

THE JAMAICAN MANUFACTURING MSMES

The Internationalisation of the Jamaican Manufacturing Micro Small and Medium Enterprise: The Impact of Standards as a Potential Firm Resource

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DECLARATION

I certify that the work presented in this thesis is, to the best of my knowledge and belief, original, except as acknowledged in the text, and that the material has not been submitted, either in whole or in part, for a degree at this or any other university.

I acknowledge that I have read and understood the University's rules, requirements, procedures and policy relating to my higher degree research award and to my thesis. I certify that I have complied with the rules, requirements, procedures and policy of the University (as they may be from time to time).



Wendell Richards

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LIST of Abbreviations

ASYCUDA	Automated System for Customs Data
ASTM	American Standards and Trade Marks
AEO	Authorised Economic Operator
BoJ	Bank of Jamaica
BRC	British Retail Consortium
BSI	British Standards Institute
BSJ	Bureau of Standards Jamaica
CAGR	Compound Annual Growth Rate
CARICOM	Caribbean Community
CROSQ	Caribbean Regional Organisation for Standards and Quality
CEO	Chief Executive Officer
EO	Entrepreneurial Orientation
ESC	English Speaking Caribbean
EXIM	Export-Import
FOB	Family Owned Business
FSPID	Food Storage and Prevention of Infestation Department
GDP	Gross Domestic Product
GoJ	Government of Jamaica
GFSI	Global Food Safety Initiative
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis Critical Control Point
IE	International Entrepreneurship
IS	Investment in Standards
ISO	International Standards Organisation
JANAAC	Jamaica National Agency for Accreditation
JCA	Jamaica Customs Agency
JMEA	Jamaica Manufacturers and Exporters Association
JBDC	Jamaica Business Development Corporation
JAMPRO	Jamaica Promotions
MICAF	Ministry of Industry Commerce Agriculture and Fisheries
MD	Managing Director
MS	Manufacturing Strategy
MSMEs	Micro Small Medium Enterprises
NCBJ	National Certification Board of Jamaica
OECD	Organisation for Economic Cooperation and Development
PIOJ	Planning Institute of Jamaica
PSOJ	Private Sector Organisation of Jamaica
RBT	Resource Based Theory
RBV	Resource Based View
ROI	Return on Investment
SQF	Safe Quality Food
SME	Small and Medium Enterprise
TKI	Technological Knowledge Industry
UNIDO	United Nations Development Organisation
UNCTAD	United Nations Conference on Trade Development
UWI	University of the West Indies
WTO	World Trade Organisation

Foreword

The issues raised in this thesis with respect to MSME internationalisation was discussed at a doctoral consortium at the Mona School of Business and Management (MSBM), University of the West Indies, Second Business and Management Conference on November 9, 2016 and the abstract was published in the conference booklet with a special ISBN. The theme of the conference was “Connecting the Dots: Enterprise, Entrepreneurship and Sustainable Development”. Discussions involved key sectors and groups including academia and the public and private sectors. It focused on the private sector and by extension entrepreneurship, enterprise and sustainable development; innovation and competitiveness; factors influencing SME performance and strategies and perspectives to help Caribbean businesses going global – all areas the private sector can contribute to in achieving the seventeen Sustainable Development Goals (SDG) goals set by the UN for 2030. The conference specifically focused on practical and theoretical contributions, academic papers and works in progress from top researchers representing twelve countries. Their contribution focused on both a global context and from the viewpoint of the Caribbean and developing regions. This experience was extremely beneficial as I was exposed to thoughts and ideas from top academics and researchers in the field of entrepreneurship. The consortium offered useful advice with respect to the direction this research could go. The consortium was chaired by Professor Denise Eldemire-Shearer, Professor Gillian Marcelle, Professor Thomas Schott and Professor David Storey.

Abstract

This thesis addressed the critical issue of the paucity in exporting by Jamaican manufacturing Micro Small and Medium Enterprises (MSMEs) even though these MSMEs are the key pillars of Jamaica's economy. The purpose of this thesis was to address the gap in literature with respect to Jamaican MSMEs as well as to investigate the use of standards as an additional firm resource for increasing competitiveness and internationalising on a global scale. To gather data, the listings of registered manufacturers and exporters were obtained from the Jamaica Manufacturers and Exporters Association (JMEA) and the Jamaica Promotions Corporation (JAMPRO). Both databases were merged, and all redundancies were removed. Analysis of the population database revealed that these MSMEs were operating within seven industrial sectors, namely agro-processing/food & juices, chemicals, cosmetics and pharmaceuticals, electrical, furniture, minerals, metal products, doors and glass, printing & packaging and textiles & sewn products. A survey instrument was then issued to 387 MSMEs of which only 89 responded. Additionally, 3 case studies were developed from in-depth interviews with 3 of these MSMEs who responded to the survey; one was an established exporter while the other two did not export consistently.

The themes which arose from the research included manufacturing, entrepreneurship, export stimuli and internationalisation; these themes were all addressed from a strategic management perspective. Variables such as investment in standards (IS), manufacturing strategy (MS), entrepreneurial orientation (EO), competitive strategy (CS), number of employees (NEM), entrepreneur foreign language (EFL), entrepreneur foreign work experience (EFWE), entrepreneur foreign study and living (EFSL), entrepreneur education (EDU), age of firm (AF), family owned or not (FON) and the environment (EnF) were all analysed to determine their impact on internationalisation. The data was analysed by using correlation analysis, logit regression and analysis of variance (ANOVA).

Principal Component Analysis, a factor analysis technique was used to determine the amount of variance in the data. A single factor MS was retained after extraction (using the default cut off criterion for extraction: eigenvalues over 1), and this factor or variable explained approximately 23% of the total variance in the 12 observed variables. Five models were developed to provide answers to MSMEs internationalisation in Jamaica. Model 1 investigated the impact the control variables AF and family owned or not (FON) had on internationalisation

and the result demonstrated that there was not any significance. Model 2 considered all 12 variables, and this too was insignificant. However, Model 3 demonstrated that MS was the only variable that had any significance with respect to the internationalisation process despite its negative correlation; the F test had a p value of .027 where $p < .05$, therefore, the overall model was statistically significant. Interestingly, Model 4 demonstrated significance between manufacturing strategy and internationalisation in the non-agroprocessing industry; the F test had a p value of .028 where $p < .05$. Model 5 investigated the moderating effect that the EnF had on IS as a firm resource but despite the fact that the environment and investment in standards were negatively correlated, there was not enough evidence from logistic regression to conclude that the environment had a moderating effect on investment in standards.

The practical implications for this study are that the export model developed will assist government and private sector policymakers to assist in providing a more enabling business environment for Jamaican MSMEs to operate. It should make them take practical steps to eliminate the several bureaucratic processes which stifle and strangle doing business in Jamaica. Entrepreneurs who manage small firms should be better able to strategise the configuration of available resources to compete efficiently and boost their enterprises chances of internationalising. These strategies and policies developed will improve the stimulus for non-exporters to become exporters and current exporters to increase the yield of their exports. The export model will also be useful for Jamaica's CARICOM neighbours to emulate.

CHAPTER 1

INTRODUCTION

1.0 Standards

Standards are important for developing country firms because they determine access to specific segments of the market, for example, through regulation on food safety and technical requirements and the terms of participation in global value chains (e.g., through matching quality standards) (Gibbon & Ponte, 2004, 2005; Nadvi & Wältring, 2002; Wilson & Abiola, 2003). A value chain comprises a sequence of activities to generate a certain output, a product or a service (International Standards Organisation [ISO], 2013). The output of the work passes through all the activities of the chain in a given order adding value at each stage (ISO, 2013).

Product, process and labelling standards can act as a passport for products from one country to enter another when deemed acceptable with respect to health, safety and quality. International markets have their own standard requirements for specific products. Therefore, it is important for Jamaican firms seeking entry into global markets to garner the available resources which will allow them to meet the requisite standards. It is extremely important that this objective is met if Jamaica is to immerse itself in export markets and earn much needed foreign exchange.

The advent of globalisation has triggered a keen interest in standards and therefore, the role of standards has also increased in the global market; this has been discussed both empirically and theoretically (Humphrey & Schmitz, 2002a, 2002b; Kaplinsky, 2010; Schmitz & Knorringa, 2000). There are a variety of definitions and taxonomies for standards. Due to the extensive functions that standards perform, a single definition or taxonomy cannot describe the totality of this concept.

The United Nations Development Organisation (UNIDO, 2006) working paper on the Role of Standards defines a standard as having three attributes (i) level, (ii) subject, and (iii) aspect. The level refers to whether the standard was written for a company, national or international entity. The subject deals with a specific matter for example, chemicals, engineering, food or textiles. The aspect covers areas such as specification, testing and analysis, packaging and labelling (more than one aspect may be covered in a single standard: a standard may include specification

of items such as the product, its sampling and inspection, related tests and analysis, packaging and labelling). Standards are product and process specifications intended to harmonise the treatment of intermediates in the production process or the attributes of final goods (Moenius, 2004).

Standards can be mandatory or voluntary. Mandatory standards are instituted by governments or agencies with responsibility for implementation. Compliance with these standards is verified through inspection, sampling and testing by national regulatory bodies. There are also private standards, and these are voluntary, but they may in practice become de facto mandatory where compliance is required for entry into certain markets. These standards are not regulated by national regulatory bodies but by supermarket and other retail chains. Compliance with private standards only becomes mandatory if small and medium enterprises choose to partake in these high-value chains.

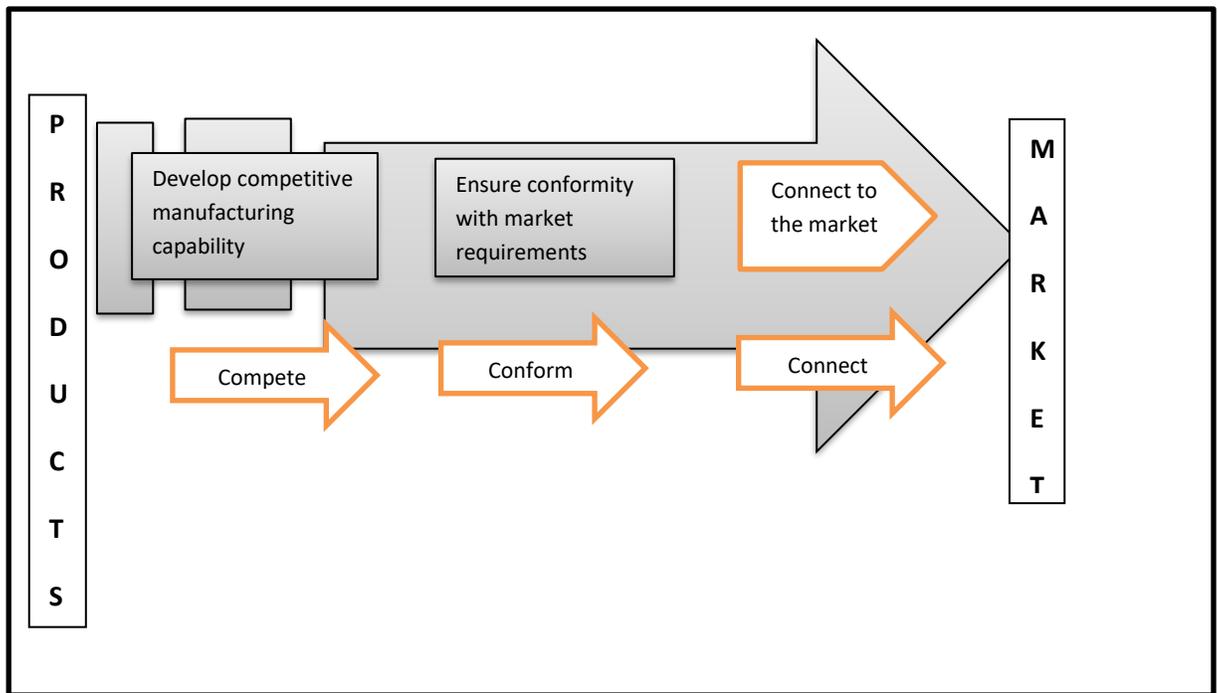


Figure 1.Strategic Approach to Increase Exports

Adapted from UNIDO (2006). Role of Standards: A guide for small and medium sized enterprises. Working paper, Vienna.

Standards address a wide range of issues pertaining to trade, health, safety, protection of the environment and quality. Standards have far reaching economic benefits at both the micro and macro levels. Global standards improve efficiency in the world economy (Nadvi & Wältring,

2002). By providing a common set of specifications, standards have simplified issues among trading partners and eased the transcendence of goods across borders. The complex interrelations among producers, suppliers, retailers and consumers across the globe have stressed the need for harmonisation of standards. Even the nation states of the Caribbean Community (CARICOM) have come to realise this as each state had their own set of labelling and product standards which created problems when goods entering neighbouring territories failed to meet local standards and resulted in delays and detentions at ports of entry which only increased transaction costs. The adoption of CARICOM regional standards by some states have significantly eased tensions and made it easier for goods to transcend borders and integrate with regional markets.

There are two major sets of standards namely product and process standards. A product standard is a precisely defined and documented set of specifications which a product must meet to be deemed as conforming. The standard may also include a testing regime for each of the specifications and these may also include allowable tolerances or limits. Product standards may also include safety requirements which the product must also meet to be accepted as conforming and therefore, does not pose any threat to health and safety. Process standards are a bit more complex than product standards because these involve the documentation of procedures and records involved throughout a factory's production process rather than measuring a single specification (Kaplinsky, 2010). For example, the International Standards Organisation quality and environment standards ISO 9000 and ISO 14000 respectively and the Hazard Analysis Critical Control Point (HACCP) require the documentation of procedures and results at different stages of the production process (Kaplinsky, 2010). Unlike product standards, process standards do not set specifications which must be attained, but only require that these specifications be verified and documented (Kaplinsky, 2010). Process standards lack physical traits or tangibility (such as 'credence goods'), hence these factors only increase the role and meaning of standards even further (Iizuca, 2007).

Standards have also effectively relayed information from business to consumer; it also improves the linkages among businesses by improving the coordination of global production and distribution systems (Nadvi & Wältring, 2002). This is evident by the way some Jamaican manufacturers have integrated into the global value chain. Value chains deal with the

conception, design, manufacture, marketing and distribution of a product. These value chains are often complex arrangements between different players (Nadvi & Wältring, 2002).

Standards have also been used to act as non-tariff barriers to trade to protect local producers of commodities of country X from the exporters of the same commodities of country Y. These standards are often set so highly that it is difficult for small manufacturers to meet set specifications that they are excluded from the value chain. Some Jamaican Small Medium Enterprises (SMEs), for example Spur Tree Spices have been able to counteract these barriers. Spur Tree Spices is an award-winning local company which manufactures sauces and spices. The company has not only met the local food standard specifications but also met those of the United States Food Safety Modernisation Act which came into effect January 1, 2014. Spur Tree Spices has also endeavoured to become fully HACCP certified. The result of this is that the company has upgraded its factory space by relocating to larger premises, incorporated a test kitchen, hired students from the Food and Beverage course of study at the University of Technology (UTech) and plan to spend J\$16,000,000 to purchase new machinery (Richardson, 2014). Spur Tree Spices has entered the global value chain and currently has market presence in the US, United Kingdom (UK), Canada and the Cayman Islands (CI) with 70% of its revenues coming from overseas markets (Richardson, 2014). Spur Tree Spices is one of the SME success stories but there are other similar companies in Jamaica which have not been able to internationalise for various reasons such as meagre resources or owners that lack education and training.

In many cases, firms adopting the various sets of standards required to participate in global value chains have experienced considerable improvements in both process and product upgrading (Kaplinsky, 2010). Meeting the requirements of demanding corporate chain leaders to enhance Quality, Cost, Delivery (QCD) has invariably meant that firms have had to amend their practices on handling inventories (reducing working capital costs), to restructure their plant layouts, to move from quality-at-the-end of the line to quality-at-source and to upgrade equipment as well as technology which boosts productivity and enhances product quality (Gereffi, 1999; Kaplinsky, 2010). “Similarly, firms participating in global value chains which require conformance to civil-society driven standards on health, safety, work-practices and the environment are generally able to participate in high-margin niche markets” (Kaplinsky, 2010, p. 10). “Perhaps most importantly, without responding to these demands for higher process and

product standards, firms risk being excluded altogether from global value chains” (Kaplinsky, 2010, p. 10).

There is little indication that the adoption of either process or product standards has had a significant impact on the capacity of firms to either engage in functional or inter-chain upgrading. These require entirely different strategic and technical capabilities according to Kaplinsky. But Kaplinsky did not state what these strategic and technical capabilities are. Therefore, in addition to the role standards play in the internationalisation process, this thesis will also investigate the effects which strategic and technical capabilities such as manufacturing strategy and entrepreneurial orientation have on the internationalisation process in Chapter 2. Moreover, it is this capability to upgrade functionally and into new chains which provides the capacity for sustained income growth over time in many value chains. Hence, whilst standards clearly have an important role to play in stretching process capabilities and some product capabilities in firms inserted in global value chains, too much expectation should not be placed on their capacity to assist the core strategic upgrading which affects long-term survival and sustainable incomes. The upgrading challenge is a much wider challenge than responding to demands for the introduction of new standards (Kaplinsky, 2010).

1.1 The Impact of Standards

The Bureau of Standards Jamaica (BSJ) is the regulatory authority in Jamaica which provides standardisation, conformity assessment and metrology services. The BSJ operates as an agency under the auspices of the Ministry Industry, Commerce and Agriculture and Fisheries (MICAFA). The Standards Act (1968) empowers the BSJ with responsibility for protecting the health and safety of local consumers. The Standards Regulations of 1983 empowers the organisation to promote and encourage the maintenance of standardisation in relation to commodities, processes and practices.

Section 8B of the regulations dictate that ‘any person who for the purpose of sale imports into Jamaica (other than for personal use), manufactures or processes any commodity for which a compulsory standard specification has been declared shall be registered under this regulation in respect of that commodity’ (Standards Regulations, 1983). The product must meet the relevant labelling and product standards before they can be released on the market.

Table 1 *Impact of Standards*

Type of Standard	Positive Effects	Negative Effects
Conformity / Interface	<ul style="list-style-type: none"> • Network externalities, i.e. frictionless communication • Avoiding lock-ins in old technologies • Increased variety of systems products • Increases probability of interoperability 	<ul style="list-style-type: none"> • Monopoly
Minimum Quality/ Safety	<ul style="list-style-type: none"> • Correction for adverse selection by low quality suppliers • Reduced transaction costs • Correction for negative externalities 	<ul style="list-style-type: none"> • Restriction of competition
Variety Reduction	<ul style="list-style-type: none"> • Economies of scale • Building focus and critical mass 	<ul style="list-style-type: none"> • Reduced choice • Market concentration
Information	<ul style="list-style-type: none"> • Facilitation of trade • Reduced transaction costs 	<ul style="list-style-type: none"> • Restriction of competition

Source: Adopted from World Standards Cooperation Newsletter (2011). The Benefits of Standards for National Economies. Newsletter, 3

There are 135 compulsory national standards; of these there are 35 labelling standards and one hundred product standards. These standards cover a range of commodities, for example safety matches, laundry detergent, paint, hollow concrete blocks, etc. The technical information contained in these standards ensures that Good Manufacturing Practices (GMP) are adopted and used to assist manufacturers produce goods of acceptable quality. These standards also assist importers and traders in making sound purchases; most importantly set purchasing specifications for goods and raw materials. The use of standards would give manufacturers' products a competitive edge locally as well as internationally.

The BSJ provides access to both local regional and international standards; it also has a collection of some 76,000 of these standards.

Standards assist in preventing inconsistent quality, wastage of materials, labour and foreign exchange. They also assist in preventing hazards to producers and users; compensation and refunds to customers arising from complaints about product failure or from misleading

information on labels. The first critique is that the proliferation and tightening of quality and food safety in high-income markets is causing new (non-tariff) barriers for developing country exports (Augier, Gasiorek, & Lai Tong, 2005; Brenton & Manchin, 2002). However, such regulations can significantly increase start-up and production costs. The resultant effect is that the standards hinder competitiveness by obstructing firm entry and expansion within a country; this is described as technical barriers to trade. Indeed, there has been a rising use of technical regulations as instruments of commercial policy in the unilateral, regional, and global trade contexts (Maskus & Wilson, 2001). This strategy of using technical barriers to trade could be linked to Porter's Five Forces of Competitive Position Analysis. The theory is based on the concept that there are five forces that determine the competitive intensity and attractiveness of a market. In strategic management Porter's Five Forces are used to understand whether new products or services are potentially profitable. When markets are profitable, they eventually attract new entrants which can erode profits. Unless incumbents are protected by strong and lasting barriers to entry, for example, government policies, patents and for the purposes of this thesis, standards will be included in this list, then profitability will decline to a competitive rate.

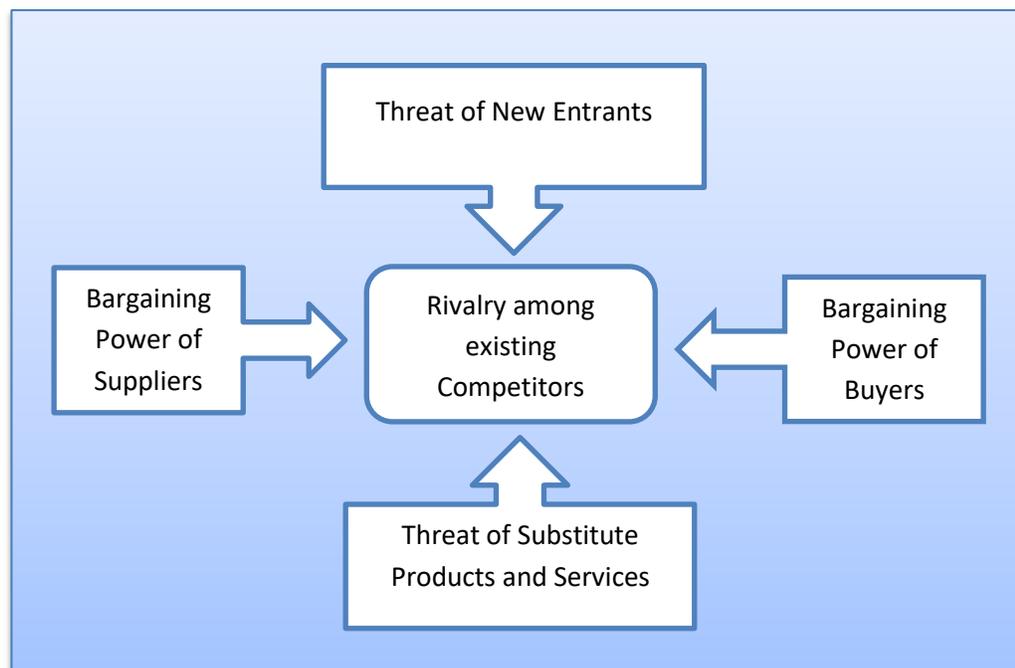


Figure 2.The 5 Competitive Forces

Adapted from Porter E. M. (2008). *The Five Competitive Forces that Shape Strategy*. Harvard Business Review

The second critique is that the high-standards trade may do little for the welfare of small and medium enterprises in developing nations as they may be excluded from high-value supply chains while the rents in the chain are extracted by multinational companies and developing country elites (Dolan & Humphrey, 2000; Farina & Reardon, 2000; Reardon, Busch, Bingen, & Harris, 2001).

The usual barriers to trade are becoming extinct and since standards are being used as non-tariff barriers, this must be worrisome to SMEs in developing countries; the expenditure in meeting their requirements are much larger than their counterparts in developed nations. This situation must be of paramount concern to a country such as Jamaica since potential exporters could be excluded from entering valuable international markets. Therefore, it is extremely important that manufacturing MSMEs not only meet their local standard specifications but attain the resources that will assist them in implementing the relevant international standards.

Even though standards are designed to expand competition and trade, they can be used to eliminate the former; standards are applied to raise the compliance costs of the new entrants relative to the incumbents thereby restricting competition (Fischer & Serra, 2000). This strategy is used by some countries to protect their domestic firms from foreign entrants, thereby restricting trade. The proliferation of private standards has made this even more difficult since these private standards tend to be more stringent than local and international standards. This issue could be particularly difficult for small exporting firms from developing countries such as Jamaica, because their fixed operational costs will increase since they will need additional resources to upgrade plant facilities and meet those additional international regulations without benefitting local economies of scale.

In general, upgrading of the firm involves improvement in physical resources such as general plant infrastructure and production processes; this is where new procedures and new technologies are implemented. Upgrading also includes the introduction of new product offerings, new versions and more differentiated products to the market. Functional upgrading and the establishment of new chains have become necessary because of the competitive pressures from global value chains. A resultant effect is that some firms change their position in the chain, moving from areas of high competition, for example, manufacturing into areas of low competition, for example, branding, logistics and marketing.

These competitive pressures in the global economy have led to the widespread global diffusion of capabilities in manufacturing. The lead-firms which dominate global value chains have introduced standards to ensure enhanced product quality and flexibility as dominant firms outsource those parts of the production cycle which are easy to undertake. Therefore, Jamaican SMEs willing to immerse themselves in the global value chain should consider applying these standards where necessary so that they can compete on the highest level.

