2017)	International Journal of Strategic Communication	Empirical		The study identifies thought leadership building, co-branding, and influencer endorsement as social media engagement strategies used by startups for stakeholder engagement. The study offers practical implications for startups about using message tactics and appeals for strategic communication and management
17.	Durkin, McGowan, and McKeown (2013)	Journal of Small Business and Enterprise Development	Case Study		Anxiety was one of the motivations for adopting social media for firms studied. The study offers significant implications for small firms in using social media to add value to customer experience
18.	Holzweber, Mattsson, and Standing (2015)	Journal of Strategic Marketing	Case Study/Literature Review		The authors recommend that social cohesion of founders, and creation of icon for positive electronic word of mouth (WOM) are essential for entrepreneurial success on social media. The study offers numerous managerial implications for social media marketing (SMM)

No.	Study	Journal	Design	Theory	Results & Contribution
19.	Kietzmann, Hermkens, McCarthy, and Silvestre (2011)	Business Horizons	Narrative Review		The authors identify seven building blocks that firms can use to engage with consumers on social media. The authors also provide recommendations to firms on developing strategies to monitor, understand, and respond to various social media activities
20.	Kim and Choi (2019)	Journal of Business Economics and Management	Case Study		The authors found that factors such as experience, satisfaction, and sharing ability are key drivers for co-creation on social media. By examining users' value co-creation as an element of startup success, the study makes a useful contribution to the literature
21.	Laurell and Sandstrom (2014)	International Journal of Innovation Management	Case Study		The authors argue that lack of institutional practices on social media give an ability to entrants to disrupt industries and outperform incumbents
22.	Lee (2018)	Business Horizons	Narrative		The author describes management processes of social media and discusses various analytics methods to analyse data obtained from social media
23.	Mancha, Gordon, and Stoddard (2019)	Journal of Business Strategy	Narrative		In the article, the authors identify mistakes that businesses should avoid when designing and monetizing digital platforms
24.	Mack, Marie-Pierre, and Redican (2017)	Telecommunications Policy	Empirical		The authors highlight that prior entrepreneurial experience serves as an important factor for social media use. The authors recommend offering technology training programs for novice entrepreneurs
25.	Mason (2012)	Management Journal for Theory and Practice Management	Narrative		In this narrative, the author highlights the challenges brought about by the emergence of social media platforms. The author also provides recommendations on how firms can meet these challenges
26.	McCann and Barlow (2015)	Journal of Small Business and Enterprise Development	Empirical		The investigation of social media use and measurement of its effectiveness in business by SMEs revealed that many of the SMEs surveyed did not measured the ROI on social media investment. The authors offer a simple framework for SMEs to plan and measure the use of social media

No.	Study	Journal	Design	Theory	Results & Contribution
27.	Michaelidou, Siamagka, and Christodoulides (2011)	Industrial Marketing Management	Empirical		The results of the study showed a lack of usage of social media metrics by B2B SMEs in the UK. The study addresses the gap of lack of research examining B2B SMEs social media practices conducted
28.	Nguyen, Nayak, Watkins, and Nguyen (2019)	Young Consumers	Empirical	Two-factor theory, Equity theory	The authors demonstrate how youth may disengage with a brand on social media thereby presenting brands with a challenge in using social media
29.	Quinton, Canhoto, Molinillo, Pera and Budhathoki (2017)	Journal of Strategic Marketing	Narrative		In this narrative, the authors state that firms that are guided by digital orientation are well-positioned to take advantage of opportunities presented by digital technologies. The authors also present implications that facilitate development of digital orientation in firms
30.	Schaffer (2014)	Current Issues in Tourism	Empirical		In this study, the author notes adoption as one of the major challenges to productively use social media for tourism businesses. The author offers some useful recommendations on how such businesses can overcome the challenge by implementing student-industry projects
31.	Sipior, Ward, Volonino (2014)	Information Systems Management	Literature Review		The review of literature revealed that firms using digital technologies for brand-driving efforts give less attention to risks of electronic discovery that may result from legal actions
32.	Srinivasan and Venkatraman (2017)	Strategic Entrepreneurship Journal	Narrative		The authors argue that entrepreneurship success is intricately linked to moves of other entrepreneurs. They also offer insights to entrepreneurs on how they can orchestrate strategic moves to adapt to different digital platforms and achieve success
Perceived entrepreneurial opportunities **(a) Marketing & advertising** **(b) Improve products or services/increase sales/revenues** **(c) Build and cultivate relationships**					

No.	Study	Journal	Design	Theory	Results & Contribution
33.	Ahmad, Ahmad, and Abu Bakar (2018)	Telematics and Informatics	Empirical	Social presence theory	The results of the study conducted in a country in the Middle East showed that the adoption of social media helped SMEs increase brand awareness and sales.
34.	Ajina (2019)	Entrepreneurship and Sustainability Issues	Empirical	Utility theory	The author contends that the perceived value of SMM has an influence on WOM and, in turn, consumer behaviour and behavioural loyalty. The study addresses a gap pertaining to understanding the perceived value of SMM
35.	Aroean, Dousios, and Michaelidou (2019)	Computers in Human Behaviour	Empirical	Structuration theory	The authors found distinctions in communication on social media by entrepreneurial and conventional service providers. The study offers implications for firms on how to respond effectively in social interactions online
36.	Assis-Dorr, Palacios-Marques, and Merigo (2012)	Journal of Organisational Change Management	Empirical		In this study, the authors showed that management constructs, such as market orientation, and technological orientation, such as the use of social media platforms by firms, have a positive influence on organisational learning
37.	Alhaimer (2019)	International Journal of Entrepreneurship	Empirical	Unified theory of acceptance and use of technology (UTAUT)	The author states that factors such as hedonic value, social influence and facilitating conditions have a positive influence on behavioural intention to use social media for online advertisements
38.	Chatterjee and Kar (2020)	International Journal of Information Management	Empirical	TAM and UTAUT	The results of the study revealed that factors such as perceived usefulness and perceived ease of use have a positive impact on adoption of social media by SMEs. The study contributes to the limited research examining the factors that motivate SMEs to adopt social media in emerging countries.
39.	Cole, DeNardin, and Clow (2017)	Services Marketing Quarterly	Empirical		The study identified and examined different digital and social media channels that small businesses can use to grow their business
40.	Drummond, O'Toole, and McGrath (2020)	European Journal of Marketing	Content Analysis/Empirical	Relational exchange theory	The study provides different engagement strategies and tactics that entrepreneurs can use to develop their SMM capability

No.	Study	Journal	Design	Theory	Results & Contribution
41.	El-Haddadeh, Weerakkody, and Peng (2012)	Journal of Enterprise Information Management	Empirical		The authors demonstrate that the use of social media in corporate communication facilitates better engagement between consumers and organisations, which in turn helps in reaching a broad consumer range. The study contributes to the literature examining the adoption of social media by firms in emerging economies
42.	Felix, Rauschnabel, and Hinsch (2017)	Journal of Business Research	Conceptual		The authors provide a comprehensive definition and conceptualization of SMM. They also provide an integrative framework that managers can use to implement SMM based on the corporate mission and objectives
43.	Fischer and Reuber (2011)	Journal of Business Venturing	Case Study		The authors state that firms' quality and distinctiveness on social media largely depends on the communicative stream, such as number of posts. The authors, through their study, provide insights on how to use social media effectively to pursue growth
44.	Fournier and Avery (2011)	Business Horizons	Narrative		The authors identify marketing strategies targeted towards increasing consumer engagement on social media
45.	Fulgoni (2015)	Journal of Advertising Research	Narrative/Case Study		Through various case studies, the author demonstrates how various firms have successfully used social media in their marketing efforts
46.	Gaur, Saransomrurtai, and Herjanto (2015)	Journal of internet Commerce	Content Analysis		The results of the study revealed that social media practices differ between product brands and service brands and that neither of the two utilised social media tools that serve as valuable resources for businesses
47.	Hamouda (2018)	Journal of Enterprise Information Management	Empirical	Expectancy-valence theory, Uses and gratification theory	The author found that informative, entertaining advertisements on social media were more likely to affect consumers' attitude and behavioural responses. The study offers businesses a better understanding of the use of social media advertising

No.	Study	Journal	Design	Theory	Results & Contribution
48.	Hanna, Rohm, and Crittenden (2011)	Business Horizons	Case Study		The study revealed that many businesses that used social media treated them as stand-alone elements and not as an integrated system. Using an organisation's successful efforts to leverage social media, the authors provide a way to understand social media as an ecosystem for businesses
49.	King (2016)	Journal of Business Strategy	Narrative		The article offers useful insights about potential influences of social media on franchise business models
50.	Konstantopoulou, Rizomyliotis, Konstantoulaki, and Badahdah (2019)	International Journal of Organisational Analysis	Empirical		The authors found that SMEs can greatly benefit from eWOM on social media and that factors such as trust, honesty, and authenticity are central to increase the impact of eWOM for SMEs. The authors, through their study, explore communication pathways that SMEs can use on social media sites to achieve resilience and competitiveness
51.	Kraus, Gast, Schleich, Jones, and Ritter (2019)	Journal of Macromarketing	Empirical		The findings of this study suggest that SMEs find it difficult to use available resources required to create engaging content on social media. The study offers useful practical recommendations for SMM to SMEs
52.	Kudeshia, Sikdar, and Mittal (2016)	Computers in Human Behaviour	Case Study	Uses and gratification theory	The authors find a positive correlation between brand liking on social media and consumers' purchase intention.
53.	Lee and Hong (2016)	International Journal of Information Management	Empirical	Social influence theory	Informativeness and advertising creativity are essential to drive behavioural responses of consumers on social media. The authors provide recommendations to businesses on harnessing the full potential of advertising on social media
54.	Li and Shiu (2012)	Decision Support Systems	Experiment		The authors propose a diffusion mechanism model to help businesses deliver advertising information on social media and enhance advertising effectiveness
55.	Men and Tsai (2012)	Public Relations Review	Content Analysis	Uses and gratification theory	The authors found that culture plays an important role in shaping dialogue between companies and consumers in different countries. The authors provide implications for corporate relationship management practice
56.	Mizrachi and Sellitto (2015)	Journal of Quality Assurance in Hospitality & Tourism	Case Study		The authors contend that even early adopters of social media, with pre-planned strategies, had poor understanding of using it effectively. The findings of the study provide useful insights for small businesses

No.	Study	Journal	Design	Theory	Results & Contribution
57.	Odoom and Mensah (2019)	Management Research Review	Empirical	Organisational ecology theory	The authors found that innovation capabilities and social media capabilities have a positive impact on brand performance among SMEs. Through their study, the authors suggest a need for business owners to identify various enterprise capabilities to enhance innovation capabilities and social media capabilities
58.	Pantano, Priporas, and Migliano (2019)	European Business Review	Case Study		The results of the study showed that a high level of participation by firms on social media leads to a higher level of consumer interaction
59.	Petrescu, Korgaonkar, and Gironda (2015)	Journal of internet Commerce	Case Study		The study by the authors found a positive relationship between the attitude of consumers towards viral advertising and purchase intentions. The authors offer practitioners a profile of video ads and consumer characteristics that they think are important for an ad to go viral
60.	Rodriguez, Peterson, and Krishnan (2012)	Journal of Personal Selling & Sales Management	Empirical	Social capital theory	The study reveals a positive relationship between social media use by businesses and sales processes such as creation of opportunities, as well as sales performance of firms. The study highlights the importance of using social media to increase B2B sales performance
61.	Shaltoni (2017)	Journal of Business & Industrial Marketing	Exploratory Research Design	DOI	The results of the study showed that decision-makers in emerging industrial markets were using the internet only as a one-way communication tool but were enthusiastic about using social media for business purposes. The study enriches internet marketing research and its use, especially in emerging industrial markets
62.	Song, Jamous, and Turowski (2018)	Enterprise Information Systems	Empirical/Literature Review		Firm-to-consumer activity has an important role in SMM.
63.	Taiminen and Karjaluoto (2015)	Journal of Small Business and Enterprise Development	Empirical		The findings of the study revealed that SMEs were underutilizing the potential of new digital tools such as social media and were not deriving the benefits digital tools provide. The study has social implications, as the authors recommend having training programs from governments to help SMEs exploit digitization

No.	Study	Journal	Design	Theory	Results & Contribution
64.	Virtanen, Bjork, and Sjostrom (2017)	Journal of Small Business and Enterprise Development	Case Study		The authors develop a model that can help SMEs to interact with customers and use social media for marketing purposes. The model provided by authors offers a framework for managers to plan marketing strategies on social media
65.	Wan and Ren (2017)	Journal of Electronic Commerce Research	Empirical		The findings of the study revealed that marketing content is essential to generate sales for firms on social media but the content varies based on product categories. The authors provide useful insights to marketers that they can use to design marketing contents and develop appropriate social media strategy
66.	Wang, Cao, and Park (2019)	International Journal of Information Management	Empirical	Online community experience theory, Commitment theory, Theory of reason action (TRA)	Experiences such as entertainment, information experiences, and relationship-based experience on social media communities have positive influence on brand attitude. The authors recommend businesses to strategically manage brand community experiences of consumers on social media
Customers and Social Media Participation/Engagement Behaviours					
67.	Carlson, Gudergan, Gelhard, and Rahman (2019)	European Journal of Marketing	Empirical	Classical attitude theory	In their study, the authors found that different customer engagement dimensions lead to different sharing intentions. Through their study, the authors make use of practical implications to produce customer engagement content for brand managers
68.	Chua and Banerjee (2013)	Journal of Knowledge Management	Narrative/Case Study		The authors contend that social media is not restricted to online businesses but has the potential to be a game-changer in support of customer knowledge management, even in traditional offline businesses
69.	Gu and Ye (2013)	Production and Operations Management	Empirical	Peer-induced fairness theory	The authors, in their study, show that responses of management online on social media has a positive influence on customer satisfaction
70.	Kao, Yang, Wu, and Cheng (2016)	Journal of Services Marketing	Conceptual	Collective action theory	The authors develop a consumer co-creation platform that can help businesses to increase customer value by using features of social media such as co-creation

No.	Study	Journal	Design	Theory	Results & Contribution
71.	Parent, Plangger, and Bal (2011)	Business Horizons	Conceptual/Narrative		In this narrative, the authors present a model of consumer engagement through social media and claim that businesses that engage consumers through social media are in a better position to reap long-term, competitive advantages
72.	Rishika, Kumar, Janakiraman, and Bezawada (2013)	Information Systems Research	Empirical		The results of the study show that customer participation in a firm's social media efforts have a positive impact on customers' purchase behaviour. The study offers a prescription for managers of businesses on how to engage customers through social media
73.	Sashi (2012)	Management Decision	Conceptual		In his work, the author develops a theoretical framework for customer engagement that can help businesses to turn customers into fans
74.	Schembri and Latimer (2016)	Journal of Marketing Management	Empirical		The authors demonstrate that consumers who interact online collectively generate brand culture. The article provides insights to firms on how to foster brand culture in online communities
75.	Voramontri and Klieb (2019)	International Journal of Information and Decision Sciences	Empirical	Theory of planned behaviour, Expectation-confirmation theory	The results of this study reveal that social media use by businesses to interact with customers has a positive influence on customer satisfaction. Through their study, the authors attempt to help managers of businesses to understand how social media influences the purchase decision behaviour of customers at various stages
76.	Xu, Guo, Li, Lau, and Liao (2012)	Electronic Commerce Research and Applications	Conceptual/Experimental		The authors contend that, through their model, businesses can easily identify influential groups on social networking sites and effectively conduct targeted marketing
Entrepreneurial perceived capabilities **Knowledge and innovation**					
77.	Benitez, Castillo, Llorens, and Braojos (2018)	Information & Management	Empirical	Ambidexterity theory	IT infrastructure enables businesses to explore new knowledge and innovate more. Social media capability also serves as a positive moderator between knowledge and innovation in firms

No.	Study	Journal	Design	Theory	Results & Contribution
78.	Bocconcelli, Cioppi, and Pagano (2017)	Journal of Business & Industrial Marketing	Empirical/Case Study		The results of the study show that adoption of social media resources in addition to other resources, such as human resources, can help businesses to implement effective business networking effort
79.	Burton and Soboleva (2011)	Journal of Consumer Marketing	Empirical		In the article, the authors show how different interactive capabilities of social media can be used by firms to communicate with customers
80	Drummond, McGrath, and O'Toole (2018)	Industrial Marketing Management	Empirical		In this study, the authors show that social media usage helps firms to mobilize resources
81.	Hitchen, Nylund, Ferras, and Mussons (2017)	Journal of Business Strategy	Case Study		Since SMEs have fewer resources, social media offers them an opportunity of open innovation. The authors provide useful implications for firms looking to exploit the benefits of social media for innovation
82.	Martin-Rojas, Garrido-Moreno, and Garcia-Morales (2020)	Journal of Business Research	Empirical	Dynamic capabilities theory	The findings of this study reveal that, since strategic use of social media provides useful knowledge that provides new opportunities for innovation, it impacts all dimensions of corporate entrepreneurship and leads to enhanced firm performance. The study provides implications for managers on using social media to become more entrepreneurial
83.	Mention, Barlatier, and Josserand (2019)	Technological Forecasting & Social Change	Narrative		In their article, the authors note that social media creates opportunities for firms to enhance innovation capabilities
84.	Muninger, Hammedi, and Mahr (2019)	Journal of Business Research	Empirical	Organisational capability theory	The study provides managers with a framework and guidance for implementing social media strategies in practice
85.	Nambisan and Zahra (2016)	Journal of Business Venturing Insights	Narrative		The authors contend that entrepreneurs' success in enacting opportunities lies in their cognitive capabilities with regards to demand articulation and resource mobilization
86.	Nijssen and Ordanini (2020)	Journal of Business Research	Empirical	Information processing theory, Contingency theory	Social media facilitates both radical as well as incremental innovation, but is more useful for services than product innovation

No.	Study	Journal	Design	Theory	Results & Contribution
87.	Palacios-Marques, Merigo, and Soto-Acosta (2015)	Management Decision	Empirical		There is a positive relationship between social networks and the innovation capacity of firms. The authors offer ways that social media can enhance knowledge management
88.	Papa, Santoro, Tirabeni, and Monge (2018)	Baltic Journal of Management	Empirical	Knowledge-based theory	The use of social media has a positive influence on the knowledge creation process and it helps foster innovation process in firms. The authors suggest managers should integrate social media with business and innovation processes
89.	Perez-Gonzalez, Trigueros-Preciado, and Popa (2017)	Information Systems Management	Empirical		The article shows that social media technologies, by helping firms acquire external information, boost innovation performance
90.	Saridakis, Lai, Mohammed, and Hansen (2018)	Technological Forecasting & Social Change	Empirical	Transaction cost theory	Performance of business improves as entrepreneurial organisations adopt information technology
91.	Scuotto, Giudeice, and Omeihe (2017)	Information Systems Management	Empirical		The article highlights the importance of mass collaborative knowledge management and shows that social media networks enhance productivity in SMEs
92.	Scuotto, Giudice, and Carayannis (2016)	Journal of Technology Transfer	Empirical		The authors note that, since social networking sites offer businesses a wealth of information and knowledge, they enhance their innovativeness. The authors proffer recommendations on how SMEs can enhance their innovativeness using social media sites
93.	Soto-Acosta, Popa, and Palacios-Marques (2016)	Journal of Technology Transfer			The study demonstrates that technological and organisational factors have a significant impact on knowledge sharing, which in turn has a positive impact on organisational innovation performance
94.	Trainor (2012)	Journal of Personal Selling & Sales Management	Conceptual	Social network theory	The author presents a conceptual framework that integrates social media technologies with customer relationship management (CRM) and shows how CRM can influence firm performance. The study offers recommendations on how managers can integrate CRM with new technologies, such as social media

No.	Study	Journal	Design	Theory	Results & Contribution
Entrepreneurial intentions					
95.	Al-Dwairi (2017),	International Journal of Business Information Systems	Empirical	TAM	The authors show that perceived usefulness, information quality, social support and trust are important factors that influence consumers' intention to adopt social commerce.
96.	Alayis, Abdelwahed, and Atteya (2018)	International Journal of Entrepreneurship	Empirical	Theory of planned behaviour	The study by the authors showed that social media had a positive impact on students' entrepreneurial intentions in Saudi Arabia. The study offers implications for policy makers on how they can direct internet technologies to boost entrepreneurship among the youth
97.	Chen and Kuo (2017),	Technological Forecasting & Social Change	Empirical	Theory of innovation resistance	The authors identify various barriers, such as trust risks, usage barriers, value barriers, and others to social media adoption and innovation in firms. The authors also propose recommendations to managers to overcome the barriers
98.	Chen, Tan, and Tu (2015)	American Behavioural Scientist	Empirical		There is a marked gender difference on how entrepreneurs convert relational advantages on social media into business advantages, with male entrepreneurs being more effective than women entrepreneurs.
99.	Crammond, Omeihe, Murray, and Ledger (2018)	Baltic Journal of Management	Literature Review		The use of social media by businesses enhances administration of real-time knowledge and encourages creativity in firms. The authors inform nascent entrepreneurs about the benefits of knowledge management and offer a model that entrepreneurs can use to promote innovation
100.	Cordero-Gutierrez and Santos-Requejo (2016)	Management Research Review	Empirical	TAM, theory of planned behaviour	There are differences between men and women about how they conduct commercial activities or experiments through social media. The authors offer entrepreneurs an understanding of social media's marketing possibilities
101.	Duffy and Pruchniewska (2017)	Information, Communication & Society	Empirical/Grounded Theory		The authors found that female entrepreneurs feel compelled to develop online personae that conform to traditional prescriptions for femininity
102.	Gavino, Williams, Jacobson, and Smith (2019)	Management Research Review	Empirical	TAM	In this study, the authors found no relationship between use of social media and revenue generation for Latino/Hispanic and non-Latino/Hispanic entrepreneurs. The authors recommend the need to examine the effect of culture on business performance

No.	Study	Journal	Design	Theory	Results & Contribution
103.	Lorenzo-Romero, Alarcon-del-Amo, Constantinides (2014)	Journal of Theoretical and Applied Electronic Commerce Research	Empirical	TAM	The results of the study revealed that factors such as perceived ease of use facilitate the adoption of social media in organisational processes
104.	Pergelova, Manolova, Simenova-Ganeva, and Yordanova, (2019)	Journal of Small Business Management	Empirical	Resource-based theory	Digital technologies such as social media have democratized entrepreneurship and women entrepreneurs are more likely to leverage the enabling benefits of digital technologies than men.
105.	Rauniar, Rawski, Yang, and Johnson (2014)	Journal of Enterprise Information Management	Empirical	TAM	The TAM model (revised by the authors) allows businesses to consider user engagement on social media, which in turn can help businesses to devise strategies on social media
106.	Siamagka, Christodoulides, Michaelidou, and Valvi (2015)	Industrial Marketing Management	Empirical	Theory of planned behaviour	In this study, the authors show that perceived usefulness, ease of use of social media and organisational innovativeness affect the adoption of social media by B2B firms. The study offers interesting and in-depth insights into drivers of social media adoption by B2B firms
107.	Tiwari, Bhat, and Tikoria (2017)	Journal of Social Entrepreneurship	Empirical	Theory of planned behaviour	Emotional intelligence and self-efficacy are positively related with attitude and social entrepreneurial intentions
108.	Tripopsakul (2018)	Polish Journal of Management Studies	Empirical	TAM	The study found perceived ease of use and perceived usefulness as major factors affecting entrepreneurial students' reasons to adopt social media as business platform. The authors provide a model that can help predict adoption of social media as a business platform
109.	Veldeman, Praet, and Mechant (2017)	International Journal of Business Communication	Empirical	TAM	The results of the study revealed that IT companies are more inclined towards adopting social media than B2B enterprises. The article provides suggestions for B2B companies to effectively leverage social media
110.	Valos, Mavondo, and Nyadzayo (2017)	Journal of Strategic Marketing	Empirical		The use of social media to acquire customers is a major source of competitive advantage. The authors offer useful recommendations to managers at strategic level and on customer acquisition

No.	Study	Journal	Design	Theory	Results & Contribution
111.	Venkatesh, Shaw, Skyes, Wamba, and Macharia (2017)	Academy of Management Journal	Quasi-Experiment		Social ties amplify entrepreneurial activity and success, especially among women entrepreneurs. The authors offer implications to address challenges of empowering women in developing countries
The Role of Government in Regard to Using Social Media in Business					
112.	Butler, Garg, and Stephens (2020)	Information Systems Research	Empirical	Social network theory	The results of the study show that high social network density positively affects start-up creation. The study provides clarity on factors that influence decisions to start a business in a particular location and contributes to the scarce literature on technology entrepreneurship
113.	Geissinger, Laurell, Sandstrom, Erikkson, and Nykvist (2019)	Technological Forecasting & Social Change	Case Study	Institutional Theory	Cities with dense population offer an environment that is critical for digital entrepreneurship
114.	Kuhn, Galloway, and Collins-Williams (2015)	Journal of Small Business and Enterprise Development	Empirical		Business owners use social media to seek advice from other business owners. The study highlights the usefulness of social media for accessing advice to business owners
115.	Li, He, and Zhang (2019)	Information Technology for Development		Social Network theory	Information regarding government and industry policies has a significant impact on business performance
116.	Paniagua, Korzynski, Mas-Tur (2017)	European Management Journal	Conceptual/Empirical	Capabilities-based theory	Provides a comprehensive conceptual and empirical model to explain effect of social networks on FDI. Online social network activity stimulates foreign capital expenditure and new affiliates
117.	Phang, Sutanto, Tan, and Ondrus (2013)	International Journal of Accounting & Information Management	Conceptual		The study highlights the use of mobile social networking applications (MSNAs) for commercial viability. The authors have also put forward a coherent set of measurement metrics that businesses can use to measure the commercial viability of MSNA
118.	Shin (2014)	International Journal of Technology Management	Empirical		Through the findings of the study, the author suggests that, to create value in a profitable way, entrepreneurs must focus on combining social network sites as a resource with smart devices. The study offers venture capitalists and policymakers with business model innovation that can aid in investment and policy design

No.	Study	Journal	Design	Theory	Results & Contribution
	Privacy & Trust				
119.	Alshare, Moqbel, and Al-Garni (2019)	International Journal of Mobile Communications	Empirical	Expectancy-valence theory	Cultural dimensions influence trust, privacy, and security. This, in turn, has an impact on the decision of users to use the internet for online shopping and social media
120.	Hajli, Sims, Zadeh, and Richard (2017)	Journal of Business Research	Empirical	Social Presence theory	Presents models that clarify mechanisms through which trust influences behavioural intentions. Trust in social networking sites increases information seeking and trust, which, in turn, increases purchase intentions
121.	Humphreys and Wilken (2014)	Information, Communication & Society	Empirical	Communication Privacy Management theory	There exists dialectical tension between control of information shared on social media and engagement, but there is no one established set of protocols that governs small business owners' use of social media
122.	Pratono (2018)	Management Research Review	Empirical	Social Capital Theory	A social network with trust allows firms to gain pricing and selling capability. Explains the mediating role of trust between social network and firm performance
123.	Sherchan, Nepal, and Paris (2013)	ACM Computing Surveys	Conceptual		In this study, the authors explore how trust works in web-based social networks
124.	Yahia, Al-Neama, and Kerbache (2018)	Journal of Retailing and Consumer Services	Empirical	Unified theory of acceptance	The study offers insights into mechanisms that influence social commerce intention on social media platforms. Reputation and price advantage have the strongest influence on trust

Chapter 3: Social Media and Entrepreneurial Perceptions and Intentions

3.1 Introduction

Social networking supported by social media platforms has become a conduit for entrepreneurial idea generation and development (Nambisan, 2017). The rapid growth and popularity of social networking sites, such as Facebook, Twitter and others, has not only provided entrepreneurs with more collective ways of pursuing entrepreneurship, but also provided effective means to exchange ideas, learn from each other on various business aspects, such as changing business environments, and even overcome multiple business challenges.

Social networking sites now serve as an organising structure for various entities to come together and construct entrepreneurial opportunities. Therefore, those engaged in entrepreneurial pursuits are now using social media and seeking to develop appropriate social media strategies to increase the sustainability of their business in the industry (Nambisan 2017). Indeed, the prevalence of social media influences entrepreneurs' behaviour to recognise business opportunities and acquire capabilities, which, in turn, affects entrepreneurial intentions (Alayis et al., 2018). The impact of social media on entrepreneurship, especially during the current era, has become apparent. With social media topping the list of individual interests every day, and the revolution of information in all business areas, many entrepreneurs have recognised the benefit of using social media in their businesses

This study examines the association between social media and entrepreneurial perceptions and intentions. More specifically, the results suggest that the average level of social media use in a country is positively associated with the probability of positive perceptions of business opportunities and capability, as well as the intention to start a business. The gender of the respondent also matters in respect of the effectiveness of social media on the probability of positive entrepreneurial perceptions. Regression results based on separate male/female subsample regressions suggest that social media is more effective for females in having positive business perceptions, while it is more effective for males in the intention to start a business.

The results also show that social media can affect perceived entrepreneurial opportunity, capability, and intentions differently depending on a country's national income level. Social media use is more effective in perceived business opportunities in low-income countries. While it is positively associated with entrepreneurial intentions in high-income countries, it is negatively associated with such intentions in low-income countries. Further, macro level regression results support the positive association between average social media use of a country and entrepreneurial perceptions, while this association is more pronounced among high-income countries.

Most of the control variables included in the regressions significantly affect entrepreneurial perceptions. Individual factors include education, age, marital status and gender, while macro-level factors include a country's gross domestic product (GDP), business laws, cultural factors, etc. Considering the recent dramatic changes in communication technology, the role of the media has become more obvious. Particularly as the internet becomes more widely available in more countries worldwide, the social media applications have become very popular. For businesses, people's changing habits related to the use of the internet and social media, instead of more traditional communication devices, such as television and newspapers, means that different strategies and opportunities are required for success.

The study makes several significant contributions to the literature. For example, by examining the influence of social media on entrepreneurial opportunities and intentions, this study contributes to a handful of research (Mahto and McDowell, 2018; Wang et al., 2020) that examines roles that novel antecedents or factors such as social media might play in an individual's transition to entrepreneurship. This is an important contribution for two reasons: first, some studies (Drummond et al., 2018; Mumi et al., 2019) examining the link between social media and entrepreneurship have focused on examining the impact that social media has on the development of entrepreneurial firms or the post-launch phases of entrepreneurship.

Secondly, the rise of social media in various countries has given rise to a much broader debate about the positive and negative effects that social media has on society. This debate has led to the creation of various positive, as well as negative, perceptions and interpretations of social media. These perceptions and interpretations now form the idea of "techno-optimism" and "techno-

pessimism" (Kidd and McIntosh, 2016) or the "new media optimist" and "new media pessimist" research (Kakhidze, 2017). Techno-optimism refers to approaches that highlight the manifold opportunities that social media offers, including benefits such as fostering engagement in the democratic process, and offering tools and resources to the business world that can allow them to effect social change (Kidd and McIntosh, 2016). On the other hand, techno-pessimist approaches characterise the work of those who view social media with suspicion and consider the promises of social media as superficial (Kidd and McIntosh, 2016). The techno-pessimists often put forward arguments about the enormous risks that social media has for society as a whole, such as the dissemination of fake news, privacy abuse, trolling, online witch hunts, and other dark sides of social media (Baccarella et al.., 2018), in addition to the negative effects that social media has on people's mental health (Karim et al., 2020; Naslund et al.., 2020).

Thus, by examining the association between social media and entrepreneurial perceptions and intentions in different countries, the study also aims to make a wider contribution to the "techno-optimism" or "new media optimist" research. The findings of this study are in concurrence with "techno optimists" studies, such as that of Bahia et al. (2021), who examined the impact of new technologies on poverty, household consumption and labour market outcomes. In their study, Bahia et al. (2021) found that the roll-out of 3G networks in a country such as Tanzania led to an increase in non-farm self-employment. Along similar lines, by examining the impact of new technologies, such as social media, on entrepreneurship across countries, this study complements the study conducted by Bahia et al. (2021), as it seeks to examine whether or not social media has led to an increase in entrepreneurship opportunities, perceptions and capabilities in different countries across the world.

This chapter is organised as follows: In the next section, I will discuss the theoretical linkages between the prevalence of social media and entrepreneurial behaviour and perceptions, as well as present the hypotheses that will be tested in this study. Then, in the third section, I will outline the quantitative approach and the data I employ. I will then present the results of the analysis and discuss their implications and limitations. The final section concludes the chapter.

3.2 Theoretical Framework

The decision to start a business depends on the balancing of expected costs and benefits. Compared to other traditional channels, social media can offer low costs in terms of starting a business. For example, people who have the intention to start a business but cannot own a store can work from home by establishing an online store through the most popular social media platforms in their country. Also, according to Ainin et al. (2014), social media is considered an efficient marketing tool that enables entrepreneurs to utilise the opportunities to know their market niche, target customers and increase awareness about their products and services at a lower cost. In terms of capability, social media has become a good source of learning and gaining knowledge, business information and experience, all for free. These social media benefits could motivate entrepreneurs to utilise it in their business activities; they can estimate the social media benefits and the costs of traditional channels costs to start a business.

The theory of reasoned action points to a mechanism through which the prevalence of social media can shape perceptions and intentions. The theory of reasoned action forecasts how people will react according to behavioural objectives and pre-existing perceptions (Ajzen and Fishbein, 1977). Even with all the benefits mentioned above, several factors could affect entrepreneurs' decision. The theory of reasoned action suggests that individual behaviour is determined by their intention towards a specific action. Entrepreneurs' intentions to start-up a business through social media depend on their personal beliefs around the benefits presented by social media through increased business opportunities, capabilities and other entrepreneurial activities. In addition, entrepreneurs' intentions are determined by subjective norms. These subjective norms are perceived social pressures that are based on positive or negative perceptions about whether or not to engage in a particular behaviour. These social pressures often influence an entrepreneur's intention to use or not to use social media. The entrepreneur's personality and the factors mentioned previously can motivate their perceptions towards social media usage positively or negatively.

Even though entrepreneurs' personality and personal opinions can contribute to their "optimistic" perceptions towards using social media; it is also worth noting that some entrepreneurs might find it difficult to use social media effectively to identify business opportunities. This is mainly because

of high levels of negative perception or “pessimism” that prevail about social media in the country in which the entrepreneurs operate. For instance, there is a common belief among “techno-pessimists” that social media often leads to high-risk activism and can serve as a catalyst in creating social and political unrest (Kidd and McIntosh, 2016). This not only leads governments to impose strict social media regulatory rules, but also leads to high levels of monitoring of individual activities on social media, which may ultimately influence an entrepreneur not to use social media to conduct any kind of business activity. However, contrary to the positions put forward by techno-pessimists, the results of this study indicate that the prevalence of social media influences entrepreneurs' perceptions and intentions, which in turn makes them realise business opportunities and capabilities. Hence, social media is an effective tool for entrepreneurs to reach their target customers and build good relations with them.

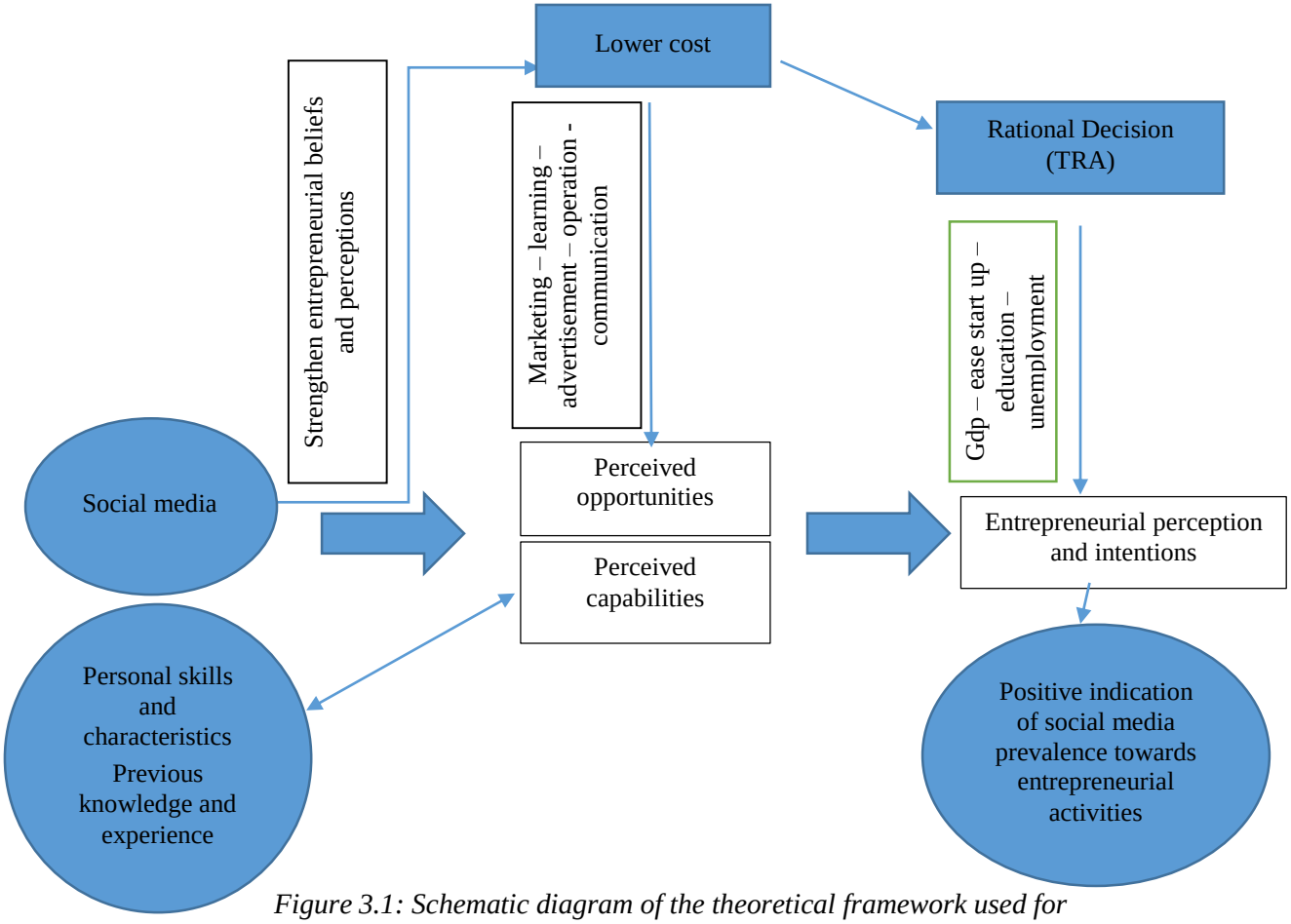


Figure 3.1: Schematic diagram of the theoretical framework used for this study

Today, business practices in terms of advertising, marketing and product development have been very much affected by internet use and social media. Many companies now prefer to advertise and market their products on the internet and through social media, as this is cost effective and has many tools that can serve the business strategy mentioned in the literature review (Chapter 2). Regarding the theory of reasoned action, all of these features motivate the entrepreneurs' perceptions and intention to use social media for setting up a business or to develop their entrepreneurial activities. People who have been exposed to this new way of doing business have started to develop different perceptions of various business opportunities and what makes a successful business enterprise. For example, if you can attract a social media influencer to advertise your product, not only will a great number of people learn about it, but also the followers of the influencer will tend to buy it. Thus, based on recent developments in social media use and the theory of reasoned action, I propose 3 hypotheses:

H1: Social media has a positive effect on perceived entrepreneurial opportunity.

H2: There is a positive relationship between individuals using social media and their perceived capabilities.

H3: There is a positive relationship between social media and entrepreneurial intention.

3.3 Research methodology and design

In this section, I will outline the methodological approach and describe the data. First, I will present the data available and required to test the hypotheses. I will then describe the data, paying particular attention to the dependent variables and how they relate to the hypotheses. Finally, I will describe the econometric model that will be used in the estimation.

3.3.1 Data

To empirically test the hypotheses listed above, I will use individual- and country-level data that covers 105 countries between 2007-2015 for the individual level and 2007-2017 for the country

level. The individual-level data includes respondents ranging from 2000 to 42000 in number, depending on the country and the year. A list of countries included is given in Appendix D. The following subsections describe the data (dependent, independent and control variables) and their sources.

3.3.1.1 Global Entrepreneurship Monitor

The Global Entrepreneurship Monitor (GEM) data offers a clear representation of several fundamental elements of entrepreneurship around the globe. The main purpose of the GEM is to address three fundamental questions: 1) Do levels of entrepreneurial activity vary between countries? 2) Are there any differences in entrepreneurial activity which can be linked to a country's economic growth? 3) What national characteristics can be linked to differences in levels of entrepreneurial activity? (Reynolds et al., 2001).

The GEM assesses individuals' behaviour regarding starting and managing a business. Entrepreneurship is regarded as a process by GEM, which considers those involved to be at different stages, from the earliest phase of the business being developed through to the established phase, and then potentially through to the business being discontinued. One of the primary GEM indicators is the dominance of early-stage entrepreneurial activity (also termed the Total Early-Stage Entrepreneurial Activity (TEA) indicator), which is represented by the shaded box in the figure below (Bosma et al., 2007).

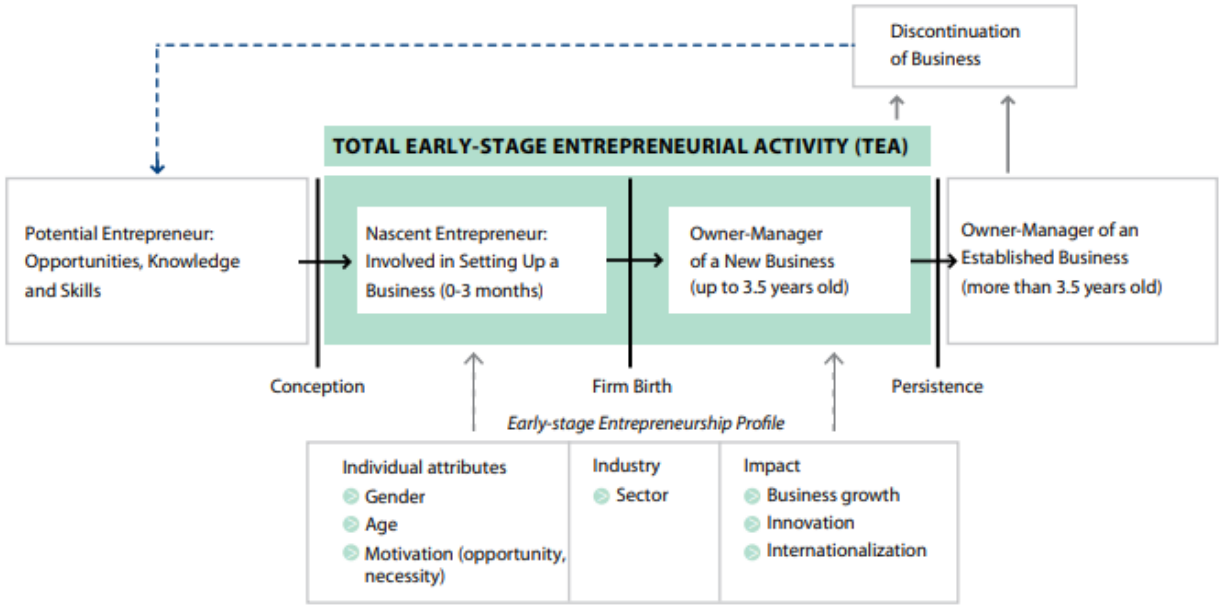


Figure 3.2: The Entrepreneurship Process and GEM Operational Definitions

The GEM data is compiled from two surveys; namely, the Adult Population Survey (APS) and the National Expert Survey (NES) (Bosma et al., 2012). The APS measures the nature and level of entrepreneurial activity around the globe. The survey is a representative sample of at least 2000 respondents from each country (Reynolds et al., 2005) and includes indicators of entrepreneurial perceptions and intentions. I will be using perceived opportunities, which is about seeing good opportunities to start a firm in the area where they live, perceived capabilities, which means feeling they possess the required skills and knowledge to start a business, and entrepreneurial intention, which means intentions to start a business within three years (GEM, 2019). I will discuss the details of these three main dependent variables below.