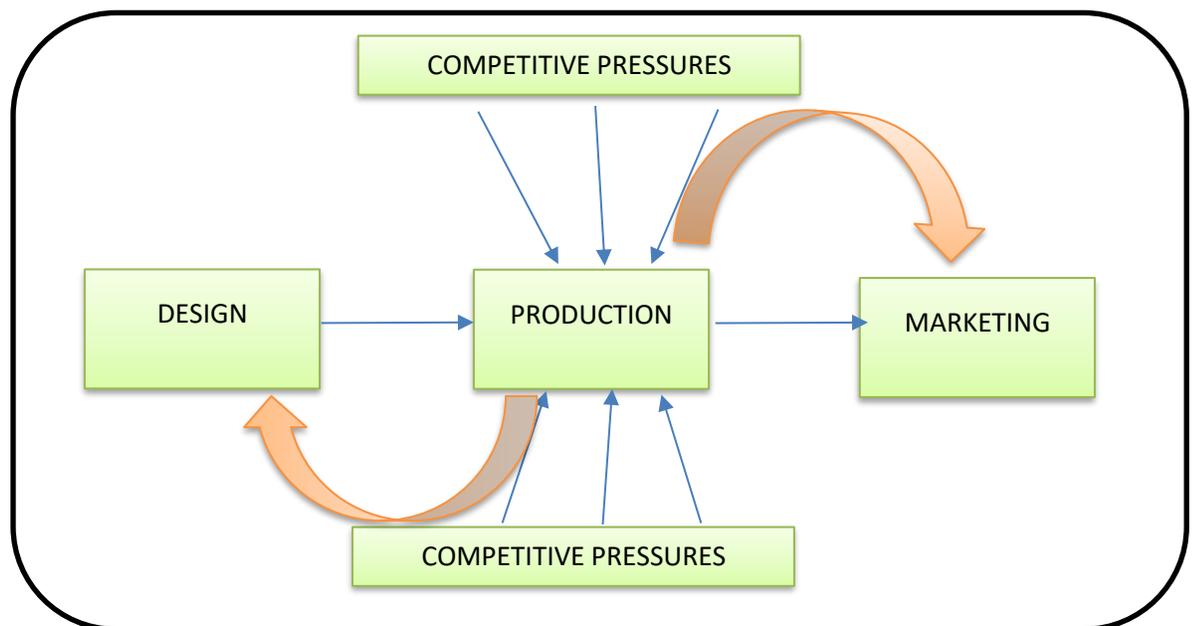


Figure 3.Functional Upgrading in Global Value Chains

Adapted from Kaplinsky, R. (2010). *The Role of Standards in Global Value Chains and their Impact on Economic and Social Upgrading*. World Bank

Locally, the enterprises which have adopted the various sets of standards required to participate in global value chains have demonstrated considerable improvements in both process and product upgrading. Meeting the needs of dominant chain leaders has invariably meant that firms have had to change their practices on inventory levels, restructured their plant layouts, insisted on quality products or raw material at source rather than at the end of line and modernised equipment which boosted productivity and enhanced product quality. Similarly, firms participating in global value chains which require conformance to standards on health, safety and performance are generally able to trade in high value niche markets. Therefore, firms which do not respond to the demands for higher process and product standards will be excluded from

global value chains. This scenario then becomes extremely important for this study to investigate through manufacturing strategy, entrepreneurial orientation and internationalisation what capabilities, knowledge, skills and resources Jamaican firms ambitions of entering international markets will be required to develop so that they could enter these high value global chains.

1.2 Background

The economy of Jamaica like that of most Caribbean economies was founded on preferential trade agreements with its former European rulers. The rearrangement of international trade by the World Trade Organisation (WTO) caused these preferential trade agreements to be suspended. The agricultural sector was largely the beneficiary of the preferential trade agreements and this allowed Jamaica to be competitive in terms of its exports. Since the whittling down of multinational aid and lack of preferential treatment for the export of primary products such as banana and sugar; Jamaica now has the challenge of moving from competing based on preferential trade and international aid to the new era which will require it to compete based on technology, innovation and knowledge (CDB). This challenge is complicated by an economy which is in constant decline.

Jamaica is a small economy with a population of 2.7 million people but has had a turbulent economic history for the past forty years. The country currently has a debt to GDP ratio of 101%, is heavily import dependent and spent US\$84.8 million with its CARICOM partners, 27.0 per cent below the US\$116.2 million spent for January to March 2018 (STATIN, 2019). The overall import bill was US\$6.1 billion in 2018 (STATIN, 2019). The exchange rate has taken a significant depreciation over the past nine years and is currently US\$1: J\$137 compared to US\$1: J\$80.47 in 2009. Comparatively, its neighbours in the Caribbean, Barbados and Trinidad Tobago have stable exchange rates of B\$2.40 and TT\$6.75 respectively. The economy is heavily reliant on services and this accounted for more than 60% of GDB in 2017. Tourism is a major revenue earner and there was a record tourist arrival of 4.3 million visitors in 2017 which contributed \$62.2 billion to the Government coffers (Jamaica Tourist Board, 2017). The unemployment rate was 9.7% at January 2018 and this has exacerbated an already high crime rate.

Jamaica also has one of the highest electricity rates in the world; approximately J\$38 (US\$0.35) per kilo-watt-hour (kWh) which increased to 40-41 US cents per kWh in 2014 (Ministry of Science Technology Energy and Mining, 2017) compared to its Caribbean neighbour Trinidad and Tobago which pays US\$0.05 per kWh (Thomas, 2017). This high electricity rate is directly related to the high cost of Jamaican manufactured goods causing them to be less competitive among similarly manufactured goods from other jurisdictions. It is therefore very critical for Jamaica to improve its economic situation through exporting and earning much needed foreign exchange to assist with stabilisation of the exchange rate and the general economy by extension. It is crucial for Jamaican firms especially the MSMEs which are key pillars of Jamaica's economy to internationalise and become more competitive on a global scale.

Table 2 *Trade with Top 5 Trading Partners*

Trading Partners	Imports US\$,000		Trading Partners	Exports US\$,000	
	Jan-Mar 2018	Jan-Mar 2019		Jan-Mar 2018	Jan-Mar 2019
Total Imports	1,466,105	1,657,545	Total Exports	428,545	450,193
Top 5 Import Partners	978,606	1,158,230	Top 5 Export Partners	250,224	322,017
US	597,121	790,451	US	146,457	163,617
China	131,873	134,635	Canada	55,947	75,567
Colombia	96,404	107,683	Netherlands	10,751	36,025
Japan	84,432	68,791	Iceland	27,979	24,879
Trinidad and Tobago	68,776	56,669	China	9,089	21,929

Source: Statistical Bulletin, 2019

Williams (2009, p. 13) noted “Exporting has multiplier effects as it generates income and employer gains in the domestic economy because of the various other economic activities (both production and consumption) which firms depend on”. Further, “exporting is critical to the Jamaican economy as it stabilises the exchange rate with major trading partners” (Williams, 2009, p.13). Jamaica's major trading partner is the United States and Table 2 clearly demonstrates why the Jamaican dollar is so unstable against the US dollar; the value of goods imported is 3.5 times more than it exports. Therefore, Jamaica must pay urgent attention to this matter because further analysis of Table 2 demonstrates that the country's total import for the period January to March 2018 is four times the value of the exports whereas the multiplier applies to the same period in 2019. These figures are alarming and this huge imbalance in trade must be addressed by the Government of Jamaica (GoJ).

Table 3 *Demonstrating Total Exports*

	March 2019		February 2019		Jan – Mar 2019		Jan – Mar 2018	
S.I.T.C Sections	Imports US\$'000	Total Exports US\$'000	Imports US\$'000	Total Exports US\$'000	Imports US\$'000	Total Exports US\$'000	Imports US\$'000	Total Exports US\$'000
Total Merchandise Trade	569,191	168,585	485,285	139,179	1,657,545	450,193	1,466,105	428,545
Food	82,250	18,674	81,988	19,323	258,579	57,350	227,203	51,366
Beverages & Tobacco	7,304	9,583	7,939	7,732	23,808	24,381	14,293	25,906
Crude materials (excl. fuels)	7,535	101,927	3,079	77,905	16,076	265,030	16,645	250,282
Mineral Fuels	198,601	23,857	120,319	25,744	473,843	74,676	392,689	75,799
Animal & Vegetable Oils & Fats	4,829	49	6,179	17	11,727	113	9,904	101
Chemicals	57,747	4,597	53,596	2028	170,031	8,535	171,576	8,856
Manufactured Goods	52,407	2,216	65,212	1023	178,598	3,906	173,901	6,601
Machinery & Transport Equipment	112,357	4,316	106,681	3,778	393,098	9,950	344,288	4,938
Misc. Manufactured Articles	46,111	3,146	40,208	1,440	131,510	5,591	113,279	3,601
Other	49	220	85	189	275	661	2,328	1,094

Source: Statistical Bulletin, 2019

Earnings from total exports during the January to March 2019 period amounted to US\$450.1 million, 4.8% greater than the US\$428.5 million recorded for the similar 2018 period.

Domestic exports were valued at US\$431.0 million, an increase of 4.6 per cent. Re-exports were valued at US\$19.1 million, an increase of 15.7 per cent when compared to the US\$16.5 million for January to March 2018.

1.3 MSME Sector in Jamaica

Manufacturing in Jamaica has diminished significantly during the past forty years for several reasons such as the financial collapse during the mid-1990s and the continual un-enabling business environment. However, MSMEs have the power to create the most employment and assist in wealth generation; several studies have demonstrated that MSMEs are the backbone of their respective economies as they support private sector growth and expansion. Several studies have been done about MSMEs in developed nations but there is meagre information about these entrepreneurs in the developing world. Small and medium-sized enterprises (SMEs) play an important role in most economies worldwide (Ayyagari, Beck, & Demircuc-Kunt, 2007; Burgstaller & Wagner, 2015). For example, in the European Union, approximately 99 per cent of the economic activities can be linked to SMEs, which account for two-third of all jobs in the private sector (Gama & Geraldde, 2012). Compared to larger firms, SMEs are usually seen as having simpler internal organisation and, thus, as being more flexible and faster at responding and adapting to change (Lopez & Hiebl, 2014). For example, Crossan (2011) states that the majority of firms in the UK only have one owner who is also the sole employee of the firm but this is also true from a Jamaican perspective where several firms run these types of informal operations. Crossan, Pershina, and Henschel (2014) believe that a corporate governance structure is important because such enterprises have a high potential to become insolvent and the most frequent causes of insolvency are management errors and weaknesses in the company structure.

To contribute to the existing literature an investigation will be launched into the firm resources such as local and international standards which are required for manufacturing Jamaican MSMEs to compete internationally. This investigation will consider successful MSMEs who have been able to upgrade and internationalise as well as those content to only serve their local market, the impact of investing and using standards, challenges faced by the sector, government/private sector policies, the implication for managers in terms of their education, experience, strategic initiatives and issues to be highlighted in the research. It must also be

stated here that family owned businesses (FOBs) fall into the category of MSMEs. The rationale is based on the utterances of politicians and policy makers across the English-speaking Caribbean (ESC) (Nicholson & Lashley, 2016). In Jamaica FOBs are categorised as a subset of MSMEs according to the 2013 MSME policy. FOBs can be defined as multiple members of the same family involved as major owners or managers, either contemporaneously or over time (Miller et al., 2007). According to Seaman (2015), a family business can be defined as one which has a distinct track record in portfolio or serial entrepreneurship but where the expertise is embedded within more than one individual. Seaman (2015) also states that the pooling of financial, human or social capital for the benefit of one or more businesses would create a business family. It will be very important for this research to consider FOBs in the analysis of MSMEs since Nicholson and Lashley (2016) have claimed that with the characteristic of the ESC, 70% of the FOBs fall within the definition of MSMEs. In the context of this research it is also important to assess FOBs attitudes with respect to utilisation and deployment of critical resources for competitive purposes such as internationalisation.

The Bolton Committee in its 1971 definition of SMEs stated that these are small independent businesses managed by their owners or part owners and having small market share (Edit Lukàcs, 2005). It also recognised that size is relevant to sector, that is a firm of a given size could be small in relation to one sector where the market is large and there are many competitors; whereas a firm of similar proportions can be considered large in another sector with fewer players and /or generally smaller firms within it. Small and Medium Enterprises (SMEs) have various definitions and criteria but in Jamaica micro establishments are classified as having a revenue base of less than fifteen million Jamaican dollars, small establishments are classified as those with revenue base of between 15 to 75 million Jamaican dollars while medium sized establishments normally have a revenue base between 75 to J\$425,000,000. There are usually less than 5 employees working at micro establishments, 6 to 20 employees at small establishments as opposed to 20 to 49 for medium enterprises.

The manufacturing sector is a key component of the national economy, it contributed J\$148,236,000 to Gross Domestic Product (GDP) for the 2017/2018 fiscal year (STATIN). Manufacturing accounted for 8.5% of GDP and generating export earnings of US\$486 million in 2016 (JAMPRO, 2018). In Table 5 below, it can be seen that 56% of MSMEs in Jamaica are

in the wholesale and retail sector while 11% represent manufacturing. There are currently over 300 companies in the sector engaged in a diverse array of manufacturing activities. The sector is divided into two main categories; traditional and non-traditional. Traditional manufactured goods include food, beverages and tobacco, while non-traditional goods include electronics, building materials, pharmaceuticals, among others (JAMPRO, 2018).

Table 4 *Demonstrating the Classification of MSMEs in Jamaica*

Country	Classification	Revenue (J\$)	No. of employees
Jamaica	Micro	≤ 10,000,000	≤ 5
	Small	10,000,000 – 50,000,000	6 - 20
	Medium	50,000,000 – 150,000,000	20 - 50

Source: MIIC MSME Policy 2013

Table 5 *Percentage of MSMEs by Sector*

Sector	Percentage
Wholesale and Retail Trade	55.7
Community, Social and Personal Services	23.3
Manufacturing (Non-Metal)	9
Manufacturing (Metal)	2
Transport Sales and Communication	3.9
Financial, Insurance, Real Estate and Business Services	2.4
Construction	2.3
Electricity, Gas and Water Supply	1.2
Mining	0.1

Source: MICAFA MSME Policy 2017

Table 6 *SME Contribution to GDP and Employment*

Income Classification	Low Income	Middle Income	High Income
GDP (%)	>60	>70	>55
Total Employment (%)	>70	>95	>65

Source: OECD 2004

Table 7 *SMEs Contribution to GDP, Employment and Exports*

Country	GDP	Employment	Exports
China	59	80	68
India	9	40	40
Indonesia	57	97	16
Malaysia	33	50	19
Singapore	50	77	20
Thailand	37	70	30

Source: Economic Outlook for Southeast Asia, China and India 2014

The table above displays Asian developing nations which are similar to Jamaica and the significant contributions the SMEs in those countries made to GDP and employment. SMEs in the formal sector in the middle-income ASEAN countries account for between one-third and nearly 60% of GDP, and more than one-half to as much as 80% of total employment (Economic Outlook for Southeast Asia, China and India, 2014). SMEs that work as sub-contractors to large exporting firms play an important role in intra-regional ASEAN trade. SMEs are also crucial to the success in sustaining innovative growth and development partly because highly innovative enterprises tend to start out as SMEs (Economic Outlook for Southeast Asia, China and India, 2014). There are lessons here to be learnt by Jamaica.

China and India despite being much larger economies, their MSMEs are similar to the South East Asian countries and Jamaica in terms of the constraints and biases which they face because of their size. These constraints and biases are in terms of accumulating capital and accessing finances. MSME challenges will be discussed further in Section 1.4.

Estimates of the total number of SMEs in Jamaica are difficult to ascertain but a 2013 report compiled by the Planning Institute of Jamaica (PIOJ) determined the total number of SMEs to be 9,996. There were 6,520 micro enterprises compared to 3,476 small enterprises. These figures were based on General Consumption Tax (GCT) returns from SMEs. These SMEs were involved in various industries such as agriculture, financial services, wholesale and retail trade, manufacturing etc. But for the purposes of this study, the focus will be on the manufacturing

SMEs who have the potential to internationalise. There were four hundred and thirty-nine (439) micro enterprises and 269 small enterprises in the manufacturing sector according to the report. Balcostics Ltd. a research group in partnership with the Private Sector Organisation of Jamaica (PSOJ) conducted a survey of Jamaican SMEs who were in attendance at the “NCB/ IDB SME Conference” sponsored by the National Commercial Bank of Jamaica (NCB) and the Inter-American Development Bank (IDB) (SME Survey, 2013). The conference was held from June 21-23, 2013, at the Hilton Resort and Spa in Montego Bay. The main objectives of the survey were:

1. To determine the main challenges facing Jamaica’s Small & Medium Size Enterprises (SMEs)
2. To better understand why individuals, choose entrepreneurship.
3. To better understand the demographics of Jamaica’s burgeoning entrepreneurs (age, sex, education level etc.)

A census was done of all SMEs who attended the Conference and of the approximately 130 business operators in attendance; the researchers collected 87 completed questionnaires. Even though this survey was conducted at the conference, it gives us a very good idea about the characteristics of the entrepreneurs in the SME sector in Jamaica.

The proportion of male to female in the sector was approximately equal with males slightly outnumbering their female counterparts 53% to 47%. This statistic corresponded with the survey results from the Global Entrepreneurship 2013 report. Entrepreneurs between the ages of 35-39 and 45-49 represented the highest proportion of SMEs. Jamaican SMEs seem to be well educated they had diplomas (17%), first degrees (40%), master’s degrees (23%) and PhDs (5%). Most of these SMEs have been in business over nine years (39%). Approximately two in every ten SMEs (22%) were in operation between one to two years, three to five years (21%) and six to eight years (18%) respectively. Very notable was that seventy six percent (76%) of the SMEs did not belong to a small business association or an incubator programme; the implications for this will be discussed later. The main reasons for starting a company was the personal desire to own a company (35%) and the opportunity to fill a void in the market (34%).

This research conducted by Balcostics Ltd. also gives a good indication about some of the intangible resources the SMEs possessed in terms of education and experience. These intangible

resources are drivers not only to accumulate physical resources but strategise their utilisation and configuration as well to achieve competitive advantage. These intangibles will also be assessed in this research.

1.4 SME Challenges

The sector is not without its challenges and the main challenge expressed by SMEs was access to financing. Additional financing would have been used to purchase new equipment, develop new products, increase the number of locations, employ more staff and extend the marketing of their products. According to Balcostics, 94% of the attendees at the conference believed that additional financing would help them expand their businesses. It was not stated explicitly that expansion also involved internationalisation of the business.

Jamaican SMEs typically suffer from lack of sufficient, affordable venture capital for start-ups, working capital and term finance to grow the business. They are also subject to high commercial bank interest rates and suffer from the perception that SMEs are high risk since potential projects are often not funded. Their investment costs are usually higher than market costs. Because of the usually low equity ratio of SMEs, they are relatively vulnerable to external events compared to larger enterprises (Altman et al., 2010). This illustrates that not only larger enterprises face various risks but also SMEs, whose survival is more easily threatened because of their smaller set of – both financial and non-financial resources (Falkner and Hiebl, 2015). In Jamaica, many SMEs run very informal operations and suffer from information asymmetry due to inadequate financial records and cash flow statements. High administrative or transaction cost of lending to SMEs is due to small volumes and lack of economies of scale. Interest rates now for medium-sized and small businesses are very high. According to the Governor of the Bank of Jamaica (BoJ), Bryan Wynter, the high interest rate “is an obstacle to those businesses to be able to expand. They may have good business ideas and products and opportunities, but for one or two per cent reduction of their rate, they are not able to access it” (Jamaica Gleaner, 2018).

A recent government intervention to improve access to finance for SMEs in the UK was the 2012 legislative change permitting credit unions to lend to corporations (Whittam et al., 2015). However, this has not worked out well since many credit unions have not been targeting the

financially excluded. Instead, these credit unions are run as profit making enterprises for the sole benefit of their members (Whittam et al., 2015).

The other challenges expressed were government policies, administrative procedures, limited workforce, marketing and economic environment.

Table 8 *SME Characteristics*

Small size	Reliance on a small number of customers
Lack information asymmetry	Limited markets
Lack affordable venture capital	A reactive, firefighting mentality
Investment costs high	A flat flexible organisation
Informal operations	A high innovative potential
Lack of records	Informal, dynamic strategies
Lack of adequate resources	Isomorphism

Apart from the challenges expressed explicitly by the SMEs, there were other observable challenges about the sector. It was expressed before that this study will focus on the SMEs engaged in manufacturing; so, after looking at the broad SME sector, homing in on the manufacturers, a few observations were made. It was observable that several manufacturers who have the potential to export do not because they believe that the rewards gained from servicing their home market was adequate, insufficient resources to win overseas markets, lack of financing for the venture, lack of overseas contacts, foreign markets too competitive and the level of bureaucracy in the domestic market when selling overseas (Williams, 2009). Other observable challenges were the cost of winning overseas markets too high, overseas technical requirements too high, too much bureaucracy, product not marketable, have not given much thought to exporting. Another factor to consider is that MSMEs in Jamaica probably suffer from isomorphism (Su et al., 2015). Jamaica traditionally has a large number of agro-processors and this has implications for competitiveness since they will all be trying to meet the same minimum standards within the same local regulatory framework in an uncompetitive economic environment.

But according to Williams, the most critical factor for not exporting was the lack of financing for the exporting business. The non-exporting entrepreneurs are not a homogenous group

because there are firms which have exported in the past but stopped. There are also firms which have never exported and are not interested in ever doing so and there are also firms which have never exported but will in the future when the opportunity arises. It can be concluded that the characteristics of MSMEs make them unattractive to financial institutions to even risk investment. These MSMEs lack basic resources and capital and therefore cannot offer collateral to financial providers to access available loans. It stands to reason that if MSMEs cannot amass the resources required to upgrade and implement standards then internationalisation will be virtually impossible. Therefore, government must act quickly and decisively to render the appropriate assistance.

1.5 Policies and Programmes

In 2013 SMEs received support from public sector, private sources, and international development agencies. The initiatives primarily focused on building an enabling business environment in Jamaica, expanding financing and building the technical capacities of the SMEs. The number of loans disbursed to the SME sector in general increased in 2013. The Statistical Institute of Jamaica's Labour Force Survey regarding employment status for 2013 showed that Own Account Worker (sole trader) accounted for 36.2% of the employed labour force; most of the SMEs fell into this category. The average employment of Own Account Worker for 2013 was 401,575 persons of which there were 263,500 males.

The Government of Jamaica made financing available to SMEs through lending agencies such as Sagcor Bank Jamaica Limited, the Micro Investment Development Agency (MIDA) and the Development Bank of Jamaica (DBJ). The total disbursement to the SMEs by these lending agencies amounted to J\$2,288,000. The Ministry of Investment Industry and Commerce (MIIC) concentrated on stimulating investments, confronting the constraints disclosed in the Doing Business and Global Competitiveness reports and encouraged business; this was all done in alignment with the goals of Vision 2030 Jamaica – National Development Plan.

The BSJ also assisted the SMEs in capacity building, improving competitiveness and offering discount services. In an agreement with Jamaica Promotions (JAMPRO), the standards organisation provided a 50% discount on the cost for laboratory tests to certain agro-processors under JAMPRO's ExportMax programme. The total discounts offered to agro-processors in 2013 totalled J\$2.9 million compared to J\$3.7 million in 2012.

One capacity building project proposed by the BSJ is *Capacity Building in Jamaican Micro, Small and Medium-sized Enterprises (MSMEs) in the Agro Processing Sector to satisfy International Food Safety Requirements*. This project, a Train the Trainer programme, is designed to initially train 28 workers (trainee trainers) from interested Micro, Small and Medium sized enterprises in the agro-processing sector in the principles and methods of training; the principles of food hygiene and safety, the theory and application of Hazard Analysis and Critical Control Points (HACCP). These trainee trainers will be equipped to train others in their respective food facilities.

Practical aspects of the workshops included the writing of Working Instructions /Procedures; developing HACCP Plans for 2 'high risk' products (a Low Acid Canned Food and an Acidified Food). On completion of each phase of the workshop, the trainee trainers should be able to share the knowledge and skills acquired with other persons in their respective firms thus facilitating participation in the customisation of generic procedures and HACCP Plans to plant-specific procedures and plans. During the in-plant customisation of the HACCP Plan and its implementation, the selected consultant will provide oversight and guidance to 4 or 5 firms.

To ensure the sustainability of the project, maintenance of the implemented food safety system is critical. The consultant is also expected to identify 1 person from each firm for further training as the Internal Food Safety Auditor. The project was expected to be completed in 13 weeks at a cost of US\$62,685.42.

Through the BSJ's Industrial Training Unit several training sessions were held which focused on product/plant certification programmes, food safety, energy management and development of the bamboo products industry. The development of the bamboo products industry was most interesting, especially with the potential for export for some of the intended products. The Bamboo Industry Policy was scheduled for completion in January 2014; the aim of this policy was to develop and commercialise premium bamboo products such as a stylus for smart phones and tablet computers, collection and separation of vinegar and tar as by-products and bamboo charcoal.

These government programmes were designed to assist MSMEs in their capacity building as well as increasing their technical knowledge base, but it seems as though some MSMEs are either not interested or do not know that these programmes exist. Evidence though is from the

lack of interest in accessing these funds. Other reasons could be that the information disseminated in the workshops are too difficult or some MSMEs lack basic competencies to even access the funds.

1.6. Aim

This thesis aims to investigate the impact of using standards as a potential firm resource which could assist Jamaican manufacturing MSMEs in upgrading their plant infrastructure, processes, products and also contribute to their eventual internationalisation. The thesis will also aim to determine if the environment has a moderating effect on MSMEs investment in standards.

1.6.1 Objectives

1. To investigate whether there is a significant relationship between investing in standards as a potential firm resource and the internationalisation of Jamaican manufacturing MSMEs.
2. To investigate whether manufacturing strategy as a firm resource is linked to the internationalisation of Jamaican manufacturing MSMEs.
3. To investigate whether entrepreneurial orientation as a firm resource is significantly linked to the internationalisation of Jamaican manufacturing MSMEs.
4. To investigate whether the environment has a moderating effect on investing in standards as a firm resource for Jamaican manufacturing MSMEs.

1.7 Policy Implications

Government policy geared to the development of SMEs is very important if these entities are to continue growing and become viable. One Jamaican Government funding mechanism was the Self Start Fund. This fund provided direct government financing to the microenterprise sector. It was financed by the capital development fund, which in turn was funded from tax revenue from the bauxite and alumina sectors (Wint, 2003). The Government of Jamaica (GOJ), through the Ministry of Industry, Investment and Commerce (MIIC) and its related portfolio Agencies, and the private sector have implemented various MSME development projects and programmes, ranging from financing to capacity building. In 2012 the GoJ drafted a SME and Entrepreneurship Policy document geared to policy initiatives which will assist the development of SMEs. The policy document looked at five main areas: Creating an Enabling

Business Environment, Increasing Finance to the Sector, Enhancing Business and Development Support, Inculcating a Culture of Entrepreneurship & Innovation in SMEs and Tackling Cross-Cutting Issues.

It is important that GoJ policy makers acknowledge that pushing for the use of standards can create an environment which will be beneficial for SMEs to get involved with standards. They should also acknowledge that it is international best practice to use established standards in the development of new products so there can be a reduction in the capital spent on research and development and so innovation could be promoted. They must also acknowledge that benchmarking against best-practices in industry can increase efficiency, improve safety and measure performance. Once SMEs can establish that they can comply with standards, they can increase market share by demonstrating the quality of product offerings. The potential benefits for SMEs far outweigh the cost of accessing and using standards.

The firm's product is an essential physical resource which will determine its competitive advantage as well as whether the firm can enter an export market. The type of product involves the level of standardisation, quality, uniqueness (Cavusgil & Nevin, 1981). The ability of the firm to produce a unique product is an indication of its available technology. The level of standardisation and the product quality are two very important determinants in the firms' ability to export. There is an associated cost for a firm having to adapt its product for an export market, for example it may need to meet the relevant labelling standards of that market. But if the firm can produce a product that can be sold in both the local and export market without much variation it will get into exporting much easier than firms which have to make significant changes before the product can be sold in an international market.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter aims to explain the relevant theoretical underpinnings utilised in this dissertation research while Figure 4 gives an overview of the sections in the chapter. The purpose of this study is to investigate the impact of investing in standards as a potential firm resource for Jamaican manufacturing MSMEs to leverage for entry into international markets. This research will also explore other firm resources such as manufacturing strategy and entrepreneurial orientation will also be investigated to get a better understanding of their effects on the internationalisation process from a Jamaican perspective. Only a handful of studies such as Amal and Filho, 2010; Andersson et al., 2004; Chelliah et al., 2010; Lashley, 2001; Lu and Beamish (2001); Williams, 2009; Wong, 2015 addressed the critical issues relating to the internationalisation of SMEs. Even though these studies are very useful in contributing to knowledge, none of them comprehensively addressed the role of quality, health and safety standards, manufacturing and strategic management in the internationalisation process; these studies largely focused on the various internationalisation methods and entrepreneurship. This review will also briefly introduce but not explore in their entirety culture and leadership; these two factors may have influence on the entrepreneurial orientation of the MSME with respect to the firm decision to internationalise. This study will also attempt fill the gap in Williams' 2009 work in *Understanding Exporting in the Small and Microenterprise* which did not include the role of standards nor government policy as predictors for becoming an exporter in the Jamaican context. It is important to examine government policy because the policies which are set can influence and enable MSMEs ability to upgrade, improve competitiveness by implementing product and process standards and eventual expansion into international markets.

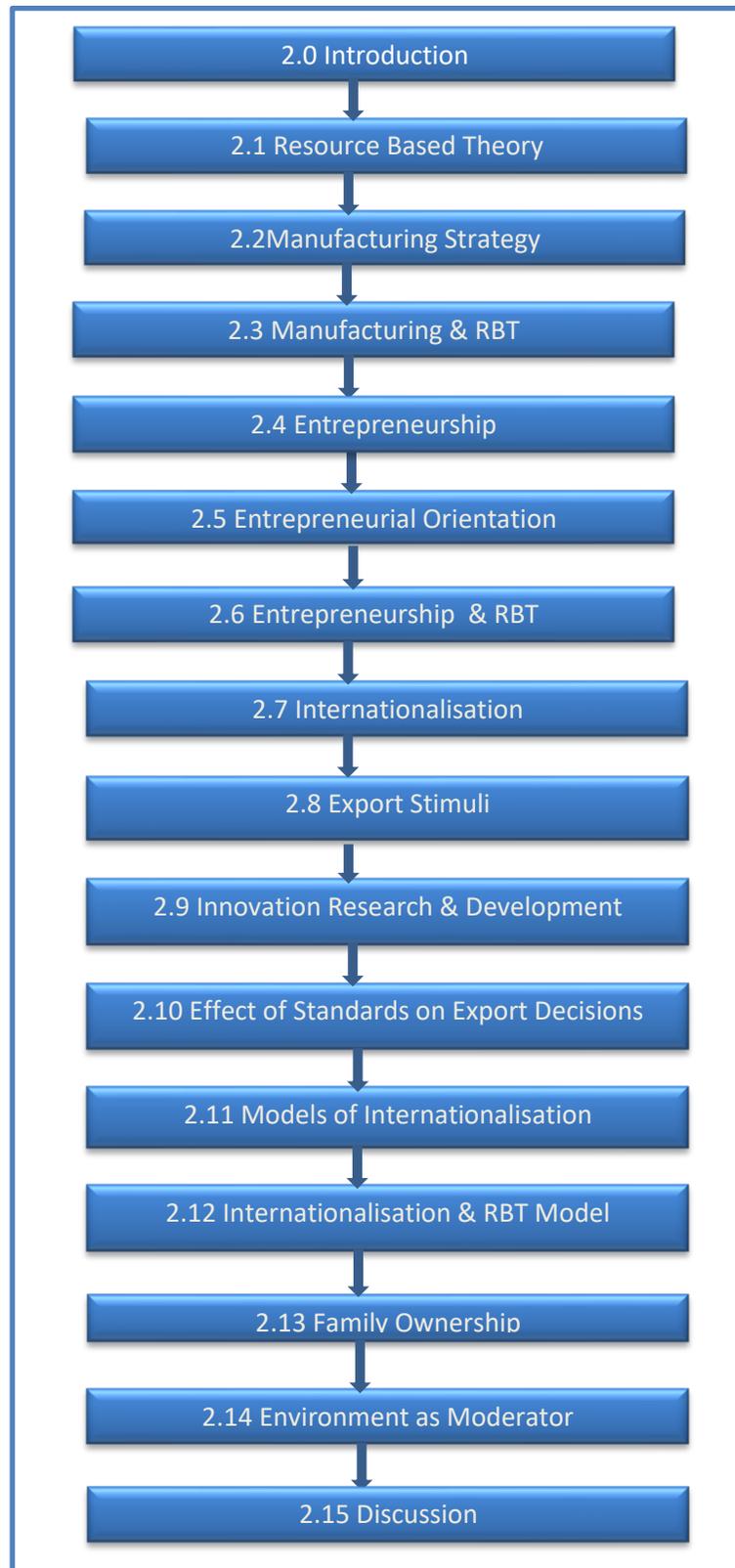


Figure 4. Overview of Chapter 2

Manufacturing

Manufacturing firms in this study refer to the economic sector that is involved in activities such as processing, assembling and producing final products for both local and export market. Jamaica's manufacturing industry is dominated by agro processing and light manufacturing; these have been identified as key areas for growth by the Jamaican government. Manufacturing contributes around 8.3% of Jamaica's GDP and employs about 19% of the population (JAMPRO, 2014). The World Economic Forum Global Competitiveness Report (2013-2014) describes these manufacturing activities as moderately sophisticated. It scores 3.6 out of 7 in production process sophistication where 1 indicates labour intensive methods where the use of previous generation technology prevails and 7 indicates the best and most efficient process technology prevails. Barbados and Trinidad and Tobago score similarly but slightly above Jamaica, scoring 4.0 and 4.1 respectively, showing that levels of production sophistication are comparable across the region.

Low level of Export

The relatively low level of export involvement by manufacturing firms in Jamaica, US\$1,086.0 million for the period January to November 2016 and the need to buttress economic growth through access to overseas markets are cause for concern and attention by government, private sector and researchers alike. It is evidenced by previous research that the limited export activity by SMEs is due to a lack of information knowledge about international markets as well as sources of funding (Van Caneghem & Van Campenhout, 2012). One reason for the paucity of exporting commitment and low performance in general is due to an inability to acquire and process information. Some SMEs constrict their foreign market activities because of their poor control over these activities, mainly because of a lack of information. Information is becoming a crucial resource in the knowledge economy and global market therefore it is important in the context of internationalisation and performance.

Culture

Notably sparse are also studies with respect to the relationship among culture, strategy and performance; but the few empirical studies done have found that a positive relationship exist between culture and performance. There is interconnectedness of organisational culture, firm effectiveness, and superior performance (Berthon et al. 2001; Homburg & Pflesser 2000; White et al. 2003; Yarbrough et al. 2011). Culture is the invisible glue that holds an organisation together (Ghobadian & O'Regan, 2002; Lau et al., 2002). It is intangible and cannot be seen or touched but its inescapable nature makes it a powerful force in nurturing the organisational existence. Culture is responsible for giving a firm its sustainable competitive advantage and according to Morgan (1989), it can act as a conduit for change, enhance competitiveness and innovation but it can also act as a serious obstacle to progress. Hitt et al. (2001, p.505) state that culture consists of “a complex set of ideologies, symbols, and core values that is shared throughout the firm and influences the way its business”. As such, they state that culture shapes the context within which the firm formulates and deploys its strategy and is therefore a source of competitive advantage and is the “central task of strategic leaders”. Culture can also act as an obstacle to the deployment of strategic change unless it is managed effectively (Morgan, 1989). Therefore, managers may assess the influence of culture on their organisations very seriously since it has implications on performance.

Leadership

Leadership is the process of transforming organisations from what they are to what the leader would have them become (Dess & Lumpkin, 2008). Ireland and Hitt (1999) see leadership as a vital ingredient in the formulation and deployment of strategic plans, and in the achievement of strategic competitiveness and above average returns. Accordingly, leadership is a critical element managing the diverse factors affecting competitive advantage (O'Regan & Ghobadian, 2004). However, it is accepted that different types of leadership can lead to different types of outcomes (O'Regan & Ghobadian, 2004). It is typical in SMEs that the CEO tends to “occupy a position of influence, serving as the locus of control and decision making” (Daily et al., 2002, p. 391). Most SMEs have flat organisational structures and the CEO is most likely the owner of the company and would decidedly influence the direction of the firm.

Performance

There have been a sheer number of studies conducted on export performance but only a minority of these such as Lages and Montgomery (2004), Morgan, Katsikeas, and Vorhies (2012) and Cieřlik, Kaciak, and Thongpapanl (2015) have incorporated the element of strategy in regard to firms export operations and success. Research with respect to the relationship between business strategy and export performance is also sparse.

Performance is defined as the ability of an object to produce results in a dimension determined a priori, in relation to a target (Laitinen, 2002). Export performance is viewed by some researchers in terms of export effectiveness, export efficiency and export adaptiveness. Export effectiveness is concerned with how successful exporters are in achieving their targeted exporting goals and objectives. For example, a firm might evaluate itself according to whether export profit or export sales revenue objectives are achieved or whether a certain penetration level is achieved or exceeded (Yeoh, 2005)). According to Katsikeas et al. (2000), export efficiency refers to the comparison of outputs (e.g. revenues) to inputs (e.g. costs), and so includes traditional profit ratios, such as return on investment. He also states that export adaptiveness refers to the firm's capacity to respond to changes occurring in the market environment. However, adaptiveness is a cumbersome dimension of success since its definition shares conceptual overlaps with market orientation (Kohli & Jaworski, 1990). Market orientation is likely a potential cause of export sales performance (Cadogan et al., 2009), but there are few who would support the argument that market orientation is, or falls within the domain of, firm performance (Oliveira et al., 2012). Furthermore, there is evidence to suggest that the links between market orientation and sales performance and between market orientation and profit performance are non-linear (Cadogan et al., 2009; Narver & Slater, 1990). Broadly speaking, the literature considers three aspects of export performance: financial, strategic and the performance satisfaction (Zou, Taylor, & Osland, 1998). In the Jamaican context and for the purposes of this research, export performance will be considered as the ability to penetrate a foreign market and compete. It is possible that most Jamaican SMEs may not be able to compete with large volumes of product; therefore, they can establish a pre-determined acceptable level of revenue.

Competitive Strategy

Following an empirical study implicitly using Porter's (1980) generic strategies, Namiki (1988) concluded that exporting SMEs generally adopt four types of competitive strategies. The first, called marketing differentiation, is based on competitive pricing, brand development, control over distribution, advertising and innovation in terms of marketing techniques. The second, called segmentation differentiation relies on the ability to offer specialised products to specific customer groups. The third, called innovation differentiation is based on the ability to offer new and technologically superior products. The fourth, called products service is based on the quality of the products and services provided to customers. Considering that Jamaican SMEs may not all be able to compete on volume they should consider niche markets with unique product offering. Jamaican SMEs may not be able to offer technologically superior products because of the prohibitive cost involved but they can offer quality goods if they are able to achieve the respective markets' standards requirements with respect to health, safety and performance.

Strategy articulates how an organisation intends to combine its resources to convert its broad intentions into organisational capability (Ghobadian & O' Reagan, 2002). Business strategy is a firm's internal element and it is a vital determining factor for the firm's success in exporting because business strategy influences export performance directly (Aaby and Slater, 1989). Business strategy has been seldom tested in terms of export operation and performance since most researches have been focused on the domestic capacity (Salavou & Halikias, 2009). It is also very important to state that most researches on strategy performance relationship have been concentrated on large firms but research on export market related subjects on SMEs have been sparse.

Contribution to Literature

This is cause for concern since SMEs contribute more than 55% to most nations' GDP (OECD, 2004). SMEs are a very important sector and given the gap in literature pertaining to the link between strategy and export performance, this study will assess the significance of manufacturing, entrepreneurial orientation, export stimuli on the internationalisation process with respect to understanding why some Jamaican SMEs are able to successfully enter and compete in global markets while others prefer to remain in their domestic market.



Figure 5. Model Demonstrating Strategy Formulation Leading to Internationalisation

The factors which lead to successful exporting and export performance of SMEs in Jamaica will be assessed from a strategic management perspective. The effectiveness of the strategy will be based on synergy in important areas such as competitive strategy, the functional strategies and the external environment. The conceptual model demonstrates that the right mix of manufacturing strategy, entrepreneurial orientation and export stimuli could possibly influence SMEs decision to enter a foreign market and compete internationally. The manufacturing strategy will take into consideration the level of technology used in manufacturing, for example, whether computer aided machinery is used, and strategies involved with respect to cost, delivery, flexibility and quality. The entrepreneurial orientation of the manufacturer will also be considered in terms of their prones to risk, proactiveness and innovation. The factors and conditions which stimulate the MSMEs to desire entry into global markets will also be explored.

2.1 Resource Based Theory

The Resource Based Theory (RBT) describes how resources are critical to firms attaining superior performance. Firm resources include assets, capabilities, organisational processes, information, knowledge etc. controlled by the firm. The resources may be valuable, rare, costly to imitate and organised in such a way to capture value. Strategy, from a resource-based perspective, involves an ongoing search for rent, or above-normal rates of return (Mahoney &

Pandian, 1992). Rent is achieved through the effective utilisation of a firm's resources to achieve competitive advantage. Researchers such as Castrogiovanni (1991) and Osborn and Hunt (1974) have suggested that specific resources should be related to tactical and strategic decisions and actions; firms should select their strategies to generate rents based upon resource capabilities. Porter (1980) suggests that companies seeking to attain competitive advantage through cost leadership need continued access to lower-cost raw materials, lower-cost labour, and sustained capital investment. Expertise in process technology is necessary to develop highly efficient production and information systems that generate high productivity ratios. Such companies could also have access to low-cost distribution systems and the ability to maintain tight cost controls. Companies seeking to differentiate based on superior quality would need a strong capability in product research, product engineering, and technical skills (Porter, 1980).

Additional evidence suggests that outstanding customer service goes hand in hand with high quality products, and that firms seeking to provide high quality products require a strong commitment to customer service which they show by training and empowering employees, delegating to lower ranks the authority to solve customer problems, and by rewarding employee efforts (Szpekman, 1992). Companies seeking to compete based on innovative products may be in the best position to take advantage of opportunities in rapidly changing industries. Such companies can seek highly creative and innovative employees. They can keep constant contact with customers and have good marketing skills as well as good technical skills (Bentley, 1990). Although resources impact performance and are vital building blocks in the development of strategy, proponents of the resource-based model are quick to point out that resources alone are not sufficient to achieve competitive advantage and above-average performance. For this to occur, organisation leadership must transform resources into rent-achieving capabilities. Mahoney and Pandian (1992), building upon the work of Penrose (1959), noted that a firm achieves rents not because it has more or better resources, but because the firm's distinctive competence allows it to make better use of the resources that are available.

Resource heterogeneity is the most basic condition of RBT, and it assumes at least some resource bundles and capabilities underlying production are heterogeneous across firms (Barney, 1991). RBT suggests that heterogeneity is necessary but not sufficient for a sustainable advantage (Alvarez & Busenitz, 2001). For example, a firm can have heterogeneous assets,

but not the other conditions suggested by RBT, and those assets will only generate a short-term advantage until they are imitated (Alvarez & Busenitz, 2001).

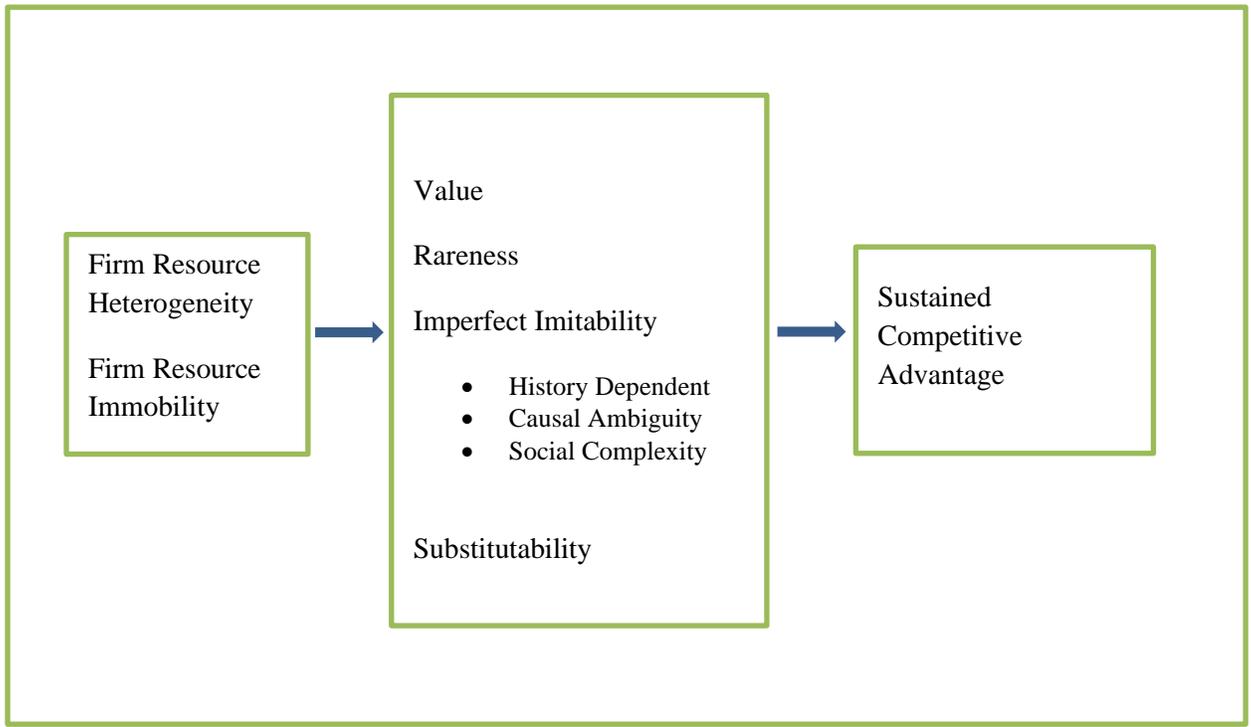


Figure 6. Barney, J. (1991). The Relationship between Resource Heterogeneity and Immobility, Value Rareness, Imperfect Imitability and Substitutability and Sustained Competitive Advantage. *Journal of Management* 17 (1) 1991.

Regardless of the nature of the firm heterogeneity, sustained competitive advantage requires that heterogeneity be preserved. If heterogeneity is not durable it will not add sustained value. This is the case when there are ex post limits to competition. Ex post limits to competition simply means that obstacles should be imposed to prevent other firms from competing away these rents (Alvarez & Busenitz, 2001; Peteraf, 1993). Subsequent to a firm gaining a superior position there must be forces that limit competition (Peteraf, 1993), otherwise heterogeneous advantages dissipate. Ex post limits to competition can reflect cognitive differences, strategic complementarity, causal ambiguity, uncertainty, information asymmetries, all of which are particularly important in entrepreneurial settings.

Firms also gain sustainable advantage through ex ante limits to competition. Ex ante limits to competition suggests that before a firm establishes a superior resource position, there must be limited competition for that position (Alvarez & Busenitz, 2001; Peteraf, 1993).

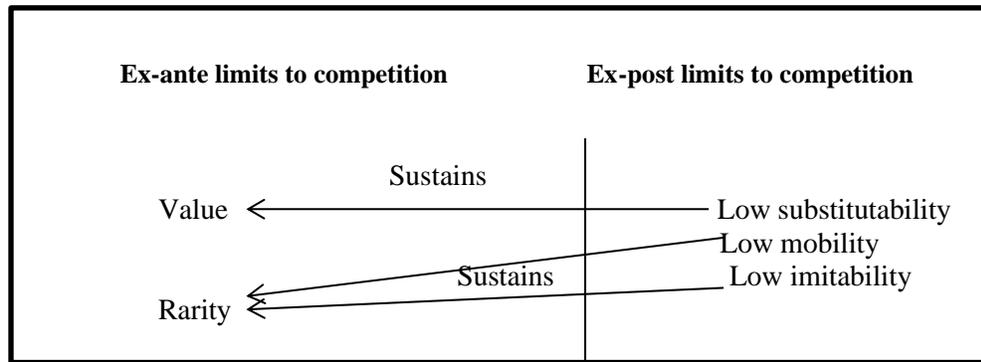


Figure 7. Adapted from Wade, M. and Hulland, J. (2004). *The Resource-based View and Information Systems Research: Review, Extensions and Suggestions for Future Research*

In discussing the imitation of valuable but non-tradable asset stocks, Dierickx and Cool (1989), argued that the imitability of assets depends on the process by which it was accumulated. They identify the following conditions under which imitation may be limited: time compression diseconomies, asset mass efficiencies, inter-connectedness of asset stocks, asset erosion, and causal ambiguity. The importance to resource-based theory is that these assets are inimitable because they have a strong tacit dimension and are socially complex. In the entrepreneurship domain, tacit socially complex assets are often specific to the founder and the organisations they create. These are idiosyncratic assets that are more valuable when used in the firm than outside of the firm. These assets which are often intangible tend to be difficult to observe, describe, and value but have a significant impact on a firm's competitive advantage (Itami, 1987). For example, some of these assets may include an entrepreneurial cognition that recognises and generates new opportunities, build trusting relationships with other individuals and firms, and bootstrap together the necessary resources for a venture to successfully launch. Two characteristics of these and other related assets is that they tend to be characterised by social complexity and path dependence. The RBT was critiqued for not focusing on the issue of value creation (Priem & Butler, 2001). They posed the question, "Is the RBV suitable for strategy research?" Their major critique of the RBV is that while it provides a theory of sustainability, it is not a theory of value creation, which limits its usefulness as a strategic tool (Priem & Butler, 2001. Barney (2001) partially agrees with Priem and Butler's (2001) critique. However, he does outline normative implications for managers (Barney, 2001; Barney & Arikan, 2001). First, he notes the RBV can be used to identify if the firm possesses any strategic resources which can be used to base the firm's strategy on. If managers can identify these resources, it allows them to nurture these resources. Second, managers in underperforming

firms can use the RBV to identify resources that are lacking, and then examine if they can substitute or imitate these resources. Barney's (2001) advice to managers, though useful, does not fully address Priem and Butler's (2001) critique. In particular, it does not open up the black box of understanding how resources contribute to value creation (Sheehan & Foss, 2007); this is where the Porterian activity-based view may usefully complement the RBV according to Sheehan and Foss (2007).

2.2 Manufacturing Strategy

Firstly, the concept of manufacturing strategy and its influence on firms' competitiveness is analysed; secondly, in the context of the literature on the subject, the proposed objectives will also be discussed.

Dombrowski et al. (2016, p. 10) stated "Manufacturing strategy specifies which resources and capabilities need to be established or maintained in the area of fabrication so that those contribute to the enterprise competitiveness". Manufacturing strategy is a plan for moving a company from where it is to where it wants to be (Miltenburg, 2008). Manufacturing strategy refers to a set of coordinated action programs aimed at improving manufacturing performance and enhancing competitive advantage (e.g., Hayes & Wheelwright 1984; Hill & Hill, 2009; Skinner, 1969). Swamidass and Newell (1987) describe manufacturing strategy as a set of tools/practices intended to produce effective manufacturing strengths for enhanced competitive performance. Manufacturing is linked to a firm's corporate strategy and its performance (Skinner, 1969). Previous work in this field by various researchers such as Kim and Arnold (1992) has demonstrated that manufacturing strategy can improve firm performance. This is a core competence for SMEs according to Cagliano et al. (2001) and Cagliano and Spina (2002). Manufacturing can be a competitive advantage if the right decisions are made that support the order winners (Größler, 2007). This can be adopted in a manufacturing strategy; in a manufacturing strategy, a distinction must be made between content and process. Content is what the strategy is comprised, and process is determined by how the strategy is formulated and implemented (Voss, 1995). It is very useful for SMEs to use manufacturing strategies constructively so that these lead to sustainable competitiveness in the market place. However, the characteristics of SMEs must be noted because these may have the potential to affect manufacturing strategies.

Typical SME characteristics include resource constraints in terms of finance, staffing and management, small customer base and operate in limited markets, very reactive to environmental conditions and have informal, dynamic strategies, possess horizontal and flexible organisations, high innovative potential and personalised management (Hudson et al., 2001; Marsden & Forbes, 2003). Based on research done on UK SMEs, manufacturing strategies in SMEs evolve through a bottom up emergent process rather than a top-down planning process. Strategies in SMEs emerge through incremental learning processes and tactical decisions which are aimed at acquiring critical resources and building distinctive capabilities (Cagliano et al., 2001). This seems to work in SMEs favour rather than long term planning processes. This incremental learning process suggested by Cagliano et al seems to be linked to the Resource Based Theory (RBT). The RBT suggests that a firm's resources are critical to it achieving exceptional performance. Therefore, these resources whether tangible or intangible can be maximised in such a way to gain competitive advantage. It can be deduced from this argument that intangible resources such as expert knowledge gained through experience should be documented to prevent loss if the expert was to become incapacitated or suffered from some demise. The firm should still be able to compete with this expert information, knowledge or capacity which is not easily imitated or duplicated.