The data in this study is from 2007 to 2015 and 2017. This period was selected because social media platforms have gradually spread worldwide, in addition to being used for business purposes. Data for the years 2016 to 2018 was not available for inclusion in the data set. As this study began in 2018 and the most recently available individual level data was from 2015, it was possible to draw on nine years at the micro level and eleven years at the macro level of data, covering more than 100 countries.

The purpose of the quantitative method used in this study is to explore the factors influenced by the prevalence of social media among entrepreneurs and people who want to establish a business or develop entrepreneurial activities in 105 countries around the world. In Table 3.1, I present the individual- and country-level variables that I extracted from the GEM data used in this study. More information about the methodology and interview structure of GEM data can be found in Appendix F.

Table 3-1: GEM variables

Variable	Individual Level Coding	Definition	Question
Gender	Sex	Male/Female	What is your gender?
Age	Age	Between 18–64	What is your current age (in years)?
Opport	Opportunity	Opportunity	In the next 6 months, will there be good opportunities for starting a business in the area where you live?
Suskil	Capability	Capability/Skills	Do you have the knowledge, skill and experience required to start a business?
Intention	Startbusiness	Start business	Expects to start business in the next 3 years

Source: https://www.gemconsortium.org/data

3.3.1.2 Dependent Variables

To test the hypotheses discussed above, I employ individual- and country-level data to examine the perceptions regarding entrepreneurial behaviour. The GEM individual data provides useful variables which can provide information about an individual's perception of business opportunities, perceived capabilities and entrepreneurial intentions. I use three main dependent variables for the individual-level analysis. The first is *opportunity*, for which respondents answered the question, 'In the next six months, will there be good opportunities for starting a business in the area where you live?' The second is *capability*, where the respondents answered the question, 'Do you have the knowledge, skill and experience required to start a new business?' The third variable is the entrepreneurial intention, *intention*, to start a business, where the respondents answered the question, 'Do you expect to have a start-up in the next 3 years?' The respondents answered with 'Yes', 'No', 'Don't know' or 'Refused', meaning that all 3 variables can be converted into binary variables (1 is Yes and 0 is No).

Each dependent variable captures a different aspect of entrepreneurial perceptions and intention. The first variable captures people's perception of good business opportunities, the second captures the perceived knowledge and skills required for starting a business and the third captures actual entrepreneurial intention.

3.3.1.3 Measuring Social Media Penetration-the Main Independent Variable

To measure social media use, I use data from a Pew Research Centre survey and a Global Digital Insight (GDI) survey. The Pew Research Centre survey was carried out in 39 countries with 40,448 respondents, covering the years 2013 to 2017. The countries were categorised into 3 economic groups — developing, emerging and advanced—and the survey relied on several data sources and criteria. The surveys were based on face-to-face and telephone interviews with the adult population aged 18 and older, assessing the use of online social networking sites. The Pew Research Centre's sample sizes of cross-national studies usually range from 700-1500 interviews per country, with 1000 interviews being the most commonly occurring sample size (Poushter et al., 2018). The questionnaire contains 131 questions about the economy, political situation, smartphone ownership and social media usage. However, I focus on the question related to social media use. The answer choices are "Yes", "No", "Don't know" or "Refused". Table 3.2 shows the questions asked by Pew Research Centre. The Pew Research Center makes only national averages available and the national average data is based on national samples (country average data). For the study purposes I only use Q71.

Table 3-2: Pew Research Center questionnaire (social media)

Q71	Do you ever use online social networking sites like Facebook, Twitter, (INSERT COUNTRY SPECIFIC EXAMPLES)?
Q72	How often do you use social networking sites like Facebook, Twitter, (INSERT COUNTRY-SPECIFIC EXAMPLES) to get news?
Q72a	Do you ever use social networking sites like Facebook, Twitter (INSERT COUNTRY SPECIFIC EXAMPLES) to share your views about ____ or not? a. religion
Q73b	Do you ever use social networking sites like Facebook, Twitter (INSERT COUNTRY SPECIFIC EXAMPLES) to share your views about ____ or not? b. politics
Q73c	Do you ever use social networking sites like Facebook, Twitter (INSERT COUNTRY SPECIFIC EXAMPLES) to share your views about ____ or not? c. music and movies
Q73d	Do you ever use social networking sites like Facebook, Twitter (INSERT COUNTRY SPECIFIC EXAMPLES) to share your views about ____ or not? d. sports

Q73e	Do you ever use social networking sites like Facebook, Twitter (INSERT COUNTRY SPECIFIC EXAMPLES) to share your views about ____ or not? e. products you use

Source: Poushter et al. (2018).

Pew data is comprehensive but it is only available for 39 countries. For the remaining countries that I include in the analysis, I use GDI data. GDI has provided social media statistics reports since 2011 (Kemp, 2019). These reports provide the social media statistics from the year 2011 to 2019 and rely on data from a broad array of sources, ranging from private and public firms, private individuals and NGOs to government agencies. The values are the same for most of the years at Pew Research Centre and GDI. Thus, I take the missing values (dates or countries) from GDI. Table 3.3, shows that the correlation is quite high between the Pew and GDI data, with a correlation coefficient of 0.74. The correlation between the two data sets can be seen visually in Figure 3.3 below, which is a scatter plot of Pew and GDI values which exist in both data sets.

Table 3-3: Matrix of correlations

Variables	(1)	(2)
(1) pew1	1.000	
(2) gdi	0.736	1.000

I create a country-level 'use of social media' variable represented in percentages as my main independent variable. This independent variable measures the use of social media at the country level. It is measured as the percentage of the population that uses social media. Measuring the main independent variable at the country level, while the dependent variables are measured at the individual level, may appear to be a drawback. However, I am interested in the effect of the prevalence of social media, rather than personal use, so the country-level use of social media will allow us to test my hypothesis. Thus, the main independent variable, social media use, represents the average probability of using social media for an individual in a given country and year. Overall, in the model used in this study, this variable will gauge how entrepreneurial perceptions change in response to changes in the prevalence of social media use.

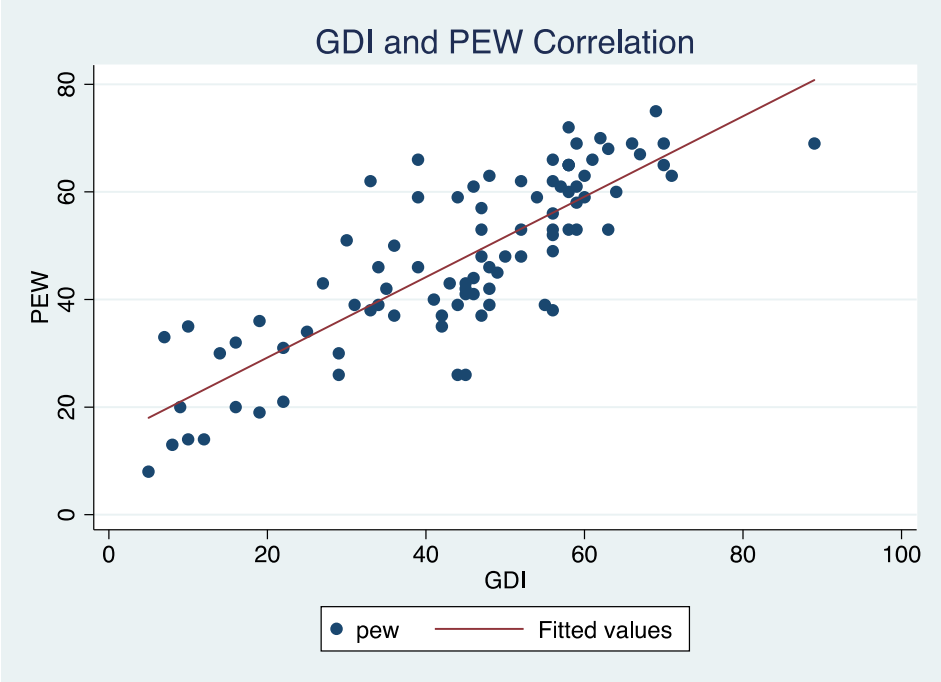


Figure 3.3: GDI and PEW correlation

I use internet usage as an alternative independent variable to compare how the technologies affect entrepreneurial behaviour and perceptions. The data for internet use comes from the International Telecommunication Union (ITU). The ITU is a United Nations Agency that identifies, defines and produces official statistics in the ICT sector. The data covers 200 countries and is divided into 3 categories (ITU, 2019): access to data and the ICT infrastructure, the price of the data, and the individual and household use of ICT. The data is collected annually through questionnaires. Although the data covers telecommunication, internet usage and data prices, in the present study, I have concentrated on internet usage and access. The internet usage variable measures the percentage of individuals who use the internet and it is measured at the country level. Internet use can be a good proxy for social media usage, as an internet connection is needed to use social media. Those countries that have high internet usage will most likely have a high prevalence of social media, so, there is a high correlation between the two and internet use can be used as a proxy for social media use.

3.3.1.4 Control Variables

As mentioned earlier, there may be factors specific to the country or to the individual which affect entrepreneurial perceptions and intentions. Several of these variables are also plausibly correlated with social media use. At the country level, the first control variable that I will use is GDP per capita. I obtain the GDP data from the World Bank and this variable controls for the level of economic development. People living in wealthier countries may have different perceptions regarding business opportunities and entrepreneurial perceptions than people living in less wealthy countries (Djankov et al., 2002).

The second control variable at the country level is education. The education variable is the gross enrolment rate for tertiary education and the source is the World Bank.[1] This is the ratio of total enrolment, regardless of age, in relation to the population of the age group that officially corresponds to the level of tertiary education, multiplied by 100.[2] This variable is expected to capture the effect of formal education on people's entrepreneurial perception (He et al., 2017).

The third country-level control variable is the unemployment rate, and the source is World Bank.[3] This variable measures the rate of unemployed people in the labour force. One of the major reasons for using unemployment as a variable is the fact that research examining the relationship between unemployment and entrepreneurship is still inconclusive in establishing a link between unemployment and higher levels of entrepreneurial activity. As a result, researchers have argued that further investigation needs to be conducted to determine the relationship between unemployment and entrepreneurial activity (Dvoulety, 2017). Such a relationship seems likely, due to the fact that in countries with a high unemployment rate, individuals may have more need for alternative sources of income, and may have either negative or positive perceptions regarding good business opportunities in the face of an overall decline in economic activity. By using

[1] Source: https://data.worldbank.org/indicator/SE.TER.ENRR

[2] In the summary table below, the highest value for education is 122 and belongs to Greece, meaning that, for this country, the number enrolled in tertiary education is greater than the population in the age range that corresponds to the tertiary education level.

[3] Source: https://www.theglobaleconomy.com/download-data.php

unemployment as a variable, this study aims to add to evidence on the nature of the link between unemployment and entrepreneurial activity.

The fourth country-level control variable is the ease of doing business. The index is measured on a scale of 0 to 100, with higher figures representing easier business practices.[4] One of the major rationales behind using this variable is the fact that the regulations for new business entry may affect entrepreneurial start up through social media, and these are different in each country. However, recently, the World Bank announced that irregularities have been reported regarding changes to the data in the Doing Business 2018 and Doing Business 2020 reports and the report has been discontinued. The World Bank found that some countries had improperly influenced their scores for these years. Since my data was from earlier years, this shouldn't affect my data or results.[5]

The entry regulation cost is based on all official, identifiable expenses: fees, costs of procedures and forms, photocopies, fiscal stamps, legal and notary charges, etc. There are also costs linked to bureaucratic delay and corruption, as well as the cost of entry to the market being very expensive as a result of countries which are outside of the top quartile of income distribution. Greater regulation of entry is usually linked to increased corruption and a larger unofficial economy, but not to better quality of private or public goods. Moreover, countries which have governments which are less democratic and more interventionist regulate entry more heavily, even when the economic development level is controlled for (Djankov et al., 2002). As a result, this variable will capture how the ease of doing business shapes individual perception of entrepreneurial intention. It is expected that, in countries where it is easier to do business, people will have more optimistic perceptions of business opportunities and starting a new business (Ruiz, 2018).

The individual-level control variables are age and gender. The age variable is important for determining entrepreneurial perceptions and intention, because older people usually have more

[4] Source: http://www.doingbusiness.org/en/custom-query

[5] For more information about the world bank announcement please see:
https://www.worldbank.org/en/news/statement/2020/08/27/doing-business---data-irregularities-statement

experience when it comes to business strategy and they have larger networks of business associates. However, young people seem to be more into social media and usually take more business risks compared to their elders. Therefore, including the age variable is crucial in my analysis. Gender is another effective control variable for entrepreneurial perceptions, because females are historically less involved in business than men in most countries. This variable has a value of 0 for males and 1 for females. Therefore, inclusion of the gender variable in regressions will allow us to see potential differences in male/female perceptions of business opportunities, capabilities and intentions to start a business. In addition, I can split my sample by gender and run separate regressions for each gender. This way, I can see if the independent variables, especially social media, have a different effect on dependent variables (perceptions) for males and females.

3.4 Summary Statistics

Table 3-4: Descriptive Statistics - Individual Level

VARIABLES	N	Mean	SD
Age	1,593,283	41.478	14.583
Sex	1,624,117	0.485	0.500
Intention	1,509,816	0.200	0.400
Opportunity	1,230,712	0.392	0.488
Capability	1,397,682	0.500	0.500

Table 3-5: Descriptive Statistics - Macro Level

VARIABLES	N	Mean	Sd	min	max
socialuser		44.234	18.280	2	84
netusers	1,121	49.101	27.549	0.370	98.260
gdppc	1,136	19083.540	22092.600	249.209	120857
education	810	50.572	26.323	0.502	136.603
unemploy	1,122	8.373	5.746	0.120	34.930
Rule of law	1,143	0.305	0.960	-2.255	2.100
opportunity	632	41.609	16.599	2.850	85.540
capability	632	50.682	15.343	8.650	89.480
intention	632	21.140	15.586	0.980	90.950

Tables 3.4 and 3.5 above present summary statistics for all of the variables used in this study, both at the individual and at the country level. The first column is the number of observations. It varies by observation because it is drawn from different data sets and some of the variables are missing for some countries. The main dependent variables for the individual-level regressions are *opportunity*, *capability* and *intention*. For the individual level data, the mean value for *opportunity* is 0.39, which means that 39% of the respondents believe that there will be a good business opportunity in the next 6 months. *Capability* is a binary variable (yes/no) and it has a mean of 0.5. This means that 50% of the sample believe that they have sufficient capability to start a business. The *intention* variable has a mean of 0.20. This means that 20% of the respondents plan to start a business in the next 3 years.[6]

The dependent variables for the macro level are *opportunity* (the percentage of respondents who see good opportunities to start a business), *capability* (the percentage of respondents who believe that they have the required skills and knowledge to start a business) and *start business* (the percentage of respondents who expect to start a business within the next 3 years). *Opportunity* has a mean value of 41.60 which means that, on average, 41% of the respondents see good opportunities across countries. The mean value for *capability* is 50.68, which means that, on average, 50% of the people from all countries believe that they have the required capabilities. *Start business* has a mean value of 21.14, which implies that, on average, 21% of the people in all countries plan to start a business in the next 3 years.

The main independent variable is *social media user*, which has a mean value of 43.13. This means that approximately 43% of the people in an average country are social media users. The alternative independent variable is *internet use*, which has a mean value of 57.47. This implies that approximately 57% of the respondents are internet users. The control variables at the individual level are age and gender. The *age* variable has a mean value of 41, with a lowest value of 18 and

[6] The statistical summary showed that 91% of people intending to start a business in Nigeria. According to (Farayibi, 2015), over the last decade, Nigeria's economy has continued to grow with GDP at around 7% and this is due to the role of entrepreneurship in enhancing economic development. Furthermore, the government in Nigeria issued some programs to support and encourage entrepreneurs, such as SURE P.

a highest value of 100. The *sex* variable, which represents gender, has a mean value of 0.49. This means that approximately 49% of the respondents were male. The control variables at the macro level are *education rate*, *unemployment rate*, *GDP per capita* and *ease of doing business*. The *education rate* measures the percentage of people with tertiary education and this has a mean value of 60.27. This shows that approximately 60% of the respondents have reached a tertiary level of education. The mean value for the *unemployment rate* is 9.57, which means that the overall unemployment rate in the sample is approximately 9.5%. *GDP per capita* has a mean value of $25,217. The lowest value for GDP per capita is $317 and the highest value is $120,857. The ease of engaging in the business index measures how easy it is to do business in a given country on a scale of 0 to 100. This variable has a mean value of 78.39, with a range from 17.40 to 98.23.

3.5 Model and Specification

I conduct regression analysis to analyse whether social media prevalence has any effect on entrepreneurial behaviour or perception. The collected data (micro-level) consist of survey responses from 2007 to 2015. The respondents in each country change each year and so the dataset consists of pooled cross-sectional data. Thus, it has the properties of both cross-sectional data and time variation. Having time variation in the data will enable us to see the dynamics within entrepreneurial perception. Although there is variation in time in the data, the data set is not classified as panel data, as the unit of observation (respondents) is not the same across the years.

Thus, it would not be suitable to use panel data models, such as fixed effects or random effects. Instead, I implement an ordinary least squares (OLS) estimation technique to estimate the regressions. However, to account for the country and time fixed effects, I use dummy variables for each country and year. The rationale behind this is that the economic conditions may vary from year to year, based on a country's political and economic circumstances. Consumer taste regarding the use of social media may also decline or increase over time; thus, I expect that, when time fixed effects exist, some years might record an influential effect from the impact of social media usage on entrepreneurial growth compared with others

3.5.1 Regression Equations

With the inclusion of the control and independent variables, the main regression for the individual-level regression equation becomes:

$$Dep.Variable_{it} = \beta_0 + \beta_1 socialuser_{it} + \beta_2 ease_{it} + \beta_3 gdp_{it} + \beta_4 unemploy_{it} + \beta_5 education_{it} + \beta_6 age_{it} + \beta_7 sex_{it} + \beta_8 X_i + \beta_9 T_t + u_i$$

Where the $Dep.Variable_{it}$ is either opportunity, capability or entrepreneurial intention for individual *i* at time *t*, X_i is country fixed effects, and T_t is time fixed effects.

I will estimate the regression equation for different subsamples, such as low-income and high-income countries, and male-female. I will use the Ordinary Least Squares (OLS) approach, which can also be called the "Linear Probability Model", as the dependent variable is binary.

The macro- or country-level regression equation is as follows:

$$Dep.Variable_{it} = \beta_0 + \beta_1 socialuser_{it} + \beta_2 ease_{it} + \beta_3 gdp_{it} + \beta_4 unemploy_{it} + \beta_5 education_{it} + X_i + \beta_9 T_t + u_i$$

Where the $Dep.Variable_{it}$ is either opportunity, capability or entrepreneurial intention (startbusiness) for country *i* at time *t*; X_i is country fixed effects; and T_t is time fixed effects.

I will estimate the above macro-level equation for the entire sample, although I will calculate the low-and high-income countries separately.

3.6 Results and Discussion

This study aimed to find out whether there is an association between the prevalence of social media and the nature of perceptions of the entrepreneurship process. In this section, I estimate regression equations that were discussed above. I used Stata software to estimate the OLS regressions. As

outlined above, the two data sets used in the estimation include individual-level data and macro-aggregates that contained data at country level.

The regression model was estimated at two levels: individual level and country level. To ascertain the robustness of the regression model results, internet usage rate was used as an alternative to social media use. This is because, although not every internet user is a social media user (Mack et al., 2017), it is evident that, in a large dataset of internet users, most of them use social media (Ying Kei et al., 2018). This notion has been cautiously used to interpret the results of this research. All the same, the two variables were not used in the same regression model to avoid multicollinearity due to their high correlation.

The hypotheses derived above are as follows:

H1: Social media has a positive effect on the entrepreneurial perceived opportunity.

H2: There is a positive relationship between individuals using social media and their perceived capabilities.

H3: There is a positive relationship between social media and entrepreneurial intention.

3.6.1 Individual-level regressions

The main dependent variables are *perceived opportunity, perceived capability* and *entrepreneurial intention*. I use country and time fixed effects in all regressions. Furthermore, to address any potential heteroscedasticity issue, I use robust standard errors which are clustered at the country level. It is important to note that the dependent variables are binary, and take the value of 0 or 1 (1 for a "Yes" answer and 0 for a "No" answer). This is why coefficients for individual-level regression (when the dependent variable is binary) reflect the change in the probability of answering "Yes".

I run an OLS regression and present the results in Table 3.6[7]. As seen in the table, the coefficient of social media users (*socialuser)* is positive and significant at the 1% significance level for 1st and 3rd regressions, while it is significant at the 5% level for the 2nd regression. This demonstrates that social media prevalence positively affects the probability of using social media and having a good business opportunity. The coefficients imply that a 1 per cent increase in social media use in a country increases the probability that the respondent thinks there are business opportunities by about 0.3%. The coefficients imply that a 1 per cent increase in social media use in a country increases the probability of *perceived capability* by about 0.1%, and increases the probability of *entrepreneurial intentions* by about 0.1%. Although these figures may look relatively small, recall that *opportunity*, *capability* and *entrepreneurial intention* have means of 0.39, 0.50 and 0.20 respectively and so these effects are not only meaningful, but also statistically significant. Consequently, the results support H1, H2 and H3 at individual-level.

The control variables used in the study significantly affected *perceived opportunities*, *perceived capabilities*, and *entrepreneurial intention* probabilities in the regression analysis. Results show that ease of doing business has a positive and significant relationship with *perceived opportunity* at the $p<0.01$ significance level, but has a significant negative relation to *perceived capability* at $p<0.01$ and entrepreneurial intention at the $p<0.01$ significance level. The coefficient of *ease* variable implies that a 1-unit (1 percent) increase in the *ease of doing business* index leads to a 0.3% increase in the probability of having the *opportunity*, 0.3% decrease in the probability of having skills and *capability*, and 0.2% decrease in the probability of *entrepreneurial intention*.

This result supports previous researchers' findings. According to the World Bank (2018), ease of doing business factors, such as procedures, time, capital requirement and cost, deter individuals' from starting a business (entrepreneurial intention) and their ability to obtain information, special skills and knowledge needed to start a business. One reason why ease of doing business may have a negative association with entrepreneurial capability is the differences that exist between

[7] Another common method of regression for binary dependent variable is probit. I run probit regression and present the results in Appendix. The results, in terms of sign and significance of coefficients, are quite similar to OLS.

developed and developing countries. For example, there might exist considerable differences in policies affecting the ease of doing business in developing countries, there could be highly relevant policies that might be targeted towards enhancing business activities; however, the implementation of these policies can vary significantly, thereby affecting the activity that actually occurs on the ground (Canare, 2018). This can have a negative impact on individuals who may want to start a business but may refrain from doing so after experiencing the reality on the ground, as it might lead them to believe that they are not capable enough to be an entrepreneur. Secondly, there are also individual-level factors that may lead to a negative association between the ease of doing business and entrepreneurial capability. For example, an individual's fear of failure that can greatly affect entrepreneurial capabilities, even in countries ranking higher in ease of doing business. The higher an individual's fear of failure, the lower is the likelihood they will apply the skills and knowledge that determine entrepreneurial capability (Afzal et al., 2018). However, though these challenges are reduced when it is easier to do business, people may be able to identify fewer business opportunities because of the crowding effect that may occur in that context. Ultimately, people tend to have more entrepreneurial intentions when it is easier to start a business (Ruiz et al., 2018).

As expected, the coefficient of GDP per capita is positive and significant in all three regressions at $p<0.01$. The GDP variable's unit is in thousands of dollars. Therefore, the results mean that a $1000 increase in per capita GDP will lead to a 1.3% increase in the probability of having a business *opportunity*. The same increase in GDP per capita causes a 0.6% increase in the probability of having the *capability* and 0.3% in the probability of *entrepreneurial intention*. Findings suggest that entrepreneurs tend to flourish when a country is performing better economically (Global Entrepreneurship Research Association, 2019). This is because, when the economy is better, people are also more confident in engaging in entrepreneurial activities. There is also better circulation of money and it is easy to spot viable business gaps in a better economy (Fagerberg and Srholec, 2017). In addition, better money circulation in the economy increases the capability of entrepreneurs. According to the Global Entrepreneurship Research Association (2019), bank loans and other facilities that support or empower the capability of entrepreneurs are enhanced in a better economy.

Results of the unemployment variable showed that it negatively and significantly affects *perceived opportunity* and *intention* to start a business, at $p<0.01$ significance level. However, it has a positive and slightly significant relationship with *perceived capability* at the $p<0.05$ significance level. The results mean that a 1% increase in the unemployment rate is associated with a 1% decrease in the probability of having a business *opportunity* and the probability of *entrepreneurial intention*. The positive results with unemployment mean that a 1% increase in unemployment equals a 2% increase in *perceived opportunity*. The negative association can be explained by the fact that high unemployment kills people's motivation for business opportunities that are provided by social media. In other words, in countries with high unemployment rates, people are less likely to perceive good business opportunities (Gawel, 2010). Interestingly, the probability of having business skills and capability is positively related to the unemployment rate. This may be because unemployment is relatively higher in countries with a large informal economy, where most people gain experience and skills in the underground economy.

Education variable coefficient results are negative and significant for the *perceived opportunity* and *perceived capability* dependent variables at $p<0.01$ significance level. This means that the more a person is educated, the lower the probability is that they will identify the *opportunities* and the *capability* of pursuing the opportunity. However, the education variable has a positive and significant correlation with *entrepreneurial intention* at the $p<0.01$ significance level. This suggests that the probability of *entrepreneurial intention* increases with education. The coefficient of *education* in the third regression means that, as the education percentage increases by one point, the probability of *entrepreneurial intention* increases by about 0.3%.

The inverse relation observed between education and perceived opportunity and capability is supported by Jiménez et al. (2015) in research on the impact of educational levels on formal and informal entrepreneurship. They found that educated people would prefer to be employed, rather than open a business in the informal sector. The researchers also confirmed that educated individuals were less likely to identify business opportunities in the informal sector (Jiménez et al., 2015). However, from the current results, it seems that entrepreneurial intentions increase when the level of education increases. Furthermore, educated people have more entrepreneurial intention despite their lower perceived capabilities to achieve business success.

The Age coefficient is negative and significant for the *perceived opportunity* and *entrepreneurial intention* regression at $p<0.01$. Results show that it is positive and significant I relation to *perceived capability* at the $p<0.01$ significance level. A one-year increase in age is associated with a 0.2% decrease in the probability of having a good business o*pportunity* and a 0.4% decrease in the probability of *entrepreneurial intention*. The coefficient of age in the second regression implies that a one-year increase in age leads to roughly a 0.1% increase in the probability of having business *capability*.

The age of a respondent is a factor that is expected to be significantly correlated with business perceptions. According to research done by Azoulay et al. (2018), the negative relationship can possibly be explained by older people being relatively more risk-averse. In other words, older people are less likely to take risky business opportunities. In contrast, as the coefficient of age shows in the second regression, as age increases, the probability of having business skills and capabilities increases. Previous researchers have found that, as people get older, they gain more experience and skills to be successful in business (Azoulay et al., 2018). Therefore, they are more likely to engage in entrepreneurial activities due to their progressive perceived capabilities.

The final control variable, sex, is a dummy variable that takes a value of 1 for females and 0 for males. The coefficient results show that it has a significant and negative relationship in all three regressions at $p<0.01$ significance level. The coefficient of sex means that females are 4% less likely to perceive good business *opportunities*. Similarly, females are 12% less likely to believe that they have the skills and *capabilities* for business. Finally, females are 4% less likely to start a business. This result is not surprising: previous researchers have shown that female entrepreneurship rates are substantially lower compared to male rates (Fairlie and Robb, 2008). Fairlie and Robb's (2008) research results show that women have less desire to start a business compared to men. The results are slightly significant and unobservable factors, such as discrimination, risk aversion and different preferences, might be attributed to the lower levels of interest in entrepreneurship.

The results of Table 3.6 support the three hypotheses of the research. The findings indicate that social media positively influences one's *intention* to participate in entrepreneurial activities, the

capability to identify business *opportunities*, and belief in self-efficiency. In terms of perceived opportunity, social media are sources of information to the participants on existing market niches, explaining the positive correlation between social media and perceived opportunities.

Table 3-6: Main regression results (whole sample)

	(1)	(2)	(3)
VARIABLES	Opportunity	Capability	Intention
socialuser	0.00291***	0.000828**	0.00119***
	(0.000416)	(0.000410)	(0.000326)
ease	0.00261***	-0.00345***	-0.00211***
	(0.000602)	(0.000597)	(0.000481)
gdp	0.0128***	0.00649***	0.00294***
	(0.00116)	(0.00108)	(0.000753)
unemploy	-0.00985**	0.0211***	-0.00926***
	(0.00402)	(0.00387)	(0.00309)
education	-0.00747***	-0.000779	0.00260***
	(0.00108)	(0.00105)	(0.000838)
age	-0.00161***	0.000549***	-0.00355***
	(6.76e-05)	(6.57e-05)	(4.80e-05)
sex	-0.0419***	-0.117***	-0.0342***
	(0.00188)	(0.00184)	(0.00141)
Constant	-0.275*	0.283***	-0.0771
	(0.146)	(0.0984)	(0.105)
Observations	252,371	280,631	278,394
R-squared	0.078	0.055	0.142
Country FE	YES	YES	YES
Year FE	YES	YES	YES

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

3.6.1.1 Gender-splitting sample

Gender was found to have a significant effect on all three dependent variables. However, the pooled regression above does not tell us how the coefficients of independent variables would change depending on gender. Next, I split the sample in two (male-female) and run individual level regressions again. This will allow us to see how the effect of social media and other independent variables on dependent variables might differ based on gender. One of the major reasons for doing so is the fact that evidence (Gupta et al., 2009; Pines et al., 2010; Shinnar et al., 2012; Santos et

al., 2016) indicates that there are several gender differences when it comes to the formation of entrepreneurial perceptions, intentions, capabilities, and subjective beliefs. Also, when the sample is split, gender-specific unemployment rates and education rates can be included in the regression.

A majority of these gender differences are a result of the socially constructed gender stereotypes in entrepreneurship and other factors, such as culture, as well as the technological and institutional environment prevalent in a country (Reynolds, 2011; Castellaneta et al., 2020), in addition to factors such as the existence of social networks, internet use, business characteristics, personality and social support (Molino et al., 2018). As a result, conducting a separate analysis for the male and female respondents will allow us to identify any potential difference in the way that social media use and business perceptions are related.

The OLS regression results are presented in Table 3.7 below. The first three columns represent male sample results, while the last three columns represent female sample results. Overall, the results are consistent with the main regression above in terms of the sign and significance of coefficients. Based on the split sample results, the effect of *social media* on dependent variables seems to differ for males and females. In the "*Opportunity*" regression, the male subsample has a coefficient of 0.00269, while the females subsample has a coefficient of 0.00289. Both results are significantly positive but females have a slightly higher social media coefficient. This implies that using *social media* increases business *opportunity* perception more for females.

It may be the case that females, in general, are less involved in business life, so their perceptions are more easily shaped by social media use. Research conducted by Revell-Love and Revell-Love (2016) has proved that women's social networks differ significantly from men's in various ways. For example, men tend to establish social networks of bigger magnitude that are also more diverse and that can help fulfil their resource requirements. On the other hand, women are usually associated with much smaller social networks, with close kin monitoring. At the individual level, men have more extensive social networks than women do and, judging from previous results, they depend more on prior knowledge and skill acquired from sources other than social media to identify opportunities.

Nonetheless, women are more likely than men to utilise opportunities provided by social media, giving women a competitive advantage to engage in entrepreneurship activities, due to cultural and environmental issues in some countries. Furthermore, with social media, some female entrepreneurs can run their businesses directly from home. Such a business provides an opportunity for women to cater to the needs of their families without sacrificing their entrepreneurship dreams. Social media platforms encourage women to improve their income through entrepreneurship (Fischer and Reuber, 2011; Shih et al., 2014).

For the *Capability* regression, the coefficient in the males subsample is 0.00118, while it is 0.00292 for females. The coefficient is significant at the 5% level for males, while it is highly significant (1% level) for females. This implies that the use of social media has smaller effect on the *perceived capability* of running a business for males compared to females. Females feel themselves more capable of running a business if the average level of social media use is higher in a country. One of the major reasons for this could be that the advent and popularity of social media in many developed countries, or countries with higher social media usage, have provided female workers a sense of "empowerment". Many females in the developed countries, owing to structural inequalities in the workplace, are now pursuing passion projects in the digital environment and making a living.

Moreover, the ability to work from home has enabled more females to believe that they can easily combine their personal and professional obligations and, hence, see social media as a tool where that enables them to deploy their skills and capabilities to pursue their entrepreneurial dreams without compromising their role as "carers". The emergence and popularity of feminist entrepreneurship, wherein women deploy their feminine or soft skills as "capital" in the business world is a perfect testimony to the way social media has had a significant effect on the perceived capability of running a business for females (Duffy and Pruchniewska, 2017).

However, when it comes to the intention to start a business (*intention* variable), regression coefficient for males is 0.00153 while it is 0.000799 for females. The *intention* variable is significant only at the 10% level for females. This means, although females feel themselves more capable with higher average social media use, the effect of social media is not strong enough to

affect their intention to start a business. Males, on the other hand, are significantly and positively affected by *social media* use in terms of *intention* to start a business. Considering the societal pressure on women not to engage in work life in some countries, and females having limited access to resources required to start a business, discrimination in various ways and barriers that are often not experienced by men, either in developed countries or developing countries (Venkatesh et al., 2017), it is not surprising that social media use does not trigger the intention to start a business for females.

The unemployment level of the country for males and females are separately used in the two samples. It is more appropriate to use the male unemployment rate for the male sample and the female unemployment rate for the female sample. While unemployment does not have any significant effect on opportunity for males, it has a negative and significant (at 10% level) effect for females. A higher female unemployment rate in a country seems to lower the perception of business *opportunities* for females. The coefficient of the unemployment variable is positive and significant in the *Capability* regression for both males and females, although it is slightly higher for the female sample; I can say that male unemployment and female unemployment are equally effective in the male sample in shaping *capability* perception. For the *intention* regression, unemployment does not have a significant coefficient for the male sample, but it has a positive and significant coefficient for the female sample. While higher male unemployment doesn't affect the *intention* to start a business for males, higher female unemployment increases the *intention* for females.

The education level of the country also affects business perceptions differently for males and females. I use the female education level for the female sample and the male education rate for the male sample. For the *opportunity* regression in the male sample, a higher male education level in a country is associated with a lower level of business *opportunity* perception. In the female sample, a higher female education rate is also associated with a lower level of business *opportunity* perception. For the *capability* regression, the male education rate is negative and significant, and it implies that a higher male *education* level in a country is associated with a lower *capability* perception for males. The female education rate, however, is not significant in the female sample. This means, females' perception of having enough *capability* to run a business is not affected by

the average female education level of their country. For the *entrepreneurial intention* regression, the education coefficient is not significant in either the male or the female sample.

The age variable is another important independent variable that could affect business perceptions differently for males and females. In the *opportunity* regression, the coefficient of the age variable is lower (more negative) for males than for females. This implies a one-year increase in age reduces the probability of a business having a positive perception of *opportunity* more for males. In the *capability* regression, the coefficient of age is positive and significant for males, while it is negative and significant for females. This means *age* affects the perception of having the required *capability* to run a business differently for males and females. For males, a one-year increase in age is associated with 0.16% increase in *capability* perception. However, for females, a one-year increase in age is associated with a 0.04% decrease in *capability* perception. In the *intention* regression, the age variable has negative and significant coefficients for males and females. The coefficients are very close to each other, suggesting that age has similar effects on the *intention* to start a business for both males and females.

Table 3-7: Individual level regressions: Male-Female Split

	Male				Female		
VARIABLES	Opportunity	Capability	intention	VARIABLES	Opportunity	Capability	intention
socialuser	0.00269***	0.00118**	0.00153***	*socialuser*	0.00289***	0.00292***	0.000799*
	(0.000614)	(0.000603)	(0.000512)		(0.000598)	(0.000590)	(0.000467)
Ease	0.00387***	0.000196	-0.00187**	*Ease*	0.00173*	-0.00204**	-0.000478
	(0.00110)	(0.00106)	(0.000953)		(0.00101)	(0.000993)	(0.000829)
Gdp	0.0155***	0.00634***	0.00364***	*Gdp*	0.0121***	0.00722***	0.00386***
	(0.00178)	(0.00168)	(0.00130)		(0.00173)	(0.00162)	(0.00112)
MaleUnemploy	0.00177	0.0194***	0.00368	*FemaleUnemploy*	-0.00796*	0.0200***	0.00617*
	(0.00344)	(0.00333)	(0.00273)		(0.00426)	(0.00419)	(0.00328)
MaleEducation	-0.0145***	-0.00468**	0.00161	*FemaleEducation*	-0.00347***	0.000128	0.000187
	(0.00189)	(0.00184)	(0.00149)		(0.00125)	(0.00121)	(0.000936)
Age	-0.00176***	0.00158***	-0.00365***	*Age*	-0.00148***	-0.000405***	-0.00354***
	(9.70e-05)	(9.58e-05)	(7.14e-05)		(9.44e-05)	(9.04e-05)	(6.51e-05)
Constant	-0.357	-0.0245	0.509***	*Constant*	-0.520**	-0.204	-0.0361
	(0.223)	(0.194)	(0.156)		(0.218)	(0.182)	(0.154)
Observations	125,212	137,842	136,396	*Observations*	127,476	143,176	142,456
R-squared	0.074	0.038	0.142	*R-squared*	0.083	0.051	0.139
Country FE	YES	YES	YES	*Country FE*	YES	YES	YES
Year FE	YES	YES	YES	*Year FE*	YES	YES	YES

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

3.6.1.2 High-income and low-income countries (individual level)

Individual perceptions regarding business opportunities and entrepreneurial activity may have different dynamics in high-income countries than in lower-income countries. Thus, social media may affect entrepreneurial opportunity perceptions differently in high-income countries. The results show that social media use affects perceptions of both *opportunity* and *entrepreneurial intention* to start a business positively and significantly at the high-income level, with 0.3% for *opportunity* and 0.2% for *entrepreneurial intentions*. In low-income countries, social media use only affects *perceived opportunities* positively with 1.81%. However, social media use negatively and significantly affects the perception of having *capability* for both levels, with about 0.1% in both high- and low-income countries. Table 3.8 presents the regression results for high-income countries and low-income countries.

The results show that social media can affect *entrepreneurial opportunity*, *capability*, and *intentions* differently, depending on a country's income. A business survey conducted by Yaici (2019) shows that the perception of people regarding business obtained through social networking can have an impact on people's entrepreneurial perceptions in high-income countries. This supports the finding in the regression results that social media use has a positive significant relationship with perceived opportunity and entrepreneurial intention.

High-income countries are considered to have a promising environment, with a higher chance of success than low-income countries. According to the Yaici survey (2019), environmental factors play a critical role in the development of entrepreneurial intention among individuals. The combination of this fact and the confidence individuals obtain through analyses of business opportunities in social media complements the confidence to start a business. In both high- and low-income countries, social media can be viewed as a tool that enables users to analyse, visualise and understand the structure of the social network to derive maximum benefit (Pérez-González, 2017). Some social media platforms provide users with information relating to their business and go to the extent of identifying users with similar entrepreneurial interests. These features help individuals to create a connection with users who have similar intentions within these platforms. Then, they can share relevant information that promotes participants' intentions to engage in

entrepreneurship. A platform such as LinkedIn provides access to digital content, as well as allowing communications among entrepreneurs, thereby making information available to all members of the platform (Tussyadiah et al., 2015). The advantage that individuals living in high-income countries have is that it is easy for them to identify online users with similar entrepreneurial interests, due to similar environmental settings.

Available information on the platform can influence participants' behaviour positively and improve their intention towards entrepreneurship activities. In addition, due to its distinguished youth-intensive energies, the availability of internet services and research centres in high-income countries, it allows entrepreneurs to start their projects in the right conditions. The World Bank (2020) maintains that doing business in high-income economies remains the global benchmark for most businesses in 2020. High-income countries provide an environment that is most suitable for starting a business, especially in matters regarding regulation and taxation (The World Bank, 2020). According to the results of this study, individuals in low-income countries are not affected by the use of social media the same way as those in high-income countries. The lack of association between social media use and entrepreneurial intention can be attributed to other factors in low-income countries, such as lack of access to technology, poverty, government regulations, level of corruption and illiteracy.

Even though social networks may provide insight and information on a business for an individual in a low-income country, access to finance will be among the main reasons why they are not triggered to undertake true entrepreneurial activity (Vega-Redondo et al., 2020). In addition, people in low-income countries are more likely to work in more than one type of job (Bahia et al., 2021), and hence can be using technologies such as the internet and social media to transition from one type of job (wage employment, farm employment) to another job (non-farm self-employment). However, this transition can vary based on the education and skill level of the people living in such countries. For example, in their study, Bahia et al. (2021) found that the roll-out of 3G networks in a country such as Tanzania led to a considerable reduction in wage and farm employment and increase in entrepreneurial activity, such as non-farm self-employment. However, the authors point out that this transition varied based on age, gender and skill level.

The benefits that come with social media are limited to how well these social sites are managed, as well as the utilisation of information obtained. Poor management of social sites or organisations that allow the use of anonymous social media platforms can lead to divisive and political influence among entrepreneurs. In low-income countries, management of social media sites could be a challenge to managers due to the lack of resources and technological knowledge, resulting in a decline in entrepreneurial intention with the increased use of the social network, as shown by the results in the study. Building trust is one of the major problems that stand in the way of the prosperity, expansion and spread of social media around the world, since transactions between entrepreneurs or e-store owners and customers are not done face-to-face (Fairlie and Robb, 2008). This is done through the virtual world, and therefore customers are always in doubt, especially if they are dealing with an online store for the first time. Social media sites in low-income countries lack credibility and trustworthiness in providing information updates, recommendations and neutrality, leading to reduced intention to engage in entrepreneurial activities among social platform users (Vega-Redondo et al., 2020). Credibility is an essential factor in consumers' decision-making process and, consequently, affects their intentions and behaviour in engaging in entrepreneurial activities.

Social media has far-reaching benefits in business operations for both the business owners and the consumers (Xu et al., 2012). However, the adoption of social media in business operations revealed that entrepreneurs might be reluctant to use social media in their business, due to a lack of connections between their investment’s target customers and social media. In low-income countries, potential customers may lack the ability to access the internet for various reasons associated with poverty, such as lack of technology. When entrepreneurs in low-income countries intend to start a business that targets people without internet access, they may find little or no influence in social media usage. A population that is from a poor background in a low-income country may be characterised by individuals who have limited access to technological equipment, such as phones and computers. Potential customers may also be uneducated, without exposure or the know-how to use the social media platform to engage in entrepreneurial activities. In other instances, organisations in low-income countries with limited capacities also fail to engage social

media use in their operation due to the limitation of products, services, employees and tight schedules, and the income level of their targeted customers.

Similar results of the whole sample regression are obtained for the independent variables. Ease of doing business is significant in all three regressions for high-income countries, at the $p<0.01$ significance level. However, the relationship is positive for the *perceived opportunity* and negative for both *perceived capability* and *entrepreneurial intention*. The relationship in lower-income countries is similar; only *perceived opportunity* has a different result, showing no significance. Compared to low-income countries, high-income countries' environments generally allow better nurturing of start-up businesses. Furthermore, high-income countries have better business regulations that enable them to function in available markets in the country (The World Bank, 2020).