2.2.1 Strategy Formulation

Strategy formulation in SMEs cannot be the same as in large corporations because (i) the skill set of the owner/manager/CEO may not be as developed or advanced, (ii) SMEs have limited resources, (iii) limited flexibility and (iv) lack of time (Löfving, Säfsten, & Winroth, 2014). The existing frameworks tend to be too complex or require too much time to be implemented by SMEs (Säfsten and Winroth, 2002), therefore it is recommended by Robinson (1984) that the formulation process should be informal and incorporate several participants, both internal and external. With respect to these findings it is necessary that properties of manufacturing strategy formulation frameworks suitable for SMEs be identified.

Today's modern manufacturing strategy transitioned from two schools of thought; the top-down and the incremental approach. Both schools of thought originated from the business strategy area. The typical view of manufacturing strategy formulation was that it should take a formal top-down approach. It was believed that strategies should be systematic and rational in order

to establish action plans (Platts, 1990). Prescriptive formulation frameworks consist of well-defined steps involving factors such as gap analysis, SWOT analysis, customer and competitor analysis and definition of objectives. Therefore, this school of thought advocates that business strategy drives manufacturing strategy which supports the top-down view. But this has been criticised for being too rational, not operationalizing the strategies and not considering how strategy is really formed (Mintzberg et al., 1995).

The second school of thought differs in that they believe strategic work should be more intuitive and creative (Elbanna, 2006; Elbanna & Child, 2007; Hitt & Tyler, 1991; Langley, Mintzberg, Pitcher, Posada, & Saint-Macary, 1995). It goes further by stating that strategies are formed incrementally in iterative small steps (de Wit & Meyer, 2010). Platts (1994) that manufacturing strategy is not a fixed plan but emerges gradually. Bellamy (2009) has concluded that prescriptive strategies will not be helpful to SMEs if their resources are incongruent with this type of strategy. This view is also supported by Yusof and Aspinall (2000), who concluded that prescriptive frameworks are not suitable for SMEs. According to Miltenburg there are a range of manufacturing strategies that can be employed, and these strategies can be organised into frameworks which identify objects. These objects are then organised into a structure which helps companies to understand and use the objects to develop a strategy. SMEs are not a homogenous group because they are of different sizes and have variable resources. Therefore, a prescriptive strategy may not be applicable to all of them.

Amaoako-Gyampah and Acquaah (2008) and Skinner (1969) have all argued that there is a direct link relationship between manufacturing strategy and firm performance. Miltenburg (2008) has also stated that firms which apply manufacturing strategies can potentially increase return on sales and profit before tax to sales ratio. Strategic decision making by manufacturers also has a positive result on corporate performance (Swamidass and Newell, 1987). Singh and Mahmood (2014) also found a link between manufacturing strategy and export performance. Quality assurance and the firm's capabilities to deliver its products and services were also found to be significantly related to firm performance (Williams, 1995). The firm's performance is not wholly dependent on manufacturing strategy but according to Popovska and Boer (2008), it also depends on manufacturing strategy configuration and strategic configuration interaction.

2.2.2 Competitive Priorities

Strategic management literature describes dynamic capabilities or priorities as a crucial part of an organisation's resources and competitive advantage. Dynamic capabilities can be both tangible and intangible resources which the firm owns; these may comprise human, physical, financial, technological, cultural, knowledge and learning. Dynamic capability is the capacity to maintain competitiveness through enhancing, combining, protecting and when necessary reconfiguring the business enterprise's intangible and tangible assets (Teece, Pisano, & Shuen, 1997). The assets and skills of the firm are the basis for competition, and these provide the foundation for sustainable competitive advantage (Aaker, 1995). Aaker stated further that it is the essence of strategic management to develop and maintain these assets and skills as well as to choose right mix of strategies so that competitive advantages can be converted into sustainable competitive advantages. Cost, quality, flexibility and delivery are dimensions of manufacturing strategy and these have been found to be significantly related to the firm's financial performance according to Butt (2009). As developing resilience is a strategic initiative that is aimed at reducing the vulnerabilities brought about by the changes in the competitive environment, manufacturing firms' resilience is a function of their competitive position because of strategic manufacturing activities (Gittell et al., 2006). For a manufacturing firm, one way of achieving resilience is by linking the manufacturing strategy to competitive strategy thereby meeting customer expectations and achieving superior performance (Acquaah & Amoako-Gyampah, 2011). As Neilson et al. (2005) note, resilient organisations are highly adaptable to external market shifts, yet focused on aligning their functional strategies to a coherent competitive strategy. Dombrowski et al. (2016) states that competitive advantages can be created with a smart combination of these resources and capabilities in order to react more efficiently to the aforementioned market changes and increasing demands on manufacturing than other companies. However, DiStefano et al. (2010) and Wilhelm et al. (2015) believe that further research is required to determine the effects and conditions under which dynamic capabilities influence firm performance.

Flexibility

Manufacturing flexibility has widely been considered as a competitive capability in the manufacturing strategy literature, but there is a little empirical evidence to suggest so in the context of developing economies like Jamaica (Mishra, 2016). Manufacturing flexibility is the

ability to meet production resources and infrastructure to meet customer's demands (Chen, 1992). Flexibility is one of the essential capabilities for firms to survive in the changing environment. In today's fast changing market, it is essential for firms to develop manufacturing flexibility to meet unpredictable market demand. Also, the complex nature of manufacturing flexibility requires that firm should apply a combination of practices to achieve flexibility at plant level (Mishra, 2016). This flexibility is also necessary in adapting to uncertainty from international markets with minimum negative impact on time, cost and performance (Upton, 1994). The ability to adapt today's production to rapidly changing market conditions is essential to ensure competitiveness (Denkena et al., 2006). Flexibility refers to the ability of a firm to change its product mix and production volumes in response to the changing needs of the customers (Miltenburg, 1995). Flexibility is particularly important for small firms as these firms often do not have resources needed to have a vast array of product lines all the time (Gaur, 2011). Often small firms compensate their lack of resources by being nimble and flexible in the market place (Gaur, 2011). However, firms cannot be flexible unless they understand their customers, have a good knowledge of competitors' current and future moves, and have a great deal of coordination within the firm. Ling-yee and Ogunmokun (2007) states that the flexibility of firms also gives it competitive advantage in having the ability to meet varied customer expectations without incurring excessive costs, time, organisational disruption, or loss of performance. The research of Chan, Bhagwat, and Wadhwa (2006) emphasised that adding flexibility in manufacturing systems influence the performance positively although an increase of flexibility becomes counterproductive in certain environments. Zhang, Vonderembse, and Lim (2003) also empirically validated that the flexible manufacturing competence has a positive impact on volume and mix flexibility, which influence customer satisfactions. Thus, continually improving customer satisfaction helps in achieving a greater level of flexibility in the manufacturing process. Dangayach and Deshmukh (2001) consider manufacturing strategy to be a strength if "SMEs can easily absorb new technology, new design, and new processes."

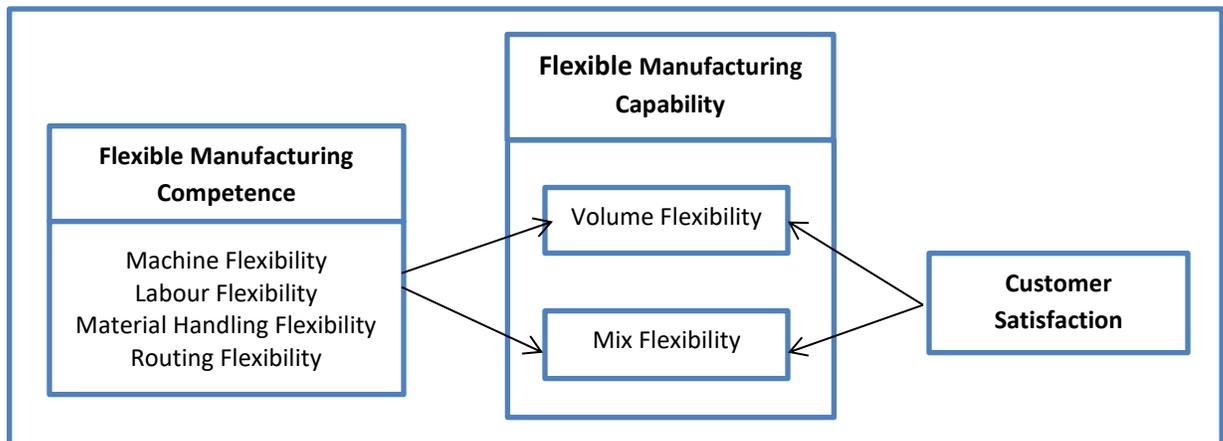


Figure 8. Adapted from Zhang Q., Vonderembse, M and Lim, J. (2003). Manufacturing Flexibility: Defining and Analyzing Relationships among Competence, Capability, and Customer Satisfaction. *Journal of Operations Management* 21 (2003) 173–191.

Day (1994), claims that organisations achieve customer satisfaction by building capabilities on a set of competencies. Figure 8 provides an overview of the relationships among flexible manufacturing competence, mix flexibility, volume flexibility, and customer satisfaction. Flexible manufacturing competencies, which include machine, labour, material handling, and routing flexibilities, have a direct and positive impact on volume flexibility and mix flexibility. Volume flexibility and mix flexibility are external elements of competition (capabilities) that should lead to increased customer satisfaction.

The cost of such change is minimal. But SMEs are less likely to upgrade their technology because of meagre finances and the fact that finances are not always accessible by them. Manufacturing flexibility it seems is a necessary skill for exporting firms to possess in dealing with changing demands, product differentiation and development of new products. Therefore, in the Jamaican MSME context, manufacturing flexibility will be considered as a strategy in terms of volume and product mix. Manufacturing flexibility will be used as a strategy in our model to explain how MSMEs with meagre resources can mitigate against the ever-changing environmental conditions in an ailing economy.

Quality

In manufacturing, quality of products is the main factor of competitiveness (Anuar & Yusuff, 2011). It is a measure of the firm's performance and is also related to the ability of a product to meet or exceed customer satisfaction and customer confidence. It is also a measurement of how much the product is able to carry out its intended use or function over a period of time. The

product must also be absent of defects, deficiencies and not possess any significant variation from the intended appearance, usage or purpose. Quality is the extent to which materials and operations conform to specifications and customer expectations (Miltenburg, 1995). To sustain customer satisfaction, managers can put systems in place to ensure that staff is continuously well trained, and the firm is current with the latest technology. It may also be necessary to implement lean manufacturing strategies in some instances which will increase efficiencies and eliminate or reduce wastage factors that don't add value to the end product. For example, producing ahead of demand is waste because storage costs will be incurred. SME owner/managers goal should be to attain the highest standards, but this can only be achieved by committing to improve quality performance.

American Standards and Trade and Marks (ASTM) are globally recognised voluntary consensus standards which are used around the world to improve product quality, enhance health and safety of consumers, strengthen market access and trade and build consumer confidence. ASTM standards are passports to a global trading strategy; these standards which were developed in accordance with the guiding principles of the World Trade Organisation (WTO), fuel trade by opening new markets and creating new trading partners for enterprises everywhere. British Standards Institute (BSI) assists enterprises throughout the world to incorporate excellence in their business activities. They help clients improve performance, reduce risk and achieve sustainable growth. The implementation of international standards such as ISO 9000 as well as national/international labelling and product standards can also assist SMEs to improve the quality of their products and hence improve competitiveness. In a recent study, Kafetzopoulos et al. (2015) found that ISO 9001 directly affects quality of products and operational performance and indirectly affects business performance of firms through moderating influence of operational performance. The implementation of quality policies such as ISO 9000 will improve quality performances, yield improvements and decrease customer rejection rate (Taninecz, 1997). The ISO 9000 standard provides assurance that a product, or service, conforms to established and specified requirements and that the firm, or service provider, has in place appropriate quality management procedures (Nadvi & Wältring, 2002). The perception of the standard is its usefulness of promoting better and more assured, control of quality within international supply chains, improving market transparency of suppliers, and reducing transaction costs related with quality management (Nadvi & Wältring, 2002). These quality systems are very expensive and most MSMEs lack the affordable resources to have

these implemented. Therefore, it would stand to reason that if MSMEs are unable to implement these quality systems, they would find it very difficult to immerse themselves in global value chains. It is important that GoJ policy makers take cognizance of this fact and take appropriate actions to render assistance to these MSMEs.

There has been a rapid concentration of food retailing, and consequently of food production and packaging, in the developed world (Dolan & Humphrey, 2000). In Jamaica, there are 150 active agro-processing factories (PROPEL, 2015). These agro-processors are engaged in the manufacture of various beverages, juices, jams, jellies, spices and sauces and confectioneries for local and export markets (PROPEL, 2015). The increase in food production and food retailing chains has led to an increase in international supermarket chains and food processors. According to Persistence Market Research, the global food retail industry is expected to grow by a compounded annual growth rate (CAGR) of 6.1% between 2014 and 2020, from US\$ 5,643.6 in 2013 (Persistence Market Research, 2014). This concentration has led to complex contractual arrangements among international food producers and retailers in the developing world. The co-ordination of these value chains and conformance to national and regional requirements on food safety and hygiene, has increasingly involved compliance to various food standards. The various standards and label requirements have emerged as strategic tools in creating brand identity, product differentiation and market segmentation (Reardon et al., 2001). Some of these new food standards are promoted by public bodies while others are the initiative of supermarkets and suppliers in the food industry becoming standard setters. Examples of such standards setters are the British Retail Consortium (BRC) and the Global Food Safety Initiative (GFSI). BRC is a leading safety and quality certification programme. The standards ensure the standardisation of quality, safety and operational criteria; they also ensure that manufacturers fulfil their legal obligations and provide protection for the end user as stated by BRC 2015. GFSI is an industry driven initiative providing thought leadership and guidance on food safety management systems along the supply chain. Some of the benefits for the consumer include increased consumer confidence, reduced foodborne diseases and decreased product recalls while benefits for the food system include improved product integrity, continuous improvement in recognised food safety schemes and cost efficiency through reduced failure.

Quality and standards upheld by the SMEs are mandatory to qualify them as successful exporters (Ferguson, 1996). Concerns about quality assurance, health and safety are aspects of

production and are now central to the global and local agenda on trade. In some markets, for example CARICOM, USA and UK compliance with particular standards constitutes entry requirements. In others it is a basis for defining market niches and creating competitive advantages. Notable is that a handful of Jamaican SMEs in the food processing industry have implemented these quality systems, but most SMEs do not have the capacity to implement such systems because of prohibitive costs involved.

Cost Leadership

A cost leadership strategy refers to the “integrated set of actions taken to produce goods or services with features that are acceptable to customers at the lowest cost, relative to that of competitors” (Hitt et al., 2011, p. 109). Cost leadership is a strategy that firms use to reduce their operational cost below that of their competitors. Cost leadership requires aggressive construction of efficient scale facilities, vigorous pursuit of cost reductions from experience, tight cost and overhead control, avoidance of marginal customer accounts and cost minimisation in areas like research and development (Porter, 1980). SMEs that reduce their production costs will also reduce the cost of their product offerings by maintaining high statistical control procedures that have early detection rates for defective products. Low production costs result in competitively priced products which would enable the firm to gain greater market share, increased sales and higher export performance.

Dependability

A firm’s dependability is also a source of competitive strategy and a boost to its export performance. Those firms which are able to produce and deliver its products ahead of schedule will maintain its customer’s satisfaction, trust and loyalty. Firms can focus on attaining high order rates, short order cycle time, up to date shipping information and frequent delivery times as these aides in developing the firm’s competencies. According to Cavusgil and Zou (1994), firms that are able to increase their delivery value in the customer’s eyes would increase their export performance. Reliability and delivery speed are most competitive factors in today business life for customers to be able to reach the product safe and on time. Even, customers may pay more because of the reliability and speed that company provides (Naqshbandi and Idris, 2012). The condition of the company in its closeness to the customers in the market is an

indicator of company's strength in transferring goods to consumers or perception of the customer needs due to being close to the market (Bulak & Turkyilmaz, 2014).

2.3 Manufacturing & Resource Based Theory

The conceptual model is supported by the resource-based theory which provides a basis for the analysis of manufacturing strategy and the effect on export performance. The resource-based theory rationalises why firms attain and sustain competitive advantage. The theory postulates that a firm has sustained competitive advantage when it has implemented a value creating strategy not simultaneously being implemented by any current or potential competitors and when those other firms are unable to duplicate the benefits of the strategy (Barney, 1991). Schroeder et al. (2002) use the resource-based view of a firm to explore the linkages. This view identifies a firm's key resources that are unique and not easily imitable and deploying them to generate competitive performance. Strategy formulation begins by exploring the firm's internal resources (Schroeder et al., 2002). Manufacturing strategy implementation is not dormant but is a continuous process which will demand that the firm acquire knowledge and gather market information. Manufacturing resources such as a set of processes and unique equipment owned by the firm are not easily imitated immediately because they were formed distinctively through unique processes within the firm and formed a competitive advantage for the firm (Hayes & Wheelwright, 1984).



Figure 9. Manufacturing Strategy Content and Contributing Factors

Therefore, the firm's capability to achieve low cost, high flexibility, dependability and quality is a form of manufacturing process that enables the firm to increase its competitive advantage based on manufacturing strategy (Hayes & Wheelwright, 1984; Ward & Duray, 2000; Youndt et al., 1996). Standards have been included in this Figure 9 model because of its link to

manufacturing quality products. Quality can be used strategically to gain competitive advantage in foreign markets. The Figure 10 model also demonstrates that the fluidity of the environment which is referring to the mobility of the economic market may influence both the competitive strategy and the manufacturing strategy. The layout of the model suggests that competitive strategy acts as a mediator between the environmental fluidity and the manufacturing strategy.

According to Ward and Duray (2000) competitive strategy mediates the effects of environmental dynamism on manufacturing strategy in high performance firms. The model also demonstrates that competitive strategy directly influences manufacturing strategy. The model also suggests the relationship of environment, competitive strategy and manufacturing strategy is linked to export performance. There is also a direct linkage between strategy and export performance (Devraj et al., 2004; Ward & Duray, 2000). A review of the literature suggests that there have been very few empirical studies done to test the linkages among the environment, competitive and manufacturing strategy and performance. The linkages among environmental dynamism, manufacturing strategy and performance were explored empirically by Swamidass and Newell (1987) and Ward et al. (1995). Both papers show that environmental dynamism was positively related to manufacturing flexibility. The latter paper also found positive links between environmental dynamism and quality and delivery capabilities among high performers.

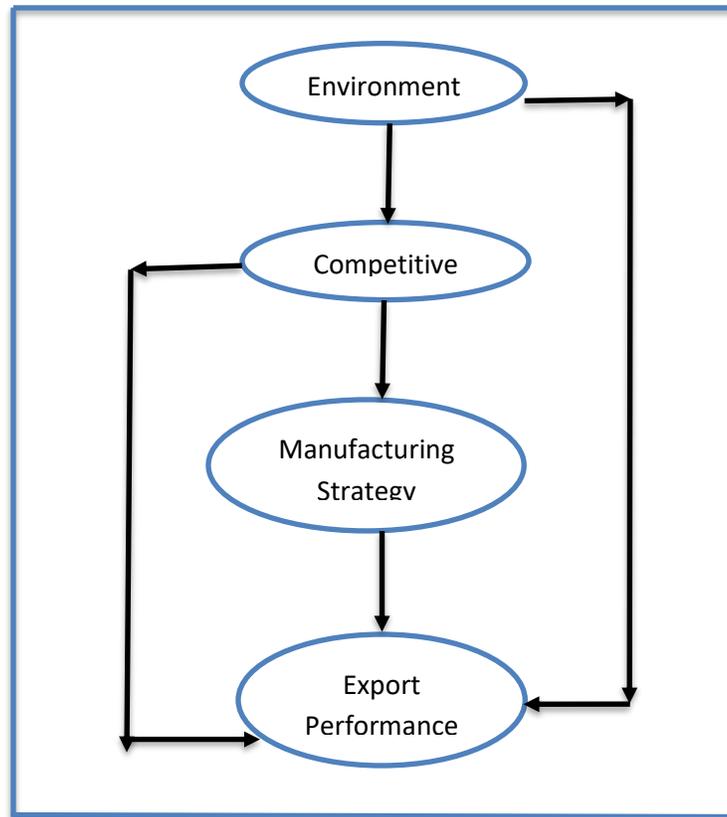


Figure 10. Adapted from Ward, P. T. and Duray, R. (2000). Managing Strategy in Context; Environment, Competitive Strategy and Manufacturing Strategy. *Journal of Operations Management* 18, 123 - 128

Both studies used path models to establish that environmental factors affected manufacturing strategy and performance, but neither included competitive strategy in the model.

Although all four components of the model have not been tested, components such as competitive and manufacturing strategy and performance were dealt with by Vickery, Droge, & Markland (1993). Vickery et al. (1993) found covariance between competitive performance strategy and production competence and business performance. Williams et al. (1995) found a relationship between competitive strategy and manufacturing strategy and along with Tunälv (1992), they also found a relationship between manufacturing strategy and performance. The researchers attempted to extend the existing theory base in manufacturing strategy by investigating the relationship between manufacturing strategy and business unit performance in a mature industry. The framework for manufacturing strategy was based on technology

orientation and market orientation; it was then tested on a sample of 85 business units in the broad woven fabric industry (Williams et al., 1995).

Organisational capabilities are important source of sustainable competitive advantage. Hence, it is crucial to invest heavily to develop the organisation's competitive capabilities to survive and prosper in the current competitive environment (Theresa et al., 2016). Therefore, based on evidence from the literature review on manufacturing strategy, this research seeks to examine the relationship between manufacturing strategy and the firms' investment in standards which will eventually impact the capability to export. The research question follows:

Does manufacturing strategy as a firm resource significantly influence the internationalisation of Jamaican manufacturing MSMEs?

The firm's ability to achieve low cost, high flexibility, quality and dependability is a form of manufacturing process that enables it to increase its competitive advantage based on manufacturing strategy (Vickery et al., 1993). Therefore, the manufacturing strategy is a capability and competitive advantage that a firm builds around its operations that gives it competitive advantage over its contenders. The flat managerial structure of most SMEs can facilitate quick decision making (Dangayach & Deshmukh, 2001). Manufacturing acts as a catalyst that influences the firms' manufacturing capabilities and competitive advantage which in turn influences export performance. Ang et al. (2015) used 13 dimensions to account for their dependent variable export performance and five of these were already discussed in this study: unit cost of manufacturing, conformance to product specifications, on time delivery performance (dependability) and flexibility (change in product mix and volume). Therefore, SME owner/managers can consider consolidating their efforts on embracing manufacturing strategy in order to maximise gains from international markets.

2.4 Entrepreneurship

In this section, entrepreneurship will be defined so that a deeper understanding of manufacturing MSMEs' behaviour and decision making could be understood. This section will also define and assess the entrepreneurial orientation of these MSMEs to attempt to deepen understanding of their intuition and strategic practices if any. Entrepreneurship forms an important component of Caribbean economies (Higman & Monteith, 2010). This importance of entrepreneurship in the ESC is reflected in the various MSME policies, in particular the

Jamaica-MIIC 2017 and also the percentage of the population of the ESC (ages 18-64) who regard entrepreneurship as a good career choice (Singer et al., 2015). In Jamaica, 83.5% of those surveyed claimed they would choose entrepreneurship as a career (Singer et al., 2015). In Jamaica entrepreneurship is the new buzz word used by politicians and policy makers (Nicholson & Lashley, 2016; Rundh, 2011) and this is evidenced by the number of undergraduate and graduate programmes in entrepreneurship being offered in the various universities; the opening of the Branson Centre of Entrepreneurship, the initiative by US President Barack Obama geared towards expanding opportunities for emerging entrepreneurs in the Caribbean and the 2015 ranking of Jamaica as the seventh most entrepreneurial country in the world (Nicholson & Lashley, 2016).

Table 9 *Definitions for Entrepreneurship*

Researchers	Definitions
Chandler and Hanks (1994)	Entrepreneurship is the ability of the firm to use capabilities to exploit external markets and envision opportunities.
Sulistyo and Siyamtinah (2016)	Entrepreneurship is a dynamic process where people create incremental wealth. Wealth is created by the individuals who bear the main risk, in the form of capital, time, and commitment to a career risk in terms of providing value to the product or service.
Mc Dougall and Oviatt (2000)	International entrepreneurship as a combination of innovative, proactive and risk seeking behaviour that crosses international borders and is intended to create value in organisations.
Lin et al. (2012)	High entrepreneurial intensity affects innovation capabilities and encourages a sustainable innovation.
Mc Dougall and Oviatt (2005)	International entrepreneurship is the discovery, enactment, evaluation and exploitation of opportunities across national borders to create future goods and services.
Alvarez and Busenitz (2001)	Entrepreneurship as the recognition and exploitation of opportunities that result in the creation of a firm that seeks to obtain entrepreneurial rents through resource heterogeneity, ex post limits to competition, imperfect factor mobility and ex ante limits to competition.

Entrepreneurship and small firms are becoming an ever more important topic for academics, policy-makers, and universities around the world. One of the reasons is the way they contribute

to the growth of local and often deprived economies (Felzensztein, 2016). It is well-known fact that smaller firms are forced to extend the scope of their business because they face a large number of international competitors in their home market (Felzensztein, 2016). Entrepreneurship has the power to aid in wealth accumulation and even assist Jamaica moving from developing nation to developed status. It has been recognised by stakeholders as a major driver of economic development due to its impact on job creation and poverty alleviation (Adusei, 2016). Thus, there is a need to encourage more private sector business activity that is developed from entrepreneurship initiatives (Tajeddini and Ratten 2017).