GDP per capita is positive and significant in all three regressions for high-income countries at the $p<0.01$ significance level. In low-income countries, the relationship with *perceived opportunity* is negative and slightly significant at $p<0.1$, while *perceived capability* is positive but only marginally significant at the $p<0.05$ significance level, and *entrepreneurship intention* is positive and significant at the $p<0.01$ significance level. This demonstrates that, even among high-income countries, a higher GDP per capita leads to better perception of business opportunities, *capabilities* and *intentions*. According to the World Bank (2020) ranking of countries that were best to do business in, the top-ranked countries had better economies and substantial growth in GDP in the previous years.

Unemployment, age, and sex seem to have the same effect as in the whole-sample regressions above. However, the effect of education on the dependent variables seems to differ. For the low-income regressions, education has a negative effect on perceived business *opportunities* while in high-income regressions education has a positive and significant effect. It can be argued that, in high-income countries, educated people are more aware of good market conditions and are more optimistic about business opportunities. The population in high-income countries is, indeed, well aware of the potential social media has for influencing their businesses. Entrepreneurs that are aware of social media's impact on business may continuously rely on social media for up-to-date

information on market trends and customer behaviour, for increasing their customers' experience, improving their own skills or changing their beliefs (Jones et al., 2015; Srinivasan and Venkatraman, 2017). These capabilities are gained from personal education, previous experiences in the line of duty and offline society that are more engaging in developed countries (Poushter et al., 2018). Therefore, the positive impact social media has on opportunity discovery and creation is well utilised in developed countries, due to their higher levels of education and information.

Additionally, some of the arguments that "techno-pessimists" put forward, such as that social media has become a major source of dissemination of fake news, are often used to stir social movements, (Kidd and McIntosh, 2016) and might also play a crucial role in explaining why social media is better utilised for identifying perceived business opportunities in high-income countries than in low-income countries. For instance, research (Amedie, 2015; Chen et al., 2018; Moravec et al., 2018) has identified that social media has now become one of the major sources of dissemination and consumption of fake news, triggering social movements in both high-income and low-income countries (Kidd and McIntosh, 2016). Research is lacking, however, on the ways the dissemination and consumption of fake news, and factors such as age, gender, culture, and education, might affect social media adoption, especially in low-income countries (Rampersad and Althiyabi, 2019).

It is possible that factors such as age, gender and education may have varying effects on social media adoption and building perceptions about the opportunities that social media might present to citizens of countries with different levels of incomes, literacy, and culture. In other words, it is likely that some of the educated citizens from low-income countries might perceive social media platforms in their countries as sources of fake news and misinformation, used largely to participate in social movements and stir social and political turmoil in their countries. Such citizens might become "techno-pessimists" and may consequently refrain from using social media to engage in any kind of networking activity. Apart from this, the assertion by "techno-pessimists" that social media can trigger high-risk activism and have revolutionary potential may lead many political leaders, especially in low-income countries, to not only monitor the use of social media through high levels of surveillance on users' activity but even impose censorship, bans or blackouts on some social media platforms (Kidd and McIntosh, 2016). This high level of surveillance and bans

on some social media sites are also likely to demotivate many entrepreneurs from using social media to start, effectively engage and expand their business.

In this section I analysed individual level regression results with whole sample, male/female subsamples and high-low income country subsamples. Overall, the results of this section indicate that social media use in a country is a significant determinant of entrepreneurial business perceptions. In addition, the gender of the respondent and the country's income level (high income vs low-income) play an important role in the effect of social media use on entrepreneurial perceptions.

Table 3-8: Regression result for high-income and low-income countries

	High Income Countries			Low Income Countries		
	(1)	(2)	(3)	(1)	(2)	(3)
VARIABLES	Opportunity	Capability	Entrepr. Intention	Opportunity	Capability	Entrepr. intention
socialuser	0.00309***	-0.00125**	0.00240***	0.0181***	-0.00877*	-0.0310***
	(0.000666)	(0.000638)	(0.000489)	(0.00522)	(0.00495)	(0.00452)
Ease	0.00833***	-0.00581***	-0.00600***	0.0171	-0.0489***	-0.0820***
	(0.00139)	(0.00132)	(0.000880)	(0.0125)	(0.0118)	(0.0107)
Gdp	0.00557***	0.00571***	0.0034***	-0.361*	0.424**	1.432***
	(1.61e-06)	(1.49e-06)	(9.94e-07)	(0.208)	(0.196)	(0.181)
unemploy	-0.0754***	0.0516***	-0.00151	-0.269	0.489***	1.168***
	(0.0135)	(0.0123)	(0.00864)	(0.169)	(0.158)	(0.153)
education	0.0111***	-0.0116***	-0.00323	-0.0573***	0.0768***	0.109***
	(0.00427)	(0.00389)	(0.00264)	(0.0180)	(0.0172)	(0.0151)
Age	-0.00197***	0.000693***	-0.00380***	5.50e-05	0.00170***	-0.00195***
	(8.36e-05)	(8.15e-05)	(5.60e-05)	(0.000202)	(0.000193)	(0.000174)
Sex	-0.0426***	-0.135***	-0.0362***	-0.0338***	-0.0729***	-0.0310***
	(0.00240)	(0.00237)	(0.00166)	(0.00495)	(0.00466)	(0.00438)
Constant	-0.592*	1.787***	1.020***	1.139***	-5.830**	0.130
	(0.323)	(0.315)	(0.217)	(0.198)	(2.267)	(0.184)
Observations	147,608	170,081	169,203	39,613	41,756	40,876

	High Income Countries			Low Income Countries		
	(1)	(2)	(3)	(1)	(2)	(3)
VARIABLES	Opportunity	Capability	Entrepr. Intention	Opportunity	Capability	Entrepr. intention
R-squared	0.106	0.045	0.162	0.025	0.074	0.098
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

3.6.2 Country level Regression

This section focuses on the aggregate outcomes of regression analysis at the country level. To find relevant results for this study, the research aims to find out how people in a country respond to their business counterparts when they use social media to launch a business. This macro-level approach seems to better suit the data, as social media use data, as well as some other control variables, are already at the country level. For the regression analysis, three dependent variables were used at the country level. The first one includes perceived opportunities (*opportunities*), which is the percentage of individuals in a country who believe there is a probability of starting a venture in the next six months in their immediate environment. The second is perceived capabilities (*capabilities*), which is the percentage of individuals in a country who believe they have the required skills, knowledge and experience to start a new venture. The third is entrepreneurial intentions (*intention*), which is the percentage of individuals in a country who expect to start a business within the next three years.

The independent variable is the use of social media at the country level, which is a measure of the percentage of the population who use social media. The control variables are standard macro-level variables, such as GDP per capita, ease of doing business, education rate and unemployment rate. For accuracy and robustness of the result, three sets of regression are run. The first is with the whole sample of countries with the three dependent variable; the second is run using data from high- income countries and the third only with data from low-income countries.

The macro or country-level regression equation is as follows:

$$Dep.Variable_{it} = \beta_0 + \beta_1 socialuser_{it} + \beta_2 ease_{it} + \beta_3 gdp_{it} + \beta_4 unemploy_{it} + \beta_5 education_{it} + X_i + \beta_9 T_t + u_i$$

The results of the first set of regressions are presented in Table 3.9 below. As seen in the table, social media use is positively and significantly associated with *perceived capabilities* and *entrepreneurial intention*, at the $p<0.05$ and $p<0.1$ significance levels, respectively. The social media use coefficient in the second regression suggests that a one-percentage-point increase in social media use in a country will lead to a 0.22 percentage point increase in the *perceived*

capabilities of its people. Similarly, the coefficient in the third regression suggests that a one-percentage-point increase in social media use in a country will lead to a 0.2 percentage-point increase in the *entrepreneurial intentions* of its people.

The results support the first and third hypothesis statements. The data, indeed, show a positive relationship between the use of social media and perceived capabilities. Social media has presented many entrepreneurs with a chance to gain new information that enhances their capability to sustain a business model. Abbas et al. (2019) confirmed in their research article that social media has an impact on learning behaviour that enhances knowledge in sustaining education, which improves capability in business. Studies by other researchers suggest that, when the consumers in the population use social media, they are most likely to be influenced by information from celebrities, friends and even social media influencers to make purchasing decisions. Indeed, new millennial consumers are influenced more by social media on decisions they make concerning consumer products (Alhaimer, 2019). For this reason, entrepreneurs may feel more confident and capable of achieving business success through the use of social media, such as having influencers and celebrities create awareness of their products.

The positive relation between social media use and entrepreneurial intention of people in a country was an expected outcome of the study. It supports the third hypothesis that there is a positive relationship between social media and entrepreneurial intention. Previous researchers also support the claim: research conducted by Mirvahedi et al. (2019), where entrepreneurial intention was derived from Linan's entrepreneurial intention model, suggests a significant positive relationship between social media use and the components of Linan's entrepreneurial intention model. These components include attitudes of entrepreneurial behaviours, self-belief and social norms. In Mirvahedi's study, the scholars found that self-belief, which is a component of entrepreneurial intention, had the most significant effect when the population sampled used social media (Mirvahedi et al., 2019). However, no significant association between social media and perceived opportunities was evident in the country-level results.

For the control variables, ease of doing business and GDP per capita, the results show that they do not have a significant relationship in any of the three regressions. These results contradict previous

research that shows the ease of doing business spurs entrepreneurship levels in a country (Erastus, 2020). Erastus's research showed that economies that had a better environment for business had significantly higher levels of entrepreneurial activity. In the case of GDP, a research gap exists that explains how the GDP influences entrepreneurial activity. The unemployment control variable is significant and negative for *perceived opportunities* at $p<0.01$ significance level. This suggests that a 1% increase in unemployment rate leads to a 1.8% decrease in the average *perceived opportunity* of a country. Therefore, in countries with high unemployment rates, people's perception of good business opportunities is relatively low. This can be explained by the fact that whenever the number of unemployed people increases, they increase the burden on the employed to support them (Blinder, 1988). The obligation to support others, especially relatives, may imbalance the ability to recognize opportunities for opening a business, because the individuals lack surplus money which they can use to think of opening a business.

The education control variable is negative in all the three regressions; however, it is only significant for *perceived opportunity* and *perceived capability*. The coefficients mean that a one percent increase in *education rate* leads to a 0.9% decrease in *perceived opportunities* and about 0.5% decrease in *perceived capabilities*. A study conducted by Brännback et al. (2005) supported the findings of decreased perception of opportunities in an educated population. However, the researchers found that education specifically related to entrepreneurial activity seemed to improve the perception of entrepreneurial opportunity and capability among educated individuals (Brännback et al., 2005). Nonetheless, there is still a gap in research on how education directly affects entrepreneurial perceived opportunity and capability.

Table 3-9: Country level regressions (All Countries)

	(1)	(2)	(3)
VARIABLES	Perceived Opp.	Perceived Cap.	Entrepreneurial Int.
Socialnetusers	0.116	0.223**	0.200*
	(0.161)	(0.109)	(0.109)
Ease	0.273	-0.279	-0.0382
	(0.229)	(0.259)	(0.206)
Gdp	0.384	-0.317	0.124
	(0.346)	(0.245)	(0.228)
Unemploy	-1.820**	0.000139	-0.435

VARIABLES	(1) Perceived Opp.	(2) Perceived Cap.	(3) Entrepreneurial Int.
	(0.735)	(0.360)	(0.468)
Education	-0.901***	-0.486**	-0.261
	(0.306)	(0.212)	(0.205)
Constant	70.47**	64.57***	24.96
	(27.71)	(21.33)	(19.69)
Observations	137	137	137
R-squared	0.916	0.937	0.956
Country FE	YES	YES	YES
Year FE	YES	YES	YES

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

3.6.2.1. High-income and low-income countries (country-level)

The second and third set of regressions compare high-income and low-income countries, presented in Table 3.10 below. Since these were cross-country regressions, the country dummy variable was not included, meaning that the results were not calculated under country fixed effects. This is because the number of observations was quite low, due to missing observations, and including country dummies does not allow us to estimate coefficients (i.e., too many independent variables versus a small number of observations).

As expected, the results of the regression coefficient of social media use are all positive in all three regressions in high-income countries. However, only *perceived capability* and *entrepreneurial intention* are significant at the p<0.01 significance level. Other control variables also show some significant relationship in the three regressions. On the other hand, there is no significant relationship between the independent variables in any of the three regressions in low-income countries.

However, the regression analysis lacks a significant number of observations, since only 16 countries' data was used. As a natural consequence, this can explain the insignificant relationships between the variables in all three regressions. Given the conditions of the research, social media users still show a positive relationship in all three regressions, but this is not statistically

significant. I conclude that the use of social media in high-income countries impacts entrepreneurial intentions.

Given the small sample size of low income countries, I do not make any strong claims. Although the use of social media variable is positive in all three regressions, it is not statistically significant. Due to social media, some models of businesses, such as online shops, have thrived in low-income countries (Bardasi et al., 2011). The main difference between high-income and low-income countries in regard to social media is internet access. According to research conducted by Ali (2011), high-income OECD countries had approximately 67% of their population able to access the internet. This was considerably higher than compared to low-income countries such as those in Latin America, Sub Saharan Africa and the Middle East, who had 24.5%, 3.8% and 15.9% of their population, respectively, with the ability to access the internet (Ali, 2011). With limited internet access, the impact of social media use is not fully experienced compared to when the population has better internet access. Additionally, access to social media in some of these countries may also be limited or their use highly monitored, which might further have a negative impact on entrepreneurial intention. For instance, many of these countries are characterised as having high levels of "techno-pessimism", where the use of social media is highly censored and closely monitored by the government (Kidd and McIntosh, 2016).

Table 3-10: Country level regressions (High-Income vs Low Income)

	High Income Countries			Low Income Countries		
	(1)	(2)	(3)	(1)	(2)	(3)
VARIABLES	Perceived Opportunity	Perceived Capability	entrepreneur Int.	Perceived Opportunity.	Perceived Capability	entrepreneur Int.
socialnetusers	0.363	0.365***	0.454***	0.277	0.996	1.420
	(0.236)	(0.135)	(0.131)	(0.369)	(0.718)	(1.046)
ease	-0.239	-0.615**	-0.418*	0.636	0.712	0.312
	(0.313)	(0.247)	(0.249)	(0.389)	(0.599)	(0.959)
gdp	0.206**	-0.162**	-0.258**	-0.986	1.458	-3.602
	(0.0888)	(0.0731)	(0.108)	(2.669)	(4.976)	(6.752)
unemploy	-1.346***	-0.412*	-0.608***	-0.767	-2.766	1.408
	(0.374)	(0.218)	(0.203)	(1.311)	(2.393)	(3.218)
education	-0.0336	0.0523	-0.0494	-0.442	-0.710	-0.703
	(0.0763)	(0.0639)	(0.0863)	(0.449)	(0.867)	(1.184)

	High Income Countries			Low Income Countries		
	(1)	(2)	(3)	(1)	(2)	(3)
VARIABLES	Perceived Opportunity	Perceived Capability	entrepreneur Int.	Perceived Opportunity.	Perceived Capability	entrepreneur Int.
Constant	54.88*	92.26***	52.85***	12.02	9.957	-9.759
	(28.46)	(19.43)	(19.46)	(25.81)	(44.11)	(67.79)
Observations	79	79	79	16	16	16
R-squared	0.501	0.375	0.428	0.842	0.854	0.718
Country FE	NO	NO	NO	NO	NO	NO
Year FE	YES	YES	YES	YES	YES	YES

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

3.6.3 Internet Users and Entrepreneurial Indicators

Internet use data is more widely available and goes back farther than the data on social media use. Apart from social media, the internet has other factors that can influence entrepreneurial behaviour. This can be said to be especially true in low-income countries, as shown by a recent study conducted by Bahia et al. (2021). Examining the impact of the expansion of mobile broadband coverage in a low-income country such as Tanzania, Bahia et al. (2021) found that the areas that were covered by 3G networks were more likely to show an increase in entrepreneurial activities, such as non-farm self-employment. To ascertain the findings of this research, another set of regressions was run, using the internet use variable in place of social media use. Not every internet user is a social media user. Chaffey (2020) indicated that more than half the population of the world uses the internet. Of those users, nearly three quarters are social media users (Chaffey, 2020). For this reason, the results were interpreted cautiously, understanding that internet use does not fully reflect social media use.

Table 3.11 shows how each of the entrepreneurial behaviour and perceptions at an individual level is affected by internet use as the independent variable. Other control variables used in the regression analysis include ease of doing business, GDP per capita of a given country, unemployment, education, age, and sex of the individual participant. Results show that the coefficient of use of the internet is significant in all three regressions at the p<0.01 significance level. However, one of the regressions (*perceived opportunity*) has a negative relation with the use

of the internet. This means that a 1% increase in internet use decreases the perception of having good business *opportunities* by 0.3%, increases the probability of having *capability* by 0.16%, and increases the probability of *entrepreneurial intention* by 0.1%.

The finding of a negative relationship between internet use and perceived opportunity is not consistent with the previous regression findings that used social media as the independent variable. One possible explanation for this is that the data for internet use goes back to 2007, when social media was not popular at all. Nowadays, social media has been identified as one of the factors that trigger entrepreneurial alertness to business opportunities (Iqbal and Rehman, 2011). Hence, it can be argued that social media has opened a completely new world for people and their entrepreneurial perceptions.

The relationship between internet usage and perceived capability was anticipated. In the last decade, the internet has dominated many areas of business and life. Several new terms have appeared with the development of the internet, including e-business, e-commerce, e-marketing, etc., that have led businesses to evolve and made entrepreneurs able to conduct business with ease. Nowadays, there is software interconnected through the internet that allows organisations and entrepreneurs to manage their internal and external environmental relationships efficiently (Krcmar et al., 2012). This type of efficiency the internet has brought helps entrepreneurs to serve their administrative roles efficiently and boosts their confidence to face competition in a volatile market. The internet has made businesses more efficient; it has provided entrepreneurs ease of making trades, consulting, making deals, and more importantly, speed of making transactions.

These capabilities are different from those obtained when entrepreneurs use social media. According to Perry-Smith (2006), the internet has positively impacted entrepreneurship in different ways, which include productivity improvement, the security of information and image, and the reputation of the business. Therefore, the impact of the internet on the entrepreneur's venture is fundamental and plays a very important role in the improvement of the business. Despite some challenges to its use, if an entrepreneurial venture is well conversant with the internet, they will control its use and achieve great success in their business.

Indeed, entrepreneurial intention may be enhanced by using the internet. First, the internet plays an important role in facilitating customer interaction (Krcmar et al., 2012) through providing a means of collecting valuable consumer behaviour data, which can then be constructed in a purposeful way to generate customer information. Information about consumers is essential in business start-ups to predict the trends entrepreneurs should expect after opening a business. The internet has made access to information in modern society easy. Through research and analysis, the internet allows entrepreneurs to gain confidence and information about their start-up ideas. This has worked effectively in heightening the intention of entrepreneurship. The internet contains all the learning materials necessary to be aware of the best and viable business concepts at no cost. Therefore, the use of the internet helps entrepreneurs gain viable concept information to start a business and makes them more confident to pursue their entrepreneurial intentions.

For the control variables, a similar significance of regression coefficients is obtained to that of social media analysis. However, for the third regression for *Entrepreneurial intention*, the coefficients of GDP and education have the opposite sign compared to table 3.6 above. In the third regression of entrepreneurial intention, the GDP coefficient is negative but not significant; unemployment has a positive and significant coefficient; and education has a negative and significant coefficient. The positive relationship between GDP and internet use suggests that businesses perform better when internet technologies are involved, thus contributing to the GDP (Khim-Sen Liew and Suhaimi, 2012). The use of the internet is also associated with an increase in the level of education, due to the information available on the internet through research and analysis (Khim-Sen Liew and Suhaimi, 2012). The regression results for the relationship between internet use, perceived capability and age was positive 0.000549, in contrast to the social media regression results, which was negative -0.000388. This is because the use of the internet to gain more business information improves the capability of older people, who are not used to the information age, more than it assists younger people, who are already in the information age (Barbosa Neves et al., 2018). For that reason, the information obtained by using the internet improves the capability of older people to engage in business.

Table 3-11: Internet Usage as Independent Variable

VARIABLES	(1) Opportunity	(2) Capability	(3) Entrepreneurial intention
netuser	-0.00307***	0.00160***	0.000988***
	(0.000162)	(0.000153)	(0.000100)
ease	0.000127	-0.000382**	-0.00159***
	(0.000174)	(0.000169)	(0.000113)
gdp	0.00326***	0.00106***	-6.30e-05
	(0.000213)	(0.000200)	(0.000109)
unemploy	-0.00781***	0.00422***	0.00127***
	(0.000255)	(0.000248)	(0.000152)
education	-0.00105***	-0.00208***	-0.00126***
	(0.000145)	(0.000139)	(9.63e-05)
age	-0.00178***	-0.000388***	-0.00371***
	(3.36e-05)	(3.28e-05)	(2.17e-05)
sex	-0.0505***	-0.135***	-0.0498***
	(0.000935)	(0.000927)	(0.000649)
Constant	0.754***	0.810***	0.619***
	(0.0129)	(0.0124)	(0.00878)
Observations	958,895	1,094,402	1,203,928
R-squared	0.116	0.067	0.173
Country FE	YES	YES	YES
Year FE	YES	YES	YES

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

3.7 Conclusion

This chapter establishes the importance of social media prevalence as a determinant of entrepreneurial perceived opportunities, entrepreneurial perceived capabilities, and entrepreneurial intentions. Based on the theory of reasoned action, the intention to start a business serves as a major determinant for entrepreneurs' behaviour and belief towards using social media. The study shows a strong positive relationship between social media use and entrepreneurial perceived opportunities, perceived capabilities and intention at an individual level. Undoubtedly, the extensive spread of social media sites, such as Facebook, Twitter, Instagram and other platforms, has given a real opportunity to entrepreneurs and SMEs; easy access to the largest possible audience. Not only that, but these sites have opened their various windows for entrepreneurs to practise promotional operations to introduce their products, as well as direct sales.

In addition, governments should realise the critical part that social media enterprises play in enhancing the economy, and it is for these benefits that investment from governments in this area becomes necessary.

The theory of reasoned action suggests that entrepreneurial attitudes were a result of internet and social media activities. The theory has proven useful in understanding the investigation of entrepreneurial perceived opportunity, capability and entrepreneurial intentions associated with social media use as the control variable. The theory contributes to understanding and comparison of the different perspective benefits associated with the use of the internet and social media. In essence, a better understanding has been achieved of whether social media use is valuable to entrepreneurs, taking into account other environmental effects that affect entrepreneurship.

Country-level regression results are largely consistent with the individual level regression results. However, the analysis is keen to find valid explanations from previous researchers regarding the variations. Nonetheless, findings are consistent with results from most previous studies, as discussed above, showing that the use of social media and social networking sites plays an important role in providing relevant information that motivates participation in entrepreneurship and helps to identify areas for a new venture and those that require innovative actions. Despite the strong findings of the research, the study has also exposed several gaps in research observed during the analysis. Future research, quantitative and qualitative, could usefully explore how social media use impacts entrepreneurship intentions in high-income countries compared to low-income countries and how economic development and education influence perceived opportunities and capabilities.

This study contributes to the literature on entrepreneurship by providing empirical evidence for the claim that social media can influence entrepreneurial behaviour, capabilities and intention in high-income and low-income countries and has implications for policymakers, investors and entrepreneurs.

Chapter 4: The Role of Institutions in Moderating the Effect of Social Media on Entrepreneurial Intentions

4.1 Introduction

Over the years, the use of social media has increased considerably, especially among young people. According to Kaplan and Haenlein (2010), social media has become an essential part of our lives and it has changed both our lives and business practices. The intensity of social media use and its growing popularity leads to the natural question of how social media use affects entrepreneurial behaviour and the intentions of people. In the previous chapter, I showed the significance of social media when it comes to shaping entrepreneurial intentions and behaviour on average. However, there are plausible country-specific factors that could shape the nature of the relationship between social media and entrepreneurial intentions.

Past studies (Lim et al., 2010; Engle et al., 2011; Estrin et al., 2013; Urbano and Alvarez, 2014; Ozaralli and Rivenburgh, 2016; Wannamakok et al., 2020) examining the antecedents of entrepreneurial intentions have concluded that the institutional environment in which a person lives not only plays a crucial role in determining entrepreneurial intentions, but also helps in understanding why entrepreneurial activity differs across countries. However, a lot of these studies examine the association of institutional dimensions such as labour regulations, trade freedom, protection of property rights and investment freedom on entrepreneurial intentions with little or no focus on examining the interplay between these institutional dimensions and emerging technologies, such as social media on entrepreneurial intentions. In other words, it can be stated that there is a lack of research examining the effect of social media on entrepreneurial intentions in high-institutional countries compared to countries with low institutional quality. Therefore, in this chapter, I examine how institutional quality moderates the effect of social media use on entrepreneurial perceptions. Following extensive literature (Chong and Zanforlin, 2000; Acemoglu et al., 2001; Robinson et al., 2005; Bruno, 2008; Kandil, 2009; Zhuang, 2010; Javed, 2013; Lehne et al., 2013) in economics and political science, I use the strength of the rule of law as a proxy for institutional quality.

Property rights have historically been considered the cornerstone of institutional quality. Adam Smith ([1776] 1976) in "Wealth of Nations" emphasized the importance of property rights for economic development. He stated that "commerce and manufactures can seldom flourish long in any state which does not enjoy a regular administration of justice, in which the people do not feel themselves secure in the possession of their property, in which the faith of contracts is not supported by law …" North (1990; 1994; 1997) argued that successful economies have property rights that encourage markets, trade, and investment in the direction of new production and organisational methods. According to North, institutions are human-devised constraints that structure political, economic and social interactions. This means that they create and establish the norms, rules, constraints, and incentives that operate as the tools of governance for exchanges among individuals.

The practices of both existing businesses and potential business ideas are partly driven by the surrounding institutional environment. For example, studies (Wei, 2000; Fisman and Svensson, 2007; Beekman et al., 2013) have found that corruption has a negative impact on firm growth, reduces income-generating activities and has a negative impact on the flow of Foreign Direct Investment (FDI). On the other hand, it has been found that a strong institutional environment, characterized by strong rule of law, marked by protection against corruption, and the existence of intellectual property rights, positively influences entrepreneurial intentions and activities (Bakkar et al., 2021). Therefore, it would not be wrong to argue that entrepreneurial decision-making is influenced by a combination of political, economic and legal institutions (Baumol, 1990).

Building upon the vast literature on institutions, I examine how technological shocks (social media) affect business attitudes and decisions in high/low rule-of-law countries. The effect of social media, which can be considered a relatively new technology, is moderated by institutional quality. While the institutional environment directly shapes entrepreneurial intentions/perceptions, it indirectly influences them through social media. Following the findings of the preceding papers, the natural hypothesis is that higher social media use will be more effective in terms of new business and positive business perceptions in countries with a higher rule of law.

I analyse the effect of social media use on entrepreneurial intentions/perceptions under environments of different institutional quality. By allowing the effect of social media to change with the rule of law (introducing an interaction variable in the model), I investigated the effect of social media use on entrepreneurial intentions, measured by "*good business opportunity perception", "having required skills for starting business", and "intention to start a business in the near future".* I pursue a macro-level analysis using a panel of countries to investigate social media and business perceptions under different institutional settings. There were macro-level control variables, such as the ease of doing business, GDP, unemployment and education. Although the relationship between the institutional quality of a country and the role it plays in determining entrepreneurial intentions has been studied extensively in the literature, to my knowledge, this is the first study that analyses social media use and entrepreneurial intentions while taking into account the institutional quality environment.

4.1.1 Summary of the Key Findings

I use three business indicators as the dependent variables in this study: *the perceived opportunity, the perceived capability to run a business, and the intention to start a business*. In the previous chapter, the results show that social media significantly influences all three business indicators at the individual and country levels (whole sample). However, in this chapter, I am mainly interested in how institutional settings (the rule of law) influence the effect of social media on entrepreneurial intention. I adopt a dual approach to answer this question and use macro-level analysis with country and year fixed effects. Macro-level analysis looks at how changes in the level of use change the intensity of entrepreneurial intention/activity.

I find that the effect of social media use on *entrepreneurial intentions* depends significantly on the institutional environment. The key finding of this study is that social media use is more effective in increasing decisions to start a business in countries with a high level of rule of law compared to countries with lower levels of rule of law. For macro-level analysis, this result implies that, as social media use in a country increases, average *entrepreneurial intention* increases in general and this increase is more marked in high rule-of-law countries.

However, in the *perceived opportunity* regression, I find that the interaction is positive but not significant. This implies that social media use on *perceived opportunity* is not statistically higher in high rule-of-law countries. One plausible reason for this would be the extent or size of the shadow economy. In their study, Johnson et al. (1997) indicate that the size of the shadow economy is positively associated with the level of corruption and the quality of the rule of law.

On the other hand, the country-level results suggest that *entrepreneurial intention* is positively affected by social media. In addition, as shown in the summary statistics below, people with a lower rule of law have a higher intention to start a business as they face a lower burden of red tape and (official) taxes. This is unlike high rule-of-law countries, such as the United States, Switzerland, and other OECD countries, where the shadow economy is relatively small or below 20% of GDP, whereas in countries in Latin America and Sub-Saharan Africa, the shadow economy accounts for 38-40% of GDP (Medina and Schneider, 2019).

The chapter proceeds as follows. In the first sections, I establish the theoretical foundation of my study. Secondly, I review the extant literature on entrepreneurial intentions, social media and institutional quality. I then describe the data, provide a descriptive summary and develop the models and specifications. Next, I present the empirical results for country levels and conclude by discussing the results.

4.2 Theoretical Foundation

4.2.1 Theory

My investigation is based on institutional theory. Institutional theory posits that institutions not only influence the economic activities in a country but also determine the behaviour of firms (Paniagua et al., 2017). In his study, Dove (2019) argues that the institutional environment prevalent in any country strongly affects entrepreneurial activity. Introducing the concept of institutions where the formal written rules and regulations, etc., are "rules of the game", and organisations and entrepreneurs are "players," North (1994) states that these rules ultimately have an impact on entrepreneurial activity. One of the most prominent aspects of these institutions is the regulatory environment of a country. Much of the past research (Klapper et al., 2006; Dreher

and Gassebner, 2013; Dove, 2019) examining the impact of the regulatory environment on entrepreneurial activity has confirmed that a high regulatory burden has a negative impact on entrepreneurial activity.

In their seminal work, Acemoglu et al. (2001) studied the effect of institutions on economic performance. They used the mortality rates of early colonists as the instrument and found that institutions can explain a large proportion of the variation in GDP per capita. They also showed that geographical variables, such as the distance from the equator, become insignificant once the institutions are controlled for. Rodrik (1999) studied why the growth rate lacks persistence and argued that domestic social conflicts are the key to understanding these phenomena. According to Rodrik, democratic institutions, an independent and effective judiciary, an honest and non-corrupt bureaucracy, and institutionalized modes of social insurance are among the most significant conflict-management institutions. In his thesis, the strength of these institutions is measured by the rule of law and other relevant variables. The results indicate that participatory and democratic institutions, the rule of law, and social insurance are all components of a strategy used to enhance resilience to volatility in the external environment. The aforementioned articles demonstrate the importance of institutions, which is generally measured by the strength of the rule of law, in economic development.

The institutional environment affects innovation directly and low institutional quality environment hinders creation of innovative and productive firms. For example, many challenges face an entrepreneur's intentions, including the high cost of starting a business and operating it, difficulty when trying to obtain financing and a decent product/service distribution, bureaucracy and the style of management and leadership, and the organisational structures that frustrate creativity and innovation in entrepreneurship.

The government should address entrepreneurship issues by focusing on offering both external and internal support in the process of reviving entrepreneurs and ensuring that small businesses continue to expand. Furthermore, they could enhance their economy by reducing the costs required to operate small businesses, which would ensure that small businesses continue to thrive. The government may provide various incentives to encourage young entrepreneurs to establish new

companies that will ultimately generate jobs (Bergström, 2000). Such programs will offer prospective individuals and organisations financial support in the form of subsidies and loans.

Additional research has also examined the impact of institutional quality, measured using different institutional dimensions, such as the rule of law or the existence of a secure and well-defined legal framework, in addition to the strength of formal institutions, in shaping the economic incentives provided to new businesses/entrepreneurs, and the prevalence or control of corruption in government institutions (Agostino et al., 2019; Chambers and Munemo, 2019; Chen and Cheng, 2019) in relation to entrepreneurial activity. This research indicates that a strong institutional framework, or high institutional quality, that is supportive of entrepreneurship tends to result in greater numbers of productive entrepreneurs. In contrast, a less favourable institutional environment, characterized by low institutional quality, increases the barriers for new entrepreneurial activities.

However, what is missing from the above studies is an examination of the impact that institutional quality and the emergence of new technologies might have on entrepreneurial activity in countries with different levels of institutional quality. More specifically, there seems to be a gap in the literature about the effect of new technologies on businesses under different institutional settings. This is crucial because, as Berthon et al. (2012) argue, technology in general and the social media profiles of a country, or the most prominent social media types and the ways that they are used, largely depend on three things. These are the technology infrastructure; culture or shared values; and the government or institutional rules and regulations. The fact that government or institutional rules and regulations have a role to play in the ways that people use technologies or social media is highly relevant for my study, as social media use might be assumed to have a lower effect on entrepreneurial intentions, opportunities, and capabilities in countries where the use of social media is restricted or hampered by weak institutions or low institutional quality.

To summarize, institutions not only affect the business environment but also the way that social media affects the business environment. More research is needed concerning how governments, institutions and policymakers can increase entrepreneurial activity by making it easier for them to tap into the potential and opportunities offered by new digital technologies, such as social media,

fostering a culture of entrepreneurship or even digital entrepreneurship. Considering this, the present study aims to analyse the effect of social media use on entrepreneurial intentions/perceptions under different institutional quality environments.

4.2.2 Literature Review

The relationship between institutional quality and entrepreneurship within the business market or economy of a country has been studied extensively. Chambers and Munemo (2019) indicated that low-quality institutions harm entrepreneurship. Furthermore, high-quality institutions reward productive entrepreneurship and reduce rent-seeking behaviour, thereby diverting resources toward more productive activities. Conversely, Anokhin and Schulze (2009) argued that nations with strong institutional context not only support property rights and reward risk taking and invention, but also direct entrepreneurs towards innovation and the achievement of other economically productive ends. Martins et al. (2016) noted that government's regulatory institutions can create and promote the laws and requirements that firms must comply with in order to do business. They can also offer incentives to firms that adopt a given technology or practice.

This study contributes to the literature on intellectual property rights. Previously, intellectual property could be easily separated from any other field, such as information and communication technology. Today, it is not easy to do that, due to the information technology revolution. Entrepreneurs face many challenges in relation to intellectual property, especially artificial intelligence. Lee and Phang (2015) document how the development of social media has brought with it numerous issues, such as copyright infringement, the spread of unverified information and rumours. From this standpoint, and in light of the digital transformation, governments must establish a competent authority to register intellectual property for entrepreneurial projects on social media sites so that an entrepreneur can protect his/her idea, or innovation, from loss or theft. Social media seems to have changed not only business perceptions in general, but also the way that institutional quality and entrepreneurship are related. Summarizing this, it is hypothesized that:

Hypothesis 4 (H4): A country's institutional quality will positively moderate the effect of social media on entrepreneurial intentions

According to Reynolds (2010), the quality of the institutional environment influences an entrepreneur's attitudes, motives, and the ability to mobilize resources. A country's regulatory environment involves both the complexity of the regulations and the enforcement of them. Cumbersome regulations and delays in obtaining the necessary permits and licenses may delay the start-up process and could even deter individuals from engaging in entrepreneurship (Klapper et al., 2006; Van Stel et al., 2007).

On the other hand, the existence of corruption in a society increases the level of uncertainty and ambiguity for its entrepreneurs and renders every transaction less transparent (Uhlenbruck et al., 2006; Anokhin and Schulze, 2009). It adds additional costs onto each transaction. Entrepreneurs situated in a corrupt country, be it developed or developing, can be vulnerable to exploitation by the government authorities. Regulation becomes a tool to erect barriers to entry, so as to reduce the competition and raise incumbent profits, which harms entrepreneurship. Additionally, corrupt institutions crowd out entrepreneurship by increasing the cost of doing business. For example, obtaining permits, licenses, tax documents, and other necessary documents is very costly in the presence of corruption.

The impact of government institutions on new entrants is particularly high in regulated markets, such as pharmaceuticals, biotechnology, telecommunications, energy, and finance, in which the regulatory policies can raise the costs and influence entry through product standards and approval, pricing guidelines, and licensing rules (Dowell and Killaly, 2009). Historical minorities, such as women, tend to face more systematic and significant obstacles to entrepreneurship, having only a limited level of access to the resources (e.g., funding and time) required to launch a start-up (Guzman and Kacperczyk, 2018). Regulatory institutions will generate the intended effects by facilitating more equal access to resources and, therefore, disproportionately increasing the rate of women-founded ventures being established (Blanchflower et al., 2003). Therefore, it is hypothesized:

Hypothesis 5 (H5): Higher institutional quality is associated with a positive effect of social media on perception of business opportunity and the capability of running a business.

4.3 Data and Methodology

I continue to use the GEM variables that I used in the previous chapter. Since I focus on institutional quality in this thesis, I gathered the Worldwide Governance Indicators (WGI) data from 2007 to 2017 at country level for all countries that existed in the dataset. According to the World Bank, governance is composed of the traditions and institutions through which the authority in a country is exercised. It includes processes such as the selection and accountability of the government, the capacity of the government to effectively implement proper policies, and the respect of the people and government for the institutions that govern the economic and social interactions among them.

The WGI reported on the aggregate and individual governance indicators for over 200 countries and territories, using 6 dimensions of governance, including voice and accountability, regulatory quality, political stability and the absence of violence, the rule of law, government effectiveness and the control of corruption. Among these, the rule of law has been widely used in the literature as a proxy for institutional quality, because it is quite highly correlated with the other variables alone and with the institutional quality index that is created from the aforementioned 6 variables. In order to be aligned with the literature, I used the Rule of Law as my measure of institutional quality in a country. The Rule of Law index measures the perceptions of the incidence of crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts.

As in the previous chapter, the dependent variables measure entrepreneurial attitudes and intentions. The three dependent variables I use are seeing a good business opportunity in the next 6 months, *opportunity*; having enough skills and capabilities to start a business, *capability*; and having the intention to start a business in the next 6 months, *intention*. The main independent variable is social media use. This is a country-year level variable that measures the proportion of the population that uses social media. The control variables are the ease of doing business, GDP, education and unemployment. The ease of doing business index is a number between 0 and 100, and it measures how easy it is to do business in a country. As the index number goes up, it becomes easier to do business. GDPPC is the GDP per capita measured in US dollars. The education variable is the gross enrolment rate for tertiary education. This is the ratio of total enrolment,

regardless of age, in relation to the population of the age group that officially corresponds to the level of tertiary education, multiplied by 100.[8] Unemployment rate refers to the country level variable that measures the unemployment rate in a country for the given year.

4.3.1 Descriptive Summary

The main goal is to investigate whether the rule of law serves as a moderator for the effect of social media use on entrepreneurial intentions.

As a preliminary analysis and to show the structural differences between low and high rule of law countries, the whole sample is divided into two groups: low rule-of-law and high rule-of-law countries. I used the average Rule of Law in the macro level panel data as the benchmark for the low and high rule-of-law classifications. The rule of law is an important component of institutional quality. I think that it is worthwhile to investigate the high/low rule-of-law split because the rule of law is directly associated with the business environment and entrepreneurial perceptions. The mean value in the dataset for *Rule of Law* was 0.305. Most countries fall either above or below this benchmark and do not move up or down in the high/low classification. However, Georgia, Romania, Namibia, Croatia, Vanuatu, Jordan and Saudi Arabia changed their classification at least once over the time period of 2007 to 2017.

[8] In the summary table below, the highest value for education is 122 and belongs to Greece. So, for this country the number for tertiary education enrollment is greater than the population in the age range that corresponds to tertiary education level.

Table 4-1: Summary Statistics High-Low Rule of Law Countries (Country level data)

High Rule-of-Law Countries					
Variable	Obs	Mean	Std. Dev.	Min	Max
ease	530	85.34	10.44	16.90	98.23
gdp	525	34685	24002	2350	120857
education	418	65.98	20.66	6.13	122.40
unemployment	514	8.25	5.51	0.12	34.93
socialnetusers	119	54.18	13.37	16.00	84.00
percevoppo	351	37.57	16.00	2.85	81.53
percevcap	351	44.85	12.46	9.00	82.51
intention	351	14.86	11.51	2.30	71.94

Low Rule-of-Law Countries					
Variable	Obs	Mean	Std. Dev.	Min	Max
Ease	610	72.36	14.44	17.26	97.69
Gdp	611	5677	4872	249	41472
education	392	34.14	21.30	0.50	136.60
unemployment	608	8.48	5.94	0.49	28.93
socialnetusers	133	35.33	17.50	2.00	75.00
percevoppo	281	46.65	15.96	10.57	85.54
percevcap	281	57.97	15.51	8.65	89.48
intention	281	28.98	16.45	0.98	90.95

The rule-of-law differences between the countries are reflected in the variable values. For example, for ease of doing business, it is clear that it is easier to do business in high rule-of-law countries compared to low rule-of-law countries. The mean value for ease of doing business is 85.34 in high rule-of-law countries, whereas it is 72.36 in low rule-of-law countries. This sharp difference demonstrates that the business environment differences between the two types of countries are high enough to need accounting for. The mean value of GDP is found to be $34,685 for high rule-of-law countries, whereas it is $5,677 for low rule-of-law countries. This demonstrates the well-known relationship between the quality of the institutions, which is measured by rule of law in this study, and economic growth.

The mean value of the education rate is also higher for high rule-of-law counties. The mean value of the unemployment rate is slightly higher in low rule-of-law countries. The highest value for unemployment, however, is higher in high rule-of-law countries, which seems quite surprising. The variable of interest, social media use, has a mean value of 54% in high rule-of-law countries, whereas it is 35% in low rule-of-law countries. The highest value is 84% in high rule-of-law countries and 75% in low rule-of-law countries. The first of the dependent variables, *percevoppo* (perceived business opportunity), has a mean value of 37.5 in high rule-of-law countries and 46.6 in low rule-of-law countries. Therefore, a bigger share of people in low rule-of-law countries believe that there will be a better business opportunity.

Percevcap (perceived capability) has a mean value of 44.8 in high rule-of-law countries and 58 in low rule-of-law countries. This means that a bigger share of people in low rule-of-law countries believe that they are capable of running a business.

The variable of *intention* to start a business has a mean value of 14.8 in high rule-of-law countries, whereas it has a mean value of 29 in low rule-of-law countries. Therefore, a bigger share of people in low rule-of-law countries have the intention of starting a business. The main motivation for analysing the effect of social media use on entrepreneurial perception under different institutional or rule-of-law settings is the presumption of low and high rule-of-law countries being structurally different in terms of the business environment. The mean value differences presented in the summary statistics table above confirm this presumption and validate the rationale of my approach.

4.3.2 Model and Specifications

For the macro-level regressions, I estimate the ordinary least squares models using country fixed effects to account for time-invariant omitted variables and unobserved heterogeneity. I use clustered robust standard errors to prevent autocorrelation and heteroscedasticity, as suggested by Wooldridge (2002).[9] In order to incorporate the effect of rule of law on dependent variables directly and to control for the moderating effect of rule of law, I include the rule of law variable, as well as an interaction term, which is equal to the product of rule of law and social media use. This method will allow us to see if the rule of law is a moderating force in terms of how social media affects business intentions.