Entrepreneurship has also been described as having to do with the exploitation of opportunities for creating hitherto non-existent economic artefacts (Venkataraman & Sarasvathy, 2001). An entrepreneurial opportunity consists of the opportunity to create future economic artefacts and as such, involves a demand side, a supply side and the means to bring them together (Venkataraman & Sarasvathy, 2001). Edoho (2016: 280) states that entrepreneurship can be differentiated in terms of social outcomes by “productive (social gains), unproductive (zero social gains) or destructive (social losses)”. Unproductive entrepreneurship means no changes occur in the business environment to impact society. Destructive entrepreneurship involves negative effects from business activity that harm individuals.

In our discussion of entrepreneurship, we must take into consideration FOBs since many of them are also MSMEs as they possess similar characteristics such as their management structure where the owner is typically the manager and assumes management responsibilities. FOBs also tend to be heterogeneous in nature. It was noted previously that Seaman (2015) described a family business as one which has a distinct track record in portfolio or serial entrepreneurship but where the expertise is embedded within more than one individual. She also stated that the pooling of financial, human or social capital for the benefit of one or more businesses would create a business family. In terms of entrepreneurship, family involvement is viewed as shaping the innovativeness, risk taking, and proactiveness of firms’ postures, thereby influencing how opportunities are recognised and exploited (Casillas, Moren, & Barbero, 2010; Salvato, 2004; Short et al., 2009). Similarly, in terms of strategy, researchers have shown, for example, how family involvement plays a critical role in overcoming competitive threats (Sirmon, Arregle, Hitt, & Webb, 2008), providing a balance of cohesion and conflict in strategic decision-making

processes (Ensley & Pearson, 2005), and determining the value of specific resources to the firm (Chrisman, Chua, & Kellermanns, 2009). In their analysis of successful entrepreneurial leaders in family firms Cohen and Sharma, (2016, pg. 1) stated that “at the core of entrepreneurial leadership is the constant willingness to seek unfilled needs and at least to consider whether it’s possible to provide a usable solution”. These researchers went on to state that it often requires an intuitive leap to see the value-creating opportunity that is within the capacity of the entrepreneur and his or her resources (Cohen and Sharma, 2016). For family firms already in existence, exploration for new opportunities and exploitation of existing markets and products must be juggled simultaneously, requiring leaders to make judgment calls on how much time and resources to invest in each (Cohen and Sharma, 2016).

International entrepreneurship (IE) “has become an important research domain at the intersection of entrepreneurship and international business” (McDougall-Covin et al., 2014, p. 2); however, it is influenced not only by business disciplines (economics, management), but also from non-business disciplines “as diverse as sociology, economic geography, political science, development economics, and psychology” (McDougall-Covin et al., 2014, p. 2). IE specifically examines and prioritises the role of the entrepreneur as a key factor in the internationalisation process of the firm, especially SMEs (Daszkiewicz, 2014). IE describes internationalisation as a “combination of innovative, pro-active, and risk-seeking behaviour that crosses national borders and is intended to create value in organisations” (McDougall & Oviatt, 2000, p. 903).

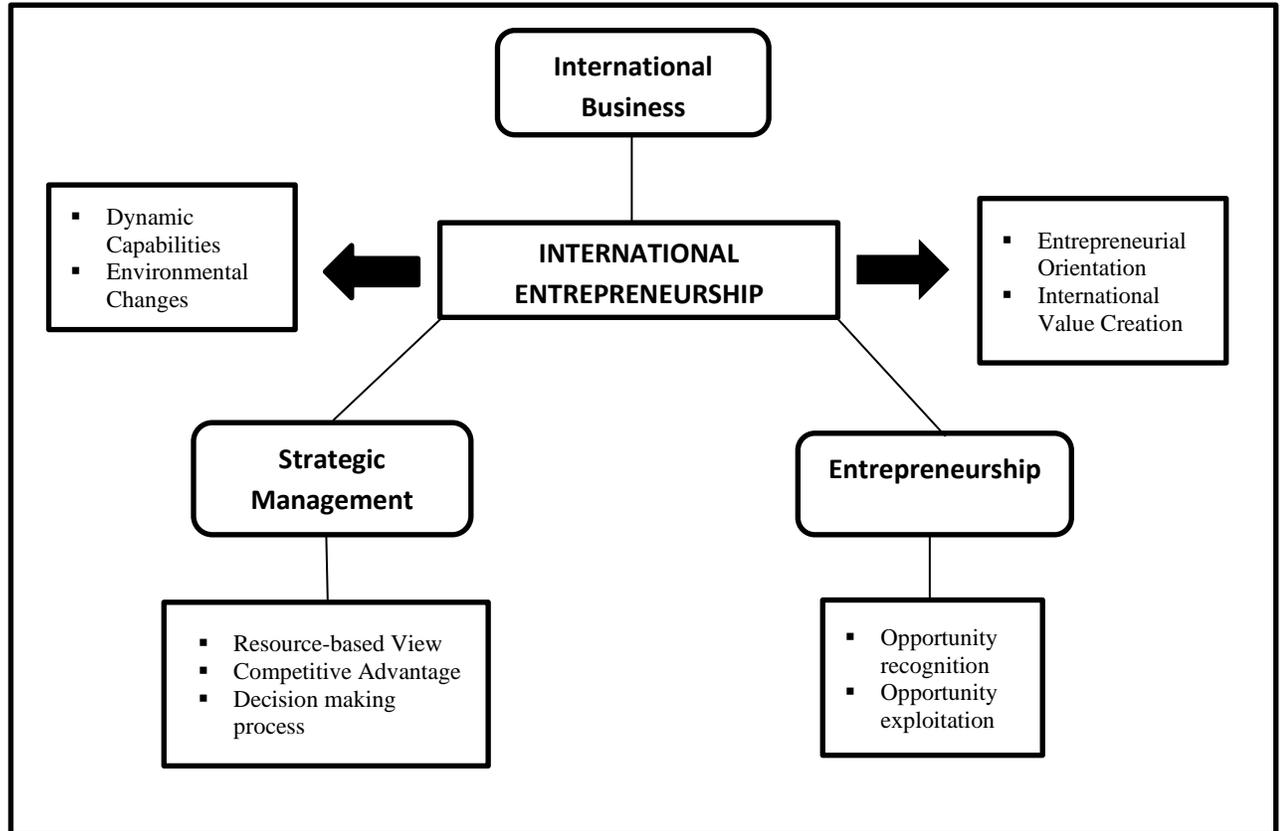


Figure 11. Source: Adapted and modified from Zucchella & Sciabini (2007). *International Entrepreneurship as the Amalgamation of Three Fields*

Wright and Ricks (1994) highlighted IE as a newly emerging research arena, and it became clear that arena included: (1) comparisons of entrepreneurial behaviour in multiple countries and cultures, as well as (2) organisational behaviour that extends across national borders and is entrepreneurial. Research on IE has focused mostly on developed economies and more recently on developing economies (Kiss et al., 2012). “The least frequently studied region of the world has been the Middle East and North Africa followed by Africa, South Asia, Latin America and the Caribbean” (Kiss et al., 2012, p. 269).

2.4.1 Risk

Risk taking involves a business stepping out of its comfort zone and entering an unfamiliar environment or engaging in an unfamiliar activity, the result is to gain competitive advantage. It is also the willingness to commit significant resources to opportunities which have an uncertain outcome and return on investment (Dong, 2009). Implementing a risk management system may assist SME managers to identify significant risks that could potentially jeopardise the success or existence of the company in time to efficiently cope with them (Miller, 1992;

Brustbauer, 2014). Misjudging or failing to recognise risks can have disastrous consequences, ranging from customer loss to damaging liability, environmental damage and possibly, even bankruptcy (Hollman & Mohammad-Zadeh, 1984). However, many SMEs either do not or adequately apply risk management practices, mostly because they cannot afford to rededicate resources because of their constraints (Marcelino-Sádaba, Pérez-Ezcurdia, Echeverría Lazcano, & Villanueva, 2014).

2.4.2 Innovation

Schumpeter's (1934) seminal work referred to the process of business innovation as creative destruction. This means that richness and value was added when products were changed either by adding new features, concepts as well as production methods. Innovation as defined by Porter (1990) is to include improvements in technology and better ways or methods of doing things. According to Kim et al. (2011) entrepreneurial intensity affects a company's performance through Knowledge Integration Capability because it facilitates the process of creative destruction through the newly introduced innovations to gain a competitive advantage. Innovation results in upgrading of products and processes, novel improvements to marketing and distribution as well as dynamic vision. A study conducted on small firms in New Zealand and Scotland by Galloway et al., (2016), posited ICT as an enhancer for small firms. Broad results from this study suggested that ICT engagement and use appear to be widespread in small firms in both Scotland and New Zealand. According to the researchers, it is likely that while growth is not an observably common objective, the use of ICT seems nevertheless to have resulted in strategic outcomes for firms. This strategic use of ICT is more likely to be in line with emergent strategic reaction, rather than any particular planning, but only further research can determine the extent to which this is the case (Galloway et al., 2016).

The influence of innovation on performance was tested intensively by Romijn and Albaladejo (2000) in their empirical study on 50 small and medium enterprises in the United Kingdom and a significant effect was found. The study explained that internal factors, such as level of education and owner experience of the company, study and development institutions, technical skills of manpower and investment in training and human resource development were the determinants of organisational innovation.

2.4.3 Proactiveness

Proactiveness is referred to as taking the initiative and anticipating changes in the environment. It also involves seeking out new opportunities and participation in external markets. Penrose (1959) in seminal work stated that entrepreneurs are important for the growth of firms given that they provide the vision and imagination necessary to carry out an opportunist expansion. Proactiveness reflects a willingness to engage in bold moves such as introducing new products or services ahead of competitors and acting in anticipation of future demands to create, change, and shape the environment (Keh et al., 2007). These attributes reflect the intrinsically aggressive nature of highly proactive firms, which enable them to “skim” foreign markets and attain a greater international reach than the competition (Pérez-Luño et al., 2011). proactive firms are also more sensitive to foreign market needs and are as a result poised to exploit overseas opportunities that fit their capabilities (Morris et al., 2011).

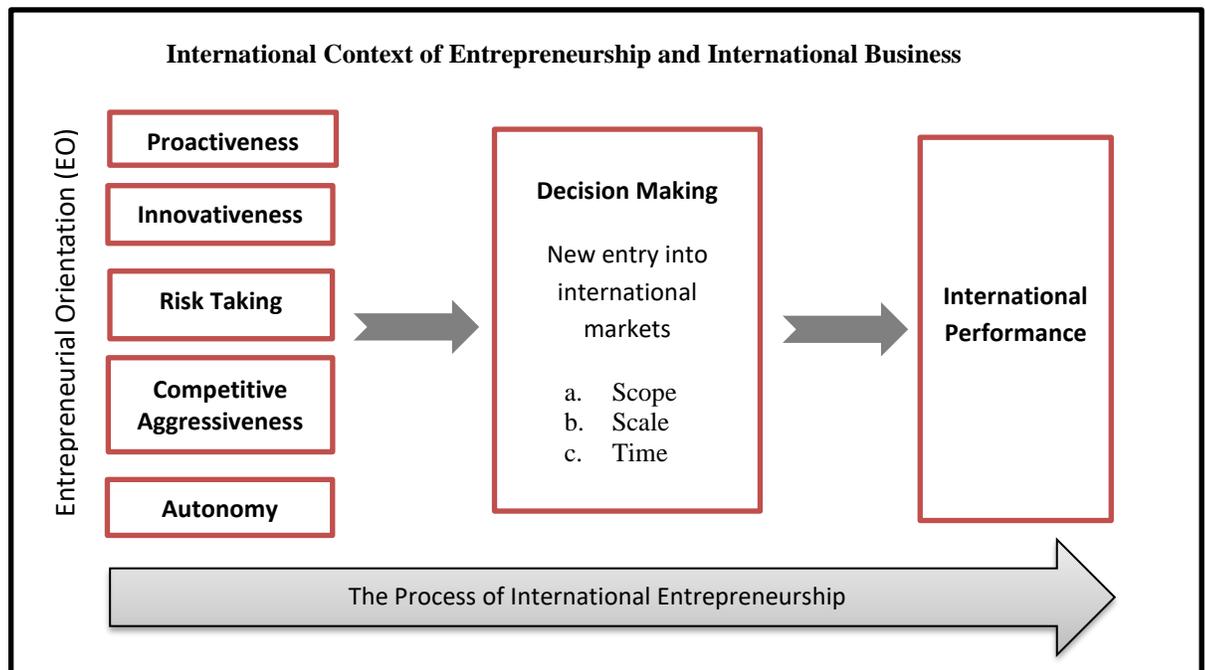


Figure 12. Adapted from Wach, K. (2015). Entrepreneurial Orientation and Business International Process: The Theoretical Foundations of International Entrepreneurship. *Entrepreneurial Business and Economic Review*, 3(2), 9-24

The most important in the entrepreneurial process is the entrepreneurial decision-making process itself, especially the decision to enter new international markets or to enhance the presence into international markets, which can be considered as innovation (Wach, 2015). Strategic international decisions usually focus on three patterns such as (i) scope, (ii) scale or

extent and (iii) time or pace/speed (Kuivalainen et al., 2012; Wach, 2014; Zahra & George, 2002).

Based on the characterisation described by the researchers it means that entrepreneurs may possess a combination of traits which include intuition, risk proneness, proactiveness and innovation; not all MSMEs will have each of these traits but may possess some. MSMEs with very little resources may not be willing to commit these to a risky venture where the outcome or return on investment is dubious. Lack of resources may also be responsible for a lack of innovation or technology in manufacturing or processing plants. The entrepreneurs training or educational background could also have an impact on whether he or she has the ability to scour the environment for opportunities.

Any firm or organisation that has this entrepreneurial mindset will adopt or devise suitable strategies that will determine their eventual entry and performance in an international market. Strategic competence is a very important asset that firms should possess to effectively navigate its external environment. The external environment is at variance with the local market in terms of culture, political meandering, economics and social structure. Resource constrained firms can overcome their limitations by manipulation of levers such as research and development, emphasis on quality, product adaptation and effective distribution (Knight, 2001). By manipulating these levers, the firm will be able to gain knowledge and achieve the requirements of the market it wishes to enter and compete.

The role of entrepreneurship within SMEs and how it links with firm performance have been previously examined and research findings have shown that entrepreneurial activities could invigorate and strengthen enterprises (e.g. Arshad et al., 2014; Aziz et al., 2014; Covin, Green, & Slevin, 2006; Gupta & Batra, 2015; Martins & Rialp, 2013; Sciascia et al., 2014; Wenchao & Zhenhua, 2014). However, contradictory findings have been discovered by some researchers stating that entrepreneurial endeavours do not create benefits for SMEs (e.g. Spencer et al., 2008; Kreiser et al., 2002; Moreno & Casillas, 2008; Scheper, Voordeckers, Steijvers, & Laveren, 2014).

In this literature review of entrepreneurship: (1) the entrepreneur's orientation and the firm's posturing as it relates to exporting and venturing into new markets and (2) the contribution of the resource-based theory towards entrepreneurship will be explored.

2.5 Entrepreneurial Orientation

Entrepreneurial Orientation (EO) involves innovation in the firm's products, willingness to undertake risk and the firm's proactive approach to conducting business. It is also strategic orientation driven by perception of opportunity in environment of rapid change (Stevenson, Roberts and Grousbeck, 1985).

This research will examine the degree of entrepreneurship or entrepreneurship intensity on export behaviour. It is noted by Zahra (2007) that many previous EO studies investigating the EO-performance relationship tend to focus on domestic markets, while firms engaging in international activities like exporting have not been included. Due to globalisation, smaller enterprises have gained substantial presence in international trade systems and business markets (Balabanis & Spyropoulou, 2007), and they often engage in entrepreneurial endeavours to carry out international activities (Balabanis & Katsikea, 2003). It is, therefore, advantageous to gain insights on entrepreneurship of SMEs from an international perspective to broaden knowledge beneficial to policy makers in order to understand the criticality of entrepreneurship and consider whether entrepreneurial endeavours should be emphasised for export SMEs development in Jamaica. Additionally, the extant research is more consistent in showing the strength of the EO-performance relationship depends on various contingencies, including external conditions and internal variables (Engelen et al., 2014; Lyon, Lumpkin, & Dess, 2000). Frank et al. (2010) determined EO to have a negative effect on performance when configured in certain ways. Their research also indicated that a positive connection between EO and performance becomes applicable when there is a dynamic environment combined with high access to financial capital. Frank et al. (2010) also determined positive effects when there is a stable environment with low access to financial capital.

Export behaviour is often influenced by management's ambition, perspective and knowledge as well as their strategic practices. Entrialgo et al. (1999), in their research on Spanish SMEs focused on analysis, flexibility, locus of planning, horizon and control as contributors to influencing firm-level entrepreneurial behaviour and entrepreneurial intensity. The extant literature (Barringer & Bluedorn, 1999; Entriago et al., 2000; Knight, 2001) usually reveals that entrepreneurial firms which are the risk-taking firms are more prone to indulge in strategic management practices than conservative firms.

2.5.1 Formal Strategic Practices

Analysis

Analysis or scanning intensity is the managerial task of studying, assessing and learning about situations and trends in the firm's environment (Chandler & Hanks, 1994; Julien et al., 1999) the information gleaned from such practices provides the firm with potential opportunities. A high degree of analysis fits into the parameters of entrepreneurship because entrepreneurial firms are risk taking, proactive and innovative; the extant literature has demonstrated that information gathering and analysis is essential to the creation and upkeep of successful innovation strategies. Analysis may cause managers to mitigate their perception of risk in an environment and veer towards a potential venture. Firms operating in volatile environments can overcome change by constantly engaging in innovative practices so that they remain viable and competitive. Barringer and Bluedorn (1999) see analysis as a practical approach for entrepreneurial firms. Managers should be careful not to fall into a false sense of belief that analysis or scanning intensity reduces all uncertainty because they would miss signals coming from the environment (Barringer & Bluedorn, 1999). Entriago et al. (2000) found a strong positive relationship between analysis and degree of entrepreneurship. Barringer and Bluedorn (1999) also found a positive relationship between scanning intensity and corporate entrepreneurship intensity. Analysis can be an important tool for Jamaican manufacturing MSMEs who operate in an economic environment which can be considered as volatile. Scanning can be very critical for many SMEs, particularly in choosing new equipment, sustaining innovation, or increasing competitiveness (Cornwall & Perlman, 1990; Julien et al., 1999). Owing to the heterogeneity of SMEs and the market variety in which they evolve, one could even assume that scanning practices would vary not only according to the small firm's structure and the entrepreneur's behaviour, but also to its stages of growth (Julien et al., 1999).

Flexibility

Flexibility has been defined in different ways in the management literature and in general it symbolises the ability to respond and adapt to change as well as inflict change on others (Rundh, 2011). Flexibility as a strategic practice emerges in entrepreneurship; it is the resolve of the firm to adapt as environmental opportunities or threats emerge. Firms in highly complex environmental settings maximise performance by adopting flexible planning systems because

of the frequency of change in their business environments (Kukalis, 1989; Lei et al., 1996; Nadkarni & Narayanan, 2007). The implementation of a flexible planning system incorporated with environmental analysis facilitates a firm's strategic plan remaining current and prevents entrepreneurial initiatives from taking place in a disorganised manner. Even though the entrepreneurial process is intended to keep the firm in alignment with environmental variations, the firm is not immune to sluggishness. By putting a flexible planning system in place, the entrepreneurial firm is better able to circumvent any potential obstacle to change when it is necessary. According to studies done by Entrialgo et al. (2000) and Barringer and Bluedorn (1999) there is empirical evidence to suggest that there is a strong positive relationship between flexibility and entrepreneurship. Therefore, flexibility is a strategic practice that entrepreneurial firms can consider and strive to implement in their planning systems. But MSMEs in Jamaica are heterogeneous and may not all have resources to implement flexible planning systems. The CEOs in most instances are the owners of the firm and may also not be inclined to implement such measures.

Firm Horizon

A firm's horizon is the future time period necessary to execute its planned routine strategies (Camillus, 1982; Das, 1987). This time period may vary for different firms, but time periods could range from one year to fifteen years, but it should be long enough for expected changes (Ryne, 1985). Short planning horizons are associated with entrepreneurial firms because they often operate in volatile environments associated with short product life cycles. Entrialgo et al. (2000) consider a planning horizon of less than five years to be optimal for entrepreneurial firms.

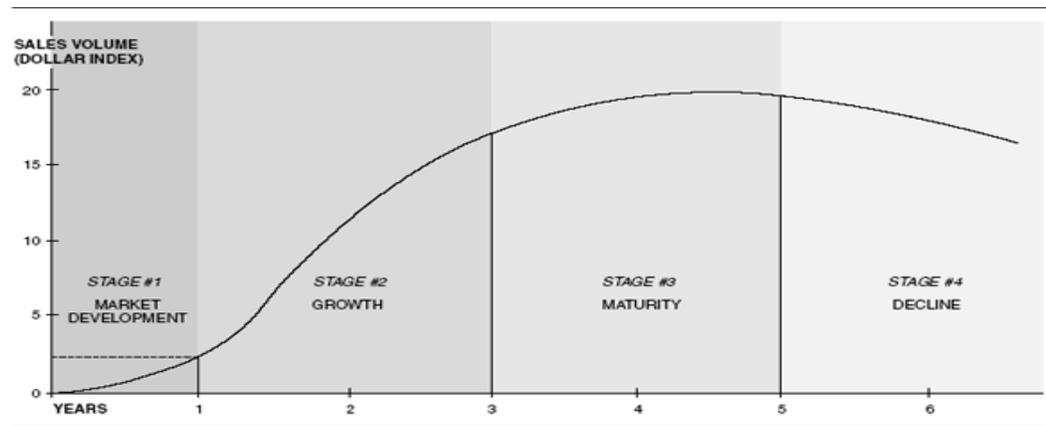


Figure 13. Product Life Cycle

Source: Adapted from Levitt, T. (1965). *Harvard Business Review*, 43, p. 81-94

Long term planning horizon is not suitable for entrepreneurial firms since it would detract from their proactiveness (Barringer & Bluedorn, 1999; Entriago et al., 2000). The rationale is that these firms would be hesitant to divert from their long-term vision of the future despite the environmental change being temporary. As seen from Figure 13, when market maturity tapers off at year 5, sales begin to decline. At this stage few companies are able to weather aggressive competition and may decide to exit the market which is saturated. Companies with resources may employ strategies such as mergers to scare their competitors out of the market. Another possible factor for the unsuitability of long-term planning for entrepreneurs is the flat organisational structure of most MSMEs where the CEO is the owner; this would not be suitable for long term planning.

Short term planning was confirmed from studies as more suitable for entrepreneurial firms (Shuman et al., 1985; Shuman & Seeger, 1986). But a negative relationship was found to exist between planning horizon length and degree of entrepreneurship based on studies by (Barringer & Bluedorn, 1999; Entriago et al., 2000).

But studies have shown that family firms apply longer time horizons in their decision making (Zellweger, 2007). The rationale is that these family firms pass their businesses on to the next generation (Ward, 1997) and they often have very committed shareholders. However, given the fact that family firms strive for an entrepreneurial legacy that lasts generations (Cruz & Nordqvist, 2012); time horizon is not limited to one individual but is extended to a succeeding generation who will take over the firm (Zellweger, 2007).

Studies have also shown that CEO tenure in family firms is much longer than in non-family firms. Tsai et al. (2006) have shown that Taiwanese CEO turnover is significantly less in family firms. The Mass Mutual American Family Business Survey (2002) has reported that CEO tenure in a family business is six times longer than at a typical non-family public company. This means that family members will have a longer time available to implement the firm's strategic business decisions.

Locus of Planning

Locus of planning refers to the intensity of involvement of the organisation's employees in the strategic planning processes. The organisation can be characterised as having a deep locus of planning when employees throughout the organisational structure participate in the planning process. A planning process which only has managerial involvement can be described as shallow. Current literature supports the fact that having a deep locus of planning is contributory to entrepreneurship intensity. The rationale is that the employees' daily interaction with customers gives them a better sense of understanding customer needs and by extension this would influence strategies. The deep locus planning also encourages a diverse range of views to be explored as this may not happen with only managerial input as they may be stymied by group think. Empirically, Jennings and Lumpkin (1989) have demonstrated that the entrepreneurial decision-making process is participative and relies on specialised personnel. These researchers also found that the managers in entrepreneurial organisations are not penalised for the failure of risky products and they also found that performance objectives are arrived at through shared participation. A positive relationship exists between a deep locus of planning and degree of entrepreneurship (Burgelman, 1988; Entriago et al., 2000; Sathe, 1988). But it can be argued that SMEs which have flat managerial structures or where the firm is family owned would be less likely to have a deep locus of planning. In the case of family owned businesses, decision making tends to rest with family members only.

Management Control

Management control systems (MCS) are defined as formalised procedures and systems that use information for planning, control and evaluation to maintain or alter patterns in organisational activity (Chenhall, 2003; Simmons, 1987). Managers use these systems to guide the behaviour and decisions of subordinates in the direction of the organisation's objectives and strategies

(Horngren et al., 2008; Lorange et al., 1986). Control systems for entrepreneurial firms can trigger innovation, proactiveness and risk taking. There are two types of control systems in most entrepreneurial firms; these are strategic and financial controls (Hitt et al., 1990). Financial controls base performance on objective financial criteria such as net income, return on equity and return on sales (Hitt et al., 1990). In contrast, strategic controls base performance on strategically relevant criteria as opposed to objective financial information (Gupta, 1987; Hoskisson & Hitt, 1988). Examples of strategic control measures include customer satisfaction criteria, new pattern registrations, success in meeting new target dates for new product or process introductions and the achievement of quality control standards (Barringer & Bluedorn, 1999). Both financial and strategic controls can coexist in a firm and are not necessarily divergent.

The focus on strategic control is consistent with the entrepreneurial process. Strategic controls are capable of rewarding creativity and the pursuit of opportunity through innovation. These characteristics of strategic controls are important to sustain the innovation process because long time lags frequently intervene between innovative initiatives and their eventual pay off (Drucker, 1985; Kanter, 1989). Strategic controls are less important for conservative firms because they do not get competitive advantage by pursuing opportunities through innovation. There are costs involved in maintaining strategic goals in terms of managerial time and effort (Goold & Quinn, 1990; Hayes & Abernathy, 1980), which conservative firms can do without. Financial controls are aligned with the outstanding capabilities of conservative firms. Financial controls tend to be clear and unambiguous, which introduces a high degree of discipline into the control process. These factors may be particularly beneficial to conservative firms, which are firms that do not have as salient a need to encourage creativity and innovation as entrepreneurial firms (Barringer & Bluedorn, 1999).