For the macro (or country) level regression equation:

$$Dep.Variable_{jt} = \beta_0 + \beta_1 socialuser_{jt} + \beta_2 ease_{jt} + \beta_3 gdp_{jt} + \beta_4 unemploy_{jt} + \beta_5 education_{jt} + \beta_6 Law_{jt} + \beta_7 socialuser * Law_{jt} + \beta_8 X_j + \beta_9 T_t + u_{it}$$

At the country level, the variables are the country averages of the individual survey values. For example, the *Opportunity* dependent variable is the share of individuals in a country that have a positive business opportunity perception. At the country level, I run an alternative regression with the entire sample with the Rule of Law dummy variable and interaction term, again to see if rule of law is a moderating force or not. I estimate the country level regressions using a standard OLS with country and time fixed effects.

4.4 Results and Discussion

This section is comprised of the following two significant sub-sections: country-level analysis with social media use as a primary independent variable, and country-level analysis with internet use as the primary independent variable.

[9] "vce cluster" option in Stata presents clustered robust standard errors

In the first sub-section, I present the country-level regressions. For the country-level regressions, the dependent variables are measured as the country averages and the simple proportions of individuals who said "yes" to the survey questions. I study whether the rule of law has a moderating effect on how social media affects entrepreneurial intentions. In the second subsection, I use an alternative, independent variable (alternative to social media use), internet use, to investigate the moderating effect of the rule of law.

4.4.1 Rule of Law - Country Level Regressions

I pursue the regressions for three main dependent variables at the country level. In the country-level regressions, the dependent variables are country averages. This implies that the cross country analysis looks at how the changes in the level of social media use affect the intensity of entrepreneurial intention and activity. The result will demonstrate how entrepreneurial perceptions and activities of people within a country change if there is a shock to the technology of social media use.

Following my strategy of using interaction variables to determine the moderating effect of the rule of law, I include an interaction term in the regression equations. The coefficient of interest is an interaction variable. The interaction term will demonstrate if the effect of social media on business intentions is greater for high rule of law countries. The table below presents the pooled regression results with interaction and the rule of law variables included. The coefficient of "Socialnetusers" shows the effect of social media when the rule of law is 0, because an interaction term, “socialnetusers*rule of law”, is also included in the regression. A zero rule-of-law country can be considered a low rule-of-law country because the average rule-of-law value for the whole sample is 0.644.[10] So, for a low rule-of-law country (i.e., rule of law=0), social media use positively and significantly affects "*Perceived Cap*" (perceived capability to run a business and "*intention*" (starting a business decision in the next six months). Based on the results, a one percent increase in the average use of social media leads to 0.24 points increase in the average *capability* value.

[10] The rule of law index takes values between -2.5 and +2.5.

Similarly, a one percentage point increase in average social media use in a country leads to 0.174 points increase in the average rate of starting-business decisions that country.

As expected, the coefficient of interaction is positive in all three regressions, but only significant for the "*intention*" (column 3) regression. For the *perceived opportunity* regression, the interaction is positive but not significant. This implies that the effect of social media use on *perceived opportunity* is not statistically higher in the high rule-of-law countries. The same argument applies to *perceived capability*. Finally, I see that the interaction variable is positive and significant for "*intention*", which means that, for starting a business, institutional quality (or the higher rule of law) is a moderating force in terms of how increases in social media lead to higher rates of decisions to start a business. Hence, at the country level, the results support Hypothesis 4, but for Hypothesis 5 the results, although positive, are not significant.

For a common rule-of-law country (i.e., rule of law=-2), the marginal effect of social media on starting a business decision is -0.226 (0.174-2*0.2). This means, for a common rule of law country, a one-point increase in average social media use leads to a 0.226 decrease in the average rate of decisions to start a business in a country. For a high rule-of-law country (i.e. rule of law=2), the marginal effect of social media on decisions to start a business is 0.574. This means that, for a low rule-of-law country, a one-point increase in average social media use leads to a 0.574 (0.174+2*0.2) increase in the average rate of decisions to start a business.

Table 4-2: Country Level Pooled Regressions with Interaction term

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Perceived Opp.	Perceived Cap.	Intention	Perceived Opp.	Perceived Cap.	Intention
socialnetusers	0.0777	0.244**	0.174*	0.128	0.294**	0.232*
	(0.134)	(0.108)	(0.0879)	(0.136)	(0.123)	(0.122)
ease	0.316	-0.176	0.0304	0.285	-0.208	-0.00596
	(0.189)	(0.159)	(0.144)	(0.183)	(0.155)	(0.131)
gdp	0.573	0.0161	0.385	0.413	-0.144	0.202
	(0.372)	(0.269)	(0.245)	(0.388)	(0.253)	(0.233)
unemploy	-1.648**	0.218	-0.224	-1.810***	0.0543	-0.411
	(0.700)	(0.247)	(0.448)	(0.643)	(0.203)	(0.445)
education	-0.763**	-0.285**	-0.0824	-0.889***	-0.411**	-0.227

	(0.333)	(0.133)	(0.194)	(0.316)	(0.163)	(0.191)
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Perceived Opp.	Perceived Cap.	Intention	Perceived Opp.	Perceived Cap.	Intention
law	-11.45	-21.11**	-16.20*	-1.937	-11.53*	-5.223
	(12.45)	(8.309)	(8.551)	(8.253)	(6.532)	(8.025)
interaction	0.173	0.174	0.200***			
	(0.152)	(0.106)	(0.0715)			
Constant	53.10	71.11***	9.996	65.53**	83.63***	24.34
	(33.46)	(18.54)	(21.54)	(30.62)	(16.69)	(18.64)
Observations	137	137	137	137	137	137
R-squared	0.372	0.338	0.323	0.351	0.293	0.234
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Interaction= Socialnetusers *Law. Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

As a robustness check and to see the isolated effect of the rule of law, I run additional regressions without the interaction term in columns 4, 5 and 6. The social media variable is still significant for *perceived capability* and *intention*, which demonstrates consistency of estimation. There is no change in the sign and significance of the coefficients of *Ease, GDP, unemploy* and *education* variables. However, as expected, the *law* variable's coefficients and significance changes. For the *perceived opportunity* regression, it is still insignificant. For *perceived capability,* the significance is lowered to 10% level and the isolated effect seems to be lower than the effect with interaction. The new coefficient is -11.53 compared to -21.11.

For the *intention* regression, the significance of the *law* variable disappears. This implies that the isolated effect of the rule of law on the intention to start business is not significant. This finding of the study is consistent with the findings of the study conducted by Hartog et al. (2010), where the authors argued that "better" rule of law does not necessarily lead to high levels of entrepreneurship. Such a finding may also indicate that in developed countries, the benefits of the rule of law are largely accrued by large enterprises, rather than by entrepreneurs. Additionally, this finding may also point to the fact that, in developed countries with better rule of law, individuals often face the dilemma or trade-off which Levie and Autio (2011) describe as the choice of selecting between a

secure job or employment that offers steady and guaranteed returns and investing their human and social capital in starting a business with higher but volatile returns.

Next, I obtain marginal effects figures for each dependent variable for the country-level regression results. The regression model is linear for the country level, so marginal effects for regular control variables do not change at different levels of the variables. However, due to the inclusion of the interaction variable, the marginal effect of social media will be different at various levels of the rule of law. Plotting the marginal effects for the different rule-of-law figures will allow us to compare the high and low rule-of-law countries in terms of the effectiveness of social media. For the *opportunity* dependent variable, the effectiveness of social media increases along with the rule of law. This implies that social media is a lot more effective in shaping perceptions of positive business opportunity for the high rule-of-law countries. I can also make the same argument for the "*capability*" dependent variable; a higher rule of law is associated with higher capability perceptions.

The positive coefficient of interaction variable in the *opportunity* and *capability* regressions validates the positive slope of the marginal effects line. For the *intention* variable, the marginal effect of social media steeply rises along with the rule of law. This means there is a significant difference in the effectiveness of social media between the high and low rule-of-law countries. Overall, the sloped marginal effects line for all dependent variables demonstrates that the rule of law is a moderating factor in terms of the effect of social media on business intentions. For Capability and Starting Business intentions (2nd and 3rd plots), I find a significant effect even for a moderate rule of law (above 0). Moreover, the magnitude of the effect increases considerably with the rule of law.

The results confirm that governments and institutions have a significant role, not only in shaping entrepreneurial perceptions and intentions directly, but also by moderating the effect of social media on boosting positive entrepreneurial perceptions. For example, by protecting intellectual property rights, new technologies change attitudes to entrepreneurship. Potential entrepreneurs are more likely to come up with a novel idea when they make use of social media or new communication technologies if they are sure that their idea will be protected under property rights.

In a low-institutional-quality environment, people will be more hesitant to implement business ideas, as they can easily be copied and imitated by other people, which seriously lowers the opportunity for profit.

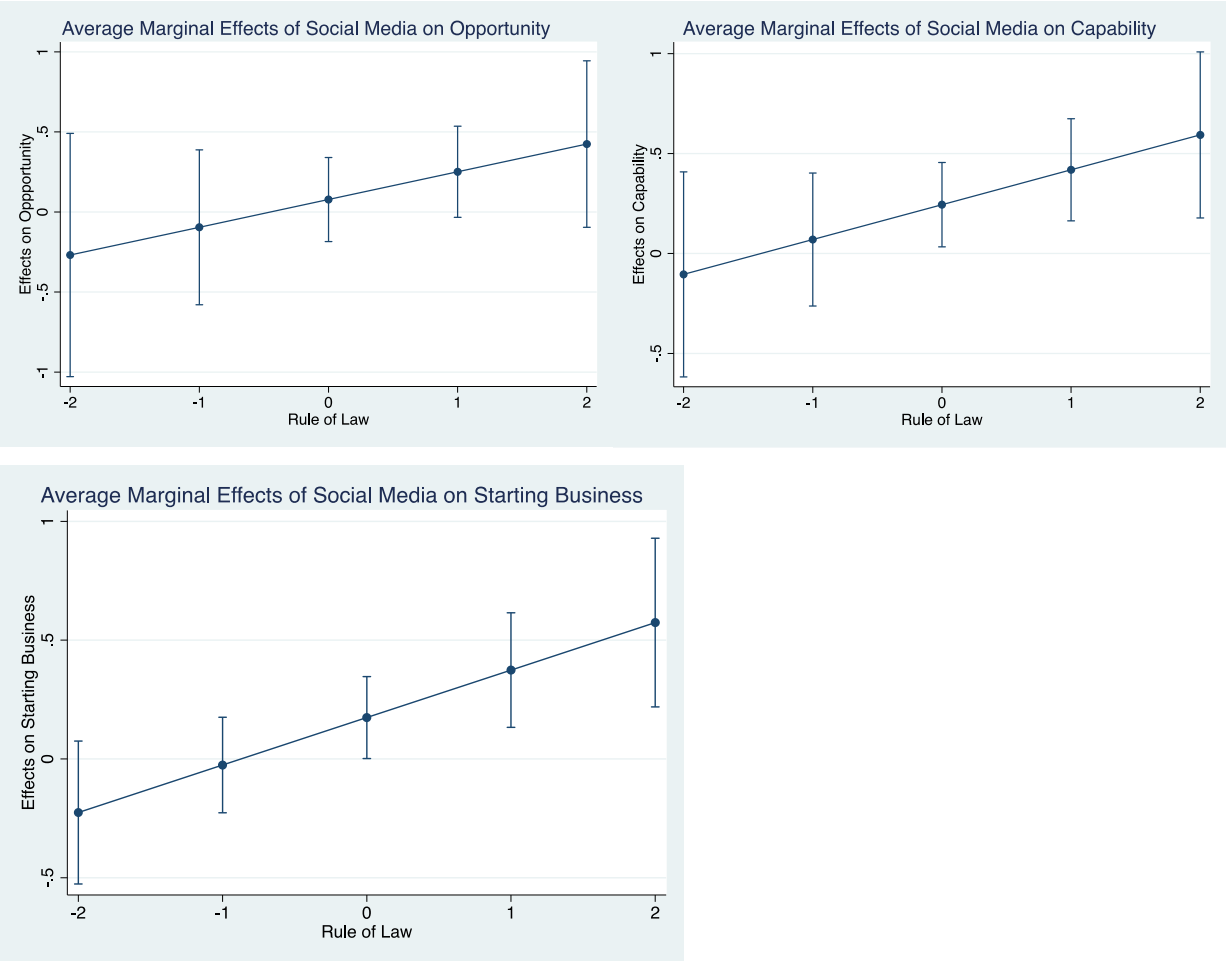


Figure 4.1: Marginal Effects of Social Media on Dependent Variables at Different Levels of the Rule of Law

The rule of law establishes the framework for doing business in a country. It establishes a safe atmosphere in which plans can be formed, the property can be safeguarded, expectations can be set, complaints can be lodged, and rights can be safeguarded. If a country has a high institutional quality, this demonstrates a positive relationship between the quality of governance and the growth of the GDP per capita. As a result, as long as the rule of law is upheld, the country will thrive and

develop economically (Rodríguez-Gulías et al., 2018). Laws that are widely publicized, fairly enforced, and independently evaluated, as well as international human rights norms and standards, must be applied to all public and private individuals, organisations, and businesses, including the government. In terms of commercial potential, all of this helps promote innovation and creativity.

Additionally, reforms that simplify entry also boost the sectoral competition as the number of small firms increases in industries with more accessible start-up rules. In addition, the more interventions and restrictions there are in a market, the more the market becomes investment-repellent. The reason for this is in the legislation and regulations. The more flexible the environment is regarding the creation and development of the system, the more innovations emerge.

4.4.2 Macro level - Internet Use

As the last step for investigating the role of the rule of law in terms of the effect of social media on business perceptions, I use internet-use data, rather than social media use, for both subsamples. The primary independent variable is *Net users*, which measures the percentage of internet users in a given country.

Following the interaction variable approach above, I use pooled data and interaction variables (internet usage & the rule of law) to see whether the rule of law has any moderating force in terms of the effect of internet use on business or entrepreneurial perceptions. The table below presents the pooled data analysis with a high rule-of-law dummy and interaction variable. The sign of the interaction variable is positive in all three regressions; however, it is only significant in the first and third ones. This means that the effect of internet use on *perceived opportunities* and *entrepreneurial intention* is significantly higher in the high rule-of-law countries.

Macro-pooled regression results reveal that high rule of law is a moderating force in the way social media or internet use affect decisions on starting a business. In the *opportunity* regression, for a common rule-of-law country (i.e., rule of law=-2), the marginal effect of internet use is -0.557 (=-0.267-2*0.145), and for a high rule-of-law country (i.e., rule of law=2), the marginal effect of internet use is 0.023 (=-0.267+2*0.145). In the *intention* regression, for a common rule-of-law country (i.e. rule of law=-2), the marginal effect of internet use is -0.101 (=0.123-2*0.112), and

for a high rule-of-law country (i.e. rule of law=2) the marginal effect of internet use is 0.347 (=0.123+2*0.112). More specifically, increasing average use of the internet or social media increases decisions to start a business in the high rule-of-law countries more than in low rule-of-law countries.

Table 4-3: The Effect of internet Use: Macro Level Pooled Regression with Interaction

VARIABLES	(1) Perceived Opp.	(2) Perceived Cap.	(3) Intention.
netusers	-0.267**	0.111	0.123
	(0.128)	(0.0848)	(0.0813)
ease	-0.328*	-0.193*	-0.213
	(0.195)	(0.101)	(0.143)
gdp	0.350***	0.0778	0.174
	(0.119)	(0.0969)	(0.138)
unemploy	-1.136***	0.153	0.213
	(0.386)	(0.224)	(0.247)
education	-0.103	-0.173*	-0.139
	(0.121)	(0.0981)	(0.0923)
Rule of Law	-10.18	3.147	-4.255
	(6.284)	(5.264)	(5.000)
interaction	0.145**	0.0260	0.112**
	(0.0646)	(0.0446)	(0.0544)
Constant	84.46***	63.04***	28.42**
	(15.62)	(8.942)	(11.86)
Observations	471	471	471
R-squared	0.318	0.141	0.149
Number of countries	85	85	85
Country FE	YES	YES	YES
Year FE	YES	YES	YES

Interaction= netusers *HighRoL. Robust standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

Using internet use as an alternative to social media leads to a similar conclusion as before; the rule of law is a moderating variable in terms of the effect of social media on entrepreneurial intentions. The macro-level regression results suggest that in both the *opportunity* and *intention* regressions, the interaction term is positive and significant. This indicates that social media is more successful

in favourably influencing entrepreneurial intentions and behaviour in nations with a strong rule of law (Paniagua and Sapena, 2014).

The findings of a study titled "Mobile Broadband Internet, Poverty, and Labor Outcomes in Tanzania" revealed that mobile broadband coverage had a substantial beneficial impact on household per capita consumption (Bahia et al., 2021). Households in 3G-covered regions in Tanzania saw an increase in 7-11 percentage points in total per capita consumption. After more than a year of exposure to 3G coverage, these digital rewards began to materialize and were statistically significant. The number of families living below the national poverty line fell by 5-7 percentage points due to mobile internet access (Bahia et al., 2021). The effect of 3G coverage (internet usage) on labour market results was the primary reason for this. After 1-2 years of 3G exposure, working-age people in regions with mobile broadband internet saw a 3-8 percentage point rise in non-farm self-employment. Except for agriculture, cattle, fishing, and hunting, the non-farm "sector" encompasses all economic activity in rural regions (Bahia et al., 2021).

Businesses in the manufacturing, handicrafts, processing, repairs, building, mining and quarrying, transportation, trading, communication, community, and personal services sectors are among them. As a result, the research backs up the theory that internet usage may help shape capacity perceptions in low-rule-of-law nations. People's views of their capabilities improved due to the expansion of internet usage through 3G coverage, while entrepreneurship grew in Tanzania as a result of the ease of starting a company. In the low rule-of-law countries, the rules and regulations about conducting a business can be modified or manipulated, allowing more people to feel capable of conducting business, without caring too much about the rules and regulations. This may result in a relatively more significant effect due to internet use on capability in these countries.

Among the other control variables, Education has a negative and significant coefficient, suggesting that the *Opportunity*, *Capability* and *Intention* perceptions in more educated countries will be lower. In the common rule-of-law countries, education may make people more pessimistic about business perceptions, potentially due to realizing corruption and other inconsistencies when running a business. Extortion, blackmail, favouritism, tribalism, patronage, pay for play, graft, and misappropriation are examples of corruption. When fraud is perpetrated inside a company, the

chance of losses for the business owner increases. Corruption is a significant problem in nations with a weak rule of law (Osuagwu, 2012). On the other hand, in high rule-of-law countries, education may make people aware of the different opportunities and their capabilities for running a business.

4.5 Conclusion

By examining institutional quality and the role of social media in determining entrepreneurial intentions, this study aims to add new perspectives and dimensions to the existing studies examining the role of social media and rise of entrepreneurship. This adds to the existing research base identifying the antecedents of entrepreneurship. It might prove useful to old and new companies, such as start-ups, investors, and all people and policymakers that care about fostering a culture of entrepreneurship to further boost their country's economic health.

It has to be noted that previous research focuses only on one or two social media sites, or a specific industry or country. This study, by analysing institutional quality and social media use in relation to entrepreneurial intentions, also broadens the scope of opportunity to study other variables, analysing the role of the government in boosting an entrepreneurship culture. For example, by examining the impact of the rule of law in protecting intellectual property rights on social media and, in turn, the impact that it might have on increasing the entrepreneurs' intention to start a business using social media, the study also contributes to the broader literature examining the link between intellectual property protection and the formation of entrepreneurial growth inspirations.

The study also aims to advance the fields of entrepreneurship, business, and management regarding the direct and indirect influence of social media use and entrepreneurial intentions. Based on my results, governments/policymakers can examine the ways through which they can improve institutional quality to foster a culture of entrepreneurship or to offer resources to citizens or make them more productive. A possible renewed interest in examining institutional quality and connecting with social media use with entrepreneurship may emerge.

Chapter 5: Conclusions

In Chapter 5, I provide a concise review of the previous chapters and highlight the most relevant findings. In this chapter, the findings of the systematic literature review presented in Chapter 2 are discussed, as are findings of the regression analysis conducted in Chapter 3 and 4. In this chapter, I will also include the implications for practitioners and policymakers.

The systematic literature review presented in Chapter 2 was conducted with the purpose of understanding the potential impact of social media on entrepreneurial intentions and perceptions. Two questions evolved from the systematic literature review in Chapter 2: How do business owners, particularly entrepreneurs, benefit from social media prevalence? What factors could affect their perceptions and intentions towards social media?

5.1 Benefits of Social Media to Entrepreneurs

From the findings of the systematic literature review, the resultant information is that social media platforms provide several opportunities for entrepreneurs to advance their interests and achieve their objectives in their respective businesses. This study also demonstrates that there is a positive relationship between the use of social media and the intentions and opportunities that entrepreneurs believe they can exploit by having strategies in place for social media use.

The various features of social media, namely, providing low or no cost ways of starting a business, providing entrepreneurs with increased visibility for their business, and high levels of interactivity, are some of the reasons that could explain the positive relationship between the use of social media and entrepreneurial intentions to start a business. These features of social media help entrepreneurs not only to increase the sales and revenues of their business, but also to cultivate relationships with their customers. It was also found that social media contributes towards entrepreneurial capabilities. This is mainly because the increased interactivity that social media offers to entrepreneurs with their customers makes it easier for entrepreneurs to know more about their customers and increase their knowledge about their needs and requirements. All of this contributes to the innovation capacity of entrepreneurs, as it allows them to use the knowledge gained through

social media to come up with new products or services, as well as processes, to meet the demands and requirements of their consumers.

It is true that entrepreneurs from different industries and countries widely use social media for different business reasons (Drummond et al., 2018). Social media provides businesses with an opportunity to reinforce brand awareness, business communication, increase sales, implement marketing campaigns and improve customer service. Furthermore, entrepreneurs or SME business practitioners become aware that a business opportunity exists when adopting social media efficiently in order to build and maintain trust and commitment with key stakeholders, including customers, and to enhance quality in those relationships networked. These findings are consistent with previous studies, such as Brink (2017) and Shemi and Procter (2018).

Technological advancement in the business world results in its considerable use of technology in marketing and communication. Social media use, in particular, has transformed traditional brand markets due to its ability to establish multidirectional communications (Kao et al., 2016; Gavino et al., 2019). This allows consumers not only to be recipients of products, but also to send feedback beyond geographical barriers. Hence, entrepreneurs are using social media for marketing their brands and obtaining rich information on consumer patterns, markets and competitors. In addition to marketing, increased communication between a user and a customer through social media results in the identification of new entrepreneurial ventures. Lucrative communications that take place in the business world through social media are sources of information to the participants on existing market niches, explaining the positive correlation between social media and perceived opportunities.

In addition, social media contributes to increasing awareness of the services or products offered by different brands (Sipior et al., 2014). These sites have provided entrepreneurs with excellent opportunities to reach customers within a short period, and at a lower cost. Furthermore, it gives them a platform to establish an extensive database of customers and increases the likelihood of achieving their business goals. Using social media enables entrepreneurs to activate sales traffic directly. The use of social media gives them the ability to employ the different tools and features of social media to provide customers' needs and requirements, achieve continuity in

communication and work to solve their problems. This leads to an increase in sales and profits. These effects are consistent with the study findings of a positive relationship between perceived opportunities and social media.

5.2 Factors that affect entrepreneurs' perceptions and intentions towards social media

One of the interesting findings of the systematic literature review was that the intention to use social media for business purposes is largely influenced by behaviours and attitudes, as well as demographics. The various benefits that social media offers, such as no-cost marketing, increased visibility, and ability to communicate directly with the consumers, greatly influence the intention to use social media.

It has to be noted that the intention to use social media for business purposes also differed between men and women. For example, it was found that women, owing to their limited resources, were more likely to use social media to overcome the challenges that they face as a result of the prevailing stereotypes against them. As a result, it was found that women were more likely to use social media for soft self-promotion or to forge relationships, not just to grow their business, but also to build their social identity. In addition, it was also found that the democratisation of entrepreneurship brought about by social media has proved more beneficial for women than men, as it has provided women with an opportunity to access international market knowledge, build transnational networks as well as assess international entrepreneurial opportunities.

During the course of the systematic literature review, it was also found that there are several challenges that are unique to using social media for business purposes, especially when starting a new business. For example, many of the entrepreneurs who use social media often find it difficult to integrate social media with their business, have difficulties in responding appropriately to their customers on social media, and even find it difficult to measure the impact that use of social media is having on their business performance. In addition to these challenges, many entrepreneurs find it difficult to establish trust among their consumers on social media. Due to the lack of protocols that might help protect the privacy of consumers and the kind of information that is shared on social media, many entrepreneurs find it difficult to establish trust on such platforms.

This lack of trust on social media varies greatly across countries and is largely affected by different cultural dimensions. This makes the role of government extremely important when increasing the use of social media to foster entrepreneurship in countries. Depending on the type of engagement that entrepreneurs might have with potential consumers on social media platforms, there is a need for the government to establish guidelines to direct the nature and form of engagement that entrepreneurs can have with potential consumers on social media platforms. The objective of the government here should be to protect both potential consumers and businesses from unfair use of the medium.

5.3 Research questions and analysis

A regression analysis was used in Chapter 3 and Chapter 4 to obtain results to answer research questions and test hypotheses. A complete description of the methodology used in the study is provided in Chapter 3 and Chapter 4.

I draw conclusions from the test results of the analysis in order to answer the research questions posed in Chapter 1. The research questions are as follows:

Research Question 1

RQ1: Is there an association between the prevalence of social media influence and perceptions of the nature of the entrepreneurship process?

Research Question 2

RQ2: Does institutional quality serve as a moderator for the effect of social media use on entrepreneurial intentions?

5.3.1 Prevalence of social media, its influence, and the nature of the entrepreneurship process and perception

The regression analysis, both at the individual and macro level, shows that social media use has a significant effect on entrepreneurial perceptions and intentions. At individual level, the results of regression support all hypotheses. Social media platforms provide their users with tools that equip

them with capabilities, such as technology capability, that allow operating business systems through social media and the ability to manage the integration between business strategy and new technology. In their research, Shin (2014), Holzweber et al. (2015), and Tripopsakul (2018) confirmed that these tools enable users to analyse, have a visual perspective and navigate through various structures, enabling maximum value realisation of their perceived capabilities. For example, Twitter is a social platform that gives entrepreneurs the capability to identify other users of the platform with a similar business interest and establish the desired connection for communication purposes (Fischer and Reuber, 2011).

The results support the notion that social media platforms influence perceived capabilities. Entrepreneurs can gain knowledge concerning business operations through the provision of knowledge accompanied by low running costs and social network creation (Assis-Dorr et al., 2012). Social media equips its users within and outside an organisation with knowledge, ideas and skills (capabilities) that enable identification of new and existing business opportunities, as well as alter the way organisational operations are carried out positively and consistently with existing and new businesses (Vejačka, 2012; Jamal et al., 2013). Social media provides its users with the capabilities to make accelerated decisions and develop usable information in entrepreneurial processes.

The social media domain has provided entrepreneurs with the competitive advantage of realising their capabilities, which has resulted in many businesses joining social media platforms. According to research (Jamal et al., 2013; Ainin et al., 2015; Gavino et al., 2019), Facebook provides entrepreneurs with presumably cost-free means to advertise product and services and reach targeted customers. In an organisation, the use of the social media platform can help identify people with desired skills and knowledge for entrepreneurial activities. With the use of the social network platforms, perceived entrepreneurial capabilities are improved (Natarajan et al., 2015). Within an enterprise, users with the specific knowledge and skill required to run a particular business are identified.

The theory of reasoned action combines the behavioural and environmental factors that influence thoughts and actions that are perceived capabilities. Prior knowledge and attitude, culture and

social norms determine one's actions (Kim et al., 2015). The theory focuses on behaviour and further encourages the use of new technological advancements in relevant fields to gain skill and knowledge. The new technologies in entrepreneurship are the use of social media, which has increasingly become a tool for marketing and information gathering in the world of business.

The effect of social media use on entrepreneurial intentions (i.e., starting a business) is positive and significant in all regressions. The coefficients in general imply that a 1% increase in social media use in a country increases the probability of entrepreneurial intentions by about 0.1%. So, taking the "intention" variable's mean value of 0.20 as benchmark, I can say that, when a country's social media use increases by 10%, the average rate of starting business decisions in that country increases from 20% to 21%.

Social media proves important in providing entrepreneurial information to both customers and entrepreneurs. This information can be a source of entrepreneurial intentions to the customer, as well as a revelation of existing opportunities. For already existing entrepreneurs, social media provides information, as well as acting as a marketing tool, and this is consistent with findings of studies such as Guinan et al. (2014) and Revell-Love (2016). Feedback from the customer can provide new venture opportunities and boost entrepreneur intentions to start a business. Market provision by the media is a source of motivation for new start-up entrepreneurs, knowing that they already have an existing market provided by the social media platforms. Social media services allow users to have connections that give them an interaction platform for free. Through sharing messages, updating posts, sending and receiving comments, knowledge is acquired and hence the confidence to start a business.

Without a doubt, the vast spread of social networking sites, such as Facebook, Twitter, Instagram, Snapchat, and other platforms, has led to an increase in the entrepreneurs' intentions to enter the market and develop small and medium projects, which is confirmed by studies such as Nawi et al. (2017), Shaltoni (2017) and Virtanen et al. (2017). These platforms have opened various approaches for entrepreneurs to practice promotional operations to introduce their products at a minimal cost. Also, the growth of social media platforms and the increase in the number of their users are encouraging entrepreneurs to practice their businesses and pioneer their ideas; therefore,

I can say that social media plays a significant role in providing competitive advantages for the products by pricing them appropriately, based on competitors and the public's views of these goods. Entrepreneurs' intentions have increased because social media platforms have broken all restrictions of geographical boundaries faced by services and products, giving entrepreneurs insight to identify new markets that are appropriate to the nature and quality of products or services offered by their brands.

Through the theory of reasoned action, social media enables the prediction of behaviour in entrepreneurship with entrepreneurial intentions that may lead to business. This gives them confidence that results in the implementation of a business (Ajzen and Fishbein, 1977). The theory of reasoned action emphasises users having positive perceptions towards a given organisation, based on evaluation of the utilitarian value of its social network sites and its features. Social media platforms are cost-effective in terms of implementations and maintenance in any organisation when compared to traditional marketing strategies, and the benefits derived from them are also limitless (Odoom et al., 2017). Social media improves organisational performance at retail and production levels, as well as helping to build customer brand loyalty.

Companies that make use of social media improve their entrepreneurial intentions in three critical organisational areas; namely, products, customers and employees. Making use of social media has increased entrepreneurial intention and actual engagement in business, since it is the primary tool being used to launch new products and services in the market (Kao et al., 2016). Consumers are likely to visit social network sites, most likely to learn about new products in the market (Phang et al., 2014). This phenomenon is likely to create information sharing between the customers and the marketers, whereby innovative ideas are generated, leading to the creation of better products or new ventures in business, resulting in increased entrepreneurial intention.

Self-efficacy is a major determinant of entrepreneurial intention. With high self-efficacy, the odds of developing entrepreneurial intention are also high (Nambisan, 2017). Entrepreneurial intentions dictated by the theory of reasoned action, which are determined by personal beliefs and attitudes, skill and abilities (self-efficacy), dictate one's willingness to take part in entrepreneurial activities

(Kim et al., 2015). Since these factors are external influences, social media plays a role in dictating the level of self-efficacy through communications and the exchange of information.

Factors such as limited access to technological equipment can greatly affect the use of social media and entrepreneurial intentions to start a business in low-income countries. As a result, it is important that the policy makers in low-income countries take necessary steps that could increase access to such technologies to advance entrepreneurial opportunities in the country.

In addition to policymakers, investors must also focus on helping entrepreneurs by provision of different solutions and funding to help entrepreneurs tap the potential that comes with bridging the existing gaps that hinder them from using social media for business purposes. By offering rewards to entrepreneurs that grow as a result of increased access to technologies within a country, investors can further help entrepreneurs to tap the potential that comes with the use of social media. To entrepreneurs, it is important that they make a careful evaluation of their business needs and environmental factors in which they operate before deciding the social media platform to choose to explore or expand business opportunities.

Despite the view of "techno-pessimists" that social media is often filled with false or even fake information, the findings of this study reveal that social media tends to foster entrepreneurial activity. These findings that social media use positively affects entrepreneurial intentions, opportunities, and capabilities are consistent with the positive benefits of social media in increasing entrepreneurial entry (Wang et al., 2020). Hence, by providing an "optimistic" view of the way social media contributes to an increase in entrepreneurial entry, the study directly contributes to the body of literature on "techno-optimism" approaches that indicate or highlight the wider benefits that social media has for society.

The prevalence of social media, its influence on gender and the nature of entrepreneurship process and perceptions

The results of this study suggest that social media has led to an increase in perceptions of entrepreneurial opportunities and capabilities among women. For example, the opportunity coefficient (0.00289) for the female subsample was slightly higher than that for males (0.00269)

implying that social media has led to an increase in business opportunity perceptions for females than males. In other words, social media has provided an opportunity for women, not just to identify the opportunities that exist in the market and believe that they can start their own ventures, but also gain access to necessary networks and skills required to start a business. These findings are in line with the study of Upkere et al. (2014) who observed that globally the use of social media has changed the female society from a technologically challenged to a technologically savvy one. The authors argue that social media has promoted the creation of a new revolution of modern digital entrepreneurial culture where the opportunities offered by social media has changed the mind-set of the female society from that of being a "job seeking" one to embracing a "job creating" one. In addition, females owning formal and informal ventures have been adopting social media to grow their communities and gain feedback on their products or services from existing and potential clients (Upkere et al., 2014). Another reason over why social media has led to increase in business opportunity and capability among females than men can be explained by the low entry costs of social media to start a business. For example, low entry costs subsequently lead to excessive entry by imitative and less ambitious entrepreneurs such as female entrepreneurs due to their engagement with social missions as well as less access to resources (Brush et al. 2004; Alsos et al. 2006).

As expected, the coefficient of GDP per capita is positive and significant in both regressions for male and female. Countries that have better economy and money circulation encourage people to start a business (Fagerberg and Srholec, 2017). Males and females tend to have positive perceptions to start a business in countries with strength economies. Klapper et al. (2007) identified a positive correlation between financial development and both business density and rates of entry into business. They measured financial development as the ratio of private sector domestic credit as a share of GDP.

The impact of ease of doing business on entrepreneurial intention is significantly negative for males and insignificantly negative for females. First, it is said that women fear failing more than men do, which means the probability of them taking risks like starting a new business through different social media channels may be lower. They look at the financial risks, even indirect ones, which may affect the business. Private sector businesses in most countries have to complete very

lengthy procedures, which hinder the creation of new businesses. The report of the Ease of Doing Business, published by the World Bank annually, ranks business in most countries (Canare, 2018), using ten criteria to evaluate the environment of these businesses. These include starting up a business and all the requirements to ensure that the business continues running; for instance, acquiring permits for construction, getting electricity, making sure the business gets registered, and payment of taxes (DO et al., 2020). The requirements are often not well identified to distinguish those that would work well for the new businesses being set up, so it may be difficult for new investors to utilize them in their businesses. With high business barriers, women, unlike men, may shy away from starting businesses for fear of high financial risks. In the end, men who have begun a business may experience a significant negative impact and end up making losses; therefore, female entrepreneurial intention may not be significantly impacted, because they take precautions since their fear is not only business-related but also personal.

It was also found that variables such as higher levels of unemployment and level of education were associated with lower business opportunity perception for both men as well as women. These findings can be mainly attributed to factors or perceptions of self-efficacy to be able to start a business, which according to Sanchez-Escobedo et al. (2014) differ among men and women and country to country. For example, the authors note that there are certain psychosocial attributes or individual characteristics that shape perceptions of self-efficacy or entrepreneurial opportunity identification among both women as well as men in different countries. The authors add that these characteristics are mostly shaped by the culture and may be difficult to alter despite a range of public policies or changes in technologies aimed towards increasing entrepreneurial activity in a country.

In this study it was found that the intention coefficient was 0.000079 for females as compared to 0.00153 for males indicating that social media use increased the intention to start a business among men as compared to women. This finding of the study is in line with the findings of previous studies (Gupta et al., 2009; De Vita et al., 2014; Sanchez-Escobedo et al., 2014; Ryu and Kim, 2020; Thebaud, 2015) examining gender differences in entrepreneurship. There are several reasons that could be attributed to these findings. First, is the gender stereotypes prevailing in countries. For example, as Gupta et al. (2009) have pointed out, there exist differences between behaviour of

men and women when it comes to starting a business. These differences, the authors argue, are mostly due to the gender-based stereotypes that affect entrepreneurial intention. Such a situation clearly hinders entrepreneurial intentions among women, especially those living in countries where cultural differences often magnify the economic stages of development as women in such countries still do not tend to choose entrepreneurial careers and still regard it as a field for men because of gender stereotypes and gender role expectations generated by a country's cultural values.

It was found that the level of unemployment has a positive impact on entrepreneurial intentions of women. In other words, higher levels of unemployment among women increases entrepreneurial intentions. Several plausible reasons can explain this phenomenon between unemployment and increased intentions to start a business among women. For example, studies (Soomro et al., 2018; Sanchez-Escobedo et al., 2014), especially in the developing countries have shown that unemployment among females has a positive impact on their entrepreneurial intentions as jobless women are more likely to consider entrepreneurship as their new occupation. Another reason for this could be the fact that women unlike men are more likely to be "pushed" into entrepreneurship as a result of the economic necessity that may arise due to the lack of jobs or insufficient family income (Mehtap et al., 2017; Carranza, 2018). Another plausible reason over why unemployment increases entrepreneurial intentions among females is that technologies such as social media provide women living in both developed as well as developing countries a way to launch businesses that require lower levels of initial financing or lower access to investment. The low levels of investment often make it easier for women, especially less ambitious, jobless female entrepreneurs to start a business as compared to high ambitious-high growth, jobless male entrepreneurs (Boden and Nucci, 2000; Alsos et al., 2006).

Finally, the level of education did not have any impact on entrepreneurial intentions both on men as well as women. This finding of the study differs from previous research examining the impact of level of education on entrepreneurial intentions where they have showed that higher the level of education, the higher is the entrepreneurial intentions both in males as well as females (Dilli and Westerhuis, 2018; Levie and Autio, 2013; Sanchez-Escobedo et al., 2014). However, this difference could be attributed to the fact that starting a new business often requires skills knowledge, capital and training in addition to the individual ability of risk-taking and

entrepreneurial spirit all of which can also contribute to entrepreneurial intentions among both men and women (Vellila and Ortega, 2017). Another reason that could be attributed as to why education does not lead to an increase in entrepreneurial intentions is the fact that students or fresh graduates often find it difficult to start businesses despite various initiatives and incentives offered by the government. This can be seen from the lower number of graduates and students starting new businesses (Ahmed et al., 2017; Koe et al., 2018). All these factors indicate that despite the opportunities offered by social media, the level of education alone cannot increase entrepreneurial intentions among both men as well as women.

5.3.2 The role of institutional quality in moderating the effect of social media use on entrepreneurial intentions

The importance of institutions in a state of steady economic growth and business success has been recognised by many studies. One of the most significant phenomena of the last 20 years in communication technology has been social media. Social media has affected every aspect of our lives and shaped both our decisions and lifestyles. The effect of social media on entrepreneurial behaviour and perceptions cannot be overlooked. In this thesis, I also analyse the effect of social media on entrepreneurial intentions in different institutional settings. In other words, I answer how institutional quality moderates the effect of social media on entrepreneurial intentions in countries with high-quality institutions and low-quality institutions.

I use the rule of law index as a proxy for the institutional quality of a country and find that the institutional environment matters in terms of social media's role in shaping entrepreneurial intentions. In other words, institutional quality, or the rule of law, is a moderating force in how social media use affects entrepreneurial intentions.

The results of regression analysis at the macro level imply the positive effect of social media on entrepreneurial intention, under both low and high rule-of-law environments. In addition, this thesis investigates whether the rule of law (institutional quality) influences the relationship between social media and business intentions. I find that the rule of law increases the effectiveness of social media use, especially on opportunity perceptions and decisions to start a business.

While the higher use of social media might have beneficial effects, such as higher entrepreneurial capabilities, the ease of information sharing and exchange offered by social media can often exacerbate issues of property rights and raise problems such as copyright infringement (Lee and Phang, 2015). For instance, in low rule-of-law countries, especially where the rules protecting property rights are not very mature, the weakness of the law might lead to the creation of various unofficial new businesses, which not only hampers the creation of value for existing copyright holders' business models, but might also diminish the social welfare that comes with technological innovations (Lee and Phang, 2015). An effort from the government is needed, especially in countries where institutional policies are not well-developed, to strike a balance between the growth of entrepreneurial capabilities and the issue of copyright. This is mainly because the poor protection of property rights has not only been found to be detrimental when it comes to entrepreneurial activity (Autio and Acs, 2010) and the growth of new firms but it has also been found to increase the transaction costs for entrepreneurs looking for resources in countries marked with high uncertainty (Bjørnskov and Foss, 2016). Institutions that can offer well-defined property rights are more likely to offer high certainty and low transaction costs, which ultimately leads to more entrepreneurial projects being undertaken (Bjørnskov and Foss, 2016).

5.3.3 Summary of the Impact of Social Media on Entrepreneurship

Individuals can derive many benefits from social media, as well as gain knowledge, irrespective of gender and income. By providing access to large amounts of information, networks, and other benefits, social media has played a huge role in lowering barriers to information and network access (Kaplan and Haenlein, 2010). The emergence of social media has not only facilitated communication between and among citizens of different countries around the world but also provided access to people living in much less developed countries to market their products and/or services to a large number of people at a cost that is much lower than by traditional modes of marketing. This has greatly benefited people, especially people from the less-developed countries who earlier, due to lack of capital and resources, were finding it difficult to market their products and/or services globally (Kaplan and Haenlein, 2010).

Entrepreneurial activities are the main reason why there is economic growth in any nation. According to Almodovar-Gonzalez, Sanchez-Escobedo, and Fernandez-Portillo (2019), a different approach has been used to link entrepreneurial activities to the growth of the economy and this also appears in the GEM reports. The reports imply that, the effect of entrepreneurial activity on GDP varies according to the level of economic growth (Almodovar-Gonzalez, Sanchez-Escobedo, and Fernandez-Portillo, 2019). The impact of social media on entrepreneurs varies depending on how developed a country is: early-stage economies experience little or no impact from entrepreneurial activity, whereas more developed economies see a positive impact from this activity.

Even with all the features and power of social media that can be used for business purposes, the entrepreneurial intention for women shows a negative association compared with men. The reasons for low entrepreneurial perceptions among women include gender role orientation, entrepreneurial culture, social environment and government regulations. According to Global Gender Gap Report 2021, women in general, in almost all countries, tend to earn less than men, and are more likely to be employed in the informal sector, be underemployed, and be held back from starting a business as a result of the roles attributed to them by the society. This argument holds true not just for developing, but also for developed countries because of the traditional expectations of gender roles that tend to limit women's opportunities to earn an income (Eagly and Karau, 2002; Eagly and Mitchell, 2004) . As a result, by offering individuals the opportunity and the necessary tools, not just to start a business, but also to market it, irrespective of their gender and income, it could be argued that social media has a stronger impact on entrepreneurial activity than some of the traditional variables, such as gender and income.

Finally, it was also found in this study that the effect of social media on the intention to start a business was higher for individuals in countries with low rule of law. This largely indicates that social media has broken the barriers and has gained significant advantage over the ease of doing business prevailing in most countries. In other words, social media has now provided people living in countries with low rule of law, where doing business is significantly difficult as a result of corruption and other regulatory issues, an opportunity to start a business. This clearly indicates that social media has gained significant power than another control variable, such as ease of doing

business when it comes to increasing entrepreneurial intentions, especially for people living in countries with low rule of law.

5.4 Contributions to Knowledge

This study offers several contributions to the entrepreneurship and social media literature. It presents a novel and detailed examination of the link between social media and entrepreneurial intentions, capabilities, and opportunities. The study has also identified new determinants which impact upon entrepreneurial intentions, the influencing factors that underpin an entrepreneur's motivation.

By providing empirical evidence over how social media influences entrepreneurial intentions, this study builds upon previously well-established theories, such as the Theory of Reasoned Action, that predict an individual's intention to engage in a certain behaviour. By adding institutional quality as a determinant in moderating the impact that social media has on entrepreneurial intentions, this study also extends institutional theory. It offers an innovative methodological approach to entrepreneurship and technological advances. It combines the simultaneous examination of legal impact (institutional quality) and technological advances to identify their effect on individuals' intentions to start a business. Another contribution refers to empirical evidence in line with the social network-capital-based theory of entry into entrepreneurism (Wang et al., 2020).

The study also makes several contributions to practice. First, the study quantifies the relationships between social media and individual-level capabilities. Recalling the empirical results, 50% of people from all countries believe that they have the required capabilities. This result suggests that governments or policymakers need to invest in digital infrastructure and develop individual capabilities if they want to fully exploit the benefits of social media for entrepreneurial activity.

Second, the study highlights the informational capabilities of social media. It is specifically the informational capabilities of social media that enable international growth of entrepreneurs. Therefore, by enhancing their capabilities with social media, entrepreneurs may boost their

international growth. In addition, entrepreneurs may exploit informational capabilities offered by social media to increase their capabilities to benefit in an international environment.

This study also contributes to the wider literature of techno-optimism and techno-pessimism. By showing the positive impacts of social media on entrepreneurial perception and intention, this study challenges the techno-pessimist arguments and contributes to the literature on techno-optimism. Policymakers can refer to the findings of this study to find insights that social media has greater influence for higher levels of entrepreneurship. Policymakers can thus develop techniques that can increase the adoption of social media in a way that can increase the benefits of social media while at the same time reduce the pitfalls that come with using social media.

Third, this study also contributes to the broader literature examining gender differences in entrepreneurship. By showing the role of social media in shaping opportunities, capabilities, and intentions this study indicates that despite the opportunities offered by social media, gender differences continue to remain in entrepreneurial activity as women still have less intention to start a business. As a result, policymakers across countries need to develop localised programs aimed towards engaging women in the business world.

Finally, the study underlines the relevant role of institutional settings of countries. Institutional quality plays a moderating role in social media's effect in influencing entrepreneurial perceptions. Hence, the findings of this study offer interesting findings for policymakers. Policymakers can refer to this study to relate social media activity to measure the entrepreneurial activity within their country. By doing so, policymakers can implement strategies in to boost entrepreneurial activity in their country. A specific focus here should be strengthening laws and regulations that prevent violations of intellectual property rights on social media. This study highlighted that the countries with laws that offer better protection of intellectual property rights on social media were more likely to have a positive influence on entrepreneurial intentions. Therefore, by creating conducive intellectual property environment, policymakers may boost entrepreneurial activity in their country. At the same time, entrepreneurs can exploit their social media skills to enhance their abilities to fully benefit from social media in an environment that guarantees them a protection of their innovation capabilities.

5.5 Implications for Practice

The implications of this study for society can be understood through the improvement that social media can bring in the lives of people looking to start a business with limited financial and other resources. In other words, by offering an easy way to explore business opportunities, and build capabilities to start and run a business both nationally and internationally, social media technologies can play an important role in improving the work, as well as family lives, of entrepreneurs.

A higher level of entrepreneurship activity fostered through social media can contribute greatly to a community, as it can provide the means for entrepreneurs to provide for themselves, as well as their families. By reducing the restrictions on the use of social media, the leaders of countries who are suspicious of social media technologies can help increase entrepreneurial entry and activity. Policies encouraging effective use of social media for exchange of ideas, discussion and other activities that are conducive for the growth of an entrepreneurial culture could result in reducing the negative effects that social media has on society and could result in positive outcomes, such as increased business and employment opportunities, organisational innovation, and increased economic growth. Policymakers of countries deterring the use of social media by their citizens with the fear of it being misused could consider the findings of this study to gain an understanding of how other countries have used social media to increase entrepreneurial opportunities, capabilities and intentions.

Several important implications have emerged from this study for academics, theorists, policymakers, and practitioners. First, important implications can be drawn for academics. With the aim of exploring how social media use affects the entrepreneurial perceptions of people in countries with both low and high institutional quality, this study pointed out the dearth of research examining the ways in which social media use and entrepreneurial intentions might depend or differ based on the institutional environment in which a person resides. This study, through its adoption of institutional theory as the theoretical foundation of the body of literature, has examined the impact of institutions on new business creation. In addition, by studying the impact of institutional quality, social media use, and entrepreneurial intentions, this study has extended

institutional theory by adding an important dimension that needs to be taken into consideration when examining the effects of institutions, institutional quality and technology on entrepreneurship development in a particular country.

This study also offers some useful insights to policymakers. In addition to being in line with the findings of previous research indicating that institutional quality with low barriers is essential for the creation of new firms, this study also offers additional interesting insights. First, policymakers, if they wish to promote entrepreneurship or entrepreneurial activity, need to understand the power of social media when it comes to increasing the level of entrepreneurial activity and creating and promoting laws and regulations that will boost digital entrepreneurship through social media. To facilitate the adoption of social media, policymakers will have to devise and implement policies that will not only promote digital infrastructure, but also lead to positive social media attitudes and intentions to act among citizens. This is particularly required for countries where the reach and use of social media are largely hampered by a lack of digital infrastructure and a considerable prevalence of negative attitudes of both the policymakers and the citizens towards social media.

Second, the broad set of measures used in this study indicate that differences in the intention to start a business are largely based on individual-level factors, such as gender, level of education, and so on. Hence, it is important for policymakers engaged in promoting entrepreneurship to understand what prospective entrepreneurs perceive as motivators and barriers when starting a new venture, and devise strategies that can help these prospective entrepreneurs to address the challenges that they find are serving as barriers towards starting a new venture. To increase entrepreneurial activity, it is important that policymakers devise strategies that are unique and can help prospective entrepreneurs to overcome their individual-level barriers. For example, considering the fact that the challenges faced by young women entrepreneurs might be different from those faced by men, it is important that policymakers devise strategies that cater to the needs of such prospective entrepreneurs and help them to address the individual-level barriers that they face when starting a new venture.

Third, considering the internationalization capabilities of social media, there is a need for policymakers to offer incentives to those who use social media, not just to engage in business but

also to invest in exploiting the benefits of social media to attract FDI. By doing so, policymakers can boost the inflow of FDI in their respective countries or regions. In addition, this study has raised the issues of protection of intellectual property rights and the importance of having strict laws to attract entrepreneurs' intention to start a business.

Fourth, social media has been acknowledged as a powerful, as well as low-cost, platform that can be used by young entrepreneurs to run new businesses. The results of this study suggest that entrepreneurial intentions are influenced by social media and it has been used as a tool and platform to launch new entrepreneurial activities. Hence, another implication for policymakers is related to fostering entrepreneurial education, especially in countries where entrepreneurial intentions are constrained by low levels of trust towards social media. In other words, to foster entrepreneurial activity, it is important for policymakers in these countries to provide all the necessary tools that can encourage more and more young people to use social media as a low-cost platform to start and run new businesses. However, to do so, it will be vital for policymakers to focus more on entrepreneurial education by creating security programs, increasing the reach of cyber education and training in institutions, and undertaking other activities in schools and universities that will not only increase the trust of people towards using social media, but can also promote entrepreneurship activities among young entrepreneurs. The key here lies in introducing courses that can train students on how to use social media effectively, as it is highly cost-efficient, less time-consuming, and can be even more sustainable than alternative channels that can be used to start a new venture.

Moreover, policymakers may find this study interesting as they can further determine whether the regulations and institutions are protecting the interests of both entrepreneurs and businesses as intended. In summary, this study directs attention back to the essence of business and narrates the importance of government institutions in creating and sponsoring the incentives provided to firms concerning the adoption of a given technology. It additionally poses several questions that need to be addressed. What should be the real intention of institutions if they do not meet the intentions of fostering entrepreneurship or the creation of new businesses? How has social media contributed towards the development of entrepreneurial intentions and the role that institutions can play to nurture the use of this technology and encourage entrepreneurial activity even further?

This study also offers interesting findings to entrepreneurs. Considering the fact that this study has shown how important institutional quality is in relation to social media use and determining entrepreneurial intentions, capabilities, growth, and innovation, entrepreneurs may find insights to develop strategies that can help them to bring about the necessary changes in the field conditions required to overcome institutional resistance and accomplish changes in formal institutions. Entrepreneurs, by using the networking capacity of social media, can develop techniques that will permit the faster creation of a sharing economy, opening up new opportunities for bringing about the desired institutional change as a result.

5.6 Implications for further research

With the influence of technological advances such as social media in entrepreneurship, entrepreneurs are not limited to having physical offices, with work-from-home entrepreneurs and businesses being conducted online becoming more prevalent. Hence, future research examining the impact that social media has had on the rise of online only entrepreneurs is warranted to produce findings directly applicable to entrepreneurs that will help inform more aspiring entrepreneurs about the best possible practices and procedures regarding the use of social media.

In addition, a comparative study examining the impact of social media on entrepreneurial intentions can be conducted comparing the effects in a developed and a developing country. Conducting such a study in different economic settings can greatly help in understanding the differences that exist in the underlying factors that may influence entrepreneurial intentions in a developed country and a developing country. Moreover, including the role that institutional quality plays in moderating entrepreneurial intentions; such a comparative study can also help in assessing the role that institutions play in affecting entrepreneurial intentions in both developed and developing countries. The main focus here should be to understand the similarities or differences between the institutional quality of developed and developing countries and the role this plays in fostering or deterring entrepreneurial intentions and, in turn, entrepreneurial activity.

In fact, the relationship between the specific internal digital tools of social media and the impact they have in influencing entrepreneurial intentions is underexplored. For example, the ability of social media to help raise funds through crowdfunding can serve as a motivating factor for many

prospective entrepreneurs to start a business, especially those with less access to credit facilities. Thus, more research is needed examining the relationship between specific tools of social media and their impact in influencing entrepreneurial intentions.

Finally, there is a lack of substantial research regarding evaluations of the role the prevalence of social media and culture might play in influencing entrepreneurial intentions, especially in developing countries and countries with a large number of family businesses, because multi-culturalism and business inheritance are important aspects that can play a role in the formation of entrepreneurial career intentions. Comparative studies examining the impact of social media in different cultures on entrepreneurial intentions are warranted to understand whether or not the culture of any particular country, region or community plays any role in influencing entrepreneurial career intentions. Similarly, studies examining the impact that culture has in shaping entrepreneurial intentions among women can also be useful in understanding the gender differences in entrepreneurship or female entrepreneurship, especially in understanding the factors that make women think that entrepreneurship is still a field for men despite the opportunities presented to them in entrepreneurship by technological advances such as social media.

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Appendix A: The included journals and the number of articles from each journal

No.	Journal name	Number of articles
1.	Computers in Human Behavior	2
2.	Technological Forecasting and Social Change	4
3.	International Journal of Entrepreneurship	3
4.	Management Research Review	4
5.	American Behavioral Scientist	1
6.	Industrial Marketing Management	5
7.	Journal of Business Venturing Insights	1
8.	European Business Review	1
9.	Entrepreneurship and Sustainability Issues	1
10.	International Journal of Entrepreneurship and Small Business	1
11.	Entrepreneurship Theory and Practice	1
12.	Journal of Macromarketing	1
13.	Electronic Commerce Research and Applications	1
14.	International Journal of Organizational Analysis	1
15.	Industrial Management and Data Systems	2
16.	Journal of Business Economics and Management	1
17.	Journal of Strategic Marketing	3
18.	Journal of internet Commerce	2
19.	Young Consumers	1
20.	Journal of Business and Industrial Marketing	3
21.	International Journal of Information and Decision Sciences	1
22.	International Journal of Business Information Systems	1
23.	Journal of Social Entrepreneurship	1
24.	Information Technology for Development	1
25.	Journal of Business Strategy	3
26.	Telecommunications Policy	1
27.	Strategic Entrepreneurship Journal	1
28.	Journal of Small Business and Enterprise Development	6
29.	Business Horizons	6
30.	Baltic Journal of Management	2
31.	Polish Journal of Management Studies	1
32.	Services Marketing Quarterly	1
33.	Information Technology and Management	1
34.	Journal of Technology Transfer	2
35.	Journal of Enterprise Information Management	3

36.	Journal of Personal Selling & Sales Management	2
37.	European Management Journal	1
38.	International Journal of Business Communication	1
39.	Journal of Retailing and Consumer Services	1
40.	Management Decision	2
41.	Journal of Services Marketing	1
42.	Information Systems Research	2
43.	Current Issues in Tourism	1
44.	Journal of Marketing Management	1
45.	Journal of Advertising Research	1
46.	Journal of Quality Assurance in Hospitality and Tourism	1
47.	Journal of Business Venturing	1
48.	International Journal of Technology Management	1
49.	Journal of Knowledge Management	1
50.	Journal of Small Business Management	2
51.	Journal of Organizational Change Management	1
52.	International Journal of Information Management	3
53.	European Journal of Marketing.	2
54.	Enterprise Information Systems	1
55.	Journal of Business Research	5
56.	International Journal of Mobile Communications	1
57.	Information Systems Management	3
58.	Journal of Electronic Commerce Research	1
59.	Academy of Management Journal	1
60.	Journal of Media Business Studies	1
61.	ACM Computing Surveys	1
62.	Decision Support Systems.	1
63.	Public Relations Review	1
64.	Australasian Journal of Information Systems	1
65.	International Journal of Accounting & Information Management	1
66.	International Journal of Innovation Management	1
67.	Production and Operations Management	1
68.	Journal of Consumer Marketing	1
69.	Management Journal for Theory and Practice Management	1
70.	SSRN Electronic Journal	1
71.	International Journal of Strategic Communication	1
72.	Telematics and Informatics	1
73.	Information & Management	1

74.	Journal of Theoretical and Applied Electronic Commerce Research	1
75.	Information, Communication & Society	2

Appendix B: List of studies included in the Systematic Literature Review

Theme	(Sub-Themes)	Theoretical Lens/Approaches	References/Studies	Total Studies
Features and benefits of using social media in business	(a.) Low or no cost (b.) Increased visibility (c.) High levels of interactivity	Traditional communications theory, social exchange theory, social capital theory, Diffusion of innovation (DOI) theory, Technological acceptance model (TAM)	Ainin, Parveen, Moghavvemi, and Jaafar (2015), Augar and Zeleznikow (2014), Brink (2017), Eid, Abdemoety, and Agag (2019), Elephant and Maphela (2018), He, Wang, Chen, and Zha (2015), Horst, Jarventie-Thesleff, and Perez-Latre (2019), Jones, Borgman, and Ulusoy (2015), Guinan, Parise, and Rollag (2014), Luo, Zhang, Duan (2012), Nakara, Benmoussa, and Jaouen (2012), Nambisan (2017), Perrigot, Kacker, Basset, and Cliquet (2012)	13
Drawbacks/challenges of using social media business		Social-network theory	Chen, Ji, and Men (2017), Durkin, McGowan, and McKeown (2013), Holzweber, Mattsson, and Standing (2015), Kietzmann, Hermkens, McCarthy, and Silvestre (2011), Kim and Choi (2019), Lee (2018), Mancha, Gordon, and Stoddard 2019), Mack, Marie-Pierre, and Redican (2017), McCann and Barlow (2015), Michaelidou, Siamagka, and Christodoulides (2011), Sipior, Ward, Volonino (2014), Srinivasan and Venkatraman (2017)	12

Entrepreneurial perceived opportunities	(a.) Marketing & advertising (b.) Improve products or services/increase sales/revenues (c.) Build and cultivate relationships	Utility theory, TAM, Unified theory of acceptance and use of technology (UTAUT), Organizational ecology theory, Dynamic capability theory, Social capital theory, uses and gratification (UG) theory	Ajina (2019), Alhaimer (2019), Chatterjee and Kar (2020), Cole, DeNardin, and Clow (2017), Drummond, O'Toole, and McGrath (2018), Fischer and Reuber (2014), Fournier and Avery (2011), Fulgoni (2015), Gaur, Saransomrurtai, and Herjanto (2015), Hamouda (2018), Hanna, Rohm, and Crittenden (2011), King (2016), Konstantopoulou, Rizomyliotis, Konstantoulaki, and Badahdah (2019), Kraus, Gast, Schleich, Jones, and Ritter (2019), Kudeshia, Sikdar, and Mittal (2016), Lee and Hong (2016), Li and Shiu (2012), Men and Tsai (2012), Mizrachi and Sellitto (2015), Odoom and Mensah (2019), Pantano, Priporas, and Migliano (2019), Petrescu, Korgaonkar, and Gironda (2015), Rodriguez, Peterson, and Krishnan (2012), Shaltoni (2017), Song, Jamous, and Turowski (2018), Taiminen and Karjaluoto (2015), Virtanen, Bjork, and Sjostrom (2017), Wan and Ren (2017), Wang, Cao, and Park (2019)	29
Customers and Social Media Participation/Engagement Behaviours		Collective action theory, Peer induced fairness theory, Social exchange theory, Theory of planned behaviour (TPB), Expectation confirmation theory	Carlson, Gudergan, Gelhard, and Rahman (2018), Chua and Banerjee (2013), Gu and Ye (2014), Kao, Yang, Wu, and Cheng (2014), Parent, Plangger, and Bal (2011), Rishika, Kumar, Janakiraman, and Bezawada (2013), Sashi (2012), Voramontri and Klieb (2019)	8

Entrepreneurial perceived capabilities	(a.) Knowledge and innovation	Contingency theory, Information-processing theory, Knowledge-based theory, Stakeholder theory, Organizational capability theory,	Benitez, Castillo, Llorens, and Braojos (2018), Hitchen, Nylund, Ferras, and Mussons (2017), Konstantopoulou, Rizomyliotis, Konstantoulaki, and Badahdah (2019), Muninger, Hammedi, and Mahr (2019), Nambisan and Zahra (2016), Nijssen and Ordanini (2020), Palacios-Marques, Merigo, and Soto-Acosta, (2015), Papa, Santoro, Tirabeni, and Monge (2017), Saridakis, Lai, Mohammed, and Hansen (2018)	9
Entrepreneurial intentions	(a.) Behaviours and attitudes (b.) Demographics	Technology acceptance model (TAM), Theory of planned behaviour (TPB), Theory of reasoned action, Theory of innovation resistance, Unified theory of acceptance and use of technology (UTAUT), Social networks theory, Resource-based theory	Al-Dwairi (2017), Alayis, Abdelwahed, and Atteya (2018), Chen and Kuo (2017), Chen, Tan, and Tu (2015), Crammond, Omeihe, Murray, and Ledger (2018), Cordero-Gutierrez and Santos-Requejo (2016), Duffy and Pruchniewska (2017), Gavino, Williams, Jacobson, and Smith (2018), Pergelova, Manolva, Simenova-Ganeva, and Yordanova, (2019), Rauniar, Rawski, Yang, and Johnson (2014), Tiwari, Bhat, and Tikoria (2017), Valos, Mavondo, and Nyadzayo (2019), Venkatesh, Shaw, Skyes, Wamba, and Macharia (2017)	13
The role of government towards using social media		Capabilities-based theory, Institutional theory, Social network theory	Geissinger, Laurell, Sandstrom, Erikkson, and Nykvist (2019), Kuhn, Galloway, and Collins-Williams (2015), Li, He, and Zhang (2019), Paniagua, Korzynski, and Mast-Tur (2017), Phang, Sutanto, Tan, and Ondrus (2013), Shin (2014)	6

Privacy & trust		Social presence theory, Social capital theory, Unified theory of acceptance, Communication privacy management (CPM) theory, Expectancy-valence theory	Alshare, Moqbel, and Al-Garni (2019), Hajli, Slims, Zadeh, and Richard (2017), Humphreys and Wilken (2014), Pratano (2018), Yahia, Al-Neama, and Kerbache (2018)	5

Appendix C: Excluded articles

No.	Article name	year	Journal name	Author
76.	Exploring social customer relationship management adoption in micro, small and medium-sized enterprises	2020	Journal of Theoretical and Applied Electronic Commerce Research	Marolt, M., Zimmermann, H.-D., Žnidaršič, A., Pucihar, A.
77.	An assembly perspective of entrepreneurial projects: Social networks in action	2020	Strategic Entrepreneurship Journal	Obstfeld, David; Ventresca, Marc J.; Fisher, Greg
78.	Enterprise social media usage: The motives and the moderating role of public social media experience	2019	Computers in Human Behavior	Liu, Y., Bakici, T.
79.	Digital subsistence entrepreneurs on Facebook.	2019	Technological Forecasting and Social Change.	Delacroix, E., Parguel, B., Benoit-Moreau, F.
80.	Lead users of business mobile services.	2019	International Journal of Information Management.	Hallikainen, H., Alamäki, A., Laukkanen, T.
81.	A Seller's Sincerity: The Fashionably Veiled Designer-Entrepreneur in Turkey	2019	Ethnos	Crăciun, M.
82.	Enterprise Social Networks as Digital Infrastructures - Understanding the Utilitarian Value of Social Media at the Workplace	2019	Information Systems Management	Meske, C., Wilms, K., Stieglitz, S.
83.	Pushed and Pulled to the internet: Self Employment in the Spiritual Marketplace	2018	American Behavioral Scientist	Gregory, K.
84.	Nationalism, overseas Chinese state and the construction of 'Chineseness' among Chinese migrant entrepreneurs in Ghana	2019	Asian Ethnicity	Wang, J., Zhan, N.
85.	Gratifications for social media use in entrepreneurship courses: Learners' perspective	2019	Frontiers in Psychology	Wu, Y., Song, D.

86.	Gendered Entrepreneurialism and the Labour of Online Consumption in the Independent Fashion Sector	2019	Fashion Theory - Journal of Dress Body and Culture	Tuite, A.
87.	Founders' uses of digital networks for resource acquisition: Extending network theory online	2019	Journal of Business Research	Smith, C.G., Smith, J.B.
88.	Coopetition: a fundamental feature of entrepreneurial firms' collaborative dynamics	2019	Journal of Business and Industrial Marketing (2) - Q1,2	McGrath, H., O'Toole, T., Canning, L.
89.	The new generation of millennial entrepreneurs: A review and call for research	2019	International Business Review	Liu, J., Zhu, Y., Serapio, M., Cavusgil, S.T.
90.	Enterprise reputation threats on social media: A case of data breach framing	2019	Journal of Strategic Information Systems	Syed, R.
91.	How social media usage affects employees' job satisfaction and turnover intention: An empirical study in China	2019	Information and Management	Zhang, X., Ma, L., Xu, B., Xu, F.
92.	Identifying and monitoring the development trends of emerging technologies using patent analysis and Twitter data mining: The case of perovskite solar cell technology	2019	Technological Forecasting and Social Change	Li, X., Xie, Q., Jiang, J., Zhou, Y., Huang, L.
93.	Trickle-down gender at the International Monetary Fund: the contradictions of "femina economica" in global capitalist governance	2019	International Feminist Journal of Politics	Coburn, E.
94.	Predicting new venture survival: A Twitter-based machine learning approach to measuring online legitimacy	2019	Journal of Business Venturing Insights	Antretter, T., Blohm, I., Grichnik, D., Wincent, J.
95.	Social media celebrity and the institutionalization of YouTube	2019	Convergence	Hou, M.
96.	Playing the visibility game: How digital influencers and algorithms negotiate influence on Instagram	2019	New Media and Society	Cotter, K.

97.	Inclusion and exclusion in the digital economy: disability and mental health as a live streamer on Twitch.tv	2019	Information Communication and Society	Johnson, M.R.
98.	Predicting Consumers' Decision-Making Styles by Analyzing Digital Footprints on Facebook	2019	International Journal of Information Technology and Decision Making	Chen, Y.-J., Chen, Y.-M., Hsu, Y.-J., Wu, J.-H.
99.	Does the CMO's personality matter for web traffic? Evidence from technology-based new ventures	2019	Journal of the Academy of Marketing Science	Winkler, H.-J., Rieger, V., Engelen, A.
100.	Enterprise social media use and overload: A curvilinear relationship	2019	Journal of Information Technology	Chen, X., Wei, S.
101.	Big data methods, social media, and the psychology of entrepreneurial regions: capturing cross-county personality traits and their impact on entrepreneurship in the USA	2019	Small Business Economics	Obschonka, M., Lee, N., Rodríguez-Pose, A., Eichstaedt, J.C., Ebert, T.
102.	Emotion in enterprise social media systems	2019	Information Technology and People	Reychav, I., Inbar, O., Simon, T., McHaney, R., Zhu, L.
103.	Viral marketing and purchase intentions of mobile applications users	2019	International Journal of Emerging Markets	Hendijani Fard, M., Marvi, R.
104.	How do enterprise social media affordances affect social network ties and job performance?	2019	Information Technology and People	Chen, X., Wei, S., Davison, R.M., Rice, R.E.
105.	Leadership Communication on Internal Digital Platforms, Emotional Capital, and Corporate Performance: The Case for Leader-Centric Listening	2019	International Journal of Business Communication	Cardon, P.W., Huang, Y., Power, G.
106.	Effect of violation of social missions on public attitude towards a social enterprise crisis: Mediation of causal attribution and moderation of medium and framing of online articles	2019	Journalism	Ip, C.Y., Liang, C.
107.	Using user- and marketer-generated content for box office revenue prediction: Differences between microblogging and third-party platforms	2019	Information Systems Research	Song, T., Huang, J., Tan, Y., Yu, Y.

108.	The social media editor at medical journals: Responsibilities, goals, barriers, and facilitators	2019	Academic Medicine	Lopez, M., Chan, T.M., Thoma, B., Arora, V.M., Trueger, N.S.
109.	Measurement and management of competences by enterprise social networking	2019	International Journal of Productivity and Performance Management	Sardi, A., Garengo, P., Bititci, U.
110.	From start-up to acquisition: Implications of financial investment trends for small- to medium-sized high-tech enterprises	2019	Journal of Small Business Strategy	Irwin, K.C., Gilstrap, C.M., Drnevich, P.L., Tudor, C.M.
111.	Cognitive computing for customer profiling: meta classification for gender prediction	2019	Electronic Markets	Hirt, R., Kühl, N., Satzger, G.
112.	Framework for efficient utilisation of social media in Pakistan's healthcare sector	2019	Technology in Society	Nisar, S., Shafiq, M.
113.	Social media led co-creation of knowledge in developing societies: SME's roles in the adoption, use and appropriation of smartphones in South Asia	2019	Production Planning and Control	Dey, B.L., Sarma, M., Pandit, A., (...), Kumari, S., Punjaisri, K.
114.	A graph-oriented model for hierarchical user interest in precision social marketing	2019	Electronic Commerce Research and Applications	Zhu, Z., Zhou, Y., Deng, X., Wang, X.
115.	"I'm a stay at home businesswoman": an insight into informal entrepreneurship in Jordan	2019	Journal of Entrepreneurship in Emerging Economies	Mehtap, S., Ozmenekse, L., Caputo, A.
116.	Use of Social Networking Sites by SMEs to Engage With Their Customers: A Developing Country Perspective	2019	Journal of internet Commerce	Sharma, S., Singh, G., Aiyub, A.S.
117.	The impact of firms' social ties with customers on dual-channel supply chains	2019	Marketing Intelligence and Planning	Wei, W., Mei, S., Yang, J., Liu, Z.J.
118.	Application of the stimuli-organism-response framework to factors influencing social commerce intentions among social network users	2019	International Journal of Business Information Systems	Dashti, M., Sanayei, A., Dolatabadi, H.R., Javadi, M.H.M.

119.	Benefits and Challenges Associated with Using Online Communities by Social Enterprises: A Thematic Analysis of Qualitative Interviews	2019	Journal of Social Entrepreneurship	Abedin, B., Maloney, B., Watson, J.
120.	How managerial ties impact opportunity discovery in a transition economy? Evidence from China	2019	Management Decision	Guo, Hai; Tang, Jintong; Wei, Zelong
121.	Social media marketing in wine tourism: winery owners' perceptions.	2019	Journal of Travel & Tourism Marketing	Canovi, Magali; Pucciarelli, Francesca
122.	How Technology Support for Contextualization Affects Enterprise Social Media Use: A Media System Dependency Perspective.	2019	IEEE Transactions on Professional Communication	Chen, Xiayu; Wei, Shaobo; Sun, Chunhua; Liu, Yezheng
123.	Digitalization, business models, and SMEs: How do business model innovation practices improve performance of digitalizing SMEs?	2019	Telecommunications Policy	Bouwman, Harry; Nikou, Shahrokh; de Reuver, Mark
124.	Impact of social networking sites' use on entrepreneurial intention among undergraduate business students: The case of Saudi Arabia	2018	International Journal of Entrepreneurship	Hussein Alayis, M.M., Abdelmegeed Abdelwahed, N.A., Atteya, N.
125.	Strategic use of digital promotion strategies among female emigrant entrepreneurs in UAE	2018	International Journal of Emerging Markets	Jose, S.
126.	The more things change the more they stay the same: A replicated study of small retail firm resources	2018	Journal of Retailing and Consumer Services	Grimmer, L., Grimmer, M., Mortimer, G.
127.	A Taxonomy of SME E-Commerce Platforms Derived from a Market-Level Analysis	2018	International Journal of Electronic Commerce	Holland, C.P., Gutiérrez-Leefmans, M.
128.	Examining the impact of managerial involvement with social media on exporting firm performance	2018	International Business Review	Alarcón-del-Amo, M.-D.-C., Rialp-Criado, A., Rialp-Criado, J.
129.	Process-related value propositions of enterprise social media use for the external communication with end consumers	2018	Business Process Management Journal	Johannsen, F.A.

130.	The impact of digitalization on business models	2018	Digital Policy, Regulation and Governance	Bouwman, H., Nikou, S., Molina-Castillo, F.J., de Reuver, M.
131.	Understanding social media adoption in SMEs: Empirical evidence from the United Arab Emirates	2018	Journal of Entrepreneurship in Emerging Economies	AlSharji, A., Ahmad, S.Z., Abu Bakar, A.R.
132.	Spontaneous emergence of Community OR: Self-initiating, self-organising problem structuring mediated by social media	2018	European Journal of Operational Research	Yearworth, M., White, L.
133.	Social Media Strategies in Product-Harm Crises.	2018	Information Systems Research	Shu He; Huaxia Rui; Whinston, Andrew B
134.	iSpy? Tailored versus Invasive Ads and Consumers' Perceptions of Personalized Advertising.	2018	Electronic Commerce Research & Applications	Gironda, John T.; Korgaonkar, Pradeep K
135.	Not just for the recommender: How eWOM incentives influence the recommendation audience.	2018	Journal of Business Research	Reimer, Thomas; Benkenstein, Martin
136.	Developing and maintaining clients' trust through institutional mechanisms in online service markets for digital entrepreneurs: A process model	2018	Journal of Strategic Information Systems	Du, Wenyu (Derek); Mao, Ji-Ye
137.	Mobile phones, institutional quality and entrepreneurship in Sub-Saharan Africa	2018	Journal of Strategic Information Systems	Leidner, Dorothy E; Gonzalez, Ester; Koch, Hope
138.	Social networking websites: who survives?	2017	Applied Economics	Mangani, Andrea
139.	Using digital footprints in entrepreneurship research: A Twitter-based personality analysis of superstar entrepreneurs and managers	2017	Journal of Business Venturing Insights	Obschonka, M., Fisch, C., Boyd, R.
140.	The performance implications of leveraging internal innovation through social media networks: An empirical verification of the smart fashion industry	2017	Technological Forecasting and Social Change	Scuotto, V., Del Giudice, M., Peruta, M.R.D., Tarba, S.

141.	The psycholinguistics of entrepreneurship	2017	Journal of Business Venturing Insights	Tata, A., Martinez, D.L., Garcia, D., Oesch, A., Brusoni, S.
142.	Antecedents of social media usage and performance benefits in small- and medium-sized enterprises (SMEs)	2017	Journal of Enterprise Information Management	Odoom, R., Anning-Dorson, T., Acheampong, G.
143.	Follow for follow: marketing of a start-up company on Instagram	2017	Journal of Small Business and Enterprise Development	Virtanen, H., Björk, P., Sjöström, E.
144.	Social media, an entrepreneurial opportunity for agriculture-based enterprises	2017	Journal of Small Business and Enterprise Development	Morris, W., James, P.
145.	Enhancing customer brand experience and loyalty through enterprise microblogs: Empirical evidence from a communication framework perspective	2017	Information Technology and People	Yang, J., Zheng, R., Zhao, L., Gupta, S.
146.	The adoption of Firm-Hosted Online Communities: an empirical investigation into the role of service quality and social interactions.	2017	Enterprise Information Systems	Corkindale, David; Ram, Jiwat; Chen, Howard
147.	Contribution and consumption of content in enterprise social media	2017	Information Systems Management	Engler, T.H., Alpar, P.
148.	Investigating community members' purchase intention on Facebook fan page.	2017	Industrial Management & Data Systems	Hsu, Li-Chun
149.	Understanding factors affecting users' social networking site continuance: A gender difference perspective.	2017	Information & Management	Lin, Xiaolin; Featherman, Mauricio; Sarker, Saonee
150.	Examining the influence of online retailers' micro-blogs on consumers' purchase intention	2017	INTERNET RESEARCH	Zhou, XiaoMing; Song, Qi; Li, Yu-yin; et al
151.	Bonding and spreading Co-creative relationships and interaction with consumers in South Korea's indie music industry	2017	MANAGEMENT DECISION	Choi, Hwanho; Burnes, Bernard

152.	Examining the Effects of Online Social Networks and Organizational Learning Capability on Innovation Performance in the Hotel Industry	2017	PSYCHOLOGY & MARKETING	Palacios-Marques, Daniel; Devece-Caranana, Carlos; Llopis-Albert, Carlos
153.	Social media as an information system: improving the technological agility.	2016	Enterprise Information Systems	Senadheera, Vindaya; Warren, Matthew; Leitch, Shona
154.	Retailer use of a professional social media network: Insights from franchising	2016	Journal of Retailing and Consumer Services	Kacker, M., Perrigot, R.
155.	The Right Stuff: A NASA Technology-Based New Venture and the Search for Markets on Earth	2016	Entrepreneurship: Theory and Practice	Terjesen, S.
156.	From strategic orientation to social media orientation: Improving SMEs' performance on social media	2016	Journal of Small Business and Enterprise Development	Dutot, V., Bergeron, F.
157.	Social media's impact on organizational performance and entrepreneurial orientation in organizations	2016	Management Decision	Parveen, F., Jaafar, N.I., Ainin, S.
158.	A user's personality prediction approach by mining network interaction behaviors on Facebook	2016	Online Information Review	Chen, T.-Y., Tsai, M.-C., Chen, Y.-M.
159.	Social network enterprise behaviors and patterns in SMEs: Lessons from a Portuguese local community centered around the tourism industry	2016	Technology in Society	Fernandes, S., Belo, A., Castela, G.
160.	Standardization, Adaptation, and Personalization of International Corporate Social Media Communications.	2016	Psychology & Marketing	Hatzithomas, Leonidas; Fotiadis, Thomas A.; Coudounaris, Dafnis N
161.	Understanding the determinants of social network sites adoption at firm level: A mixed methodology approach.	2016	Electronic Commerce Research & Applications	Martins, José; Gonçalves, Ramiro; Oliveira, Tiago; Cota, Manuel; Branco, Frederico
162.	Are business users social? A design experiment exploring information sharing in enterprise social systems.	2016	Journal of Information Technology (Palgrave Macmillan)	Mettler, Tobias; Winter, Robert

163.	Text analytics in industry: Challenges, desiderata and trends.	2016	Computers in Industry	Ittoo, Ashwin; Nguyen, Le Minh; van den Bosch, Antal
164.	Modeling consumer switching behaviour in social network games by exploring consumer cognitive dissonance and change experience	2016	Industrial Management & Data Systems	Liu, Yong; Li, Hongxiu; Xu, Xiaoyu; Kostakos, Vassilis; Heikkilä, Jukka
165.	The role of social media and brand equity during a product recall crisis: A shareholder value perspective	2016	International Journal of Research in Marketing	Hsu, Liwu; Lawrence, Benjamin
166.	Enterprise social media: Current capabilities and future possibilities	2015	MIS Quarterly Executive	Kane, G.C.
167.	Exploring the role of social media in importing logics across social contexts: The case of IT SMEs in Iran	2015	Technological Forecasting and Social Change	Mohajerani, A., Baptista, J., Nandhakumar, J.
168.	Social Media: A Phenomenon to be Analyzed	2015	Social Media and Society	Boyd, D.
169.	The usage of digital marketing channels in SMEs	2015	Journal of Small Business and Enterprise Development	Taiminen, H.M., Karjaluoto, H.
170.	Drawing From Available Means: Assessing the Rhetorical Dimensions of Facebook Practice.	2015	International Journal of Business Communication	Hannah, Mark A.; Lam, Chris
171.	Tigerblood: Newspapers, blogs, and the founding of information technology firms	2015	Information Systems Research	Greenwood, B.N., Gopal, A.
172.	How Online Social Interactions Influence Customer Information Contribution Behavior in Online Social Shopping Communities: A Social Learning Theory Perspective.	2015	Journal of the Association for Information Science & Technology	Cheung, Christy M.K.; Liu, Ivy L.B.; Lee, Matthew K.O
173.	Public engagement with firms on social media in China	2015	Journal of information science	Wei, J., Xu, J., Zhao, D.

174.	Extracting and evaluating conversational patterns in social media: A socio-semantic analysis of customers' reactions to the launch of new products using Twitter streams.	2015	International Journal of Information Management	Lipizzi, Carlo; Iandoli, Luca; Ramirez Marquez, José Emmanuel
175.	Understanding the usage of global social networking sites by Arabs through the lens of uses and gratifications theory.	2015	Journal of Service Management	Al-Jabri, Ibrahim M.; Sohail, M. Sadiq; Ndubisi, Nelson Oly
176.	Handling complaints on social network sites – An analysis of complaints and complaint responses on Facebook and Twitter pages of large US companies.	2015	Public Relations Review	Einwiller, Sabine A.; Steilen, Sarah
177.	Leveraging social media for electronic commerce in Asia: Research areas and opportunities.	2015	Electronic Commerce Research & Applications	Lee, Sang-Yong Tom; Phang, Chee Wei
178.	SOCIAL MEDIA: A TECHNOLOGY THAT NEEDS NO SUPPORT FROM IT. . .YET.	2015	Journal of Computer Information Systems	ALFARO, IVAN; WATSON-MANHEIM, MARY BETH
179.	Professional and personal social networks: A bridge to entrepreneurship for academics?	2015	European Management Journal	Fernández-Pérez, Virginia; Alonso-Galicia, Patricia Esther; Rodríquez-Ariza, Lázaro; Fuentes-Fuentes, María del Mar
180.	Facilitators, characteristics, and impacts of Twitter use: Theoretical analysis and empirical illustration.	2015	International Journal of Information Management	Aladwani, Adel M.
181.	The "megapozitiv" role of enterprise social media in enabling cross-boundary communication in a distributed Russian organization	2014	American Behavioral Scientist	Gibbs, J.L., Eisenberg, J., Rozaidi, N.A., Gryaznova, A.
182.	u-centric social media: The Xiaomi phenomenon in China	2014	Business Horizons	Shih, C.-C., Lin, T.M.Y., Luarn, P.
183.	The value of social media for small businesses	2014	Journal of Information Systems	Schaupp, L.C., Bélanger, F.