In addition to innovations in products and production processes, there are also innovations in the marketing of products (Chen, 2006; Junge et al., 2016; Lee et al., 2016; Terziovski, 2010). The development of new marketing tools and methods plays an important role in the evolution of industries. In addition to product differentiation, Junge et al. (2016) also identified another form of differentiation in terms of marketing. They described marketing differentiation by large investments poured into advertising and portraying of the firm's image and described innovation-based differentiation in terms of developing new products, new technologies and

design quality; specifically, those innovations which included changes in sales and distribution methods and changes in product design and packaging.

Innovations are commonly based on these technological resources, being the result of a process that leads to improve the process or introduce a new product (product differentiation) into the market. In this sense, the combination of globalisation, market segmentation and customised products paves the way for more competition via differentiation (López & García, 2005). Moreover, a higher technological capacity is an important support that enables firms to entry into new markets to achieve its purposes (higher returns from investments). At the same time, these resources allow firms to learn and use (absorptive capacity) the knowledge and technology in an international context (learning-by-exporting) (Rodil et al., 2015). Research suggests that 30% to 50% of both a firm's sales and its profits originate from products commercialised in the previous 5 years (Griffin, 1997; Hauser et al., 2005). These percentages have remained fairly stable over the past decade, highlighting the necessity to create consistent streams of innovation to maintain organisational success (Ireland & Webb, 2007).

A positive relationship was found to exist between the degree of emphasis on strategic controls and degree of entrepreneurship, but a negative relationship existed between the degree of emphasis on financial controls and degree of entrepreneurship (Barringer & Bluedorn, 1999; Entriago et al., 2000).

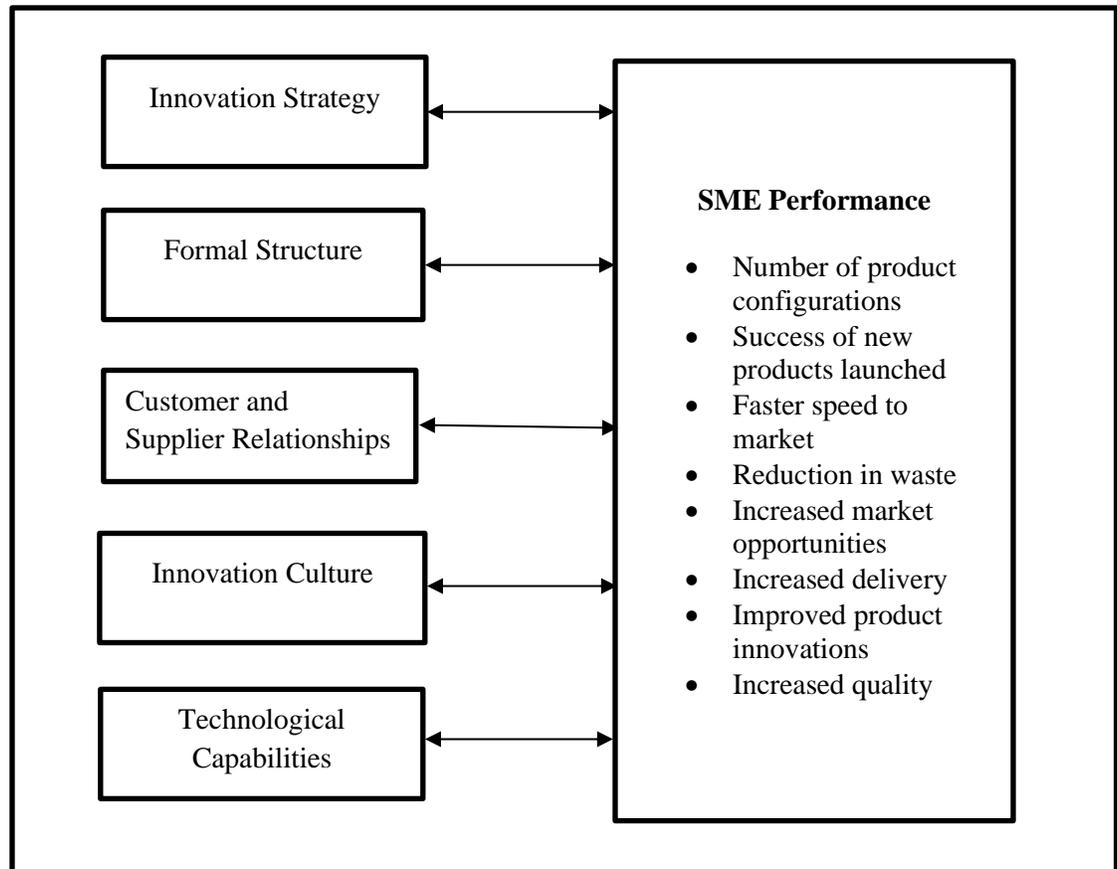


Figure 14.Source: Terziovski, M. 2010. Innovation Practice and its Performance Implications in Small and Medium Enterprises (SMEs) in the Manufacturing Sector: A Resource-Based View. *Strategic Management Journal*. 31 (8), 892-902

Finally, there should be a discussion about FOBs since some of these exhibits entrepreneurial behaviour. Most SMEs are closely held and owner managed (Benedzen & Wolfenzon, 1999; Nutek, 2004). The concentration of ownership and the unification of ownership and management lead to managers being subjected to less pressure from outside investors and other monitors who demand accountability, transparency and strategic renewal (Carney, 2005). Ownership concentration among the top management of the firm can lead to risk aversion and lack of willingness to engage in strategic change activities such as corporate diversification, product innovation or entering new international markets (George et al., 2005; Hoskisson et al., 2000). Strategic change typically involves taking risk. The concentrated nature of ownership puts closely held firms at a disadvantage in terms of risk bearing and promotes strategic inertia (Schulze et al., 2002).

Family-controlled firms are also characterised by a high degree of family ownership, management, and the intention to maintain family involvement in the firm (Chua et al., 1999).

Because of its managerial and ownership influence, the family represents a unique bundle of resources (i.e., familiness) that may act as a source of competency and/or rigidity (Habbershon & Williams, 1999). As such, family control creates unique opportunities and challenges vis-a-vis strategic entrepreneurship. The value created or lost because of the family's bundle of resources depends on the nature of interactions within the family and between the family and business (Habbershon, Williams, & MacMillan, 2003). Firms differ and the dimensions responsible include family involvement in governance through their ownership, management, and board participation; goals such as the family's intention for intrafamily leadership succession and preservation of socioemotional wealth; and resources such as that accruing from family embeddedness and as operationalised through unique resource-bundling processes (Chrisman, Sharma, Steier, Chua, 2013).

2.5.2 Informal Strategic Practices

Formal strategic planning is not the only way that firms choose their strategies (Barney, 1991). Various authors have described the informal strategic planning process as autonomous (Burgelman, 1983) and emergent (Mintzberg & McHugh, 1985).

The extent to which these processes can be considered as valuable strategies for firms, they can be considered as firm resources and their capability for generating sustained competitive advantage can be determined by how rare, imperfectly imitable and substitutable they are. In cases where firms ignore these informal processes they may lose out to firms which take advantage of these strategic processes and gain a rare resource. Since these processes are socially complex (Mintzberg & Mc Hugh, 1985) they are likely to be perfectly imitable.

Table 10 *Comparison of Entrepreneurial and Non-entrepreneurial Management*

Source	Entrepreneurial Domain	Non-entrepreneurial Domain
Chandler and Hanks (1994) Barringer and Bluedorn (1999)	<ul style="list-style-type: none"> ➤ Scanning environment for opportunities; formulate appropriate strategies to take advantage of opportunities (entrepreneurial competence) 	<ul style="list-style-type: none"> ➤ Acquire and utilise resources ➤ Develop programs and procedures ➤ Develop budgets ➤ Delegate ➤ Manage employee and customer relationships ➤ Evaluate performance (managerial competence)
Cornwall and Perlman (1990)	<ul style="list-style-type: none"> ➤ Scanning for and active pursuit of new ventures ➤ Change viewed as opportunity and means to longer-term survival, adaptation, and growth through intelligent approach to risk culture ➤ Top down and bottom approaches to decision making ➤ People are a scarce and precious resource ➤ Creativity is encouraged 	<ul style="list-style-type: none"> ➤ Defensive stance with niche protection ➤ Change viewed as a threat ➤ Control focused on short term targets with risk minimisation ➤ Analytical/objective culture ➤ Serves to protect the status quo ➤ Formalised lines of communication with decision making determined from the top. ➤ People are an abundant and easily replaceable resource. ➤ Creativity is tolerated.
Stevenson, Roberts and Grousbeck (1985)	<ul style="list-style-type: none"> ➤ Strategic orientation driven by perception of opportunity in environment of rapid change. ➤ Commitment to opportunity is revolutionary/Short duration and management of risk. ➤ Commitment of resources is multi-staged with minimal commitment at each stage (with lack of longer-term control). ➤ Episodic use/rent of required resources. ➤ Flat management structure with informal networks. 	<ul style="list-style-type: none"> ➤ Strategic orientation driven by resources currently controlled. ➤ Commitment to opportunity is evolutionary/long duration with reduction of risk. ➤ Commitment of resources is single-staged with complete commitment/formal planning. ➤ Required resources owned/employed and efficiency of use measured. ➤ Formalised hierarchy.

Source: Adapted from Sadler-Smith, E., Hampson, Y., Chaston, I. and Badger, B. (2003). Managerial Behaviour, Entrepreneurial Style and Small Firm Performance. *Journal of Small Business Management* 2003 41 (1)

2.6. Entrepreneurship & Resource Based Theory

There is a link between Entrepreneurship and the Resource Based Theory (RBT). Similar to RBT, heterogeneous resources are also a basic condition of entrepreneurship. Entrepreneurial opportunities are thought to exist when different agents have insight into the value of resources that other agents do not, and the agents with the insight act upon these un-exploited opportunities. If these agents are correct, an entrepreneurial rent will be earned; if not an opportunity loss will occur (Alvarez & Barney, 2000; Rumelt, 1984). According to Alvarez and Busenitz (2001), entrepreneurship is about cognition, discovery, pursuing market opportunities and coordinating knowledge that lead to heterogeneous outputs.

If the entrepreneurial firm has resources that are causally ambiguous these resources will be costly and difficult to imitate, and the advantage enjoyed by this first firm will not be dissipated. Causal ambiguity is a barrier to entry for potential competitors because it is almost impossible to imitate a product that has ambiguous factors. In a Schumpeterian competitive environment, firm survival is the capability to innovate, and to make that innovation profitable again and again.

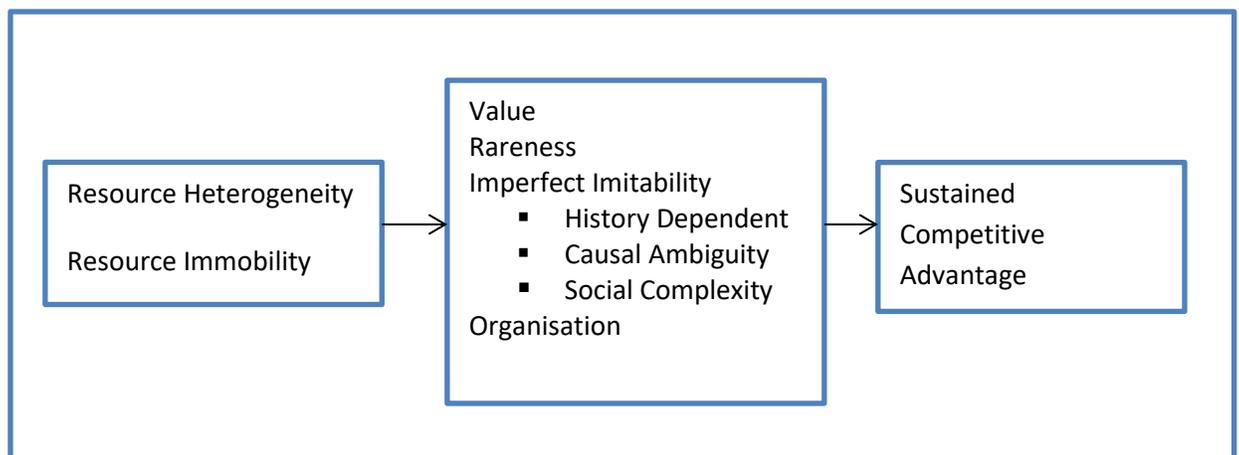


Figure 15. The Antecedents of Sustainable Competitive Advantage

However, as firms get larger the costs of organizing additional transactions within the firm may rise and the returns to the entrepreneurial function decrease (Barney, 1991; Battor & Battor, 2010; Coase, 1937; Sivadas & Dwyer, 2000). Once a firm reaches the point where the cost of organizing an extra transaction becomes equal to the market costs either the market will

organise the transaction or a new entrepreneur will enter and organise the new knowledge. Researchers have theorised that innovation and entrepreneurship are of particular interest to the small firm. Innovation has a direct effect on competitive advantage and it is in line with the study of Barney (1991) which concludes that the competitive advantage of each organisation will require innovation or differentiation from competitors and high perceived value by customers which cannot be met by the products or services of other competitors (Wingwon, 2012). Moreover, the study conducted by Wingwon (2012) concludes that the innovation has a positive effect on the company's competitive advantage.

For the purposes of this thesis, standards will be posited as an additional resource in addition to assets, capabilities, organisational processes, information and knowledge that MSMEs in Jamaica can exploit to compete and earn rents. Most of the existing literatures where standards have been used as a resource for competitive strategy have focused on high technology industries (Riley, 2007; Ronnen, 1991; Sahay & Riley, 2003). Since this thesis is focusing on manufacturing MSMEs in Jamaica, standards as a resource for competitive strategy will be extended to the Jamaican context where most of the manufacturers are agro-processors. By using standards these firms can compete not only domestically but internationally. By gaining knowledge of foreign market requirements, acquiring the right capabilities and competencies to manufacture products can give these firms sustained competitive advantage. But it can be argued that the competitive advantage gained can be temporary since rival firms can imitate the use of standards and hence reduce firm heterogeneity. But according to Penrose's (1959) seminal work, the firm's distinctive competence involves making better use of resources. These manufacturers can merge both intangible and tangible resources and the interaction of these resources can expedite new venture internationalisation (Zahra et al., 2003) and allow these MSMEs to counteract shortcomings due to their small size (Aragón-Sánchez & Sánchez-Marín, 2005). Use of resources, thus, represents a source of advantage for a firm, and influences the choice of a standard to pursue (Sahay & Riley, 2003). The resource-based view (RBV) of the firm emphasises firm specific assets and capabilities as the fundamental determinants of firm performance (Barney 1991; Dierickx & Cool 1989; Wernerfelt 1984). For entrepreneurs to be successful they need to have an action plan that involves the management of required resources (Gerguri-Rashiti et al. 2017).

The research question is:

Does entrepreneurial orientation as a firm resource significantly influence the internationalisation of Jamaican manufacturing MSMEs?

Entrepreneurship was explored from both a strategic management perspective as well as the resource-based view. Firms which can convert innovative ideas into marketable products can exert competitive strategy over their rivals. RBT suggests that specific resources can be related to tactical and strategic decisions and actions. Therefore, this research will evaluate this linkage by testing the combined effects of proactiveness, innovation and risk-taking with strategic practices such as analysis, flexibility, horizon, locus of planning and control; these can lead to maximisation of their core competencies. Entering into new markets or becoming export prone is not a simple exercise because it is influenced by managerial ambition, knowledge and perspective. Even though a firm's resources can give it competitive advantage, it is the ability of the entrepreneur or organisational leadership to recognise opportunity and coalesce the resources to exploit the opportunity which can be instrumental in converting these resources into tangible sources of income. Previous studies on EO have not taken into consideration island states such as Jamaica since these studies have focused largely on European countries and the United States. Therefore, this study will attempt to extend empirical literature to elucidate how EO has contributed to export behaviour from a Jamaican perspective.

2.7 Internationalisation

Internationalisation is a synonym for the geographical expansion of economic activities over a national country's border. The term started to be used when the phenomenon gradually replaced imperialism as the dominant organisation principle framing cross-border interaction between market economies starting in the 1920s. The economic internationalisation process accelerated in the post-second-world-war era and appeared unrivalled until the early 1970s, when a new phenomenon of globalisation started to emerge (Gjellerup, 2000). Internationalisation is a major dimension of the growth of a firm (Peng & Delios, 2006), if the firm chooses to transcend its borders. Market liberalisation and digitisation are encouraging large corporations and the SMEs to operate beyond their national borders and compete with each other in foreign countries and new regions (Barkema, Baum, & Mannix, 2002).

Larios-Hernandez (2018) contribution to this particular area of research, namely, the role of the position of the SME in the information and communication technology (ICT) value chain is that it influences the firm's market choice for internationalisation. The author argues that SMEs

located on both sides, closer to the extreme ends of the smiling curve, add a higher value to their product offer and find better opportunities in international markets compared to firms located in the lower parts of the smiling curve.

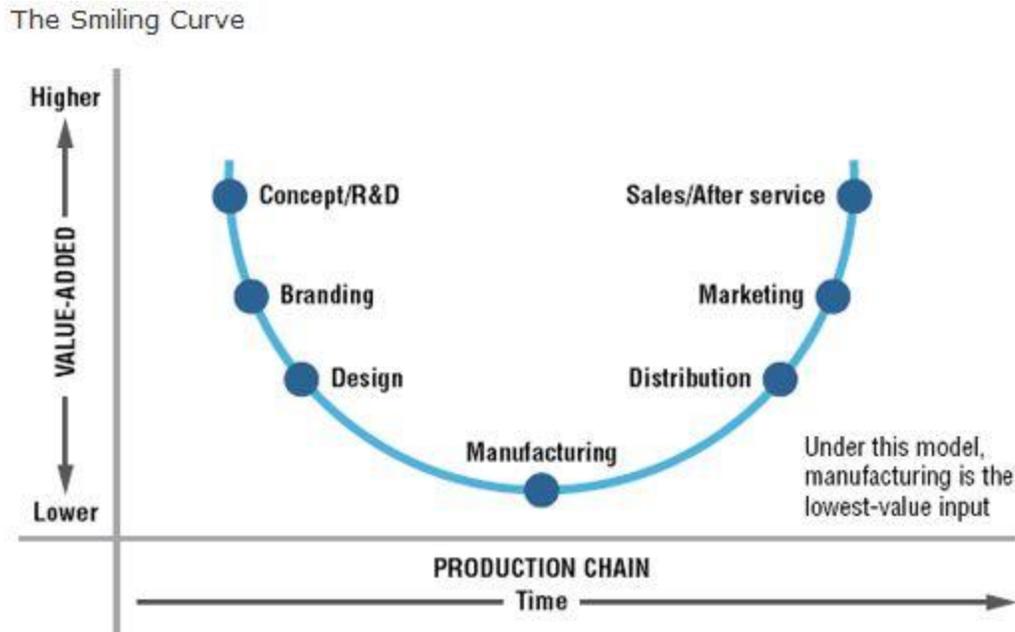


Figure 16 Showing the Smiling Curve. Source: Stan Shih.

Particularly the firms that focus on ICT consulting services, integration, and software customisation (upper, right-hand side of the smiling curve) tend to target the North American markets, whereas SMEs that focus on the creation of packaged software (upper, left-hand side of the smiling curve) rather sell to markets in Latin America (Felzenszstein and Fuerst, 2018). Hence, the SMEs' potential for internationalisation and choice of market is greatly influenced by its value-added position in the smiling curve America (Felzenszstein and Fuerst, 2018).

Larios-Hernandez (2018) focused on the influence of industry on internationalisation, but Pino Soto (2018) examined knowledge influences and their role for internationalisation. Knowledge about international markets comprises three dimensions (Eriksson et al., 1997): foreign business knowledge (customers, competitors, distributors), foreign institutional knowledge (business laws, cultural norms, regulatory standards, language skills), and internationalisation knowledge (ability to develop and implement an internationalisation strategy, how to knowledge).

Internationalisation is a gradual process whereby a firm develops a network of global trade relationship (Naidu, Cavasgil, Murthy, & Sharkar, 1997). Internationalisation is the process of adapting the firms' operations (strategy, structure, resources etc.) to international environment (Calof & Beamish, 1995). Ahokangas (1998) described an internationalising firm as mobilising unique and interdependent resource stocks that enable and contribute to the firm's internationalisation activities within its natural context. The implication for Ahokangas' description is that internationalisation is "the process of mobilising, accumulating, and developing resource stocks for international activities", regardless of the actual content of the international activities themselves.

Some scholars have argued that family ownership confers some specific competitive advantages (Miller & Le Breton-Miller, 2005) that may positively affect internationalisation (Zahra, 2003). Family managers tend to focus on the long-term interests of the business and its shareholders and undertake long-term investments (Miller & Le Breton-Miller, 2005). Since internationalisation may enhance a firm's competitiveness and achieve long-run profitability and success, family managers may opt for internationalisation despite its associated risks (Chen, Hsu, & Chang, 2014).

2.8 Export Stimuli

Small firms generally do not start exporting until something triggers that decision. Trigger cues or stimuli are the driving force behind the export initiation decision. Researchers such as Bilkey and Tesar (1977) and Misenbock (1988) agree that factors in the external environment are the most important element in motivating a small firm to export. It is also argued by other researchers like Thomas and Araujo (1985) that without the stimuli there would not be any exporting. It is very important to determine which stimuli lead to exporting because this would influence not only government SME policy but also firm management awareness as to which stimuli are important. Governments across the globe are encouraging more locally owned firms to engage in international business to enhance the international competitiveness of their local economies. They invest a considerable amount of resources through export promotion, subsidies, among other things, in trying to woo indigenous firms into the international business sector (Kotabe & Czinkota 1992).

However, given the weak export performance of many economies, it appears that few firms can take advantage of these promotional programmes. It may be that firms are not stimulated

enough to participate in the export trade because of their small size and severe resource constraints (Caldera, 2010; Esteve-Pérez & Rodríguez, 2013; Lopez & García, 2005; Sentürk & Erdem, 2008; Williams, 2011). Indeed, the literature is conclusive that small firms make up the bulk of firms in almost every economy. It is therefore not surprising that size may play a role in determining export behaviour (Williams, 2011). Researchers argue that large firms are better able to internationalise because they possess a superior resource stock (Andersson et al., 2004; Bonaccorsi 1992; Calof 1993). Therefore, it can be argued further that as firms get older, they would acquire more resources and be better able to engage in international activities (Autio et al., 2000). Therefore, it is important to investigate the age of the firm as a firm resource because it may influence the ability to export.

In analysing exporters and non-exporters in the ESC as demonstrated in Table 11, there are important points to note: exporters were larger, more internationally certified, less prevalent in low technological knowledge industry (TKI) sectors, less likely to be sole proprietorships or domestically owned, provide formal training for their staff, and have introduced a new product in the last three years; age nor the skills profile of employees indicated a greater propensity to export (Nicholson & Lashley, 2016). The researchers found that the factors which differentiated between exporters and non-exporters were related to the level of export intensity, that is, size, productivity, profits and level of foreign ownership were all positively correlated with export propensity and intensity for manufacturers (Nicholson & Lashley, 2016).

Table 11 Non-exporting and Exporting Caribbean Manufacturing MSMEs: Significant Differences

Variable	Non-exporter (%)	Exporter (%)	Chi-squared test statistic	Significance
Internationally recognised quality certification	13.3	25.6	10.526	0.001
Low technological knowledge industries	62.7	50.4	6.048	0.049
Sole proprietorship	42.2	22.6	19.742	0.000
Full domestic ownership	91.8	73.7	28.184	0.000
Formal training programme for staff	49.4	66.9	11.903	0.001
New product in last 3 years	30.5	45.9	10.061	0.002

Source: Compete Caribbean Survey 2014

In a study done on Portuguese SMEs it was reinforced that lack of knowledge of potential markets and lack of qualified export personnel were main predictors of non-exporting activities. Both of these export perceived barriers are highly significant for non-exporters, which partially explained their internal difficulties in developing an adequate export-marketing strategy and executing it in an effective manner (Pinho & Martins 2010). A unit increase in the measure of perception of lack of knowledge of potential markets (qualified export personnel) multiplies the initial odds ratio by 0.36 (0.33) which represents a proportionate decrease of -0.64 (-0.67) times the initial odds ratio, so the relative probability of the firm being an exporter decreases by 64% (67%), (Pinho & Martins, 2010).

Researchers argue that larger firms are more likely to engage in international activities than smaller firms, mainly due to their superior resource stock (e.g., Andersson et al., 2004; Bonaccorsi, 1992; Calof, 1993). This therefore raises the question: Does the size of a firm impact on its ability to export? Furthermore, since organisations generally acquire resources over time as argued by Autio et al. (2000), it implies that, as firms grow older, they will acquire more resources and as such, be better prepared to become engaged in international business operations.

Firms may be influenced by varying stimuli, for example some firms may want increased growth and performance according to Cavusgil (1984) while others such as Tesar and Bilkey

(1977) argue that it is receiving an unsolicited order from overseas, yet others believe it is the international exposure of the manager such as foreign travel or the ability to speak another language. It is still not certain exactly what prompts a firm to export but a much deeper understanding is required since a large number of firms are given assistance by governments to initiate exporting; however, the majority remains poorly motivated (Demick & O’Rielly, 2000). Policy makers seem unaware of the correct stimulus package therefore the intended impact is not achieved; this is definitely true in the Jamaican context. For example, Jamaica has a high crime rate which generally impacts negatively on the operations of firms. It imposes an exorbitant cost of doing business and thus will make international operations uncompetitive. Small firms that are unable to bear these costs may not find it attractive to internationalise their operations. Furthermore, on the economic front, the country’s debt to GDP ratio is very high, and the fiscal deficit is also huge, running over 10% in some years (Williams, 2011). These conditions make the cost of capital quite expensive. International expansion through exporting is a costly effort and many small firms will not be able to afford it unless they can borrow at attractive interest rates. The high cost of debt in Jamaica may dissuade many small firms from borrowing to invest in exporting (Williams, 2011).