184.	What do we know about software development in startups?	2014	IEEE Software	Giardino, C., Unterkalmsteiner, M., Paternoster, N., Gorschek, T., Abrahamsson, P.
185.	Extending the DART model for social media	2014	International Journal of Technology Management	Schiavone, F., Metallo, C., Agrifoglio, R.
186.	Exploring the Security of Information Sharing on Social Networking Sites: The Role of Perceived Control of Information.	2014	Journal of Business Ethics	Hajli, Nick; Lin, Xiaolin
187.	Mixed methods analysis of enterprise social networks.	2014	Computer Networks	Behrendt, Sebastian; Richter, Alexander; Trier, Matthias
188.	The importance of Facebook as an Online Social Networking Tool for Companies.	2014	International Journal of Accounting & Information Management	Correia, Pedro A. Pereira; Medina, Irene Garca; Romo, Zahaira González; Espinosa, Ruth Contreras
189.	Exploring the Commercial Value of Social Networks: Enhancing Consumers' Brand Experience through Facebook Pages.	2014	Journal of Enterprise Information Management	Chen, Dr Hsin; Papazafeiropoulou, Dr Anastasia; Chen, Mr Ta-Kang; Duan, Prof Yanqing; Liu, Dr Hsiu-Wen
190.	Understanding consumers' social networking site usage.	2014	Journal of Marketing Management	Gironda, John T.; Korgaonkar, Pradeep K
191.	Work Is Not a Game.	2013	Research Technology Management	Spencer, Robin W
192.	Exploring social network interactions in enterprise systems: The role of virtual co-presence	2013	Information Systems Journal	Subramaniam, N., Nandhakumar, J., Baptista John, J.
193.	An online discursive inquiry into the social dynamics of multi-stakeholder brand meaning co-creation	2013	Journal of Business Research	Vallaster, Christine; von Wallpach, Sylvia

194.	Value fusion. The blending of consumer and firm value in the distinct context of mobile technologies and social media	2013	Journal of Service Management	Larivière, Bart; Joosten, Herm; Malthouse, Edward C.; van Birgelen, Marcel; Aksoy, Pelin; Kunz, Werner H.; Ming-Hui Huang
195.	Social Media and Business Transformation: A Framework for Research.	2013	Information Systems Research	Aral, Sinan; Dellarocas, Chrysanthos; Godes, David
196.	Engineering Optimal Network Effects via Social Media Features and Seeding in Markets for Digital Goods and Services.	2013	Information Systems Research	Yifan Dou; Niculescu, Marius F.; Wu, D. J
197.	Strategic Entrepreneurship in the Hotel Industry: The Role of Chain Affiliation	2012	Scandinavian Journal of Hospitality and Tourism	Carlbäck, M.
198.	Towards unions 2.0: rethinking the audience of social media engagement.	2012	New Technology, Work & Employment	Panagiotopoulos, Panagiotis
199.	Marketing activity, blogging and sales	2012	International Journal of Research in Marketing	Onishi, Hiroshi; Manchanda, Puneet
200.	THE IMPACT OF SOCIAL MEDIA FEATURES ON PRINT MEDIA FIRMS' ONLINE BUSINESS MODELS.	2012	Journal of Media Business Studies	Wikström, Patrik; Ellonen, Hanna-Kaisa
201.	Global Social Media Usage: Insights Into Reaching Consumers Worldwide	2012	Thunderbird International Business Review	Singh, Nitish; Lehnert, Kevin; Bostick, Kathleen
202.	SOCIAL COMPARISON, SOCIAL PRESENCE, AND ENJOYMENT IN THE ACCEPTANCE OF SOCIAL SHOPPING WEBSITES.	2012	Journal of Electronic Commerce Research	Jia Shen
203.	Bringing "Social" into Sales: The Impact of Salespeople's Social Media Use on Service Behaviors and Value Creation.	2012	Journal of Personal Selling & Sales Management	Agnihotri, Raj; Kothandaraman, Prabakar; Kashyap, Rajiv; Singh, Ramendra

204.	Revolution in Sales: The Impact of Social Media and Related Technology on the Selling Environment.	2012	Journal of Personal Selling & Sales Management	Marshall, Greg W.; Moncrief, William C.; Rudd, John M.; Lee, Nick
205.	Toward Understanding New Sales Employees' Participation in Marketing-Related Technology: Motivation, Voluntariness, and Past Performance.	2012	Journal of Personal Selling & Sales Management	Levin, Michael A.; Hansen, Jared M.; Laverie, Debra A
206.	The economic and cultural aspects of the social web: Implications for the tourism industry.	2012	Journal of Vacation Marketing	Amersdorffer, Daniel; Bauhuber, Florian; Oellrich, Jens
207.	Computer-assisted Webnography: A new approach to online reputation management in tourism.	2012	Journal of Vacation Marketing	Horster, Eric; Gottschalk, Carsten
208.	Introduction to the Special Issue Social Commerce: A Research Framework for Social Commerce.	2011	International Journal of Electronic Commerce	Liang, Ting-Peng; Turban, Efraim
209.	What Drives Social Commerce: The Role of Social Support and Relationship Quality.	2011	International Journal of Electronic Commerce	Liang, Ting-Peng; Ho, Yi-Ting; Li, Yu-Wen; Turban, Efraim
210.	Building a personal brand through social networking	2011	Journal of Business Strategy	Harris, Lisa; Rae, Alan
211.	Social spending: Managing the social media mix	2011	Business Horizons	Weinberg, Bruce D.; Pehlivan, Ekin
212.	Classifying ecommerce information sharing behaviour by youths on social networking sites.	2011	Journal of Information Science	Jansen, Bernard J.; Sobel, Kate; Cook, Geoff
213.	How can virtual communities create value for business?	2010	Electronic Commerce Research & Applications	Spaulding, Trent J

Appendix D: Countries classified by region

Regions	Countries
America	United States of America
North America	Canada
South/Latin America	Argentina – Barbados – Brazil - Belize – Bolivia – Chile - Colombia - Costa Rica - Dominican Republic – Ecuador - El Salvador – Guatemala – Jamaica - Mexico- Panama – Peru - Puerto Rico - Suriname - Trinidad and Tobago - Uruguay – Venezuela
Europe	United Kingdom - Austria - Bosnia and Herzegovina - Belgium -Bulgaria - Switzerland - Czech Republic - Germany - Denmark -Estonia - Spain - Finland - France - Georgia - Greece - Croatia - Hungary - Ireland - Iceland - Italy - Lithuania - Luxembourg - Latvia – Norway - Netherlands - Poland - Portugal - Romania – Russia – Sweden – Slovenia – Slovakia – Turkey – Serbia – Montenegro – Macedonia – Israel - Kosovo
Middle east	United Arab Emirates - Saudi Arabia – Qatar – Jordan – Syria – Lebanon – Yemen - Iran
Africa	Angola - Burkina Faso – Botswana – Cameroon – Ethiopia – Ghana – Nigeria – Namibia – Malawi – Senegal – Uganda - South Africa -Zambia
North Africa	Algeria – Morocco – Libya – Egypt - Tunisia
Asia & Pacific	Australia – Bangladesh – Kazakhstan – China – Japan – Korea –Indonesia – India – Malaysia – Philippines – Pakistan – Singapore –Thailand – Tonga – Vietnam – Vanuatu - Hong Kong - Taiwan

Appendix E: Social networking use by country

By Jacob Poushter, Caldwell Bishop and Hanyu Chwe (PEW, 2018)

Percentage of adults who use online social networking sites

	2013	2014	2015	2016	2017
	%	%	%	%	%
United States	61	62	65	69	69*
Canada	--	--	66	65	68
France	--	--	43	48	53
Germany	--	--	42	37	40
Greece	--	--	--	46	45
Hungary	--	--	--	53	56
Italy	--	--	47	53	48
Netherlands	--	--	--	70	61
Poland	43	39	46	50	46
Spain	--	--	57	63	59
Sweden	--	--	--	71	67
United Kingdom	--	--	58	61	60
Russia	57	62	61	--	66
Australia	--	--	65	70	69
China	26	37	41	60	--
India	8	13	14	14	20
Indonesia	19	21	26	--	26
Japan	--	--	36	43	39
Philippines	30	39	35	--	49
South Korea	--	--	51	--	69
Vietnam	--	34	38	--	53
Israel	--	--	65	--	68
Jordan	40	39	60	--	75
Lebanon	41	42	49	--	72
Tunisia	34	37	--	--	38
Turkey	32	--	62	--	63
Ghana	20	15	20	--	32
Kenya	28	26	32	--	30
Nigeria	28	32	33	--	35
Senegal	25	24	23	--	35
South Africa	27	30	31	--	43
Tanzania	--	15	17	--	20
Argentina	51	52	59	--	65
Brazil	36	42	48	--	53

Chile	50	66	66	--	63
Colombia	--	46	--	--	61
Mexico	35	41	44	--	53
Peru	--	39	42	--	53
Venezuela	49	59	59	--	59

Appendix F: GEM methodology and Structure

The emphasis of GEM methodology on the Adult Population Survey through questions that target various categories of people involved in business is our study scope. These categories involve people who are starting a business, individuals who already own businesses, individuals providing capital to new businesses and individuals who have ended their business. The questionnaire adopted by the APS consists of (a) centralised questions capable of deriving consistent GEM dealings such as apparent opportunities, apparent skills, emerging entrepreneurship, TEA and other measures which are necessary for improving free enterprise ambitions; (b) specialised questions for the yearly subject which has been chosen, set and presented alongside the fixed processes; (c) a set of partial queries that can be introduced by the GEM Research Committee and (d) optional units: sets of questions on a given topic approved by the group of nations concerned (previous topics have included networking and innovation assurance) (Bosma, 2013).

To estimate the level of nationwide entrepreneurial action, the APS had to apply private interviews with nationwide experts selected for their familiarity with the entrepreneurial sector in their respective nation. The data provided through the interviews involved 2 modules which were open-ended evaluations by experts of how their nations have contributed to the strengths and weaknesses of entrepreneurship. The next component was a self-administered permanent response inquiry form. The form focused on the respondents' perceptions to and participation in entrepreneurial activity (Reynolds et al., 2005).

The survey researchers sent the data to the GEM coordination team for preliminary review and evaluation. The team analysed the data to identify any probable inconsistencies could be matched to the most current official data which would provide a description of the entire population of a nation. The weighting of the observations varied across the different countries. Age and gender remained the only constant factors while others, such as household income, ethnic background and level of education, varied across the countries (Reynolds et al., 2005).

GEM Interview structure

The inquiry form contained 10 items for all respondents questioned. The questions were divided into 2 categories. The first category involved 6 statements that have been provided in the table below. The questions concerned their varied involvement in entrepreneurial activity. In answering the questions, only one of the 4 possible responses could be chosen from 'yes', 'no', 'don't know' and 'refused'.

GEM Adult Population Survey: Items related to individual involvement in entrepreneurial activity.

(1a)	You are, alone or with others, currently trying to start a new business, including any self-employment or selling any goods or services to others.
(1b)	You are, alone or with others, currently trying to start a new business or a new venture employer – an effort that is part of your normal work.
(1c)	You are, alone or with others, currently the owner of a company you help manage, self-employed, or selling any goods or services to others.
(1d)	You have, in the past three years, personally provided funds for a new business started by someone else, excluding any purchases of stocks or mutual funds.
(1e)	You are, alone or with others, expecting to start a new business, including any type of self-employment, within the next three years.
(1f)	You have, in the past 12 months, shut down, discontinued or quit a business you owned and managed, any form of self-employed, or selling goods or services to anyone. Do not count a business that was sold

Source: GEM, 2003.

In the first 6 questions, if the respondents answered yes, they were questioned on items in groups A and B. The respondents who answered using the other options were randomly divided into 2 groups of the same size, namely group A and group B. The respondents in group A were asked questions related to their personal perceptions towards free enterprise in the last 4 questions (1g–1j) as shown in the next table. The respondents in group B were asked questions related to the outlook of their respective countries towards entrepreneurship. If they answered yes or no to statements 1k–1n, their answers would be coded in the same way as for the first 6 questions (Reynolds *et al.*, 2005).

GEM Adult Population Survey: Items related to individual perceptions and perceptions regarding entrepreneurial activity.

Group A	
(1g)	Do you know someone personally who started a business in the past 2 years?
(1h)	In the next six months, will there be good opportunities for starting a business in the area where live?
(1i)	Do you have the knowledge, skill and experience required to start a business?
(1j)	Would fear of failure prevent you from starting a business?
Group B	
(1k)	In your country, most people would prefer that everyone had a similar standard of living.
(1l)	In your country, most people consider starting a new business a desirable career choice
(1m)	In your country, those successful at starting a new business have a high level of status and respect.
(1n)	In your country, you will often see stories in the public media about successful new business.

Source: GEM, 2003.

The participants characterised by the TEA indicator came from diverse groups. This increased the probability of there being mixed reasons for their involvement in entrepreneurship. Individuals are involved in business for various reasons; some are able to identify an opportunity that they want to pursue while others start a business because of a lack of other suitable work. Both start-up entrepreneurs and existing business entrepreneurs were identified by the GEM through the questions related to personal motivations as shown in the following table (Reynolds *et al.,* 2005).

GEM Adult Population Survey: Items related to individuals identified as involved in the entrepreneurial process.

Nascent entrepreneurs (those who responded 'yes' to q 1a or q 1b)	
(2a)	Over the past twelve months have you done anything to help start a new business, such as looking for equipment or a location, organising a start-up team, working on a business plan, beginning to save money, or any other activity that would help launched a business?
(2b)	Will you personally own all, part or none of this business?
(2c)	How many people, including yourself, will both own and manage this new business?
(2d)	Has the new business paid any salaries, wages, or payments in kind, including your own, for more than three months?
(2e)	What was the first year the owners received wages, profits, or payments in kind?

Owner-manager of existing firms (those who responded 'yes' to q 1c)	
(3a)	Do you personally own all, part, or none of this business?
(3b)	How many people both own and manage this business?
(3c)	What was the first year the owners received wages, profits, or payments in kind?

Source: GEM, 2003.

Appendix G: List of High/Low Institutional Quality Countries

Low Institutional Quality Countries	High Institutional Quality Countries
Algeria	Australia
Angola	Austria
Argentina	Barbados
Bangladesh	Belgium
Belize	Botswana
Bolivia	Bulgaria
Bosnia and Herzegovina	Canada
Brazil	Chile
Burkina Faso	Costa Rica
Cameroon	Croatia
China	Czech Republic
Colombia	Denmark
Ecuador	Dominican Republic
Egypt	Estonia
El Salvador	Finland
Ethiopia	France
Georgia	Germany
Ghana	Greece
Guatemala	Hong Kong
India	Hungary
Indonesia	Iceland
Iran	Ireland
Jamaica	Israel
Jordan	Italy
Kazakhstan	Japan
Kosovo	Latvia
Lebanon	Lithuania
Libya	Luxembourg
Macedonia	Malaysia
Malawi	Namibia
Mexico	Netherlands
Montenegro	Norway
Morocco	Poland
Nigeria	Portugal
Pakistan	Puerto Rico

Panama	Qatar
Peru	Singapore
Philippines	Slovakia
Romania	Slovenia
Russia	South Africa
Saudi Arabia	South Korea
Senegal	Spain
Serbia	Sweden
Suriname	Switzerland
Syria	Taiwan
Thailand	United Arab Emirates
Tonga	United Kingdom
Trinidad and Tobago	United States
Tunisia	Uruguay
Turkey	
Uganda	
Vanuatu	
Venezuela	
Vietnam	
Yemen	
Zambia	

Appendix H: Individual Level Probit Regression Results

VARIABLES	(1) Opportunity	(2) Capability	(3) Startbusiness
socialuser	0.00787***	0.00219**	0.00438***
	(0.00110)	(0.00106)	(0.00124)
ease	0.00790***	-0.00887***	-0.0115***
	(0.00161)	(0.00154)	(0.00182)
gdp	0.0330***	0.0170***	0.0129***
	(0.00302)	(0.00280)	(0.00349)
unemploy	-0.0250**	0.0547***	-0.0353***
	(0.0104)	(0.00999)	(0.0117)
education	-0.0211***	-0.00204	0.0122***
	(0.00292)	(0.00281)	(0.00320)
age	-0.00442***	0.00145***	-0.0153***
	(0.000185)	(0.000172)	(0.000207)
sex	-0.116***	-0.304***	-0.143***
	(0.00517)	(0.00483)	(0.00582)
Constant	-0.0730	1.105***	0.534***
	(0.148)	(0.143)	(0.163)
Observations	252,371	280,631	278,394
Country FE	YES	YES	YES
Year FE	YES	YES	YES

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix I: Using Institutional Quality Index for grouping countries

Country level regressions- Low vs High Institutional Quality

	Low Institutional Quality			High Institutional Quality		
VARIABLES	Perceived Opp.	Perceived Cap.	Startbusiness	Perceived Opp.	Perceived Cap.	Startbusiness
socialnetusers	0.0277	0.331**	0.163*	0.226	0.368***	0.372***
	(0.201)	(0.146)	(0.0928)	(0.216)	(0.109)	(0.111)
ease	0.529**	0.0976	0.298*	-0.614*	-0.415*	-0.210
	(0.228)	(0.251)	(0.159)	(0.350)	(0.241)	(0.139)
gdp	1.675	-1.986***	-0.428	-0.589	-0.426	0.00478
	(1.018)	(0.418)	(0.579)	(0.392)	(0.298)	(0.181)
unemploy	-0.169	0.649	-0.766	-3.377**	0.148	0.470
	(0.529)	(0.437)	(0.460)	(1.652)	(0.481)	(0.320)
education	-0.353	-0.0749	-0.0960	-1.290**	-0.429	-0.464
	(0.218)	(0.243)	(0.323)	(0.518)	(0.355)	(0.282)
Constant	7.192	51.16**	10.12	212.6***	100.8**	45.35
	(19.20)	(18.21)	(16.30)	(54.13)	(48.05)	(30.70)
Observations	58	58	58	79	79	79
R-squared	0.347	0.353	0.366	0.626	0.593	0.522
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix J: High/Low Rule of Law Subsample Regressions

Country Level Regressions- Low vs High Rule of Law

	Low Rule of Law			High Rule of Law		
VARIABLES	(1) Perceived Opp.	(2) Perceived Cap.	(3) Startbusiness	(1) Perceived Opp.	(2) Perceived Cap.	(3) Startbusiness
Socialnetusers	-0.0208	0.325*	0.134	0.225	0.366***	0.374***
	(0.227)	(0.161)	(0.125)	(0.211)	(0.106)	(0.121)
Ease	0.533**	0.0716	0.224	-0.616	-0.417	-0.208
	(0.236)	(0.299)	(0.252)	(0.509)	(0.314)	(0.199)
Gdp	2.128	-2.058**	-0.510	-0.581	-0.415	-0.00239
	(1.320)	(0.809)	(0.755)	(0.433)	(0.351)	(0.211)
Unemploy	0.261	0.536	-0.974*	-3.372*	0.154	0.465
	(0.693)	(0.577)	(0.477)	(1.671)	(0.606)	(0.571)
Education	-0.505	-0.0585	-0.0906	-1.286**	-0.423	-0.468*
	(0.356)	(0.378)	(0.410)	(0.539)	(0.330)	(0.275)
Constant	6.229	32.08	3.480	239.8***	124.2***	57.76*
	(21.64)	(21.08)	(20.55)	(61.52)	(38.39)	(31.55)
Observations	58	58	58	79	79	79
R-squared	0.915	0.947	0.959	0.952	0.964	0.971
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix K: Country Level Data

country	year	Rule of law	Ease of Doing Business (score)	Gross Domestic Product (billions of USD)	Education Rate	Unemploy-ment Rate	Social Media Users	Internet Users	Perceived Opportunity	Perceived Capability	Entrepreneurial Intention
Algeria	2007	-0.77275	72.4	3986.564	23.60133	13.79		9.45			
Algeria	2008	-0.74147	72.48	4943.502		11.33		10.18			
Algeria	2009	-0.79354	73.32	3886.059	29.90938	10.16		11.23	48.42	52.06	22.26
Algeria	2010	-0.78495	73.5	4480.719	29.88943	9.96		12.5			
Algeria	2011	-0.80767	73.18	5453.894	31.21409	9.96		14.9	54.26	59.6	41.76
Algeria	2012	-0.77228	73.53	5574.507	32.20153	10.97		18.2	45.67	54.1	21.27
Algeria	2013	-0.68937	73.74	5477.055	33.89099	9.82		22.5	61.86	55.51	36.02
Algeria	2014	-0.77317	73.61	5466.329	34.48182	10.6	18	29.5			
Algeria	2015	-0.86394	74.57	4153.326	36.78132	11.2		38.2			
Algeria	2016	-0.8574	76.59	3928.385	42.62885	10.2		42.95			
Algeria	2017	-0.86394	78.04	4033.902	47.64683	10.13		47.69			
Angola	2007	1.182821	33.47	3099.087		16.8		1.7			
Angola	2008	1.196158	45.71	4081.688		14.5		1.9	74.45	52	27.49
Angola	2009	1.224501	45.71	3146.802		12.14		2.3			
Angola	2010	1.204553	52.04	3641.444		9.86		2.8	67.31	73.11	54.55
Angola	2011	1.407835	46.46	4716.253	6.1303	7.36		3.1			
Angola	2012	1.407764	51.28	5245.023		7.35		6.5	66.17	72.05	69.61
Angola	2013	1.409044	53.82	5436.516	8.83833	7.33		8.9	56.67	56.32	38.25
Angola	2014	1.641953	55.63	5625.736		7.31		10.2	69.75	61.68	39.34
Angola	2015	1.575988	57.15	4354.921	8.40094	7.28		12.4			
Angola	2016	1.577925	77.48	3676.826	9.33626	7.72		13			
Angola	2017	1.60133	79.67	4465.734		8.17		14.34			
Argentina	2007	-0.5916	71.96	7315.726	66.41163	8.47		25.95	60.8	57.06	20.03
Argentina	2008	-0.67661	72.37	9146.79	68.05695	7.84		28.11	47.33	62.15	15.29
Argentina	2009	-0.67548	71.1	8337.811	70.20646	8.65		34	43.97	65.11	14.21
Argentina	2010	-0.59051	72.1	10412.95	73.2314	7.71		45	50.35	63.54	20.97

Argentina	2011	-0.56089	71.7	12787.81	76.2974	7.18		51	56.03	63.76	29.95
Argentina	2012	-0.67968	72.18	13889.79	77.44629	7.22		55.8	50.08	63.46	29.2
Argentina	2013	-0.70768	72.58	14488.83	78.2239	7.1	51	59.9	40.87	61.75	31.02
Argentina	2014	-0.88603	71.59	13208.83	80.99581	7.27	52	64.7	31.91	57.78	27.83
Argentina	2015	-0.77081	72.39	14895.32	84.002	7.15	59	68.04	45.88	61.62	29.14
Argentina	2016	-0.39361	73.28	12708.87	87.21345	8.7		70.97	44.29	61.16	27.96
Argentina	2017	-0.24561	73.51	14462.92	89.95852	8.52	65	75.81	29.65	43.08	13.36
Australia	2007	1.761237	96.2	45041.77		4.38		69.45			
Australia	2008	1.770851	96.33	49083.92		4.23		71.67			
Australia	2009	1.740398	96.45	45617.78		5.56		74.25			
Australia	2010	1.764966	96.46	56357.41		5.21		76	45.69	53.16	8.73
Australia	2011	1.74258	96.47	67104.95		5.08		79.49	47.83	47.42	12.26
Australia	2012	1.766946	96.47	68321.34		5.22		79			
Australia	2013	1.778639	96.47	65064.28		5.66		83.45			
Australia	2014	1.923105	96.47	61546.55		6.07	53	84	45.72	46.8	10.02
Australia	2015	1.825212	96.47	51404.41	118.6109	6.06	65	84.56	48.87	48.21	14.39
Australia	2016	1.755521	96.47	51861.44	120.9657	5.72	70	86.54	49.28	52.34	12.34
Australia	2017	1.681837	96.47	55692.73	113.1422	5.59	70	86.54	51.39	49.3	13.19
Austria	2007	1.960128	79.13	46922.41	63.04729	4.86		69.37	50.68	52.61	5.26
Austria	2008	1.922995	79.41	51953.56	65.8869	4.13		72.87			
Austria	2009	1.78489	79.61	48095.38	68.11265	5.3		73.45			
Austria	2010	1.8003	79.67	46958.52	75.62378	4.82		75.17			
Austria	2011	1.801555	79.59	51441.11	78.49945	4.56		78.74			
Austria	2012	1.858179	79.65	48615.8	78.93891	4.87		80.03	49.21	49.61	8.57
Austria	2013	1.851382	79.87	50748.09	79.6554	5.33		80.62			
Austria	2014	1.952464	79.97	51801.38	79.1587	5.62	39	81	44.4	48.67	8.15
Austria	2015	1.855247	82.76	44296.59	80.71942	5.72		83.94			
Austria	2016	1.814967	82.82	44733.41	83.45495	6.01		84.32	42.24	49.6	10.39
Austria	2017	1.812473	83.1	47347.44	85.05714	5.5		87.94			
Bangladesh	2007	-0.82679	69.15	584.5	7.93297	3.91		1.8			
Bangladesh	2008	-0.75014	63.87	655.954	8.88409	4.24		2.5			
Bangladesh	2009	-0.78555	68.18	728.387	10.85809	5		3.1			

Bangladesh	2010	-0.80293	73.57	807.531		3.38		3.7			
Bangladesh	2011	-0.73243	78.8	857.496	13.69156	3.65		4.5	64.43	23.63	24.57
Bangladesh	2012	-0.9293	79.02	916.025	13.801	3.91	2	5			
Bangladesh	2013	-0.86682	78.99	1030.028		4.43	2	6.63			
Bangladesh	2014	-0.77767	80.51	1163.041	13.86508	4.43	6	13.9			
Bangladesh	2015	-0.75128	81.36	1303.18		4.43	8	14.4			
Bangladesh	2016	-0.66349	81.71	1458.851	17.87436	4.35	14	18.02			
Bangladesh	2017	-0.67122	81.51	1602.555	18.15146	4.37	15	18.02			
Barbados	2007	1.328913		17014.95	59.73393	7.45		58.2			
Barbados	2008	1.308763		17380.77		8.07		61.4			
Barbados	2009	1.01432		16185.71	75.69624	10.02		64.7			
Barbados	2010	1.08103		16380.38	69.80744	10.69		65.1			
Barbados	2011	1.081796		16803.9	65.42534	11.14		66.5	43.63	66.41	13.2
Barbados	2012	1.031676	84.36	16593.83		11.58		71.2	47.01	69.86	22.99
Barbados	2013	1.046183	84.4	16797.55		11.55		71.8	45.69	74.5	18.38
Barbados	2014	1.082493	84.4	16827.82		12.17		75.16	38.16	63.51	11.48
Barbados	2015	1.095215	84.36	16893.66		11.35		76.11	54.97	75.03	21.61
Barbados	2016	0.795123	84.43	17266.2		9.72		79.55			
Barbados	2017	0.65752	85.1	17757.58		9.69		81.76			
Belgium	2007	1.330672	85.37	44638.2	61.20013	7.46		64.44	16.31	37.37	5.63
Belgium	2008	1.345495	92.75	48850.72	62.08624	6.98		66	14.1	36.26	6.39
Belgium	2009	1.384073	92.77	45176.01	65.26769	7.91		70	14.54	36.65	5.23
Belgium	2010	1.393128	92.8	44691.26	67.82901	8.29		75	39.58	44.86	8.22
Belgium	2011	1.418426	92.78	47951.07	69.84253	7.14		81.61	42.97	43.99	10.89
Belgium	2012	1.427129	92.84	44976.95	71.19202	7.54		80.72	33.29	37.11	9.06
Belgium	2013	1.438435	92.91	46784.99	72.11549	8.43		82.17	31.5	33.85	7.85
Belgium	2014	1.523439	92.91	47546.85	72.9974	8.52	52	85	35.93	30.4	10.55
Belgium	2015	1.463494	92.92	40514.1	74.55976	8.48		85.05	40.26	31.89	10.85
Belgium	2016	1.390965	93.01	41352.05	75.89064	7.83		86.52			
Belgium	2017	1.343427	93.02	43488.49	79.66173	7.09		87.68			
Belize	2007	-0.10779	72.56	4143.093	18.18182	8.51		24.6			
Belize	2008	-0.20873	72.93	4249.069	19.09912	8.18		26.3			

Belize	2009	-0.36787	72.99	4141.123	22.41008	9.9		27.2			
Belize	2010	-0.33951	73.15	4317.435	21.86788	11.42		28.2			
Belize	2011	-0.48502	73.08	4475.383	21.90514	12.93		30.7			
Belize	2012	-0.45781	72.99	4617.685	24.32075	14.27		31			
Belize	2013	-0.46705	72.97	4610.937	24.16824	11.68		33.6			
Belize	2014	-0.74515	73.12	4773.721	24.00411	11.57		38.7	49.55	69	10.09
Belize	2015	-0.72096	73.26	4855.441	23.25367	9.97	29	41.59			
Belize	2016	-0.86373	73.28	4842.019	24.21411	7.91		44.58	71.77	84.65	42.87
Belize	2017	-0.95834	73.23	4806.493	24.65664	9.33		47.08			
Bolivia	2007	-0.83011	50.71	1399.8		4.91		10.5			
Bolivia	2008	-0.97453	52.63	1749.2		2.6		12.5	54.02	76.16	37.52
Bolivia	2009	-1.10793	55.43	1789.604		2.86		16.8			
Bolivia	2010	-1.02374	56.98	1994.911		2.54		22.4	53.24	75.84	49.27
Bolivia	2011	-0.97906	56.8	2394.789		2.22		30			
Bolivia	2012	-1.01607	58.02	2664.571		2.05		35.34			
Bolivia	2013	-1.04643	59.95	2969.52		2.39		36.99			
Bolivia	2014	-1.05519	60.25	3146.851		2.01	26	34.6	57.67	73.11	46.94
Bolivia	2015	-1.14106	61.09	3099.454		3.07		35.56			
Bolivia	2016	-1.20056	61.83	3137.626		3.06		39.7			
Bolivia	2017	-1.20827	63.02	3412.813		3.15		43.83			
Bosnia	2007	-0.47046	51.19	4060.061		28.93		27.92			
Bosnia	2008	-0.41151	52.55	4971.824		23.3		34.66	45.59	68.38	24.54
Bosnia	2009	-0.35806	51.39	4697.839		24.03		37.74	34.98	56.97	16.6
Bosnia	2010	-0.35086	53.7	4611.347		27.2		42.75	38.25	62.55	16.76
Bosnia	2011	-0.33268	50.36	5050.025		27.6		43.89	20.53	48.86	17.17
Bosnia	2012	-0.20674	54.33	4716.643		28.05		45.06	19.57	49.11	21.94
Bosnia	2013	-0.15157	56.6	5036.032		27.45		48.52	23.26	50.5	21.76
Bosnia	2014	-0.18562	56.61	5194.014		27.52	40	49.92	19.59	47.3	20.43
Bosnia	2015	-0.28137	56.69	4584.264		27.69		52.6			
Bosnia	2016	-0.21673	56.89	4808.299		25.06		60.26			
Bosnia	2017	-0.21133	58.43	5180.778		25.56		69.49	13.42	35.49	4.55
Botswana	2007	0.649876	59.08	5676.255	11.11516	17.39		5.28			

Botswana	2008	0.695976	59.13	5641.182	15.47852	16.99		6.25			
Botswana	2009	0.666225	68.09	5183.686	23.68351	16.17		6.15			
Botswana	2010	0.674656	71.89	6374.994	20.84838	17.86		6			
Botswana	2011	0.667685	71.88	7503.961	18.5427	17.62		9			
Botswana	2012	0.662495	78.17	7710.797	22.83048	17.49		16	66.7	70.59	71.94
Botswana	2013	0.596098	78.21	7007.254		17.72		30	65.9	67.44	59.2
Botswana	2014	0.633616	77.95	7497.686	27.30731	17.35		36.74	57.16	67.14	63.37
Botswana	2015	0.59616	76.2	6538.589	30.23934	17.01		37.31	57.81	74.11	61.85
Botswana	2016	0.533726	76.21	6959.376	25.91087	17.12		39.36			
Botswana	2017	0.519359	76.21	7584.499	24.85997	17.36		41.41			
Brazil	2007	-0.371	54.65	7369.461	30.78669	8.09		30.88	39.01	53.65	21.43
Brazil	2008	-0.31528	53.11	8849.837	35.5621	7.63		33.83	41.44	53.12	26.17
Brazil	2009	-0.15651	53.39	8617.229	37.0384	8.28		39.22	46.98	52.85	20.65
Brazil	2010	0.044081	56.49	11292.87		7.26		40.65	48.12	57.94	26.46
Brazil	2011	0.037661	57.92	13242.51	43.45983	6.69		45.69	43.06	52.78	28.22
Brazil	2012	-0.06945	58.15	12368.68	44.96641	7.19		48.56	52.4	53.94	36.47
Brazil	2013	-0.08018	58.22	12293.82	46.81655	6.99	36	51.04	50.93	52.62	27.2
Brazil	2014	-0.04986	63.74	12112.31	49.91353	6.67	42	54.55	55.54	49.96	24.5
Brazil	2015	-0.14708	64.69	8803.352	51.05413	8.44	48	58.33	42.38	58.27	24.37
Brazil	2016	-0.15722	63.9	8701.09	50.48851	11.61		60.87	40.23	53.57	27.67
Brazil	2017	-0.28437	64.75	9895.765	51.3436	13.32	53	67.47	46.42	55.89	15.25
Bulgaria	2007	-0.04596	70.64	5812.68	50.58833	6.88		33.64			
Bulgaria	2008	-0.10726	69.68	7152.785	51.91331	5.61		39.67			
Bulgaria	2009	-0.03834	73.87	6859.679	54.23545	6.82		45			
Bulgaria	2010	-0.06924	83.4	6743.737	57.79518	10.28		46.23			
Bulgaria	2011	-0.11174	84.7	7836.578	59.02869	11.26		47.98			
Bulgaria	2012	-0.08521	84.73	7399.392	61.35998	12.27		51.9			
Bulgaria	2013	-0.10241	84.79	7695.689	64.19198	12.94		53.06			
Bulgaria	2014	-0.04602	84.8	7877.094	67.56356	11.42	43	55.49			
Bulgaria	2015	-0.097	84.83	7017.109	70.30154	9.14		56.66	15.84	35.17	5.34
Bulgaria	2016	-0.06147	84.84	7496.077	71.24574	7.57		59.83	21.04	39.67	7.09
Bulgaria	2017	-0.04092	84.85	8077.009		6.16		63.41	19.46	38.36	5.01

Burkina Fa	2007	-0.39938	42.21	475.793	2.61219	3.3		0.75			
Burkina Fa	2008	-0.34488	52.99	572.441	3.18105	3.75		0.92			
Burkina Fa	2009	-0.20712	57.44	554.18	3.53374	4.19		1.13			
Burkina Fa	2010	-0.19449	60.89	574.328	3.57942	4.65		2.4			
Burkina Fa	2011	-0.35895	60.96	667.452	4.14652	5.1		3			
Burkina Fa	2012	-0.4368	64.62	674.196	4.55887	5.55		3.73			
Burkina Fa	2013	-0.53045	65.95	700.24	4.77675	6		9.1			
Burkina Fa	2014	-0.54725	69.21	704.983	5.07697	6.5		9.4	63.61	65.89	42.34
Burkina Fa	2015	-0.52336	69.06	575.621	5.06383	6.49		11.39	58.1	78.05	45.87
Burkina Fa	2016	-0.44128	86.69	606.554	5.56196	6.39		13.96	61.88	76.72	63.67
Burkina Fa	2017	-0.39848	88.06	654.869	6.0034	6.3		15.88			
Cameroon	2007	-1.18469	43.54	1187.884	7.26151	2.9		2.93			
Cameroon	2008	-1.09986	46.87	1368.943	7.88311	3.2		3.4			
Cameroon	2009	-1.12314	44.3	1309.147	9.0476	3.51		3.84			
Cameroon	2010	-1.07124	49.73	1282.461	11.15702	4.11		4.3			
Cameroon	2011	-1.07448	67.65	1402.671	12.07216	4.17		5			
Cameroon	2012	-1.04152	71.41	1357.119	13.09234	4.23		7.5			
Cameroon	2013	-1.05095	72.87	1471.227	15.29166	4.28		10			
Cameroon	2014	-0.89645	72.6	1552.471	16.28087	4.32		16.21	69.34	73.77	55.57
Cameroon	2015	-0.97597	73.8	1338.603	16.96239	4.3		20.68	60.75	73.09	33.09
Cameroon	2016	-1.036	74.8	1377.865	12.47753	4.26		23.2	63.8	75.76	34.38
Cameroon	2017	-1.03163	75.27	1441.379	12.76025	4.24		23.2			
Canada	2007	1.814706	96.2	44599.15	63.60006	6.04		73.2			
Canada	2008	1.80829	96.2	46660.87	63.7674	6.14		76.7			
Canada	2009	1.804082	97.22	40831.1	63.06577	8.34		80.3			
Canada	2010	1.805715	97.22	47512.68	61.65585	8.06		80.3			
Canada	2011	1.736531	97.22	52143.84	63.46732	7.51		83			
Canada	2012	1.763582	97.22	52577.2	63.98077	7.29		83			
Canada	2013	1.755976	97.22	52497.44	65.3323	7.07		85.8	57.35	48.45	13.53
Canada	2014	1.890682	97.23	50702.11	65.61291	6.91	56	87.12	55.52	48.98	11.96
Canada	2015	1.84206	97.23	43559.73	64.78696	6.91	66	88.47	53.19	50.49	11.64
Canada	2016	1.841111	98.23	42418.5	66.43918	7	65	91.16	58.97	54.07	14.04

Canada	2017	1.801197	98.23	45094.61	68.92251	6.34	68	92.7	60.23	55.59	14.13
Chile	2007	1.28842	76.77	10516.22	53.95667	7.14		35.9	49.03	64.2	25.34
Chile	2008	1.313308	76.93	10756.29	56.73127	7.8		37.3	27.34	62.18	29.5
Chile	2009	1.296515	77.06	10222.43	60.9115	9.69		41.56	52.11	65.29	34.94
Chile	2010	1.33554	77.14	12792.17	67.86343	8.42		45	65.05	65.6	38.33
Chile	2011	1.365901	78.02	14610.26	72.27679	7.34		52.25	56.56	62.06	46
Chile	2012	1.391888	86.49	15307.81	75.93107	6.66		55.05	64.91	59.91	43.12
Chile	2013	1.367829	87.07	15788.09	79.95629	6.21	50	58	68.4	59.63	46.49
Chile	2014	1.43314	87.21	14620.41	82.84638	6.66	66	61.11	67	64.87	50.14
Chile	2015	1.344083	87.21	13548.62	85.26672	6.51	66	76.63	57.35	65.72	50.03
Chile	2016	1.129269	87.21	13737.98	87.18814	6.74		82.33	50.38	61.21	44.66
Chile	2017	1.011737	87.21	15067.72	88.46442	6.96	63	82.33	55.53	61.83	45.78
China	2007	-0.54221	62.66	2703.003	20.52122	3.76		16	39.19	38.85	31.46
China	2008	-0.4198	64.2	3467.03	20.68412	4.36		22.6			
China	2009	-0.40705	63.23	3837.903	22.44306	4.29		28.9	25.32	35.23	22.58
China	2010	-0.40992	66.11	4524.055	24.19849	4.2		34.3	36.17	42.33	26.9
China	2011	-0.46484	66.95	5582.887	25.64785	4.34		38.3	48.84	43.9	42.81
China	2012	-0.54289	68.18	6329.464	28.72567	4.47	41	42.3	32.24	37.6	20.39
China	2013	-0.52459	72.01	7080.828	32.43367	4.54	45	45.8	33.07	36.29	14.42
China	2014	-0.41448	72.16	7701.691	42.43073	4.59	47	47.9	31.88	32.97	19.33
China	2015	-0.4098	80.87	8166.756	46.04043	4.61	41	50.3	31.71	27.42	19.52
China	2016	-0.33441	80.9	8115.828	48.01902	4.65	60	53.2	37.33	29.82	21.3
China	2017	-0.26296	84.46	8643.107	49.07326	4.68	64	54.3	35.21	27.24	15.29
Colombia	2007	-0.43586	69.54	4684.022	33.74994	11.2		21.8	58.11	68.91	60.14
Colombia	2008	-0.39677	71.32	5444.823	36.07695	11.27		25.6	61.28	66.18	60.49
Colombia	2009	-0.38847	76.24	5170.526	37.51899	12.07		30	50.32	64.81	57.21
Colombia	2010	-0.30859	81.95	6285.198	39.41332	10.88		36.5	68.18	65.1	41.33
Colombia	2011	-0.25583	83.76	7264.12	43.03231	10.19		40.35	73.06	61.32	55.77
Colombia	2012	-0.35387	84.59	7950.369	45.3073	9.81		48.98	71.8	56.57	56.66
Colombia	2013	-0.40589	84.4	8103.474	48.73311	9.19		51.7	67.7	57.84	54.54
Colombia	2014	-0.2919	84.41	7998.833	51.41638	8.53	46	52.57	65.74	57.41	47.01
Colombia	2015	-0.26842	84.41	6088.678	53.28214	8.24		55.9	58.26	59.47	48.22

Colombia	2016	-0.2788	83.55	5800.253	55.48425	8.35		58.14	51.4	67.92	49.56
Colombia	2017	-0.36001	85.31	6379.606	56.43403	8.85	61	62.26	52.4	68.5	52.48
Costa Rica	2007	0.38186	60.53	6187.386		4.49		28.4			
Costa Rica	2008	0.460335	59.75	7003.463		4.78		32.29			
Costa Rica	2009	0.563519	63.93	6897.244		7.71		34.33			
Costa Rica	2010	0.523667	64.18	8264.202		8.92		36.5	46.38	68.8	13.2
Costa Rica	2011	0.451359	64.21	9260.859	45.81894	10.18		39.21			
Costa Rica	2012	0.519687	64.26	10054.53	48.10857	9.9		47.5	47.14	63.26	33.35
Costa Rica	2013	0.55167	67.53	10632.95	49.00672	8.96		45.96			
Costa Rica	2014	0.560501	81.09	10679.13	52.23117	9.12	50	53	39	59.39	28.95
Costa Rica	2015	0.504745	81.15	11422.6	53.05263	9.26		59.76			
Costa Rica	2016	0.466043	81.2	11779.24	53.6387	8.98		66.03			
Costa Rica	2017	0.454821	81.57	11728.61	55.74574	8.14		71.58			
Croatia	2007	0.087641	79.35	13550.44	47.1877	9.91		41.44	43.93	60.67	10.48
Croatia	2008	0.086384	81.76	15892.04	49.1642	8.53		44.24	44.38	59.8	9.71
Croatia	2009	0.162147	81.88	14159.41	48.78587	9.2		50.58	37	59.1	7.9
Croatia	2010	0.201947	82.32	13550.44	54.02853	11.62		56.55	23.32	53.19	7.43
Croatia	2011	0.217893	82.77	14579.3	57.22782	13.68		57.79	18.25	48.97	17.88
Croatia	2012	0.245608	82.89	13249.45	60.64715	15.93		61.94	17.15	44.06	19.26
Croatia	2013	0.29165	82.46	13664.97	65.53489	17.25		66.75	17.58	47.18	19.6
Croatia	2014	0.319685	82.2	13610.8	67.51023	17.29	40	68.57	18.43	45.91	19.5
Croatia	2015	0.200354	82.9	11779.01	66.49102	16.18		69.8	22.3	47.52	17.21
Croatia	2016	0.409176	82.92	12370.61	66.53238	13.1		72.7	24.55	50.15	18.17
Croatia	2017	0.334248	82.46	13271.38		11.21		67.1	33.59	50.84	17.54
Czech Repu	2007	0.905903	73.67	18434.54	54.18236	5.32		51.93			
Czech Repu	2008	0.914494	75.35	22819.46	58.06951	4.39		62.97			
Czech Repu	2009	0.962593	76.38	19787.77	61.07541	6.66		64.43			
Czech Repu	2010	0.949479	77.26	19831.4	63.94588	7.28		68.82			
Czech Repu	2011	1.036918	77.22	21736.84	65.57001	6.71		70.49	23.9	39.22	13.93
Czech Repu	2012	1.041853	79.24	19739.9	65.67117	6.98		73.43			
Czech Repu	2013	1.039771	79.3	19912.51	65.08577	6.95		74.11	23.08	42.59	13.73
Czech Repu	2014	1.152181	79.45	19768.84	65.6241	6.11	41	74.23			

Czech Repu	2015	1.148088	81.31	17728.7	64.48163	5.05		75.67			
Czech Repu	2016	1.035502	81.34	18485.24	63.74813	3.95		76.48			
Czech Repu	2017	1.116695	82.96	20401.58	64.07869	2.89		78.72			
Denmark	2007	2.01373	89.82	58641.19	78.55219	3.8		85.03	70.59	36.12	6.16
Denmark	2008	1.966503	90.07	64531.12	75.68209	3.43		85.02	62.15	32.17	5.45
Denmark	2009	1.924757	90.1	58286.54	74.28376	6.01		86.84	33.5	35.35	2.6
Denmark	2010	1.897532	90.2	58177.16	73.59667	7.46		88.72	46.42	40.75	5.91
Denmark	2011	1.922708	91.11	61864.09	76.75835	7.57		89.81	46.64	34.97	6.72
Denmark	2012	1.8739	91.17	58623.41	79.10832	7.53		92.26	44.41	31.02	6.64
Denmark	2013	1.900482	91.2	61325.58	80.93104	7		94.63			
Denmark	2014	2.096355	91.22	62729.5	81.02908	6.59	58	95.99	59.66	34.88	6.92
Denmark	2015	2.042371	91.8	53235.65	82.12949	6.17		96.33			
Denmark	2016	1.912385	92.45	53773.64	81.05675	6.18		96.97			
Denmark	2017	1.863846	92.47	56630.6	80.61602	5.74		97.1			
Dominican	2007	0.646537	86.98	4803.473				17.66	51.51	82.51	34.42
Dominican	2008	0.636564	87.34	5194.799				20.82	53.56	75.83	29.7
Dominican	2009	0.712047	87.79	5151.172				27.72	49.51	78.17	25.01
Dominican	2010	0.705636	88.15	5688.751				31.4			
Dominican	2011	0.64881	88.23	6063.35				38			
Dominican	2012	0.637002	88.5	6274.865	48.629			42.32			
Dominican	2013	0.648915	89.31	6413.934				45.9			
Dominican	2014	0.492903	89.15	6693.685	49.31927		33	49.58			
Dominican	2015	0.673466	89.27	6903.42	51.74711			54.22			
Dominican	2016	0.606374	89.35	7189.4	54.499			63.87			
Dominican	2017	0.64909	89.26	7477.616	59.91559			64.99			
Ecuador	2007	-1.03504	60.23	3588.311		6.07		10.8			
Ecuador	2008	-1.16748	60.58	4267.473	38.77503	7.31		18.8	41.31	70.29	37.27
Ecuador	2009	-1.2515	59.87	4241.938		6.47		24.6	44.24	72.95	31
Ecuador	2010	-1.20408	61.67	4633.247		4.09		29.03	50.27	76.59	46.31
Ecuador	2011	-1.2053	64.02	5192.875		3.46		31.37			
Ecuador	2012	-1.13469	64.65	5664.886	39.81667	3.23		35.14	58.55	72.1	51.04
Ecuador	2013	-0.96827	64.52	6030.502	40.32245	3.08		40.28	57.29	74.27	39.91

Ecuador	2014	-1.05842	65.14	6347		3.48	47	45.59	62.02	72.81	43.1
Ecuador	2015	-1.0289	65.31	6099.351	44.89223	3.62		48.94	52.71	72.25	46.32
Ecuador	2016	-0.76125	68.51	6046.302		4.6		54.06	45.47	71.33	36.71
Ecuador	2017	-0.70142	70.61	6216.606		3.84		57.27	51.15	74.06	48.18
Egypt	2007	-0.22998	43.68	1861.052	30.27098	8.8		16.03			
Egypt	2008	-0.12925	75.84	2270.356	29.98793	8.52		18.01	34.87	59.22	34.51
Egypt	2009	-0.10518	80.02	2578.046	30.53548	9.09		20			
Egypt	2010	-0.17942	80.4	2921.757	31.41724	11.85		21.6	38.79	63.35	24.3
Egypt	2011	-0.45205	81.62	3077.343	26.81772	11.85		25.6			
Egypt	2012	-0.47238	81.51	3383.113	27.72804	12.6		26.4	53.72	58.66	42.28
Egypt	2013	-0.63328	81.53	3400.321	30.11785	13.15		29.4			
Egypt	2014	-0.66252	81.65	3524.418	31.06811	13.1	23	33.89			
Egypt	2015	-0.60128	81.71	3731.177	35.02813	13.05	25	37.82	46.07	41.52	36.75
Egypt	2016	-0.5173	81.01	3686.07	33.85891	12.41		41.25	53.5	46.41	63.76
Egypt	2017	-0.54254	81.04	2495.02	35.16452	12.08		44.95	43.51	46.6	55.45
El Salvador	2007	-0.64504	58.99	2797.985	24.28711	6.41		6.11			
El Salvador	2008	-0.66765	65.62	2943.844	25.1151	5.88		10.08			
El Salvador	2009	-0.74761	77.04	2866.713	25.60744	7.33		12.11			
El Salvador	2010	-0.81262	78.59	2994.793	26.11398	4.89		15.9			
El Salvador	2011	-0.72222	78.38	3276.863	27.1871	4.3		18.9			
El Salvador	2012	-0.69869	78.33	3438.288	28.02119	3.85		20.32	42.74	58.51	39.84
El Salvador	2013	-0.61906	78.33	3516.384	28.35208	3.69		23.11			
El Salvador	2014	-0.47633	78.37	3596.472	27.86739	4.16	36	24.76	44.69	70.81	23.06
El Salvador	2015	-0.58507	78.46	3671.32	27.97005	4		26.8			
El Salvador	2016	-0.70952	78.62	3771.645	27.91809	4.42		29	38.92	70.57	33.35
El Salvador	2017	-0.85593	78.88	3894.736	28.58629	4.49		31.25			
Estonia	2007	1.173005	81.2	16606.57	67.67473	4.59		66.19			
Estonia	2008	1.199121	90.6	18162.46	66.44184	5.45		70.58			
Estonia	2009	1.131253	90.92	14771.01	66.63192	13.55		72.5			
Estonia	2010	1.159709	90.95	14672.33	68.18451	16.71		74.1			
Estonia	2011	1.183798	90.77	17470.84	70.36909	12.33		76.5			
Estonia	2012	1.157107	90.86	17431.54	72.37507	10.02		78.39	45.24	43.19	16.38

Estonia	2013	1.19848	91.02	19078.21	73.92123	8.63		80	46.07	39.96	19.39
Estonia	2014	1.372891	91.13	19969.13	73.30776	7.35	43	84.24	49.44	42.47	9.85
Estonia	2015	1.33191	93.25	17164.51	72.16762	6.19		87.24	51.43	44.02	16.68
Estonia	2016	1.226358	95.06	17744.13	71.39045	6.76		87.24	52.29	43.65	16.41
Estonia	2017	1.281881	95.13	19735.35	69.63503	5.76		88.1	60.95	49.72	18.14
Ethiopia	2007	-0.64883	49.67	249.209		5.31		0.37			
Ethiopia	2008	-0.6971	50.27	334.145	3.62789	5.27		0.45			
Ethiopia	2009	-0.82709	51.76	397.808	5.37221	5.23		0.54			
Ethiopia	2010	-0.80165	30.39	360.829	7.48318	5.2		0.75			
Ethiopia	2011	-0.73956	32.41	379.381	7.88366	5.18		1.1			
Ethiopia	2012	-0.67748	27.95	503.989	8.2236	5.14		2.9	64.89	69.1	23.84
Ethiopia	2013	-0.64741	37.65	548.048		4.98		4.6			
Ethiopia	2014	-0.47156	46.57	628.342	8.10532	4.98		7.7			
Ethiopia	2015	-0.50903	49.22	720.617		4.97		13.86			
Ethiopia	2016	-0.49235	53.64	802.121		5.09		15.37			
Ethiopia	2017	-0.45365	55.96	872.84		5.2		18.62			
Finland	2007	1.914936	91.08	48463.31	93.75906	6.85		80.78	52.96	39.73	4.61
Finland	2008	1.922676	92.3	53785.14	94.69184	6.37		83.67	50.18	39.07	5.24
Finland	2009	1.970258	92.33	47337.94	91.29066	8.25		82.49	39.66	35.07	4.21
Finland	2010	1.968725	92.35	46391.71	93.44781	8.39		86.89	51.13	39.53	5.89
Finland	2011	1.949499	92.29	50960.18	94.91993	7.78		88.71	60.82	37.26	7.13
Finland	2012	1.951503	92.33	47553.4	92.87735	7.69		89.88	55.33	34.32	7.73
Finland	2013	1.936688	92.36	49766.13	90.99419	8.19		91.51	43.8	33.26	8.34
Finland	2014	2.100273	92.36	50087.85	88.88166	8.66	46	86.53	42.38	34.88	7.94
Finland	2015	2.063105	92.36	42505.91	87.67987	9.38		86.42	48.62	37.39	10.86
Finland	2016	2.015214	92.37	43582.43	86.97852	8.82		87.7	49.11	35.82	10.43
Finland	2017	2.027073	92.39	45927.49	88.19783	8.64		87.47			
France	2007	1.472339	92.34	43059.91	52.94754	7.66		66.09	23.26	33.47	15.25
France	2008	1.507125	92.35	47191.13	52.47552	7.06		70.68	21.59	24.66	12.7
France	2009	1.452676	92.48	43176.39	52.7731	8.74		71.58	24.12	27.11	15.89
France	2010	1.519731	92.5	42181.58	54.88172	8.87		77.28	33.87	37.27	14.18
France	2011	1.446996	92.5	45410.1	55.62573	8.81		77.82	34.92	38.43	17.7

France	2012	1.454164	92.5	42371.12	57.90901	9.4		81.44	37.52	35.66	17.29
France	2013	1.426773	92.49	44145.23	59.84876	9.92		81.92	22.87	33.15	12.59
France	2014	1.474639	92.49	44616.41	61.51048	10.3	42	83.75	28.26	35.44	14.2
France	2015	1.413305	93	37937.85	62.78593	10.36	43	78.01			
France	2016	1.413082	93.14	38200.28	64.72768	10.06	48	79.27	28.58	36.32	15.69
France	2017	1.438318	93.27	39932.69	65.629	9.4	53	80.5	34.13	36.31	17.62
Georgia	2007	-0.347	85.69	2478.769	41.81057	13.28		8.26			
Georgia	2008	-0.26731	90.29	3158.884	38.87021	16.47		10.01			
Georgia	2009	-0.20493	95.92	2693.734	28.8817	16.84		20.07			
Georgia	2010	-0.20962	95.97	2951.244	32.58371	16.3		26.9			
Georgia	2011	-0.12428	95.81	3710.701	34.7855	15.06		31.52			
Georgia	2012	-0.01456	97.57	4130.549	32.24253	15.04		36.94			
Georgia	2013	-0.00596	97.64	4266.593	37.914	14.56		43.3			
Georgia	2014	0.19093	97.68	4428.262	42.28092	12.35		44	36.58	37.54	15.58
Georgia	2015	0.271518	97.69	3761.91	46.48113	11.96		47.57			
Georgia	2016	0.383661	97.73	3884.017	51.83005	11.76		59.26	29.51	41.63	12.78
Georgia	2017	0.328921	97.83	4085.834	56.81128	11.6		60.49			
Germany	2007	1.772996	79.28	42531.25		8.66		75.16			
Germany	2008	1.745706	80.43	46681.07		7.52		78	23.91	35.14	4.19
Germany	2009	1.655951	80.6	42576.21		7.74		79	22.18	39.74	5.27
Germany	2010	1.631237	80.8	42641.42		6.97		82	28.48	41.63	6.37
Germany	2011	1.616171	81.48	46852.93		5.82		81.27	35.17	37.14	5.49
Germany	2012	1.664948	81.6	44089.28		5.38		82.35	36.16	37.09	6.01
Germany	2013	1.6495	81.65	46544.95	61.38684	5.23		84.17	31.3	37.72	6.84
Germany	2014	1.856834	81.73	48218.87	65.50391	4.98	35	86.19	37.59	36.4	5.93
Germany	2015	1.794997	81.36	41415.17	67.74687	4.62	42	84.4	38.27	36.19	7.18
Germany	2016	1.622016	82.73	42460.69	69.58059	4.12	37	84.4	37.56	37.41	6.23
Germany	2017	1.608339	83.44	44769.22	70.24665	3.75	40	84.4	41.96	37.45	7.22
Ghana	2007	0.035718	73.79	1126.861	6.44486	4.04		3.85			
Ghana	2008	-0.06802	77.46	1266.113	8.47961	4.5		4.27			
Ghana	2009	-0.04206	82.21	1107.394	8.7975	4.93		5.44			
Ghana	2010	-0.02807	84.6	1357.644		5.32		7.8	75.72	74.65	68.83

Ghana	2011	-0.00488	84.38	1627.899	11.76737	4.47		9			
Ghana	2012	0.010495	84.9	1682.583	11.94183	3.63		10.6	79.29	86.26	60.36
Ghana	2013	0.149142	84.93	1870.158	13.83126	2.17	20	15	69.27	85.77	45.6
Ghana	2014	0.052245	83.17	1479.018	15.40233	2.16	15	25.52			
Ghana	2015	0.142396	83.73	1372.174	15.69071	2.15	20	31.45			
Ghana	2016	0.048786	83.73	1551.767	15.53598	2.26		34.67			
Ghana	2017	0.129867	83.73	1662.585	16.01313	2.36	32	37.88			
Greece	2007	0.872376	60.03	28899.95	87.39504	8.4		35.88	28.54	47.93	11.81
Greece	2008	0.862213	60.85	32198.01		7.76		38.2	28.11	55.3	12.63
Greece	2009	0.652815	70.73	29819.23		9.62		42.4	26.48	58.06	14.6
Greece	2010	0.630501	70.9	26972.87	103.7963	12.71		44.4	15.91	52.18	12.84
Greece	2011	0.572887	70.78	25896.93	109.1593	17.86		51.65	10.87	49.69	10.5
Greece	2012	0.426507	78.72	22171.91	113.7406	24.44		55.07	12.95	50	9.51
Greece	2013	0.465022	78.57	21805.26	116.3768	27.47		59.87	13.54	45.99	8.77
Greece	2014	0.3626	89.22	21726.89	122.402	26.49	41	63.21	19.91	45.54	9.53
Greece	2015	0.267145	90.71	18018.04		24.9		66.84	14.19	46.78	8.29
Greece	2016	0.107346	90.71	17875.98	131.5409	23.54	46	69.09	12.95	41.71	8.11
Greece	2017	0.083919	90.71	18637.27	136.6026	21.49	45	69.89	13.74	43.4	7.12
Guatemala	2007	-1.11538	63.55	2489.954	17.31849	2.5		7.3			
Guatemala	2008	-1.10974	64.17	2794.241		2.8		8.3			
Guatemala	2009	-1.01817	63.65	2635.743		3.1		9.3	54.9	61.32	10.34
Guatemala	2010	-0.96008	64.51	2825.507		3.74		10.5	62.93	71	30.68
Guatemala	2011	-1.03643	64.31	3187.836		4.13		12.3	55.09	71.01	26.4
Guatemala	2012	-1.07631	64.01	3299.603		2.87		16			
Guatemala	2013	-1.08348	64.64	3452.83	19.59235	3.32		19.7	58.78	66.45	38.95
Guatemala	2014	-0.96223	74.68	3687.748	18.18088	2.91	22	23.4	45.38	64.17	35.79
Guatemala	2015	-0.94728	77.29	3923.56	21.78329	2.7		28.81	47.89	59.98	36.85
Guatemala	2016	-1.01984	77.43	4140.717		2.83		34.51	48.23	61.56	36.96
Guatemala	2017	-1.06	77.61	4469.457		2.73		40.7	53.31	64.49	46.54
Hong Kong	2007	1.526227	91.07	30494.55	42.57227	4.01		64.8	81.3	32.2	9.53
Hong Kong	2008	1.489005	91.1	31487.94	55.40763	3.56		66.7			
Hong Kong	2009	1.49594	91.23	30593.99	56.41322	5.26		69.4	14.4	18.87	7.28

Hong Kong	2010	1.543033	95.45	32422.06	59.59784	4.31		72			
Hong Kong	2011	1.554641	95.42	34951.03	61.68693	3.42		72.2			
Hong Kong	2012	1.580427	96.31	36619.81	60.87139	3.29	56	72.9			
Hong Kong	2013	1.573812	96.32	38230.07	67.47312	3.38		74.2			
Hong Kong	2014	1.860729	96.45	40182.28	69.29175	3.28	61	79.87			
Hong Kong	2015	1.82561	96.38	42321.71	69.54381	3.3	66	84.95			
Hong Kong	2016	1.722853	98.12	43499.08	72.33813	3.35	68	87.48	56.76	32.38	16.28
Hong Kong	2017	1.717843	98.2	46080.48	74.33425	3.09	76	89.42			
Hungary	2007	0.964174	74.26	13913.88	68.28498	7.41		53.3	28.08	44.46	8.7
Hungary	2008	0.926062	80.75	15843.73	66.48384	7.82		61	18.9	48.1	6.15
Hungary	2009	0.79649	91.02	13024.3	64.60789	10.03		62	2.85	40.86	13.05
Hungary	2010	0.780268	91.35	13061.03	63.72239	11.17		65	33.33	43.36	13.82
Hungary	2011	0.764692	91.33	14106.01	62.59323	11.03		68.02	14.22	39.98	19.54
Hungary	2012	0.615284	91.34	12858.02	61.46318	11		70.58	10.95	39.83	12.96
Hungary	2013	0.582693	89.31	13645.44	57.06502	10.18		72.64	18.87	37.5	13.73
Hungary	2014	0.501931	89.32	14191.29	52.01587	7.73	48	75.65	23.4	40.94	13.89
Hungary	2015	0.399936	86.58	12461.75	48.96214	6.81		72.83	25.34	38.67	14.75
Hungary	2016	0.423058	87.1	12802.41	48.03886	5.11	53	79.26	30.11	38.4	15.11
Hungary	2017	0.529677	87.28	14209.44	48.50038	4.16	56	76.75			
Iceland	2007	1.845549	91.62	68202.04	71.1184	2.25		90.6	68.73	46.36	14.87
Iceland	2008	1.865286	91.77	56064.58	73.74512	2.95		91	36.67	51.81	11.88
Iceland	2009	1.714271	91.81	41446.52	74.41502	7.22		93	44.39	49.84	14.96
Iceland	2010	1.713807	91.63	42969.39	78.81844	7.56		93.39	48.74	48.99	15.71
Iceland	2011	1.697878	91.96	47433.46	81.47075	7.03		94.82			
Iceland	2012	1.685005	91.92	45747.27	81.95589	6		96.21			
Iceland	2013	1.662148	91.02	49232.28	80.29685	5.38		96.55			
Iceland	2014	1.708532	92.12	53959.55	81.43798	4.9	70	98.16			
Iceland	2015	1.66733	90.34	52158.36	75.76606	3.98		98.2			
Iceland	2016	1.519545	90.43	61226.79	73.60044	2.98		98.24			
Iceland	2017	1.606576	90.63	70248.27	71.84501	2.75		98.26			
India	2007	0.093782	41.92	1076.835	13.12668	4.06		3.95	70.96	72.98	49.66
India	2008	0.086039	42.78	1048.735	15.04721	4.12		4.38	58.47	57.97	32.9

India	2009	0.013824	45.74	1153.188	16.03093	3.75		5.12			
India	2010	-0.03739	48.02	1422.929	17.83388	3.54		7.5			
India	2011	-0.09069	53.33	1497.746	22.76465	3.53		10.07			
India	2012	-0.07196	56.86	1481.562	24.26798	3.62	5	12.58			
India	2013	-0.05732	57.81	1485.595	23.79483	3.46	8	15.1	41.43	55.78	22.79
India	2014	-0.06325	59.14	1610.355	25.43213	3.41	13	21	38.91	36.7	7.66
India	2015	-0.04732	61.83	1638.758	26.76899	3.49	14	26	37.79	37.84	9.15
India	2016	-0.02888	71.74	1749.164	26.82922	3.51	14	29.55	44.34	43.99	14.88
India	2017	0.004769	71.19	1976.093	27.44213	3.52	20	34.45	44.92	42.05	10.33
Indonesia	2007	-0.68147	43.91	2064.232	17.79493	8.06		5.79			
Indonesia	2008	-0.65387	44.96	2418.043	20.66821	7.21		7.92			
Indonesia	2009	-0.60262	48.87	2464.956	22.98912	6.11		6.92			
Indonesia	2010	-0.64	62.98	3178.133	24.07626	5.61		10.92			
Indonesia	2011	-0.59303	66.57	3688.531	26.3032	5.15		12.28			
Indonesia	2012	-0.57568	68.98	3744.53	30.429	4.47	18	14.52			
Indonesia	2013	-0.53077	69.37	3684	31.06371	4.34	19	14.94	46.68	62.01	35.06
Indonesia	2014	-0.34218	60.97	3533.606	30.89576	4.05	21	17.14	45.46	60.2	27.36
Indonesia	2015	-0.4221	65.9	3369.355	33.25072	4.51	26	21.98	49.91	65.29	27.47
Indonesia	2016	-0.34475	67.51	3604.281	35.43736	4.12	34	25.45	43.14	55.07	23.17
Indonesia	2017	-0.34648	76.43	3875.769	36.44444	4.18	44	32.29	47.74	57.34	28.14
Iran	2007	-0.975	65.25	4929.064	31.21858	10.6		9.47			
Iran	2008	-0.90997	65.27	5621.054	37.70845	10.48		12.02	33.72	61.28	35.79
Iran	2009	-0.97434	65.36	5608.976	37.91298	11.97		13.8	30.81	57.92	22.29
Iran	2010	-1.0225	71.43	6504.869	44.16966	13.52		15.9	41.59	65.72	31.38
Iran	2011	-0.96536	70.9	7680.859	50.00553	12.3		19	32.01	46.39	29.95
Iran	2012	-0.91589	70.93	5118.474	56.42696	12.21		22.73	39.17	54.15	22.78
Iran	2013	-0.99581	67.26	5152.037	59.27873	10.44		29.95	36.99	56.52	30.62
Iran	2014	-1.05635	67.27	5395.791	67.31977	10.57		39.35	27.68	59.45	25.48
Iran	2015	-0.92348	67.53	4723.476		11.06		45.33	40.31	61.99	34.96
Iran	2016	-0.67902	67.59	5026.648	69.63566	12.43		53.23	34.44	59.29	45.32
Iran	2017	-0.68306	67.79	5289.795		12.52		60.42	33.62	53.35	38.76
Ireland	2007	1.745495	92.41	60812.43	58.30199	4.67		61.16	46.15	49.43	7.7

Ireland	2008	1.715704	92.41	61192.87	54.01747	6.4		65.34	26.55	47.8	6.42
Ireland	2009	1.750502	92.41	52100.22	56.50398	12.01		67.38			
Ireland	2010	1.768064	92.41	48715.3	63.12644	13.85		69.85	22.5	49.15	6.14
Ireland	2011	1.755929	92.4	51930.48	67.79859	14.62		74.89	25.57	45.5	5.75
Ireland	2012	1.734317	92.4	48890.84	68.19725	14.67		76.92	25.55	45.16	5.43
Ireland	2013	1.731723	93.17	51548.92	71.69955	13.04		78.25	28.28	43.14	12.59
Ireland	2014	1.779153	93.17	55528.93	73.81323	11.26	50	83.49	33.36	47.24	7.16
Ireland	2015	1.774898	94.17	61695.82	77.23215	9.4		83.49	39.35	45.02	14.57
Ireland	2016	1.517244	94.18	63282.21	77.55714	7.89		84.52	45.23	44.88	12.89
Ireland	2017	1.427983	95.91	68710.82	77.78062	6.4		84.52	44.5	42.21	11.92
Israel	2007	0.829284	88.84	24902.76	61.2148	9.38		48.13	23.98	38.15	12.63
Israel	2008	0.846117	88.92	29540.59	60.42399	7.7		59.39	24.78	37.83	14.19
Israel	2009	0.841351	88.92	27722.01	63.14921	9.53		63.12	28.99	38.27	13.62
Israel	2010	0.916022	88.95	30654.34	65.92614	8.48		67.5	33.88	39.94	13.45
Israel	2011	1.012864	88.94	33701.49	66.58563	7.14		68.87			
Israel	2012	0.934555	88.92	32539.28	68.57462	6.86		70.8	30.62	29.31	12.81
Israel	2013	0.978043	88.71	36307.2	67.04384	6.21		70.25	46.5	36.17	23.97
Israel	2014	1.107663	90.47	37556.29	66.94252	5.89	54	75.02			
Israel	2015	1.162278	90.54	35705.41	65.48689	5.25	65	77.35	55.5	41.56	21.59
Israel	2016	1.072176	90.55	37192.14	64.9002	4.8		79.65	53.69	41.1	20.61
Israel	2017	1.021372	92.28	40272.97	63.35469	4.22	68	81.58	58.29	44.14	26.42
Italy	2007	0.478749	81.95	37685.33	66.68297	6.08		40.79	39.5	50.51	10.28
Italy	2008	0.455116	82.14	40689.13	66.3436	6.72		44.53	29.66	40.05	7.12
Italy	2009	0.40474	87.35	36849.92	66.54997	7.75		48.83	24.73	41.19	4.46
Italy	2010	0.430329	85.8	35657.63	65.7743	8.36		53.68	24.68	42.42	3.97
Italy	2011	0.466514	86.7	38003.36	65.56312	8.36		54.39			
Italy	2012	0.40332	86.75	34469.65	64.13355	10.65		55.83	19.8	29.97	10.76
Italy	2013	0.402901	86.72	35219.82	62.29616	12.15		58.46	17.34	29.11	9.8
Italy	2014	0.377391	86.97	35456.68	61.70275	12.68	42	55.64	26.57	31.31	11.4
Italy	2015	0.275051	89.29	30163.21	60.93946	11.9	47	58.14	25.66	30.54	8.15
Italy	2016	0.32916	89.46	30662.41	60.93733	11.69	53	61.3	28.62	31.18	10.06
Italy	2017	0.324625	89.47	31996.98	61.933	11.21	48	61.3	28.78	30.39	10.25

Jamaica	2007	-0.36463	89.59	4756.273		9.26		21.1			
Jamaica	2008	-0.33247	89.67	5054.564	23.54742	10.33		23.6	51.09	69.14	16.97
Jamaica	2009	-0.4252	89.77	4435.269	23.41372	11.36		24.3	42.33	77.07	28.63
Jamaica	2010	-0.45368	90.1	4812.255	26.81559	12.37		27.67	56.09	80.16	38.12
Jamaica	2011	-0.39884	90.12	5232.302	26.17734	12.7		37.44	49.14	78.6	19.45
Jamaica	2012	-0.37579	90.11	5332.494	28.75893	13.93		33.79			
Jamaica	2013	-0.35003	90.17	5104.904	27.20745	15.25		37.1	51.23	79.14	39.51
Jamaica	2014	-0.28204	91.93	4953.222		13.74	27	40.4	57.05	81.23	35.33
Jamaica	2015	-0.22732	94.27	5029.073	27.13061	13.51		42.22			
Jamaica	2016	-0.20327	97.28	4956.267		13.19		44.37	64.38	83.54	37.9
Jamaica	2017	-0.15653	95.61	5193.359		12.45		48.78			
Japan	2007	1.335137	83.11	35342.48		3.85		74.3	8.87	15.16	2.3
Japan	2008	1.318866	83.12	39453.49		3.98		75.4	7.64	12.54	3.76
Japan	2009	1.293836	83.12	41014.19		5.08		78	8	13.78	3.01
Japan	2010	1.326372	83.12	44673.6		5.07		78.21	5.92	13.71	2.88
Japan	2011	1.312013	83.11	48168.8		4.55		79.05	6.35	13.73	3.83
Japan	2012	1.357861	85.88	48632.91		4.35	23	79.5	6.37	9	2.49
Japan	2013	1.443707	85.87	40490.16		4.03	28	88.22	7.65	12.86	4.09
Japan	2014	1.601542	85.96	38156.34		3.58	17	89.11	7.27	12.23	2.52
Japan	2015	1.518716	86.09	34612.25		3.33	36	91.06			
Japan	2016	1.420992	86.09	38989.21		3.13	43	93.18			
Japan	2017	1.566192	86.09	38448.57		2.83	55	90.87	7.41	10.77	3.67
Jordan	2007	0.38737	47.88	2762.815		13.1		20			
Jordan	2008	0.411545	57.73	3384.153	23.54742	12.7		23			
Jordan	2009	0.250783	80.08	3492.099	23.41372	12.9		26	43.8	56.94	24.91
Jordan	2010	0.192973	82.66	3679.19	26.81559	12.5		27.2			
Jordan	2011	0.237919	83.13	3807.315	26.17734	12.9		34.9			
Jordan	2012	0.369098	84.72	3876.224	28.75893	12.2		37			
Jordan	2013	0.392967	84.73	3998.507	27.20745	12.6	40	41.4			
Jordan	2014	0.464213	84.86	4072.685		11.9	48	46.2			
Jordan	2015	0.439426	84.96	4101.885	27.13061	13.07	60	60.11			
Jordan	2016	0.3043	85.04	4093.707		15.27		62.3	30.52	48.36	16.39

Jordan	2017	0.261328	84.84	4135.585		14.92	75	66.79			
Kazakhstan	2007	-0.94775	79.26	6733.45		7.26		4.02	53.8	40.99	13.2
Kazakhstan	2008	-0.8241	79.2	8349.277		6.63		11			
Kazakhstan	2009	-0.64568	79.93	7116.502		6.55		18.2			
Kazakhstan	2010	-0.61591	81.79	9005.258	46.24797	5.77		31.6			
Kazakhstan	2011	-0.57351	83.92	11553.13	48.70265	5.39		50.6			
Kazakhstan	2012	-0.68461	84.09	12300.48	51.60952	5.29		61.91			
Kazakhstan	2013	-0.6916	84.94	13789.25	50.44259	5.2		63.3			
Kazakhstan	2014	-0.59805	86.7	12712.1	48.80432	5.06		66	26.5	52.54	15.41
Kazakhstan	2015	-0.43933	87.22	10434.76	46.37351	4.93		70.83	48.72	52.06	17.49
Kazakhstan	2016	-0.43509	89.95	7658.458	46.61612	4.96		74.59	44.16	50.01	16.77
Kazakhstan	2017	-0.41144	91.94	8762.194	50.14618	4.9		76.43	50.42	64.68	46.22
Kosovo	2008	-0.59344		3323.131					65.62	65.2	6.31
Kosovo	2009	-0.59779		3243.825				59.17	33.75	26.38	4.34
Kosovo	2010	-0.61001	65.53	3290.697				63.41	21.92	29.06	6.6
Kosovo	2011	-0.52065	61.7	3763.399				66.84	17.89	49.6	9.8
Kosovo	2012	-0.53121	62.44	3581.934				68.42	29.1	50.75	21.35
Kosovo	2013	-0.54784	74.15	3885.783				69.75	23.65	46.53	24.83
Kosovo	2014	-0.47236	84.19	4098.918				73.12	33.05	43.56	21.85
Kosovo	2015	-0.4647	93.05	3637.434				75.23	34.8	47.85	22.69
Kosovo	2016	-0.35018	93.06	3766.258			23	75.83			
Kosovo	2017	-0.42135	95.54	3944.121				79.2	34.73	49.08	22.24
Latvia	2007	0.759257	88.15	14010.24	73.0433	6.05		79.84	31.9	49.89	18.94
Latvia	2008	0.809207	88.47	16316.83	72.36354	7.74		81.32	36.28	49.03	17.32
Latvia	2009	0.814353	89	12131.33	73.05489	17.51		18.74			
Latvia	2010	0.787804	89.2	11228.13	69.05104	19.48		22.53			
Latvia	2011	0.747023	89.16	13735.62	67.95347	16.21		30.14	54.31	76.76	22.41
Latvia	2012	0.785477	91.5	13762.16	66.64355	15.05		43.68			
Latvia	2013	0.76785	91.53	14951.88	69.0766	11.87		52			
Latvia	2014	0.872383	92.33	15680.89	70.89794	10.85		61.25			
Latvia	2015	0.79459	92.04	13587.68	74.29988	9.87	41	70.5			
Latvia	2016	0.958983	94.11	14008.89	80.60481	9.64	42	73			

Latvia	2017	0.931379	94.11	15550.44	88.05743	8.71	49	74	45.67	69.83	43.95
Lebanon	2007	-0.69633	60.12	6008.359		8.98		76.11	59.64	68.05	40.5
Lebanon	2008	-0.66879	59.46	6982.066		7.67	72	78.18	59.18	74.61	32.52
Lebanon	2009	-0.68076	70.78	8353.646		6.36		4.72			
Lebanon	2010	-0.70757	73.07	8850.222		6.38		9			
Lebanon	2011	-0.69102	74.17	9143.873		6.56		10.8			
Lebanon	2012	-0.75104	75.45	9954.452		6.55		14			
Lebanon	2013	-0.77569	79.43	10502.27		6.58		14			
Lebanon	2014	-0.76625	79.51	10966.29		6.61		16.5	52.26	58.63	62.07
Lebanon	2015	-0.82565	79.8	11279.44		6.63	30	17.76			
Lebanon	2016	-0.8305	79.72	11524.38		6.58		19.02			
Lebanon	2017	-0.82404	78.45	12013.44		6.64		20.27			
Libya	2007	-0.95145		11711.14		19.3		21.76			
Libya	2008	-0.82422		12570.87		18.87		49.9			
Libya	2009	-0.93372		8524.772		18.28		55.22			
Libya	2010	-0.99342		11417.42		18.62		59.76			
Libya	2011	-1.20012		5402.251		15.79		62.12			
Libya	2012	-1.13757		12693.64		19.03		63.64	23.2	35.4	16.81
Libya	2013	-1.33688	71.36	8282.151		18.74		67.23	29.99	39.83	17.98
Libya	2014	-1.50869	74.55	3876.411		18.49		68.45	28.72	35.38	22.43
Libya	2015	-1.62927	74.34	2719.954		18.36	35	72.13	31.66	33.44	19.65
Libya	2016	-1.81669	72.58	2903.741		18.42		71.38			
Libya	2017	-1.78421	71.48	4739.917		17.68		74.38			
Lithuania	2007	0.726697	81.37	12313.17	82.51583	4.25		77.62			
Lithuania	2008	0.722483	81.5	15047.25	85.74509	5.83		78.92			
Lithuania	2009	0.728032	82.19	11866.63	89.25217	13.79		82.23			
Lithuania	2010	0.782363	82.52	12010.68	86.57257	17.81		87.31			
Lithuania	2011	0.774958	84.64	14386.61	84.05559	15.39		90.62			
Lithuania	2012	0.850415	84.67	14354.29	79.75163	13.36		90.03			
Lithuania	2013	0.836004	84.32	15695.74	73.5332	11.77		91.95			
Lithuania	2014	0.939177	90.1	16584.72	70.40061	10.7		93.78	45.57	43.28	14.13
Lithuania	2015	1.008047	92.44	14296.35	69.74054	9.12	50	94.67	42.54	37.56	11.86

Lithuania	2016	1.029358	92.93	14923.7	71.11852	7.86		96.38	48.18	43.96	13.48
Lithuania	2017	0.99265	92.98	16730.63	72.41746	7.07		97.83	49.79	40.83	11.92
Luxembour	2007	1.765278	84.3	107014.1		4.07		97.83	54.77	40.86	10.98
Luxembour	2008	1.801214	85.57	115987	10.60734	5.06			46.74	62.2	39.04
Luxembour	2009	1.827186	86.08	104358.2		5.12			34.26	59.72	26.69
Luxembour	2010	1.851443	87.25	106184.6	18.26521	4.36			30.79	55.11	27.74
Luxembour	2011	1.83319	88.34	117340.8		4.9			37.15	49.69	29.11
Luxembour	2012	1.798904	88.54	108047.8	19.4322	5.14	51				
Luxembour	2013	1.816299	88.56	114998.3		5.85			37.77	54.44	23.32
Luxembour	2014	1.906488	88.57	120857		5.85			38.36	54.5	24.85
Luxembour	2015	1.874649	88.44	102696.1	19.77631	6.67		0.97			
Luxembour	2016	1.760356	88.43	101788.6	19.56393	6.29		0.7			
Luxembour	2017	1.737713	88.66	105863.2	19.15177	5.52		1.07			
Macedonia	2007		66.92			34.93		2.26			
Macedonia	2008		76.18			33.76		3.33			
Macedonia	2009		80.97			32.18		4.35	74.29	84.53	70.26
Macedonia	2010		86.79			32.02		5.05	78.9	89.48	66.69
Macedonia	2011		88.52			31.38		5.83			
Macedonia	2012		88.52			31.02		9.3			
Macedonia	2013		90.26			29		11.47			
Macedonia	2014		90.26			28.03		13.78			
Macedonia	2015		90.4			26.07		55.7			
Macedonia	2016		92.18			23.72		55.8			
Macedonia	2017		92.07			22.38		55.9	44.6	33.67	5.06
Malawi	2007	-0.15555	52.59	306.9	0.50176	7.47		56.3	40.06	24.33	5.07
Malawi	2008	-0.11043	54.01	358.416		7.2		61	36.5	31.06	8.73
Malawi	2009	-0.11025	61.86	405.62		6.97	45	65.8	35.69	30.82	13.34
Malawi	2010	-0.12557	64.34	442.765	0.71592	6.71	45	57.06	40.72	27.98	11.82
Malawi	2011	-0.15505	64.29	493.843	0.82388	6.43	48	63.67	43.4	38.4	11.63
Malawi	2012	-0.21872	66.49	359.588		6.13	56	71.06	28.24	27.83	5.61
Malawi	2013	-0.16228	60.03	317.471		5.95	62	78.79	25.43	28.34	4.86

Malawi	2014	-0.28637	61.83	343.979		5.94	73	80.14	45.06	46.12	17.61
Malawi	2015	-0.30689	66.96	353.502		5.88		20.81			
Malawi	2016	-0.37533	69.71	293.851		5.86		21.71	47.35	59.29	25.55
Malawi	2017	-0.36957	76.73	325.536		5.9		26.34			
Malaysia	2007	0.437705	73.6	7378.585	30.00508	3.23		31.05	55.56	64.65	22.33
Malaysia	2008	0.344933	75.35	8646.566	33.43948	3.34		37.18	43.46	60.64	24.2
Malaysia	2009	0.455968	78.64	7439.435	35.49468	3.69		39.75	44.99	62.34	18.39
Malaysia	2010	0.478165	79.55	8920.481	37.02888	3.25	35	43.46	53.6	58.52	16.93
Malaysia	2011	0.478687	81.05	10287.88	36.14812	3.09	41	44.39	48.87	53.48	17.4
Malaysia	2012	0.465032	87.85	10624.83	37.61231	3.02	44	57.43	44.73	45.81	13.69
Malaysia	2013	0.435761	87.76	10754.66	39.07458	3.11	47	59.54			
Malaysia	2014	0.588296	88.7	11074	39.50857	2.87	53	63.85	36.38	50.07	13.2
Malaysia	2015	0.501924	89.25	9677.163	45.59271	3.1		30.8			
Malaysia	2016	0.49915	89.31	9415.092	46.7621	3.44		32.9			
Malaysia	2017	0.414224	80	9755.178	43.71518	3.41		35.1			
Mexico	2007	-0.49404	83.65	9588.507	25.42106	3.65		37.5	36.07	70.88	31.86
Mexico	2008	-0.66787	83.98	9973.021	26.11203	3.9		35.61			
Mexico	2009	-0.55986	82.31	7975.422	26.58673	5.38		56.84			
Mexico	2010	-0.55083	84.45	9258.198	27.56347	5.33		60.31			
Mexico	2011	-0.54922	85.96	10204.51	28.3415	5.19	49	61			
Mexico	2012	-0.53409	86.26	10261.05	29.47184	4.92		68.12			
Mexico	2013	-0.54449	86.64	10764.33	30.30004	4.94		69.88			
Mexico	2014	-0.42283	86.86	10980.99	31.09414	4.83		71.27			
Mexico	2015	-0.44709	86.83	9673.643	31.81904	4.34		21.5			
Mexico	2016	-0.55621	86.92	8814.52	38.43338	3.88		33.1			
Mexico	2017	-0.56667	85.74	9318.823	40.22896	3.42		41.3	48.67	74.5	28.94
Montenegr	2007	-0.15416	72.13	5984.678	33.29285	19.4		52			
Montenegr	2008	-0.07568	72.19	7402.671	41.03633	17.15		46.11			
Montenegr	2009	0.070343	73.18	6744.163	49.21645	19.09		55.42			
Montenegr	2010	0.013518	78.61	6694.342	52.22527	19.68		56			
Montenegr	2011	0.017083	85.08	7325.659		19.71	22	56.8			
Montenegr	2012	0.019059	86.57	6590.433		19.73		57.08	34.25	47.56	30.18

Montenegr	2013	0.045481	86.6	7189.148		19.5		58.27	44.98	56.06	36.23
Montenegr	2014	0.081718	86.6	7389.886		18		61.76	37.7	49.64	26.64
Montenegr	2015	0.051772	86.59	6517.419		17.52		4.84			
Montenegr	2016	-0.00568	86.61	7028.208	56.84529	17.7		5.33			
Montenegr	2017	0.012966	86.62	7678.443	58.18562	16.07		6.5			
Morocco	2007	-0.29872	82.52	2549.881	11.97267	9.56		11.6			
Morocco	2008	-0.30335	82.65	2946.926	13.14554	9.57		12			
Morocco	2009	-0.21002	82.97	2922.586	13.67796	9.1		12.94	75.22	74	45.07
Morocco	2010	-0.17185	86.2	2896.564	14.56764	9.06		13.9	68.31	73.95	52.39
Morocco	2011	-0.22768	86.3	3111.538	16.37497	8.91		14.84			
Morocco	2012	-0.20918	86.37	2979.738	19.45048	8.99		25.69			
Morocco	2013	-0.24795	87.08	3200.479	22.64128	9.23		31.03			
Morocco	2014	-0.06514	88.69	3259.721	25.33263	9.7		36.84			
Morocco	2015	-0.08895	88.73	2964.961	28.40355	9.66		85.82	42.02	39.15	3.97
Morocco	2016	-0.15831	90.47	2996.652	31.98658	9.4		87.42	39.09	37.81	3.65
Morocco	2017	-0.16215	90.75	3136.862	33.78468	9.33		89.63	36.16	47.49	5.46
Namibia	2007	0.101889	60.77	4378.564		22.55		90.72	44.8	45.51	5.47
Namibia	2008	0.348419	59.23	4198.55		22.73		91.42	47.78	41.87	8.5
Namibia	2009	0.18763	67.54	4340.183		22.92		92.86	34.4	42.3	8.63
Namibia	2010	0.15467	67.76	5410.977		22.1		93.96	32.66	42.38	9.08
Namibia	2011	0.13181	68	5870.933		20.78	52	91.67	45.55	44.26	9.29
Namibia	2012	0.252846	68.16	6038.862		16.77		91.72	48.36	40.55	9.43
Namibia	2013	0.266959	67.99	5793.927		19.03	70	90.41	54.25	41.18	7.4
Namibia	2014	0.147841	68.46	5717.763		18.52	61	93.2	64.09	44.61	8.11
Namibia	2015	0.190355	68.67	5162.865		19.59		6.77			
Namibia	2016	0.362666	68.92	4864.078		23.35		8			
Namibia	2017	0.241241	68.87	5589.462		23.33		9.3			
Netherland	2007	1.78735	85.97	51804.2	59.94198	3.18		11.5			
Netherland	2008	1.761363	86.7	57916.25	60.33618	2.75		13.8	85.54	83.68	90.95
Netherland	2009	1.814506	86.8	52648.42	61.16703	3.41		16.1	82.19	87.93	44.3
Netherland	2010	1.819352	86.97	51046.25	63.71602	4.45	28	19.1	84.66	87.04	46.81
Netherland	2011	1.822074	86.77	54209.22	75.87855	4.98	32	21			

Netherland	2012	1.861233	86.92	50100.62	76.60667	5.82	33	24.5			
Netherland	2013	1.835081	89.26	52201.72		7.24	8	25.67			
Netherland	2014	1.980403	94.06	52914.14		7.42	35	27.68			
Netherland	2015	1.944192	94.2	45205.77	80.56992	6.87		86.93	46.29	36.23	5.64
Netherland	2016	1.89441	94.26	46027.69	80.36484	6.01		90.57	38.79	40.63	7
Netherland	2017	1.830023	94.27	48555.35	84.98045	4.84		92.08	48.84	44.07	7.69
Nigeria	2007	-1.06567	64.33	1822.793		4.13		93.39	49.75	40.45	7.56
Nigeria	2008	-1.03877	65.82	2234.359		4.05		93.49	67.07	33.24	8.67
Nigeria	2009	-1.15302	65.63	1958.577		3.97		94.65	64.43	34.37	4.91
Nigeria	2010	-1.158	66.78	2365.013	9.572	3.9		95.05	63.67	34.18	5.23
Nigeria	2011	-1.18154	66.04	2582.57	10.17443	3.83	64	96.3	63.45	30.54	4.99
Nigeria	2012	-1.14628	66.54	2797.857		3.76		96.81	68.93	30.76	4.78
Nigeria	2013	-1.11368	67.45	3042.045		3.7		97.3			
Nigeria	2014	-1.04924	70.91	3268.391		4.56		96.51			
Nigeria	2015	-0.96162	78.55	2763.196		4.31		6.8			
Nigeria	2016	-1.01725	78.77	2207.861		7.06		7			
Nigeria	2017	-0.87154	79.28	1994.645		7.04		7.5			
Norway	2007	1.946529	92.07	84946.46	75.48997	2.49		8	51.95	56.17	32.38
Norway	2008	1.970247	90.48	96626.3	72.59347	2.55		9	39.69	42.61	22.58
Norway	2009	1.881072	91.16	79836.11	73.17962	3.1	4	9.96	46.48	48.74	24.51
Norway	2010	1.897269	91.34	87432.38	73.49386	3.52	4	10.9			
Norway	2011	1.873944	91.26	100307.4	73.66792	3.21	8	12			
Norway	2012	1.958513	91.3	101273.4	73.57134	3.12	10	14			
Norway	2013	1.98001	92.19	102722	76.50003	3.42	14	15.51			
Norway	2014	2.029048	92.21	96837.64	77.5435	3.48	15	15.51			
Norway	2015	2.011147	94.03	74280.67	77.95894	4.3		22.29			
Norway	2016	2.036334	94.29	70651.87	80.54654	4.68		33.82			
Norway	2017	2.020279	94.3	75389.46	81.99235	4.16		39.08	44.62	62.43	10.54
Pakistan	2007	-0.88701	73.35	963.279	5.61532	5.1		40.1			
Pakistan	2008	-0.96867	74.53	1037.612	5.55547	4.98		42.7	46.1	63.66	20.93
Pakistan	2009	-0.83107	74.73	998.186	6.79886	5.46		40.3	38.48	43.34	12.05
Pakistan	2010	-0.73872	75.11	1031.652		0.65		44.03	58.73	66.39	26.96