2.9 Innovation and Research and Development

Firstly, concerning the different views about firm productivity, some studies analyse firm decision to export under the assumption of exogenous firm productivity (Bernard et al., 2003; Melitz, 2003; Yeaple, 2005). Exogenous firm productivity means that prosperity was achieved from external rather than internal mechanisms. Literature from other perspectives, such as the resource-based approach (Barney, 1991; Penrose, 1959) or the strategic-management studies (Teece, 1986), allow productivity to be endogenous. Growth through endogenous firm productivity is thought to be brought about by policies, internal processes and investment in capital rather than external factors. Despite this, endogenisation process takes different ways, export–innovation relationship plays a significant role, since the technological capacity of firms makes them more competitive and, at the same time, these firms can invest in R&D in order to improve their innovation capacity (Rodil et al., 2015).

Recently, several efforts have been made to build a theoretical framework in which firms invest in R&D prior to export (Aw et al., 2011; Bustos, 2011; Constantini & Melitz, 2008). There are additional efforts at the empirical level, including not only R&D (an input into the innovation

production function), but also innovation. However, these studies do not include simultaneously these two dimensions in the analysis of the relationship with exporting. In other words, this recent literature tries to endogenise firm heterogeneity by allowing firms to engage in productivity-enhancing activities prior to export (Esteve-Pérez & Rodríguez, 2013). Secondly, studies including R&D as the only (or main) explanatory factor of the innovation performance have important limitations.

There are at least two reasons that lead to this consideration. Firstly, many innovations do not require R&D to be carried out. Secondly, R&D does not always lead to innovation (Harris & Trainor, 1995; Mairesse & Mohnen, 2002). Moreover, there may be a significant lag between the former and the latter due to the delayed effect of R&D investment on innovation output (Gurmu & Pérez-Sebastián, 2008). Thus, studies that consider only one of these aspects (R&D or innovation) lead to an incomplete understanding of the relationship between innovation and exporting.

2.10 Effect of Standards on Export Decisions

Standards and technical regulations affect export decisions for several reasons. First, governments can set standards based on domestic firms' product characteristics or technology capacity (Chen, Otsuki, & Wilson, 2006). This can raise foreign exporters' costs to accommodate these requirements. Second, there often exists a great difference in standards across markets each of which requires an individual fixed compliance cost such as the redesign cost (Chen et al., 2006). Hence, the difference in regulations across markets can severely limit a firm's scale production capacity and affect a firm's decision in the number of export markets. Third, besides complying with standards and technical regulations, firms often experience time delays in procedures such as the inspection process and difficulty in accessing standards-related information (Chen et al., 2006). These inefficiencies may constitute significant implicit barriers to exporting firms. However, there is still relatively little known about how standards and technical regulations affect individual firms, in particular, their export decisions (Chen et al., 2006).

2.11 Models of Internationalisation

There have been several models used to describe SME internationalisation. These are the Stage models, Network perspective; Born-global or International New Venture (INV); Resource-based theory and Eclectic paradigm. They have all contributed to the modern day understanding of firm internationalisation (Morgan & Katskas, 1997). Despite these various models, clarity is still lacking as to what actually leads to internationalisation. None of the models fully explain the internationalisation process of the firm but rather account for the transformation of structure as internationalisation occurs (Osei-Bonsu, 2014). This study will assess the contribution of the Stages or gradual behaviour-based, Network and Resource-based view models to explain internationalisation process of SMEs.

2.11.1 Stages Model of Internationalisation

The gradual behaviour-based model consists of two models; Uppsala Internationalisation Model (U-model) and Innovation-related Model (I-model). The Stages model views internationalisation as a learning process that involves interplay between knowledge development and increasing foreign market commitments (Johanson & Vahlne, 1990). A basic assumption of the Uppsala Model is that lack of knowledge about foreign markets, risk aversion and physical distances are major obstacles to international operations, but such knowledge can be acquired (Johanson & Vahlne, 1977). However, because of the tacit character of market knowledge, the main source is inevitably the firm's own operations (Johanson & Vahlne, 1990). Acquiring knowledge is first of all a question of being active in the new environment rather than collecting and analysing information. By operating in the market, the firm not only acquires information about that market, but also becomes closely connected to the market in such a way that it is difficult to use its resources for other purposes (Forsgren, 2002).

Internationalisation Process of SMEs

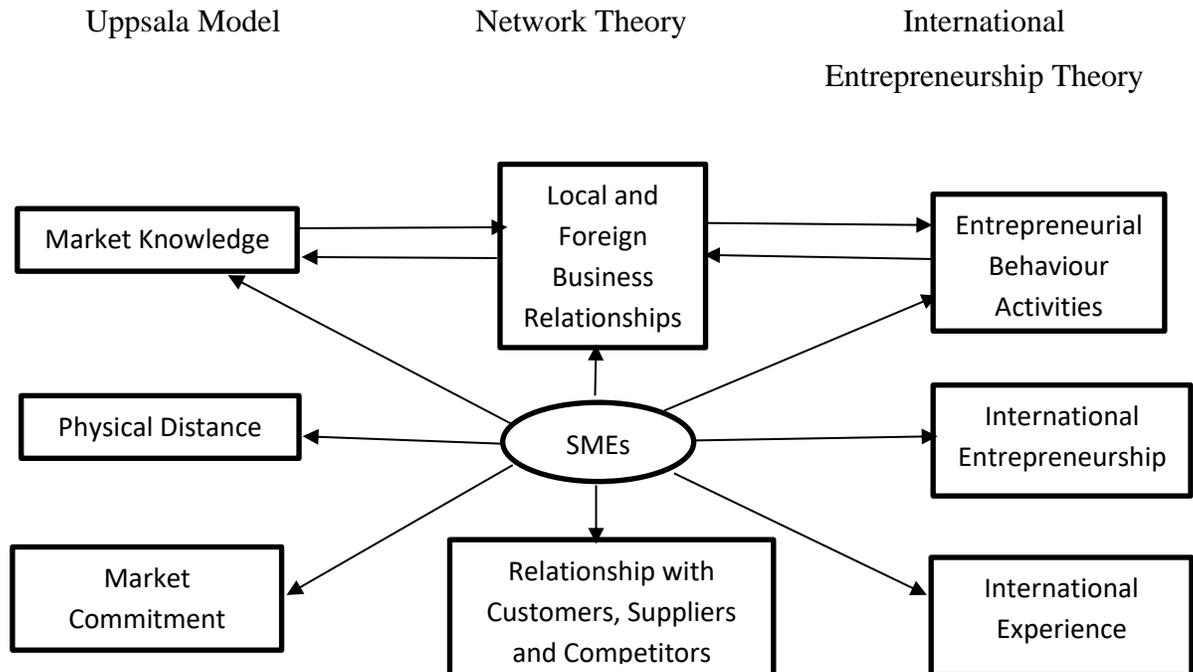


Figure 17. Masum, M. I. and Fernandez, A. (2008). Internationalisation Process of SMEs Source: Strategies and Methods.

The Uppsala internationalisation model has been criticised as deterministic (Reid, 1981), if firms were to develop in accordance with the model, individuals would not have strategic choices (Andersson, 2000). A huge challenge for the Stage theory is that many firms do not follow the traditional pattern of internationalisation as proposed. Some firms are international from their birth and have been described as international new ventures (McDougall, 1994; Oviatt & McDougall, 1994, 1995), born global (Madsen and Servais, 1997), and global start-ups (Oviatt & McDougall, 1995); the term born global will be used in this study. McDougall, Shane, and Oviatt (1994) conclude that the stage theory “has failed to provide an appropriate explanation for why International New Ventures compete internationally rather than just in home markets” (p.476). Madison and Servais (1997) have attributed the rise of born global firms to developments in information technology, new and flexible production technology, the increased importance of niche marketing, the number of students gaining international experience and the reduction of trade barriers.

There is also empirical evidence to support the rise of “Born Globals”. In a research project conducted for the Australian Manufacturing Council covering 310 firms McKinsey splits the

emerging exporters into two categories. The first one consists of more traditional domestic-based firms accounting for approximately 75% of the total sample. Firms in this category typically build a strong domestic base before exporting. On average they have been in business for 27 years when they first export and they reap 15-20% of sales in foreign markets. The second category is labelled Born Globals; they export 75% of their total sales, starting after less than two years of operation. They generally produce leading edge technology products with significant international niche markets, such as scientific instruments or machine tools. The state aspects we consider are the resource commitment to the foreign markets-market commitment-and knowledge about foreign markets and operations. The change aspects are decisions to commit resources and the performance of current business activities. The basic mechanism is illustrated schematically in Figure 18, market knowledge and market commitment are assumed to affect both commitment decisions and the way current activities are performed.

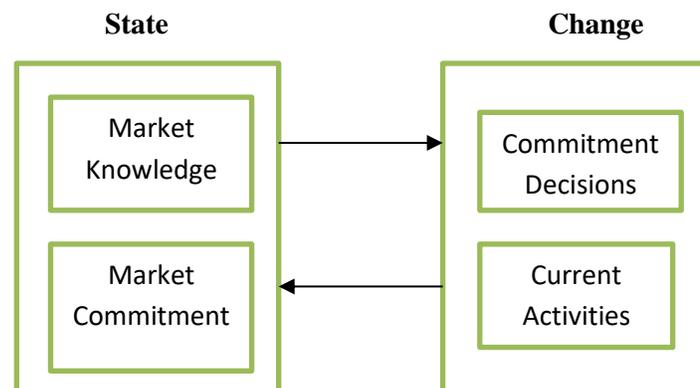


Figure 18. The Basic Mechanism of Internationalisation – State and Change Aspects. Adapted from Johanson and Vahlne (1977). The Internationalisation Process of the Firm– A Model of Knowledge Development and Increasing Foreign Market Commitments. *Journal of Business Studies*, 8 (1)

2.11.2 Innovation-related Model

Rogers (1962) coined the term “innovation-related”, it describes each subsequent stage of internationalisation as an innovation for the firm (Gankema et al., 2000). Their focus is exclusively on the export development process, particularly of small and medium-sized firms. Leonidou and Katsikeas (1996) on the basis of a comprehensive review of the most important models (Bilkey & Tesar, 1977; Cavusgil, 1980; Reid, 1981) noted that the models are a number of fixed, sequential stages, although the number of stages varies considerably between models, ranging from as few as three to as many as six. They also identified three generic stages: the

pre-export stage; the initial export stage, and the advanced export stage. Andersen (1993) pointed out that generally the models are relatively similar, and the differences tend to be in the number of stages and terminology used.

The I-models, even though originally intended to describe exporting as an innovation of the firm, have differences in how the process is explained. For example, Bilkey and Tesar (1977) described the process initially with firms that were devoid of any interest in exporting then becoming an experienced exporter and later entering foreign markets. While, Cavusgil, (1980), perceived the firm to be exporting from an early stage and preparing for export from inception until it becomes an experienced exporter. The innovation process is based on a company's ability to activate its existing and available internal knowledge (Kunday et al., 2015). It also depends on the firm's capacity to gain knowledge from external sources through imitation strategies, licensing acquisition, partnerships, or the purchase of patents. SMEs constantly cooperate with customers, competitors, and/or suppliers within their business environment (Woolgar et al., 1998). The intensity of external cooperation depends on the economic activity sector (Baldwin & Peters, 2001).

2.11.3 Network Model

The network model describes internationalisation as the development of a network position in foreign markets (Johanson & Mattson, 1988). Extant research has shown that networking provides an important mechanism for successful internationalisation of the SME in Latin America (Felzensztein et al., 2015; Fuerst and Zettinig, 2015). The concept of internationalisation is related to an interactive process between the company's competitive advantages and those which belong to the other members of the network in which the company is inserted, and also between the sum of these advantages and the localization advantages of the countries. In this sense, to explain the internationalisation of companies, the relationship networks theory emphasises especially social and cognitive links that are formed among the ones who act and get involved in business relations (Björkman & Forsgren, 2000). Chetty and Holm (2000) define business networks as a group of two or more companies connected by relationships, where the relations happen via commercial companies and they are contextualised by collective actors. These actors are competitors, providers, consumers, distributors and the government. Different actors are connected to each other through direct and indirect relationships. Johanson and Vahlne (2003) describe business networks as "sets of international

business relationships, in which each exchange relation is between business firms conceptualised as collective actors.” Firms within this network usually establish business relationships in order to promote linkages among operations and facilitate the transfer of resources, especially knowledge and opportunities. Thus, network relationships emanate at the level of the firm overall, more than at the level of the particular operations. Using the Network model, Johanson and Mattsson (1988) argue a firm’s internationalisation process can be explained by its position in the international network. The firm develops business relationships in networks in other countries in three different ways: international extension; international penetration; and international integration. The firm’s position in the network has a different structure depending on whether the market has a high or low degree of internationalisation. This creates four possible alternatives: the early starter, the lonely international, the later starter and the international among others (Johanson & Mattson, 1988).

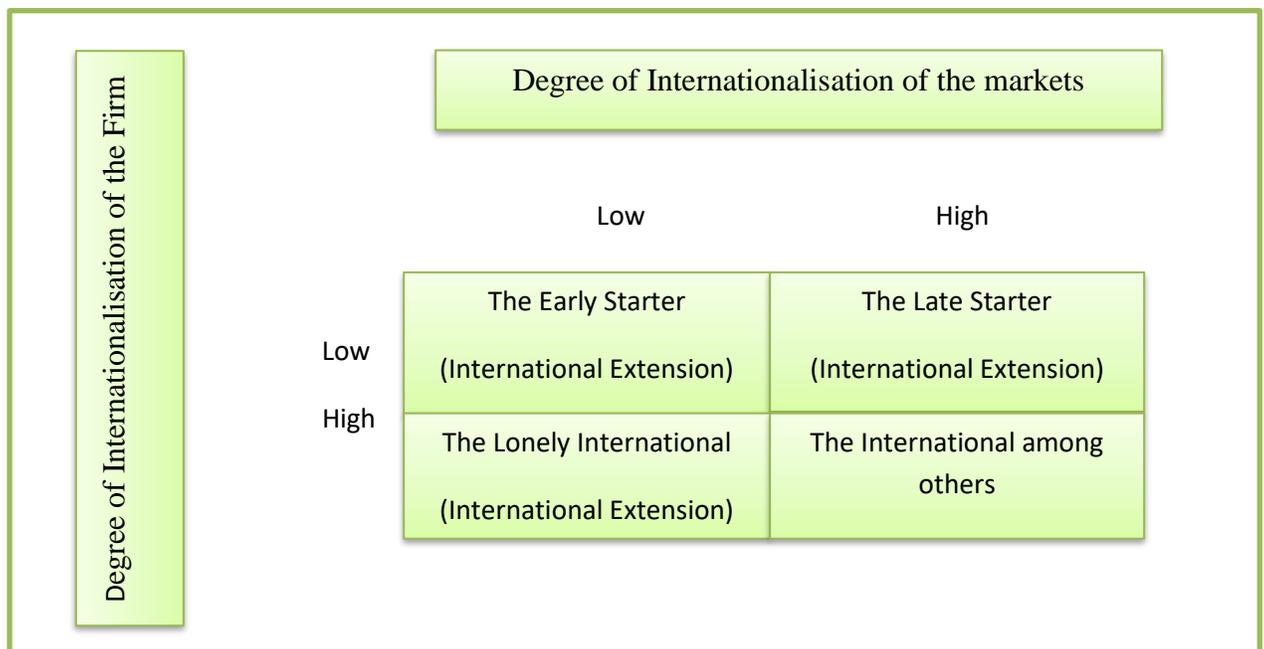


Figure 19. Adapted from Johanson, J. and Mattsson, L. G. (1988) Internationalisation in Industrial Systems: A Network Approach. In Strategies for Global Competition. Ed. N. Hood. Croom Helm, London

Widespread usage of fax, e-mail, the Internet, and other such communications technologies is making internationalisation a more viable and cost-effective option than just a few years ago (Oviatt & McDougall, 1995). Such systems are providing important competitive advantages to smaller firms, allowing them to efficiently transact business with upstream and downstream channel members throughout the world (Oviatt & McDougall, 1995).

The owners of family firms also develop and sustain long-term relationships with outside connections such as buyers, suppliers and capital providers that provide access to resources (Chen & Hsu, 2009). An example would be building close relationship with banks may facilitate access to bank capital (Miller & Le-Breton-Miller, 2006). Social capital is conducive to knowledge and information acquisition by linking connections to social network members (Houghton, Smith, & Hood, 2009). The nurturing of outside connections and bridging social capital are especially important in internationalisation.

The strength of the network model of internationalisation lies in explaining the process rather than the existence of multinational or international firms. From the network perspective, the internationalisation strategy of a firm can be characterised by the need to:

- minimise the need for knowledge development
- minimise the need for adjustment; and
- exploit established network positions (Johanson & Mattsson, 1993).

Theoretical issues raised with regard to networks include not only the different types of relationships and their properties, but also issues such as trust, control, resources, and interdependency within and between firms. What seems to be neglected in most process-oriented research and especially within networks approach is the strategic position and influence of individuals, especially entrepreneurs, in the SMEs' internationalisation. Knowledge embedded in long-term relationships is often concentrated in one person in the firm, who will have a substantial impact on internationalisation through close social relationships with other individuals. Such social relationships are extremely important for entrepreneurs and their business (Davidsson & Honig, 2003; Hoang & Antoncic, 2003). This social network is a sub-network within the business network, effecting and being affected by the gained resources and the chosen operational mode (Holmlund & Kock, 1998). Despite some shortcomings, network theory can shed light on how the resources, activities, and actors (Hakansson and Snehota, 1995) within networks affect the different dimensions of the internationalisation processes of SMEs, whether at the level of individual firms or for groups of firms. In summary, the network of a firm is capable of providing the context for international activities, although further study is required on the resources and development strategies used by firms.

2.12 Internationalisation & RBT Model

The RBT has two main principles; (1) resources are not homogeneously spread across firms, and (2) these resources cannot be transferred between firms without incurring costs referred to as ‘sticky’ resources (Shepherd & Wiklund, 2005). However, the mere possession of firm-specific resources does not guarantee competitive advantage. The RBT therefore claims that organisational internal factors are responsible for generating competitive advantage and superior performance through internationalisation. RBT explains the importance of internal drivers such as tangible and intangible resources for SME internationalisation (Barney, 1991; Penrose, 1959; Shepherd & Wiklund, 2005). A firm’s ability to attain and keep profitable market positions depends on its ability to gain and defend advantageous positions regarding relevant resources important to the firm (Conner, 1991). The heterogeneity of small firms and the environmental conditions under which they operate makes it difficult to properly identify the critical resources needed for internationalisation.

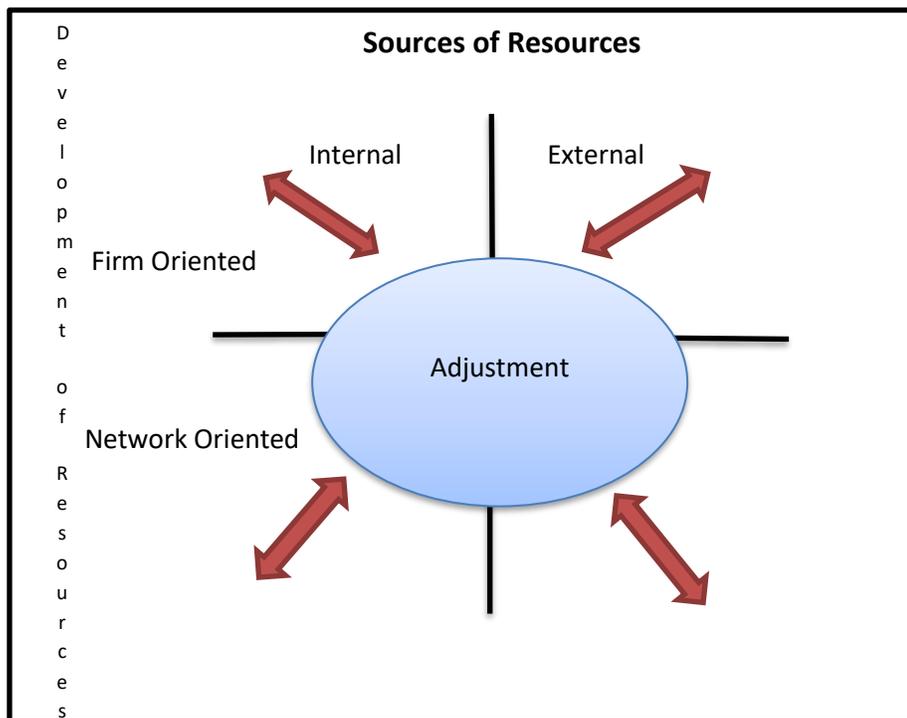


Figure 20. Source: Ahokangas, P. (1998), “Internationalisation and resources: an analysis of processes in Nordic SMSs”, doctoral dissertation, Universitas Wasaensis, Vaasa

The model of resource adjustment is depicting that over time, firms have the flexibility to adopt different internationalisation strategies with different activities. They could be firm or network-

oriented resource development strategies; alternatively, a combination of internal and external resources. In this regard, the RBV is similar to the network theory, as both acknowledge that the total resources of the firm comprise available internal as well as the external resources. External resources could be obtained through network relationships.

Furthermore, from the entrepreneurial perspective, networks of individuals and the tacit knowledge that they bring with them are seen as resources of the firm. Entrepreneurs can use networks to gain access to such resources and information for their entrepreneurial actions (Ruzzier, Hisrich, & Antoncic 2006).

In the Jamaican small firm scenario, standards will be posited as a possible critical resource needed for internationalisation. It will be important for these small firms to overcome trade barriers; therefore, they can ensure that their products meet the relevant international and private standards required to enter specific markets. Jamaican firms may not be able to compete on volume but could compete on product differentiation with unique product offerings especially from the agro-processing industry. Access to technological complementary assets is a key driver of the product development process (Tornatsky & Klein, 1982). Complementary assets are the complementary technologies, products, and non-technical resources or capabilities, such as marketing, distribution and service that contribute toward the composition of a 'whole product; and influence adoption (Tornatsky & Klein, 1982).

Barney (1991), for example, argued that resources must be valuable, rare, imperfectly imitable and not substitutable, while Grant (1991) proposed that resources must capture durability, transparency, transferability, and replicability. These different perspectives indicate that these attributes are generalised and not very clear and there are not distinct boundaries between them (Andersen and Kheam, 1998).

Resources in general can be considered stocks of available tangible or intangible factors that are owned or controlled by the firm and converted into products or services, using a variety of other resources and bonding mechanisms. The management of firm specific resources is pivotal for creating value in the market and especially for SMEs who have intention of internationalising. Firms with strong management and control systems are more suited for internationalisation (Carlock & Ward, 2001). This view is also supported by Gallo et al. (2004) who stated that managerial capabilities are essential for internationalisation via strategic

alliances. In order to upgrade from domestic orientation to increased levels of internationalisation, it is crucial for SMEs to requisite managerial skills.

2.13 Family Ownership

Family ownership has been recognised as an important determinant of a firm's strategic choices (Chen & Hsu, 2009; Silva & Majluf, 2008; Sciascia et al., 2012). Sciascia et al. (2012) also found the inverted U-shaped relationship between family ownership and international intensity. Ownership type can influence corporate strategy because it is associated with different degrees of risk aversion and the firm's resource endowment (Fernandez & Nieto, 2006). Scholars such as Miller and Le Breton-Miller (2006) and Zahra (2003) found positive effects of family ownership on internationalisation. Their study concluded that family ownership may create an organisational culture of altruism, loyalty, commitment and family ties which may reduce the family agents' incentive to engage in opportunistic behaviours (Miller et al., 2011). Since internationalisation may enhance a firm's competitiveness and achieve long-run profitability and success, family members may opt internationalisation despite its associated risks (Chen, 2014). Other scholars such as Fernandez and Nieto (2006) and Graves and Thomas (2006) found negative effects of family ownership on internationalisation. Their study concluded that family ownership promotes a conservative nature that reflects family shareholders' concerns about firm survival, and stability may generate agency costs by abandoning risky internationalisation activities.

De Massis et al., (2015) found evidence that the effect of family involvement in the top management teams (TMT) is contingent on the degree of family ownership. They found that the family ratio in the TMT is relevant to an SME's performance only when family ownership is higher than 40 percent. It was their view that the benefits of family management are derived primarily from the alignment of interests between owners and managers, plus the positive effects of kinship relationships within the group of managers, and that the drawbacks are associated to excessively redundant human capital of family members. Bettinelli, (2011) found that a greater proportion of outside board members is associated with higher levels of functioning of the particular board-level processes that are likely to enhance board effectiveness: specifically, effort norms and board cohesion. The study suggested that to

increase their ability to govern, family businesses that actively use a board of directors should incorporate outside members.

Taking into consideration the resource-based view, family ownership may promote conflicts of interest between family and business issues that consequently reduce the availability of unique resources, such as managerial capabilities, capable personnel and financial capital. Family members with altruism may consider family objectives, such as maintaining family control and family employment, more important than business objectives such as growth (Voordeckers, Van Gils, & Van den Heuvel, 2007). Successful international expansion requires a sufficient number of managers with requisite skills and international experiences to configure and leverage firm-specific resources effectively (Graves & Thomas, 2006). In the Jamaican context it may well mean that managers may have to invest in resources such as standards which are required to launch into foreign markets.

The research question becomes:

Is there a significant relationship between investment in standards as a firm resource and the internationalisation of Jamaican manufacturing MSMEs?

2.14 Environment as a Moderator

Dynamic capabilities or priorities is a very important element of an organisation's resources and competitive strategy (Daniel & Wilson, 2003; Jiao et al., 2008; Teece, 2007; Winter, 2003; Zahra & George, 2002; Zollo & Winter, 2002; Zott, 2003). This thesis stated previously in Section 2.2.2 that dynamic capabilities can be both tangible and intangible resources which the firm owns; for the purposes of this thesis manufacturing strategy, investment in standards and entrepreneurial orientation have been proposed as the dynamic capabilities which Jamaican manufacturing MSMEs can use as their competitive strategy to internationalise. Dynamic capability is the capacity to maintain competitiveness through enhancing, combining, protecting and when necessary reconfiguring the business enterprise's intangible and tangible assets internal and external resources and capabilities and, most importantly, upgrade and reconstruct its operational capabilities in response to dynamic and rapidly shifting market environments to attain and sustain competitive advantage (Teece & Piano, 1994; Teece et al.,

1997; Winter, 2003). Such capabilities enable new ventures to adapt to complicated business environments (Teece, 2007).