Pakistan	2011	-0.90187	74.9	1218.342	8.29514	0.8	36	44.92	43.26	54.38	19.67
Pakistan	2012	-0.88422	75.16	1254.17	9.39551	1.84		51.21	46.51	49.42	13.94
Pakistan	2013	-0.85682	75.38	1266.742	9.73073	2.95		54	42.44	47.96	9.68
Pakistan	2014	-0.76034	75.42	1312.427	9.65985	1.83		57.87	48.86	57.59	20.8
Pakistan	2015	-0.76667	75.59	1424.954	9.2259	3.57		25.2	63.43	77.86	40.53
Pakistan	2016	-0.80438	75.67	1439.63	9.03274	3.84		30.57	56.67	72.85	34.29
Pakistan	2017	-0.7239	75.85	1545.938	9.34892	4.04		31.4	60.98	74.1	32.03
Panama	2007	-0.14981	86.52	6286.497	43.25216	6.78		34.77	71.39	76.48	39.58
Panama	2008	-0.17459	86.62	7223.982	43.38065	5.85		36.01	70.33	72.85	37.54
Panama	2009	-0.08822	88.31	7697.767	43.31845	6.56		38.2	56.99	65.47	45.06
Panama	2010	-0.07381	88.49	8233.5	44.25147	6.52		39.2	60.96	62.2	33.91
Panama	2011	0.018764	89.24	9623.669	42.17169	4.48	39	40.2	62.31	69.42	50.6
Panama	2012	-0.19168	89.54	10996.03	43.93133	4.05	42	40.9	51.36	65.31	38.56
Panama	2013	-0.21604	89.92	12132.11		4.1		45.46	56.56	68.99	43.47
Panama	2014	-0.05952	91.85	13090.76	44.53679	4.82	53	48.73	55.77	67.55	43.21
Panama	2015	-0.10635	91.93	13662.94	47.26563	4.53		5.97			
Panama	2016	0.049561	91.95	14322.58	47.79936	4.35		6.22			
Panama	2017	0.038475	92.01	15089.35		4.49		9			
Peru	2007	-0.7295	62.81	3587.798		4.19		25			
Peru	2008	-0.70441	63.17	4227.552		4.06		29			
Peru	2009	-0.61378	65.54	4165.791		3.9	29	36.24			
Peru	2010	-0.56292	74.56	5051.268		3.48	30	48.1	47.94	68.4	44.12
Peru	2011	-0.57651	76.1	5733.245		3.44	39	49.6	45.89	66.15	42.84
Peru	2012	-0.57438	78.02	6402.069		3.11	35	53.7	53.77	68.99	37.11
Peru	2013	-0.56597	78.17	6632.241		3.24	53	55.5			
Peru	2014	-0.52107	78.22	6562.575		2.96	49	60.05			
Peru	2015	-0.48546	78.26	6150.458		3		48.6			
Peru	2016	-0.48202	78.18	6178.179	71.13299	3.53		53.13			
Peru	2017	-0.5013	78.17	6731.851	70.73786	3.59		58.97			
Philippines	2007	-0.46422	61.9	1683.688		3.43		62.32			
Philippines	2008	-0.54565	61.34	1940.995	29.15916	3.72		61.95	33.1	51.99	22.69
Philippines	2009	-0.5705	63.07	1851.073	28.48962	3.86		62.31	20.42	53.89	21.57

Philippines	2010	-0.55258	61.53	2155.409	29.56384	3.61	43	62.85	26.06	51.77	17.27
Philippines	2011	-0.51106	64.17	2379.941	30.79601	3.59	39	66.6	31.35	54.3	15.56
Philippines	2012	-0.52316	66.31	2591.627	31.20648	3.5	46	68	32.89	55.92	19.97
Philippines	2013	-0.40339	66.32	2768.472	33.52278	3.5	50	73.3	39.48	60.22	20.83
Philippines	2014	-0.31731	66.4	2849.267	35.62689	3.6	46	75.99	68.83	52.36	9.69
Philippines	2015	-0.3429	67.23	2882.768		3.04		42.09	32.96	57.85	9.83
Philippines	2016	-0.35493	68.56	2953.208		2.71		44.13			
Philippines	2017	-0.41452	68.86	2988.897	35.47546	2.35		48.27			
Poland	2007	0.428653	58.94	11264.72	67.212	9.6		53.3	20.25	52.08	8.76
Poland	2008	0.546503	59.45	14004.76	70.22705	7.12		55.25	16.74	46.67	12.17
Poland	2009	0.628406	61.38	11541.35	72.31267	8.17		60.34	16.19	46.8	14.37
Poland	2010	0.683575	78.47	12601.92	74.75525	9.64		62.1	20.24	48.75	13.24
Poland	2011	0.766174	78.54	13886.83	74.65851	9.63	48	64.59	22.87	46.59	15.81
Poland	2012	0.780412	78.62	13158.07	73.96146	10.09		68.63	28.07	48.85	16.17
Poland	2013	0.819491	79.04	13777.3	71.8564	10.33		70.42	29.53	42.35	13.26
Poland	2014	0.840596	82.52	14337.32	68.44717	8.99		73.79			
Poland	2015	0.802059	82.56	12559.9	66.94615	7.5		27.86	34.63	50.84	13.64
Poland	2016	0.636218	82.71	12409.99	67.00455	6.16		38			
Poland	2017	0.47256	82.75	13821.23	67.82744	4.89		41.5			
Portugal	2007	1.016893	84.17	22811.57	57.79474	7.96		45.3			
Portugal	2008	1.020404	86.29	24933.19	61.6109	7.55		48			
Portugal	2009	1.064921	88.06	23122.56	62.64161	9.43		69			
Portugal	2010	1.056598	88.12	22580.68	65.60205	10.77		69	28.34	53.03	13.08
Portugal	2011	1.023857	88.08	23217.36	68.42896	12.68	54		25.08	48.84	12.45
Portugal	2012	1.065502	90.73	20588.87	68.51029	15.53		63.47	25.05	50.37	11.12
Portugal	2013	1.058802	90.72	21625.5	66.13674	16.18		68.64	25.15	47.94	19.39
Portugal	2014	1.137531	92.44	22112.53	65.50357	13.89		72.75	27.97	46.65	18.3
Portugal	2015	1.146595	90.98	19262.27	61.75633	12.44		37			
Portugal	2016	1.097242	90.99	19879.83	63.25565	11.07		44.3			
Portugal	2017	1.132149	91	21159	63.93581	8.87		53.1			
Puerto Rico	2007	0.587471	89.31	23664.87	74.36016	10.93		69			
Puerto Rico	2008	0.54494	89.33	24898.34	80.7396	11.48		69			

Puerto Rico	2009	0.767175	89.33	25768.73	84.21786	15		69.3			
Puerto Rico	2010	0.767049	89.34	26435.74	89.49805	16.37		85.3			
Puerto Rico	2011	0.733348	89.35	27278.85	89.70349	15.95	56	91.49	63.38	60.94	50.36
Puerto Rico	2012	0.79869	91.08	27944.74	91.47123	14.48		92.88			
Puerto Rico	2013	0.673368	91.09	28513.15	92.06811	14.3		94.29	48.37	50.59	38.94
Puerto Rico	2014	0.767423	91.09	28981.34	93.27568	13.91		95.94	45.59	41.07	15.69
Puerto Rico	2015	0.747572	91.11	29755.35	96.65043	12		28.3	26.23	29.35	11.68
Puerto Rico	2016	0.659383	91.11	30475.36	97.49925	11.78		32.42	25.75	23.77	8.55
Puerto Rico	2017	0.622439	91.23	31581.39		10.83		36.6	13.8	27.33	6.25
Qatar	2007	0.531227		69166.96	11.93332	0.52		39.93	17.52	38.18	8.59
Qatar	2008	0.678105	82.97	74189.29	10.33676	0.31		40.01	36.06	41.63	24.66
Qatar	2009	0.908489	82.97	59683.14	9.31458	0.31		45.88	36.73	38.34	27.02
Qatar	2010	0.851968	84	72953.44	9.36097	0.45		49.76	28.86	45.87	23.65
Qatar	2011	0.757616	78.57	96827.86	11.07193	0.56	32	54.08	32.41	48.44	31.7
Qatar	2012	0.958203	81.27	101933.1	10.92301	0.48		55.76	33.31	46.33	29.01
Qatar	2013	0.958524	82.44	99180.39	11.99355	0.27		59.5			
Qatar	2014	0.864008	82.32	93054.14	13.58044	0.19		63.75			
Qatar	2015	0.770516	82.28	66346.91	14.70129	0.16		24.66	10.57	8.65	3.46
Qatar	2016	0.794278	82.36	57965.38	15.64276	0.14		26.83	30.06	17.61	3.11
Qatar	2017	0.723416	86.06	61024.77	16.62733	0.12		29	17.11	23.67	2.39
Romania	2007	-0.09074	89.33	8326.223	58.27953	6.41		43	21.65	22.69	2.61
Romania	2008	-0.01361	90.08	10351.51	65.79338	5.79		49	27.06	33.2	3.61
Romania	2009	0.045408	90.24	8444.613	68.59246	6.86		63.8	20.08	23.5	2.23
Romania	2010	0.048214	90.34	8211.914	63.99544	6.96	57	67.97	18.19	28.15	2.6
Romania	2011	0.056955	90.36	9127.48	58.18541	7.18	62	70.52	26.5	27.83	3.53
Romania	2012	0.04213	87.84	8542.229	49.71394	6.79	61	70.1			
Romania	2013	0.125016	88.88	9537.82	46.84502	7.1	48	73.09	17.88	28.42	2.12
Romania	2014	0.165362	90.4	10004.88	47.1371	6.8	66	76.01			
Romania	2015	0.157544	90.45	8950.463	46.72669	6.81		30			
Romania	2016	0.360989	90.46	9567.021	48.24061	5.9		36			
Romania	2017	0.387541	89.48	10785.99		4.93		38	69.48	72.51	34.03
Russia	2007	-0.97012	81.67	9755.324	74.02127	6.1		41	75.84	69.31	0.98

Russia	2008	-0.9551	81.74	12471.88	74.89586	6.32		47.5			
Russia	2009	-0.77633	81.98	9180.609	75.32709	8.42		54			
Russia	2010	-0.76493	82.16	11445.46		7.37		60.5			
Russia	2011	-0.72573	82.05	14320.82	76.18489	6.54	31	64.71			
Russia	2012	-0.81847	82.11	15410.96	75.90709	5.44	29	69.62			
Russia	2013	-0.78419	84.94	15997.03	77.85032	5.46	35	74.88	81.53	70.68	23.88
Russia	2014	-0.74146	88.6	14354.82	78.4631	5.16		82.12	79.47	71.82	30.85
Russia	2015	-0.76364	91.62	9510.188	79.93813	5.57		6.89			
Russia	2016	-0.79216	91.8	8923.888	80.63262	5.54		7.12			
Russia	2017	-0.79357	93.02	10955.79	81.90931	5.2		7.5			
Saudi Arab	2007	0.077264	28.89	16666.63	30.41106	5.73		8			
Saudi Arab	2008	0.074601	71.79	20157.3	30.80211	5.08		9.8			
Saudi Arab	2009	0.050295	73.32	16094.68	31.56049	5.38		10.8			
Saudi Arab	2010	0.155001	73.11	19163.34	36.62677	5.55	25	13.1			
Saudi Arab	2011	0.051594	72.82	23654.87	40.41565	5.77	24	17.7			
Saudi Arab	2012	0.148859	73	25208.16	46.67548	5.52	23	21.69	69.91	89.05	66.64
Saudi Arab	2013	0.157214	73.98	24892.99	52.23613	5.57		25.66			
Saudi Arab	2014	0.132184	73.86	24580.47	58.29673	5.72	35	29.64			
Saudi Arab	2015	0.117817	74.03	21094.6	61.05635	5.59		33.15	48.01	63.01	32.93
Saudi Arab	2016	0.337608	74.39	20317.68	67.33551	5.65		35.6	51.22	64.24	30.85
Saudi Arab	2017	0.09896	75.36	21096.44	69.69832	5.52		38.1	29.33	72.29	22.2
Senegal	2007	-0.23954	40.17	1204.905	6.22203	10.07		40.9			
Senegal	2008	-0.28036	41.53	1395.408	7.83201	10.11		42.2			
Senegal	2009	-0.36943	68.14	1297.944	7.93813	10.16		48.1			
Senegal	2010	-0.39864	71.09	1257.744	7.59141	10.22		53.45			
Senegal	2011	-0.4589	71.28	1345.409	9.97259	10.36	52	62.08			
Senegal	2012	-0.28681	73.02	1301.512	10.0767	9.02		65.32			
Senegal	2013	-0.23885	74.14	1343.179	10.35393	7.69		67.06			
Senegal	2014	-0.08182	74.16	1361.349	10.71126	6.36		70.33			
Senegal	2015	-0.14167	85.04	1186.925	10.75214	4.85		69.9			
Senegal	2016	-0.1065	85.99	1231.651	10.9074	4.85		69			
Senegal	2017	-0.14366	86.07	1331.276	11.51301	4.84		69			

Serbia	2007	-0.46674	77.89	5486.489	47.993	18.06		71			
Serbia	2008	-0.49503	78.03	6688.951	48.66538	13.63		71	21.44	24.1	11.75
Serbia	2009	-0.41331	78.26	5820.469	49.84967	16.1	54	72	22.51	26.58	16.08
Serbia	2010	-0.37314	87.15	5820.469	49.08272	16.1	50	80.9	22.24	24.76	15.09
Serbia	2011	-0.28962	86.67	6424.028	51.59377	22.97	62	79.03	16.71	21.35	9.44
Serbia	2012	-0.3563	86.69	5656.261	53.50003	24	67	79.01			
Serbia	2013	-0.32611	88.8	6351.684	56.38088	22.15	69	84.45			
Serbia	2014	-0.14968	88.86	6199.12	58.05497	19.22	79	84.45			
Serbia	2015	-0.11717	89.03	5237.254	58.28769	17.92		61.8			
Serbia	2016	-0.15925	89.06	5426.201	62.13697	15.26		66.05			
Serbia	2017	-0.19234	91.8	5901.226	66.48674	14.1		70			
Singapore	2007	1.612359	91.16	39223.54		3.9		75.71			
Singapore	2008	1.606087	92.89	39722.15		3.96		74.44	23.08	52.92	17.8
Singapore	2009	1.566005	94.73	38577.17		4.38		76.71	17.84	49.73	11.83
Singapore	2010	1.625942	96.46	46569.4		3.17		77.88	16.1	51.01	16.39
Singapore	2011	1.669992	96.46	53238.59		2.96	40	79.98	23.5	54.4	15.14
Singapore	2012	1.731186	96.47	54716.74		2.88		77.63	26.44	52.38	15.69
Singapore	2013	1.705524	96.48	56389.18		2.79		80.48	23.03	44.03	8.04
Singapore	2014	1.824775	96.48	56959.33		2.8		81.63	25.82	48.45	9.04
Singapore	2015	1.813475	96.48	54939.86		1.69		56.74	47.53	48.04	9.33
Singapore	2016	1.825243	96.49	55241.28	83.94098	1.8		58	44.75	50.8	7.31
Singapore	2017	1.822845	96.49	57713.34	84.79291	2.02		64	29.13	52.03	9.7
Slovakia	2007	0.492794	74.55	14349.97	50.18767	11.14		70	26.8	56.34	8.73
Slovakia	2008	0.590271	74.94	18048.56	53.75125	9.51		67.34	18.37	50.79	9.21
Slovakia	2009	0.539761	80.35	16567.15	56.04681	12.03		68.35	19.62	51.32	13.25
Slovakia	2010	0.571119	80.93	16634.71	57.06673	14.38		72.68	16.06	51.48	12.37
Slovakia	2011	0.607048	81.05	18223.87	56.24748	13.62	40	71.59	17.25	48.6	11.36
Slovakia	2012	0.492303	81.14	17294.6	56.14001	13.96		73.1	20.54	48.61	9.11
Slovakia	2013	0.478546	81.12	18205.91	54.36053	14.22		75.5	25.34	51.8	11.38
Slovakia	2014	0.496026	78.54	18668.68	52.68478	13.18		78.89	34.6	53.31	14.23
Slovakia	2015	0.503807	80.31	16148.29	50.70005	11.48		8.07			
Slovakia	2016	0.646802	81.83	16550.23	47.79592	9.67		8.43	37.23	37.03	13.39

Slovakia	2017	0.571229	81.92	17655.05	46.63439	8.13		10	35.39	35.47	10.88
Slovenia	2007	0.923824	65.41	23959.17	84.57386	4.82		24	40.91	44.3	16.7
Slovenia	2008	1.008982	65.79	27784.01	85.51545	4.37		33.97	40.73	42.83	14.27
Slovenia	2009	1.075426	83.21	24785.05	86.44243	5.86		41	35.47	39.5	11.95
Slovenia	2010	1.008394	92.97	23499.59	89.15319	7.24	27	46.5	37.85	42.68	12.76
Slovenia	2011	1.052852	94.33	25040.52	86.01755	8.17	30	49	37	37.65	10.05
Slovenia	2012	1.014999	94.42	22563.16	87.01796	8.84	31	51.92	40.91	45.44	10.93
Slovenia	2013	1.000792	94.4	23378.09	85.28806	10.1	24	54	35.03	37.87	10.06
Slovenia	2014	1.001514	94.39	24251.42	82.23113	9.67	43	56.17	43.17	39.93	11.72
Slovenia	2015	0.97457	94.39	20890.3	80.26099	8.96			14.76	30.08	17.21
Slovenia	2016	1.082672	94.53	21668.09	77.84908	8			12.78	52.77	11.39
Slovenia	2017	1.023465	94.61	23654.41	78.589	6.56			13.01	28.96	10.09
South Afric	2007	0.094902	74.19	6123.957		22.33			11.24	26.72	15.74
South Afric	2008	0.072505	75.62	5802.368		22.43	53		12.52	26.93	12.98
South Afric	2009	0.123987	80.72	5926.401		23.54			12.73	28.1	12.07
South Afric	2010	0.141176	80.73	7380.615		24.69		24			
South Afric	2011	0.152451	80.72	8083.126		24.65	51		14.39	27.41	6.62
South Afric	2012	0.110432	81.42	7574.427	19.14366	24.73	82		35.32	45.09	27.47
South Afric	2013	0.158148	81.43	6907.599	19.93049	24.57	84		35.3	45.68	22.79
South Afric	2014	0.18279	81.43	6508.779	19.80924	24.9		55.11	33.7	45.14	4.28
South Afric	2015	0.088228	79.71	5802.709		25.16		59.6	25.4	46.51	4.97
South Afric	2016	0.116231	79.71	5316.042	20.91845	26.55		62.4	15.99	47.53	4.33
South Afric	2017	-0.03786	79.96	6179.87	22.36603	27.33		65.8	18.84	50.2	5.82
South Kore	2007	1.029149	61.61	23060.71	101.9282	3.23		67.09	14.41	50.86	7.99
South Kore	2008	0.880893	61.99	20430.64	104.0929	3.16		69.81	13.9	50.38	11.13
South Kore	2009	0.993718	63.7	18291.92	104.2781	3.64		71.64	16.01	48.39	8.43
South Kore	2010	1.00388	84.47	22086.95	102.791	3.72	41	76.19	22.61	48.13	7.09
South Kore	2011	1.025968	84.48	24079.79	100.7471	3.41	57	78.69	25.97	45.26	5.59
South Kore	2012	0.984208	90.66	24358.78	97.42759	3.22	63	80.56	25.56	46.69	5.11
South Kore	2013	0.953823	94.36	25890.02	95.60864	3.12	59	84.6	31.86	44.8	5.55
South Kore	2014	0.993528	94.36	27811.37	94.85205	3.53		14.11			
South Kore	2015	0.932385	94.36	27105.08	94.33984	3.63		21.06			

South Kore	2016	1.160836	94.36	27608.25	94.03362	3.71		31.36			
South Kore	2017	1.163428	95.83	29938.45	94.34969	3.73		31.59			
Spain	2007	1.168316	68.87	32748.09	68.75185	8.23		32			
Spain	2008	1.193509	69.08	35725.35	69.74542	11.25		34.68			
Spain	2009	1.162589	68.88	32412.77	71.58433	17.86		37.4	52.72	53.51	13.14
Spain	2010	1.188944	68.88	30803.47	75.91095	19.86	30	40.08	41.03	77.36	4.55
Spain	2011	1.198052	71.09	31868.86	80.03797	21.39		42.76			
Spain	2012	1.064827	78.19	28583.74	82.27033	24.79		45.4			
Spain	2013	1.020516	76.43	29237.72	83.72564	26.09		48.95			
Spain	2014	0.952644	77.93	29686.68	85.44627	24.44		82.01	50.33	41.65	9
Spain	2015	0.901592	86.36	25821.78	85.61178	22.06		90			
Spain	2016	0.978825	86.4	26676.55	86.51608	19.63		91			
Spain	2017	1.00847	86.7	28358.81	88.85301	17.22		90	66.1	42.43	8.53
Suriname	2007	-0.23894	37.77	5758.066		9.2		92.77	71.49	40.32	9.78
Suriname	2008	-0.22931	39.36	6832.947		9.1		93.18	66.48	36.99	10.96
Suriname	2009	-0.11969	41.56	7394.097		9.02		94.78	64.45	38.8	9.53
Suriname	2010	-0.05252	42	8224.066		7.56	57	92.52	70.07	36.65	8.47
Suriname	2011	-0.04295	42.26	8190.699		6.93		90.61	70.22	36.7	8.44
Suriname	2012	-0.0574	42.92	9194.151		6.29	71	89.65	78.5	35.51	8.36
Suriname	2013	-0.04516	43.47	9351.962		4.84	67	96.41	79.49	34.5	8.08
Suriname	2014	-0.13718	43.88	9379.003		6.94		77.2	34.94	40.84	6.94
Suriname	2015	-0.19538	47.96	8507.968		7.22		79.2			
Suriname	2016	-0.15488	47.9	5703.369		8.18		81.3	35.09	48.94	7.24
Suriname	2017	-0.15087	60.33	5869.515		8.12		83.9	33.33	43.85	6.66
Sweden	2007	1.90989	90.97	53185.65	74.83711	6.12		85.19	47.4	42.45	9.52
Sweden	2008	1.931482	91.14	55592.67	70.73696	6.18		85.2	35.67	37.34	7.26
Sweden	2009	1.965965	91.2	46047.31	70.74316	8.3		86.34	41.52	44.72	9.78
Sweden	2010	1.955097	91.31	51925.6	73.67311	8.58	43	87.4	43.67	41.59	7.07
Sweden	2011	1.941077	92.16	59454.4	72.8254	7.77		87.48	41.79	44	7.04
Sweden	2012	1.951555	92.21	56978.61	68.81765	7.96		89.13	41.42	43.26	7.87
Sweden	2013	1.972878	92.26	60069.35	63.21716	8.01		93.71	47.16	42.09	10.47
Sweden	2014	1.992006	92.28	58930.15	62.18059	7.92		11.5			

Sweden	2015	2.037792	92.29	50565.1	62.28248	7.4		14			
Sweden	2016	2.019034	94.61	51245.36	63.54802	6.99		17.3	54.2	61.85	54.02
Sweden	2017	1.936157	94.64	52925.13	66.98824	6.72		20.7			
Switzerlan	2007	1.8457	86.99	63960.53	47.24253	3.65		22.5			
Switzerlan	2008	1.816634	87.08	72941.75	48.83328	3.35		24.3			
Switzerlan	2009	1.750544	86.23	70321.96	50.14809	4.12		26.2			
Switzerlan	2010	1.757034	86.31	74884.06	52.93773	4.81		28.09			
Switzerlan	2011	1.73154	86.26	88903.25	54.48452	4.41		29.98			
Switzerlan	2012	1.819054	86.27	83959.11	55.52047	4.48		31.87			
Switzerlan	2013	1.804692	86.32	85676.25	56.27015	4.75		34.25			
Switzerlan	2014	1.994928	86.36	87162.88	57.22972	4.83		64.45			
Switzerlan	2015	1.945174	88.38	82510.41	57.70735	4.8		65.84			
Switzerlan	2016	1.947542	88.44	80491.04	58.04695	4.92		69.9			
Switzerlan	2017	1.927894	88.39	80637.38	59.56299	4.8		71.5	29.63	26.42	25.05
Syria	2007	-0.80324	44.64	2016.052	22.45814	8.42		72	38.92	28.61	28.17
Syria	2008	-0.69352	38.85	2557.211	24.04605	10.92	56	75.99	38.55	26.38	25.49
Syria	2009	-0.574	57.68	2557.267	24.13733	8.14	56	76.29	42.03	27.22	27.81
Syria	2010	-0.58588	58.2	2806.685	25.8534	8.61	62	78.04	33.47	29	25.56
Syria	2011	-0.77585	60.22		25.84131	14.9	71	78.04	30.22	25.43	26.09
Syria	2012	-1.12603	65.08		30.90499	14.77	72	79.75	26.46	25.24	25.79
Syria	2013	-1.40614	66.06		32.84584	14.66	80	92.78	26.57	25.89	25.74
Syria	2014	-1.36218	68.37		41.58043	14.48		20.03	18.86	42.55	21.35
Syria	2015	-1.42304	71.76		42.67733	14.72		18.2			
Syria	2016	-1.99062	78.91		40.05115	14.78		20.1			
Syria	2017	-2.09037	78.93			14.9		22.4			
Taiwan	2007	0.789451	61.15	17780.93				23.67	40.14	42.68	26.46
Taiwan	2008	0.785009	66.13	18102.95			25	26.46	44.61	45.97	18.98
Taiwan	2009	0.942407	68.21	16959.78			27	28.94	45.34	44.38	18.47
Taiwan	2010	1.013429	86.75	19261.67			40	34.89	47.35	50.12	21.75
Taiwan	2011	1.034179	88.51	20911.64			52	39.32	41	46.22	16.73
Taiwan	2012	1.049929	94.37	21269.61			59	47.5	37.67	43.51	22.59
Taiwan	2013	1.050181	94.38	21887.99			67	52.89	49.13	48.86	37.36

Taiwan	2014	1.187945	94.38	22638.92				7.18			
Taiwan	2015	1.162141	94.39	22373.56				8.11			
Taiwan	2016	1.141337	94.41	22540.89				10	56.17	53	5.69
Taiwan	2017	1.137448	94.42	24292.09				16			
Thailand	2007	-0.11896	76.05	3978.301	49.0348	1.18		25			
Thailand	2008	-0.14025	76.07	4379.527	48.67157	1.18		30			
Thailand	2009	-0.23019	76.26	4207.583	49.4027	1.49		32.75			
Thailand	2010	-0.2047	77.68	5065.376	50.37474	0.62		35.95			
Thailand	2011	-0.20391	78.85	5482.397	52.2557	0.66		38.65			
Thailand	2012	-0.15109	80.92	5850.273	50.67901	0.58		39.95			
Thailand	2013	-0.12053	82.67	6154.499	49.85337	0.49		41.25			
Thailand	2014	-0.19137	83.05	5932.999	50.18006	0.58		32.3			
Thailand	2015	-0.14771	83.07	5830.636		0.6		34.8			
Thailand	2016	-0.00488	83.05	5970.316	49.28681	0.94		44.3			
Thailand	2017	0.043707	85.04	6590.638		1.08		48.5	69.11	82.76	30.36
Tonga	2007	0.456999	16.9	3142.198		1.09		55.2	62.14	81.21	35.21
Tonga	2008	0.073632	17.4	3337.897		1.08		59.52	59.23	76.06	37.48
Tonga	2009	-0.08909	17.4	3295.282		1.07		63.8	58.01	75.26	28.69
Tonga	2010	0.069431	20.2	3788.677		1.07	46	65.1	58.62	75.23	33.91
Tonga	2011	-0.01665	22.93	4412.213		1.07		69.2			
Tonga	2012	-0.0376	23.04	4442.354		1.06		73.3			
Tonga	2013	-0.00544	40.44	4303.082		1.08		77.33			
Tonga	2014	-0.14589	47.07	4277.608		1.09		17.1			
Tonga	2015	-0.20086	76.06	4021.72		1.1		27.53			
Tonga	2016	0.258535	78.37	4249.137		1.1		34.07	14.88	40.26	53.55
Tonga	2017	0.306128	81.71	4520.886		1.13		36.8	37.58	53.11	24.12
Trinidad an	2007	-0.12736	77.92	16807.87		5.54		39.1			
Trinidad an	2008	-0.18882	77.94	21464.21		4.63		41.44	32.55	62.18	21.58
Trinidad an	2009	-0.17839	77.95	14801.21		5.28	34	43.8			
Trinidad an	2010	-0.16936	77.97	16958		5.93	37	46.16			
Trinidad an	2011	-0.15396	79.68	19320.96		4.66		46.5	48.79	59.93	28.8
Trinidad an	2012	-0.14114	79.68	19001.22		5.04		49.6			

Trinidad an	2013	-0.16849	79.69	19925.12		3.59	38	55.5			
Trinidad an	2014	-0.09081	82.29	20054.98		3.31		28.63	39.45	49.08	19.05
Trinidad an	2015	-0.116	88.33	17834.48		3.39		34.37	36.19	48.77	20.8
Trinidad an	2016	-0.15407	88.33	16598.8		4.37		36.4			
Trinidad an	2017	-0.10863	88.59	16637.65		4.84		39.82	36.14	54.18	19.43
Tunisia	2007	0.085751	80.94	3778.36	32.67416	12.36		43.07	32.36	42.08	8.54
Tunisia	2008	0.072516	81.25	4308.49	33.74513	12.44		45.13	39.88	49.44	14.72
Tunisia	2009	0.129553	82.88	4131.023	34.99985	13.29	32	46.25	38.63	52.24	28.06
Tunisia	2010	0.06171	83.17	4140.485	35.41903	13.05	47	51.04			
Tunisia	2011	-0.13216	83.25	4256.837	35.17035	18.33	62	53.74			
Tunisia	2012	-0.12937	83.35	4137.57	35.87718	17.63	53	58.35	49.57	54.19	30.28
Tunisia	2013	-0.18925	83.36	4198.848	34.95699	15.93	63	64.68			
Tunisia	2014	-0.10968	83.29	4274.466	35.33421	15.06		3.67			
Tunisia	2015	-0.06609	83.34	3827.641	35.19114	15.22		7.9			
Tunisia	2016	-0.0031	83.39	3666.3	32.81536	15.51		9.78	73.78	84.78	58.38
Tunisia	2017	0.06152	83.29	3464.717	32.14938	15.38		12.5	80.54	86.69	77.09
Turkey	2007	0.021233	79.63	9562.939		8.87		13.01			
Turkey	2008	0.083061	80.52	10691.76		9.71		14.1	80.69	87.69	79.08
Turkey	2009	0.10489	81.62	8881.762		12.55		15.5	81.1	83.84	60.72
Turkey	2010	0.110654	81.81	10475.57		10.66		16.9	76.91	84.86	60.19
Turkey	2011	0.074782	81.4	11140.95		8.8		17.83			
Turkey	2012	0.036304	81.44	11552.69		8.15		21.88			
Turkey	2013	0.066959	81.6	12395.37		8.73		23.71			
Turkey	2014	0.005123	81.01	12022.18		9.88		61	49.92	62.96	35.42
Turkey	2015	-0.11302	79.08	10914.89		10.24		63			
Turkey	2016	-0.20864	79.2	10817.39		10.84		64	45.41	67.91	35.99
Turkey	2017	-0.25018	81.02	10537.19		11.26		68			
Uganda	2007	-0.35959	57.06	488.914		3.04		78	43.72	62.07	2.41
Uganda	2008	-0.35145	57.56	604.626	3.8881	3.61		85			
Uganda	2009	-0.41439	57.23	628.759	4.32033	4.16		88			
Uganda	2010	-0.39796	59.26	662.223	4.06321	4.01	51	90.4			
Uganda	2011	-0.36068	59.74	669.297	4.55329	3.85	56	90.5			

Uganda	2012	-0.34816	63.91	752.877	3.91012	3.55	68	90.6	25.83	55.23	48.26
Uganda	2013	-0.34128	64.14	770.183		1.91		94.82	35.45	64.79	56.33
Uganda	2014	-0.38838	64.19	772.586	4.83664	1.91		75.09	39	48.71	5.57
Uganda	2015	-0.39022	65.92	662.164		1.9		78.39	30.18	49.91	5.27
Uganda	2016	-0.25118	69.26	670.37		2.01		83.56	24.04	47.02	4.32
Uganda	2017	-0.29584	71.3	706.502		2.1		85	29.24	51.82	5.1
United Ara	2007	0.285038	68.31	41472.29		3.34		85.38	33.3	42.47	8.85
United Ara	2008	0.424308	70.75	39074.84		4.01		87.48	32.82	47.13	9.52
United Ara	2009	0.404846	71.17	30920.45		4.17		89.84	35.54	43.85	7.19
United Ara	2010	0.32302	83.81	35064.26		3.69	57	91.61	40.99	46.44	6.88
United Ara	2011	0.504776	83.62	41194.73		3.31	58	92	41.55	43.57	8.16
United Ara	2012	0.53951	85.5	42723.58		2.97	61	94.62	42.3	47.96	9.14
United Ara	2013	0.619024	88.53	43197.43		2.62	60	94.62	42.98	48.21	7.27
United Ara	2014	0.652227	88.47	43340.02		2.28		75	25.18	48.3	8.18
United Ara	2015	0.640868	88.49	37380.57		1.93		74	36.57	55.66	6.9
United Ara	2016	0.849041	88.5	36226.24		1.64		71	28.35	56.16	6.87
United Ara	2017	0.79767	91.21	37732.66		1.67		71.69	34.79	59.52	7.33
United Kin	2007	1.737427	90.05	50315.56	58.49451	5.26		69.73	36.25	55.69	10.92
United Kin	2008	1.708199	90.04	47469.38	56.64391	5.62		74.7	43.49	55.88	12.53
United Kin	2009	1.738985	90.04	38601.32	57.90053	7.54	61	71.4	47.16	55.74	12.18
United Kin	2010	1.764103	90.04	39122.19	58.92335	7.79	62	73	50.85	53.34	12.08
United Kin	2011	1.650691	89.79	41649.66	59.14593	8.04	65	74.55	46.63	55.71	12.35
United Kin	2012	1.718676	89.8	42023.1	59.40212	7.89	69	75.23	57.27	55.05	11.73
United Kin	2013	1.705038	89.8	42981.25	57.03876	7.53	69	75.23	63.59	54.31	14.54
United Kin	2014	1.889571	89.85	47003.88	56.5645	6.11		34	41.12	58.14	15.42
United Kin	2015	1.81306	91.23	44494.86	56.45849	5.3		39.3	51	63.35	16.81
United Kin	2016	1.691507	94.57	40657.86	58.42562	4.81		41.8	46.44	67.8	20.7
United Kin	2017	1.679469	94.58	39800.27	59.99557	4.33		46.4	52.05	73.3	31.85
United Stat	2007	1.627855	91.17	47869.24	83.70855	4.62		51.4	53.65	61.06	38.22
United Stat	2008	1.640027	91.17	48283.41	85.01005	5.78		54.45	51.03	57.81	19.9
United Stat	2009	1.59849	91.43	47007.67	87.62199	9.25		57.69	47.9	61.14	25.3
United Stat	2010	1.638103	91.43	48400.64	92.62195	9.63	60	61.46	45.56	63.12	24.82

United Stat	2011	1.600044	91.34	49815.52	93.90658	8.95		64.6	39.18	61.04	25.44
United Stat	2012	1.627279	91.34	51537.01	93.17549	8.07		66.4	28.57	55.6	25.48
United Stat	2013	1.557241	91.34	53031.95	88.72642	7.38	72	68.28	36.86	57.52	27.38
United Stat	2014	1.610473	91.06	54952.4	88.62687	6.17		6.8			
United Stat	2015	1.596108	91.22	56718.32	88.88941	5.28		7.27			
United Stat	2016	1.617996	91.22	57814.53	88.83505	4.87		7.5			
United Stat	2017	1.644761	91.23	59792.01	88.16739	4.36		8	73.58	79.56	50.51
Uruguay	2007	0.604659	59.1	6984.815	50.69181	9.15		9.2			
Uruguay	2008	0.595219	57.58	9029.327	50.93381	7.7		10.6			
Uruguay	2009	0.718072	69.18	9372.485		7.3		11.3			
Uruguay	2010	0.738598	64.34	11859.9	51.23524	7.16		18.8			
Uruguay	2011	0.699017	64.08	14054.33		6.31		22.35			
Uruguay	2012	0.593178	89.5	14961.68		6.45		24			
Uruguay	2013	0.564282	89.61	16723.45	59.87363	6.44	16	25.72			
Uruguay	2014	0.710575	89.67	16572.36	60.72049	6.55		20.83	56.04	66.24	20.68
Uruguay	2015	0.712418	89.76	15365.96	59.69622	7.49		25.88			
Uruguay	2016	0.630394	89.9	15139.12	62.54457	7.84		32.7	48.21	59.31	28.7
Uruguay	2017	0.585723	89.79	16941.56	63.12577	7.89		37.37			
Vanuatu	2007	0.556136	68.27	2350.978		5.56		40.22	48.45	66.86	20.23
Vanuatu	2008	0.463352	69.28	2653.996		5.54		49.05			
Vanuatu	2009	0.397899	69.31	2606.785		5.46	49	54.9			
Vanuatu	2010	0.263579	71.34	2923.25		5.4	59	57			
Vanuatu	2011	0.274798	71.99	3230.035		5.37	59	60			
Vanuatu	2012	0.284567	75.66	3115.769		5.34		60			
Vanuatu	2013	0.309302	75.64	3123.977		5.31	59	64.31			
Vanuatu	2014	0.17862	75.26	3103.891		5.29		20.76			
Vanuatu	2015	0.104122	75.26	2880.948		5.26		23.92			
Vanuatu	2016	0.338263	75.51	2904.821		5.27		26.55			
Vanuatu	2017	0.48792	81.24	3093.995		5.22		30.65			
Venezuela	2007	-1.57443	48.3	8133.306		7.47		35.07			
Venezuela	2008	-1.62353	48.75	10464.26	79.51647	6.85	9	36.8			
Venezuela	2009	-1.61791	46.65	8442.837	79.30056	8.05	13	38.5	36.81	48.65	24.07

Venezuela	2010	-1.65428	47	10316.83		8.45	34	41	39.36	58.2	18.2
Venezuela	2011	-1.67573	46.23	11541.88		7.84	38	43.5	56.8	56.83	22.26
Venezuela	2012	-1.68982	46.74	11287.3		7.41	43	46.5			
Venezuela	2013	-1.82113	46.53	7869.442		7.54	53	49.57	46.41	53.03	24.96
Venezuela	2014	-1.91632	45.55	7029.892		6.95		5.01			
Venezuela	2015	-2.03237	43.76	7922.808		6.82		6.89			
Venezuela	2016	-2.24108	38.91	7687.671		7.15		9.96	14.02	63.55	8.96
Venezuela	2017	-2.25529	32.94	6890.066		7.66		12.35			
Vietnam	2007	-0.49249	72.29	920.463	18.48277	2.6		14.91			
Vietnam	2008	-0.46513	75.09	1154.493	19.06383	2.38		17.45			
Vietnam	2009	-0.54006	75.5	1181.448	20.23058	2.61		20			
Vietnam	2010	-0.5914	75.93	1297.226	22.82086	2.64	6	22.55			
Vietnam	2011	-0.54489	77.8	1532.311	24.94845	2.02		24.09			
Vietnam	2012	-0.55159	77.97	1750.756	25.18673	1.77		24.58			
Vietnam	2013	-0.5148	79.22	1898.898	25.19179	1.95	8	26.72			
Vietnam	2014	-0.35982	78.86	2047.429	30.7155	1.87		4.87			
Vietnam	2015	-0.33935	79.15	2085.714	29.07346	2.12		5.55			
Vietnam	2016	0.075361	82.72	2172.012	28.54497	2.1		6.31			
Vietnam	2017	0.069474	81.76	2353.356		2.05		10	81.36	77.51	67.07
Yemen	2007	-0.96675	17.26	971.326	10.68966	15.33		11.5			
Yemen	2008	-0.97993	19.91	1171.169	10.83521	14.97		13.47	77.87	83.75	55.29
Yemen	2009	-1.0871	75.55	1060.926	11.34417	14.63		15.4	76.8	79.65	44.45
Yemen	2010	-1.08734	78.53	1266.787	10.76456	17.82		19			
Yemen	2011	-1.28547	78.63	1302.302	10.15192	16.99		21			
Yemen	2012	-1.26726	78.42	1367.715		15.28		25.51			
Yemen	2013	-1.17724	72.87	1515.946		14.16	6	27.85			
Yemen	2014	-1.20027	73.6	1574.246		13.47					
Yemen	2015	-1.27108	73.57	1612.011		13.81					
Yemen	2016	-1.64499	73.36	1250.736		13.73					
Yemen	2017	-1.75308	71.59	1043.055		14.04					
Zambia	2007	-0.52524	78.4	1103.452		9.18					
Zambia	2008	-0.408	78.81	1365.692		7.93					

Zambia	2009	-0.47554	82.86	1134.758		10.61					
Zambia	2010	-0.49025	82.9	1456.162		13.19					
Zambia	2011	-0.45643	83.04	1635.505	4.16887	9.99					
Zambia	2012	-0.3652	83.17	1724.711	4.11603	7.85					
Zambia	2013	-0.26756	81.8	1839.537		7.82					
Zambia	2014	-0.23655	85.09	1727.026		7.78					
Zambia	2015	-0.22972	84.95	1310.354		7.75					
Zambia	2016	-0.30044	84.88	1252.698		7.78					
Zambia	2017	-0.32505	84.83	1491.217		7.79					

Appendix L: Variables Definitions

Variable	Definition	Source
Rule of law	The Rule of Law index measures the perceptions of the incidence of crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts.	https://databank.worldbank.org/databases/rule-of-law
Ease of Doing Business	The index is measured on a scale of 0 to 100, with higher figures representing easier business practices.	http://www.doingbusiness.org/en/custom-query
Gross Domestic Product	Which measures the overall income level (the level of economic development).	https://data.worldbank.org/indicator/NY.GDP.MKTP.CD
Education Rate	The ratio of total enrolment, regardless of age, in relation to the population of the age group that officially corresponds to the level of tertiary education, multiplied by 100.	https://data.worldbank.org/indicator/SE.TER.ENRR
Unemployment Rate	The rate of unemployed people in the labour force.	https://www.theglobaleconomy.com/download-data.php
Social Media Users	The percentage of the population that **uses** social media.	http://www.pewglobal.org/2018/06/19/3-social-network-adoption-varies-widely-by-country/
Internet Users	The percentage of individuals who **use** the internet measured at the country level.	https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx

Perceived Opportunity	The percentage of individuals who believe there is occasion to start a venture in the next six months in their immediate environment	https://www.gemconsortium.org/data/key-aps
Perceived Capability	The percentage of individuals who believe they have the required skills, knowledge and experience to start a new venture	https://www.gemconsortium.org/data/key-aps
Entrepreneurial Intention	The percentage of individuals who expect to start a business within the next three years	https://www.gemconsortium.org/data/key-aps