The environment is known to be one of the critical contingencies in organisation theory and strategic management. There are generally three dimensions to the environment; munificence, complexity and dynamism. These dimensions rely on two generally used systems to conceptualizing environments: (1) information and (2) stock of resources. Therefore, dynamism and complexity reflect the degree of uncertainty facing an organisation and munificence signals a firm's dependence on those environments for resources. This research will use two environmental constructs that are consistent with previous research and theory building: dynamism and hostility.

Dynamism relates to the rate of unpredictable change in a firm's environment which could affect the degree of internationalisation (Child 1972; Duncan 1972; Tosi et al. 1973; Westhead et al., 2004). Furthermore, institutional context and national business conditions are key factors in determining the speed and degree of SMEs' internationalisation (Cieslik & Kaciak, 2009; Descotes et al., 2007; Yamakawa et al., 2008). Several studies have indicated that significant aspects of the external environment include cultural norms and knowledge, regulations and legislation (Bishop, 2001; Overesch & Wamser, 2009).

The regulatory dimension is relevant in the study of transition economies because regulations shape the context in which the firm operates and hence its strategic thinking, along with the interactions between the firm and its external environment (Shirokova & Tsukanova, 2013). Even though Jamaica is not considered a transition economy according to the World Bank's 2002 classification, the regulatory dimension also pertains to this jurisdiction as well. Moreover, the regulatory framework is a determining factor in entrepreneurial performance (Ahmad & Hoffmann, 2008). It includes the laws, rules and state policy that support or restrict new businesses, decrease or increase the risks for SMEs, and facilitate or hamper access to resources (Busenitz et al., 2000). Institutional factors affecting SMEs' strategic development in transition economies include: excessive red tape; underdeveloped legislation and financial infrastructure; inadequate protection of intellectual capital; excessive administrative discretion and corruption; restrictive taxation; high inflation; a low degree of institutional openness; and a lack of transparency in general (Puffer & McCarthy, 2001; Terjesen & Hessels, 2009; Thai &

Chong, 2008). All these factors characterise a bureaucratic business administration system and may be regarded as obstacles to doing business.

Hostility is usually considered the opposite of munificence and is indicative of the scarcity and intensity of competition for environmental resources (Covin & Slevin, 1989; Zahra & Covin, 1995). Environmental hostility indicates unfavourable external forces for a firm's business. Unfavourable environmental conditions result from radical industry changes, intense regulatory stipulations placed on the industry, or fierce rivalry among competitors (Busenitz et al., 2000; Werner et al., 1996; Westhead et al., 2004). Hostility also results from perceived competitive, market, and product-related uncertainties (Dess & Beard, 1984). Perceived hostility in the firm's international markets also arises from other sources (Agarwal & Ramaswamy, 1992), including changing demand conditions and radical innovations that render the firm's basic technology obsolete. Rivalry, which can cause hostility, reflects the perceived nature of competitive dynamics (Porter, 1980), the number of companies competing in an industry, and the intensity of competition in an industry (Grant, 1995). Therefore, firms must dedicate scarce resources to managing such an unfavourable environment to ensure the achievement of their organisational goals (Zahra, 1993). International markets have usually been described as hostile (Hitt et al., 1997). One reason is that the external environments in which firms compete internationally are much different from their home territory. Then it is imperative these firms address diverse and inconsistent laws, national cultures, and industry forces (Rosenzweig & Singh 1991). Firms invest heavily in understanding local conditions (Bartlett & Ghoshal, 1989; Doz & Prahalad, 1987), often for years without any guarantees of success (Vlasic, 1998).

Governments' decisions and policies in protecting their home markets from competition can also increase perceived environmental hostility (Bishop, 2001; Westhead et al., 2001; Ahmad and Hoffman, 2008). For example, U.S. firms venturing into Taiwan, Korea, or Singapore have had to contend with the fact that governments in these countries have used several methods to support and protect their country's producers (The Flexible Tiger. The Economist, January 3, 1998). Similarly, some European governments have imposed laws that favour their own domestic manufacturers, causing U.S. companies to work harder at discovering new sources of competitive advantage (Smart, 1996). This research expects the environment to have a moderating effect on investing in standards for Jamaican manufacturing MSMEs seeking to internationalise.

The research question becomes:

Does the environment have a moderating effect on investing in standards as a firm resource for Jamaican manufacturing MSMEs seeking internationalisation?

2.15 Summary

Like stimuli, not all resources will have the same level of importance in getting the firm to respond positively to circumstances that trigger exporting. Researchers have demonstrated efforts in trying to understand the effects of resources on export performance, but the results remain contradictory and therefore this presents a unique opportunity in examining this phenomenon from a Jamaican context. The models have demonstrated several uncertainties but with some sophistication, they can probably provide some assistance for firms to decide where they should start exporting once the commitment has been made.

An analysis of the extant literature has led to the proposed model demonstrated in Figure 21 and several hypotheses as seen in Table 12 were developed to assist in answering the research questions. It is proposed that a bundle of resources; MS, EO, IS form the competitive strategy are important to SMEs' export performance. The research will position investment in standards as a firm resource, while the concept of the environment is an external variable that moderates the relationship between investment in standards as a firm resource and SME's ability to internationalise. The next chapter details the research methodology for the thesis.

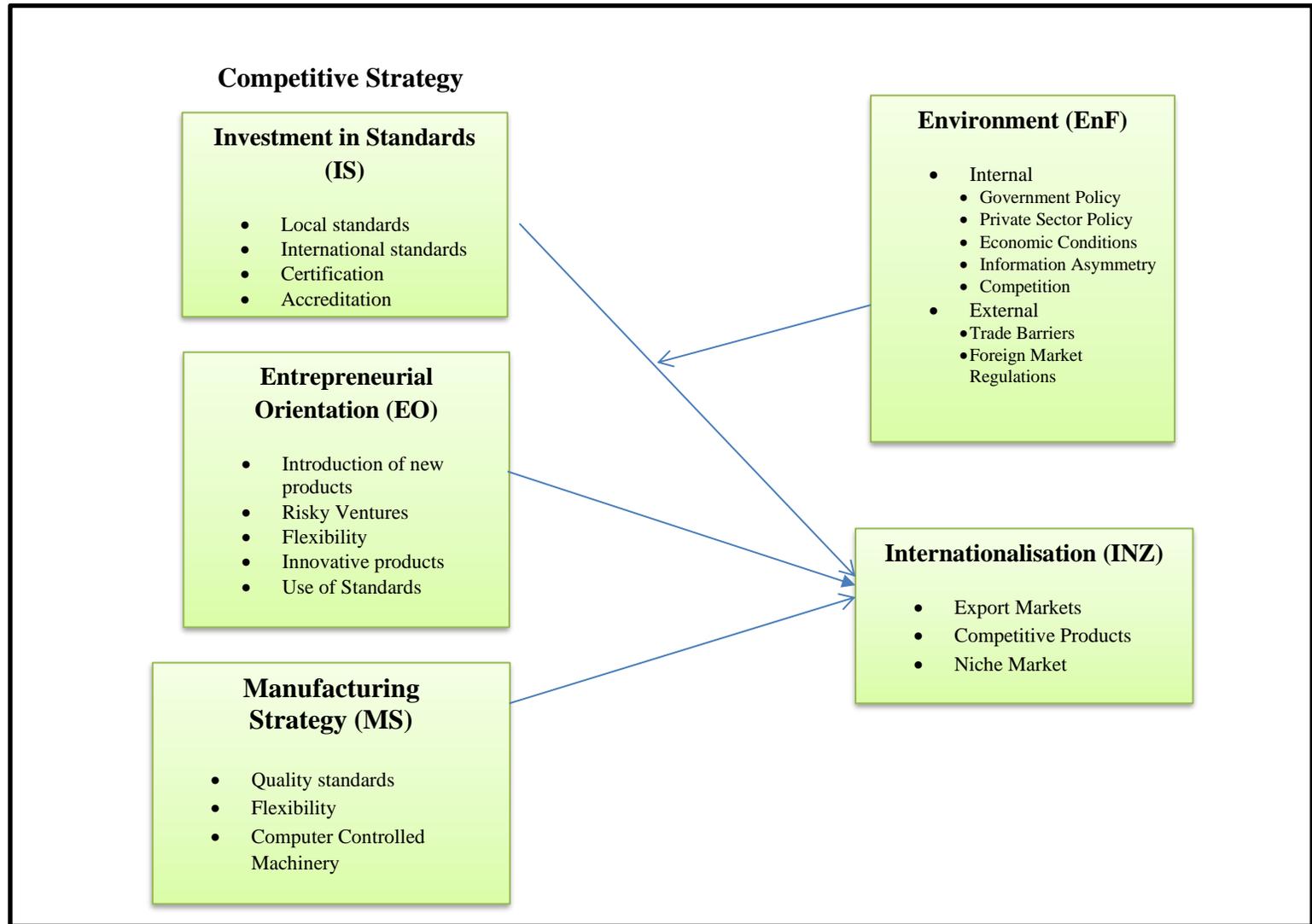


Figure 21. Proposed Model demonstrating the Internationalisation Process

Table 12 *Hypotheses*

Variables	No.	Hypothesis	Sources	Supporting Theories
MS	H1	Manufacturing strategy as a firm resource significantly influences the internationalisation Jamaican MSMEs	Anuar and Yusuff, 2011; Dolan and Humphrey 2000; Ferguson, 1996; Nadvi and Wältring, 2002	Reardon, 2001; Taninecz, 1997
IS	H2	Investment in standards as a firm resource significantly influences the internationalisation of Jamaican manufacturing MSMEs	Björkman and Forsgren, 2000; Bloemer et al., 2013; Cadogan et al., 2001; Calof and Beamish, 1995; Gankema et al., 2000; Gallo et al. 2004; Graves and Thomas, 2006; Singh and Chugan, 2015	Barney, 1991; Houghton, Smith and Hood, 2009; Penrose, 1959; Shepherd & Wiklund, 2005
EO	H3	Entrepreneurial orientation as a firm resource significantly influences the internationalisation of Jamaican manufacturing MSMEs	Alvarez and Busenitz, 2001; Dong, 2009; Entrialgo et al, 1999; Knight, 2001;	Jennings and Lumpkin 1989; Barringer and Bluedorn, 1999
EnF	H5	Jamaican manufacturing MSMEs investment in standards as a firm resource is moderated by the environment	Bartlett and Ghoshal, 1989; Hitt et al., 1997; Werner et al., 1996; Teece, 2007	Child, 1972; Porter, 1980

There are successful Jamaican manufacturing SMEs that export to international markets, however there are several local manufacturing SMEs who are content to serve their local market only. This thesis considered the strategic factors with respect to manufacturing, investment in standards, entrepreneurship and the export stimuli which possibly contributed to these SMEs getting involved in exporting as well as their eventual success. These strategic factors if not applied by non-exporting SMEs could be the reason why they are unable to export or did not even consider such. Some of these non-exporting SMEs could be suffering from information asymmetry, management deficiency in terms of international exposure, experience and lack of foreign contacts. Another reason why some manufacturing SMEs have not been exporting is that they may not have resources to exploit international markets; even if some of these SMEs have resources, they probably do not know how to take advantage of these resources and convert them into an export venture. Based on the fact that the Jamaican Government has developed an MSME policy document it is very important to find out the reasons why the manufacturing SMEs seem not interested in exporting despite the several incentives.

CHAPTER 3

RESEARCH METHODOLOGY and DESIGN

3.0 Introduction

This study will adopt a realist position since there are factors which are responsible but not apparently noticeable why firms behave the way they do. A number of methodological strategies will be adopted to produce a credible and rigorous study. Research will be conducted from different angles and multiple levels to explain the underlying mechanisms and structures responsible for the different firms' ability to export. This research will delve into the social issues as well as seek hard core evidence to prove whether standards can actually assist in upgrading firms and increasing their chances of becoming exporters.

The methodology will involve qualitative as well as quantitative research. The qualitative research will employ the use of in depth interviewing of the owners of processing and manufacturing firms about their experience as entrepreneurs in Jamaica. It is important to get feedback from entrepreneurs directly involved in manufacturing to understand the challenges and choices they must encounter from the business environment and also those associated with their daily factory operations. These entrepreneurs will be able to give deeper insight into their reasons for wanting to export or not. They will also be able to heighten understanding of the theoretical perspectives discussed in Chapter 2 from a Jamaican perspective and also contribute to literature about MSMEs.

Analysis of data from STATIN, Jamaica Manufacturers and Exporters Association (JMEA), JAMPRO and BSJ will be used to assess the state of the export industry in Jamaica in terms of the number of firms that are exporting to regional and international markets. An attempt will also be made to understand the different manufacturing sectors which are engaged in exporting in the country. The data captured will be analysed to explain how Jamaican firms exploited potential resources such as MS, IS and EO and how they were able to upgrade their physical infrastructure and processes, improve the quality of their product offerings, become competitive and enter international markets. The data will be analysed to demonstrate how each of the proposed resources impacted the internationalisation process. An assessment will also be

conducted to understand how the environment moderated investment in standards as a firm resource and the effect on internationalisation.

The quantitative method will involve the use of questionnaires and quantification of the degree of products, processes and upgrading that resulted from the use of applying standards. Questionnaires will be issued to both exporters and non-exporters. By using both qualitative and quantitative methods, triangulation of data will result since any data or information missed by employing one method will be captured by the other.



Figure 22.Outline of Chapter 3

Empirical data will also be used as a form of measurement to interpret the impact of standards. Case studies will be used to highlight an appropriate sample of the successful SMEs, their characteristic traits, quantification of size, export capacity and value chain analysis. The challenge is that all SMEs are not the same heterogeneous group; they have different levels of development and the management team may have different levels of training and education.

The study will also adopt an inductive approach towards development of a theory or body of knowledge. Analysis of the data will employ the use of SPSS, ANOVA and the multivariate statistical technique of logistic regression. The aim of logistic regression is to obtain the best forecasted accuracy with a set of predictors and one of the objectives of this study is to predict the possibility that a SME will become an exporter based on its application of standards and a combination of other factors. Other studies such as Williams' (2009) work in Understanding Exporting in the Small and Microenterprise did not include government policy as one of the predictors; this study will include both government and private sector policy as predictors.

3.1 RESEARCH PHILOSOPHY

3.1.1 Axiological Approach

The axiology was influenced by this researcher's job function and its inherent responsibilities. The job is in a standards organisation where the primary mandate is to protect the health and safety of the Jamaican citizenry. This mandate is carried out by ensuring that consumer products whether imported or locally manufactured adhere to the requisite compulsory labelling and product standards. Carrying out daily tasks, it was noticed that local manufacturers satisfy the requirements by simply meeting the minimum standards for product testing and registration. Recognizing that some of these SMEs may have financial restrictions, caused this researcher to wonder what or where the possibilities lie were, they able to upgrade their infrastructure, processes in manufacturing and quality of product. Producing a quality product means that the product could be more competitive in the local market place and could also enter foreign markets. Products sold in overseas markets means that Jamaica would earn foreign currency.

A link was made between the potential of these SMEs to earn foreign currency and Jamaica's ailing economy. If more of them were to export or take advantage of existing global value chains the country by extension would earn much needed revenue. Therefore, my axiology was influenced by both my job and a desire to see Jamaica rise out of its current economic predicament. This research study aims to provide some solutions to the present crisis.

3.1.2 Ontological Approach

This layered ontology of critical realism "is believed to incorporate more structurally robust and inclusive theoretical approaches" (Reed, 1997, p.22) through which understanding can be achieved. Critical realist ontology recognises that there exist structures, powers, mechanisms

and necessary relations, which govern the complex events in the real world. The variety of effects on an occurrence is symbolised by Lawson (1997) in his example of the falling leaf that is not only governed by gravity as it falls, but also by aerodynamics, thermodynamics, inertia and other tendencies.

Relating this to the SME, a desire to export may govern the operation of the company under a capitalist structure, but the underlying tendencies and character of the owner or management team, and other external contingent circumstances will all influence whether or not this is achieved. The aim here, informed from the theoretical approach of critical realism, is therefore to identify these structures, and demonstrate their interaction with the tendencies of the decision-maker and internal and external environmental contingencies of importance. Initially there was a temptation to venture towards an ontological approach which would have been objectivist because of academic training in the natural sciences. But it was recognised that there were SMEs that successfully exported while there were others content to remain uncompetitive. This was a social phenomenon; therefore the application of strict scientific truths or laws to this particular situation would have been limited and inappropriate. There was a reality separate from the exporters or non-exporters that caused them to make a decision to export or remain on the local market. It was also recognised that there was a gap in the theoretical knowledge; therefore, a purely objective philosophy would not have been satisfactory. A shift toward a more realist philosophy was employed as this was more appropriate. The rationale was that there are other factors in existence which have not been exploited and these could very well prove to be responsible for influencing the MSMES' ability to export; for example, the effects of government and private sector policy have not been tested.

3.1.3 Epistemological Approach

The epistemological approach was that of critical realist. Bhaskar (1998) argues that we can only understand what is happening in the social world if we understand the social structures that give rise to the phenomena we are trying to understand. Bhaskar (1998) further explains critical realism as a philosophy that claims the world outside and independent of our conscious perception exists and that only certain aspects of this world are objectively knowable through our senses, when we misconstrue an event, the occurrence and properties of that event are independent of our perception and understanding and the cause of the event operates even if we are not aware of the operation. Bhaskar (1975) distinguishes between transitive and intransitive knowledge in the real world. He describes intransitive objects as the real things and structures,

mechanisms and processes, events and possibilities of the world; and for the most part they are independent of us (Bhaskar, 1975).

As a critical realist, my philosophy would be to employ the use of a multi-level study since each level has the capacity to deepen the understanding of what is being researched. This would be the existence of greater variety of structures, procedures and processes and the capacity that these structures, procedures and processes must interact with one another (Saunders et al., 2009). Therefore, understanding the phenomena is a precursor for change (Saunders et al., 2009). According to critical realism the world is composed not only of events, states of affairs, experiences, impressions, and discourses, but also of underlying structures, powers, and tendencies that exist, whether or not detected or known through experience and/or discourse (Patomäki, 2000, p. 223). For critical realists this underlying reality provides the conditions of possibility for actual events and perceived and/or experienced phenomena (Patomäki, 2000, p. 223). The aim of critical realist research is thus the “identification and verification of underlying generative mechanisms” or structures that give rise to actions and events that can be experienced in the empirical domain (Wollin 1996, p1). Generalisations derived from critical realist research thus concern a probabilistic truth, rather than an absolute truth. Within a critical realism framework, both qualitative and quantitative methodologies are deemed appropriate (Healy & Perry 2000) for researching the underlying mechanisms that drive actions and events. Naturalistic methods, such as case studies and unstructured or semi-structured depth interviews are acceptable and relevant within the paradigm, as are descriptive statistics and statistical analyses, such as those derived from structural equation modelling and other techniques (Perry, Alizadeh & Riege 1997).

There are several possible reasons why local manufacturers would choose or be influenced to export or not do so at all. Some of the possible reasons could include education level of the manufacturer, effects of government and private standards, ability to implement international standards such as HACCP or ISO 9000 and competitiveness of the product. By unravelling and understanding the factors which had significant input in catapulting those SMEs who choose to export into the global value chain would provide a template as well as valuable information for those SMEs also wishing to export. This approach will also help us understand better why some entrepreneurs are content to only satisfy local demand for their product and may better enable policy makers to stimulate their interest in exporting.

3.1.4 Alternate Research Philosophy

An alternative research philosophy could have been ontologically objectivist and epistemologically positivist. In this approach, exporting would have been recognised as having a reality of its own separate from those who actually exported. Those SMEs who exported as well as those who didn't would all have a rationale for their particular choice or set of circumstances. For example, the SMEs who exported may rationalise that they produce a quality product which would satisfy the tastes of another market, therefore, they decided to compete internationally. Those SMEs who did not export would explain that they did not have the capital or knowledge base on how to become more competitive. They could also claim that they are contented with serving their local market. In this philosophy there would have been an observable reality which in this case would be exporting. The end result would be to generate some law like generalisation about exporting. The primary goal of positivistic inquiry is an explanation that (ultimately) leads to prediction and control of phenomena (Ponterotto, 2005). An existing theory would have had to be used to develop hypotheses. Positivists see things as they are and tend to disregard unexplained phenomena. They are able to construct causal relationships between variables. The positivist approach is also conducted in a value-free way therefore it would neither influence nor be affected by the findings (Saunders et al., 2009). The positivist philosophy will influence a highly-structured methodology in order to facilitate replication. In both positivist and post positivist paradigms "values are specifically excluded; indeed, the paradigm is claimed to be "value free" by virtue of its epistemological posture" (Guba and Lincoln, 1994, p. 114). These researchers went on to state "Values are seen as confounding variables that cannot be allowed a role in a putatively objective inquiry (even when objectivity is, in the case of post positivism, but a regulatory ideal" (Guba and Lincoln, 1994, p. 114). But this researcher used his values and experience as a regulator to build knowledge as well as deepen the understanding about the social issues affecting exporting in Jamaica.

There has been a shift away from positivism to post positivism. There is no difference in kind between the two, only a difference in degree. Post positivism recognises that all observation is fallible and has error and that all theory is revisable (Hacking, 1983). Where the positivist believed that the goal of science was to uncover the truth, the post-positivist believes that *the*

goal of science is to hold steadily to the goal of getting it right about reality, even though we can never achieve that goal (Hacking, 1983).

Table 13 *Differences between Critical Realism and Post Positivism*

Post positivist	Critical Realism
The goal of science is to hold steadfastly to the goal of getting it right about reality, even though we can never achieve that goal (Guba and Lincoln, 1994).	Critical of our ability to know reality with certainty (Bhaskar, 2008; Trochim, 2006).
Emphasises the importance of multiple measures and observations, each of which may possess different types of error, and the need to use triangulation across these multiple errorful sources to try to get a better bead on what's happening in reality (Trochim, 2006).	Critical realism seeks to identify those deeper lying mechanisms which are taken to generate empirical phenomena and may also use triangulation (Bhaskar, 2008).
The post-positivist also believes that all observations are theory-laden and that scientists (and everyone else, for that matter) are inherently biased by their cultural experiences, world views (Trochim, 2006).	Things that happen and exist according to our immediate experience. The actual domain is a broader one, and refers to that which transpires independently of the researcher or any other observer who might record it (Alvesson and Sköldbberg, 2000; Bhaskar, 2008; Gergen, 2010).
Believe that we each construct our view of the world based on our perceptions of it (Guba and Lincoln, 1994; Trochim, 2006).	It is the interest in mechanisms of a 'deeper dimension', which distinguishes critical realism from other traditions (Bhaskar, 2008).
Post-positivists reject the idea that any individual can see the world perfectly as it really is because we are biased (Guba and Lincoln, 1994; Trochim, 2006).	Critical realism takes an interest in complex networks of theoretical and observable elements characterising efforts going beyond the surface of social phenomena (Alvesson and Sköldbberg, 2000; Danermark et al., 2002; Gergen, 2010).

Post-positivist recognise that the way scientists think and work and the way persons think in our everyday life are not distinctly different. Scientific reasoning and common sense reasoning are essentially the same process. There is no difference in kind between the two, only a difference in degree. Scientists, for example, follow specific procedures to assure that observations are verifiable, accurate and consistent. Some researchers like (Fleetwood, 2004) consider critical realism to be a form of post positivism. The post-positivist critical realist recognises that all observation is fallible and has error and that all theory is revisable. In other words, the critical realist is critical of our ability to know reality with certainty. Where the positivist believed that the goal of science was to uncover the truth, the post-positivist critical realist believes that the goal of science is to hold steadfastly to the goal of getting it right about reality, even though we can never achieve that goal.

Interpretivist/constructivist are also epistemological approaches to research; they have the intention of understanding "the world of human experience" (Cohen & Manion, 1994, p.36),

suggesting that others hold a different view (Mertens, 2010). The interpretivist/constructivist researcher tends to seek understanding from the world in which they live and work (Creswell, 2014) and utilise the impact on the research of their own background, experiences and interpretation. Interpretivists believe that reality is not objectively determined, but is socially constructed (Husserl, 1965). According to Creswell (2014) and Husserl (1965), exporting in a Jamaican context cannot be understood from purely scientific measurement but by putting together the social facts or issues which may influence the manufacturer's decision to export or remain local. The underlying assumption is that by placing people in their social contexts and relying on the participants views, there is an improved chance of understanding the perceptions they have of their own activities (Hussey & Hussey, 1997). Therefore, if interpretivism was applied to this research, the MSMEs perceptions of exporting and internationalising would have to be gleaned to decipher the underlying issues involved.

By its nature, interpretivism promotes the value of qualitative data in pursuit of knowledge (Kaplan & Maxwell, 1994). In essence, this research paradigm is concerned with the uniqueness of a particular situation, contributing to the underlying pursuit of contextual depth (Myers, 1997).

Pragmatism is not committed to any one system of philosophy or reality. Pragmatist researchers focus on the 'what' and 'how' of the research problem (Creswell, 2014, p.11). They also believe questions should not be asked about reality and laws of nature (Cherrholmes, 1992).

Table 14 *Four Worldviews*

Positivism/Postpositivism	Interpretivism/Constructivism
<ul style="list-style-type: none"> ▪ Determination ▪ Reductionism ▪ Empirical observation and measurement ▪ Theory verification 	<ul style="list-style-type: none"> ▪ Understanding ▪ Multiple participant meanings ▪ Social and historical construction ▪ Theory generation
Critical Realism	Pragmatism
<ul style="list-style-type: none"> ▪ Underlying social phenomena ▪ Multi-level research ▪ Structures govern events in real world ▪ Structurally robust and inclusive of theoretical approaches 	<ul style="list-style-type: none"> ▪ Consequences of actions ▪ Problem-centred ▪ Pluralistic ▪ Real-world practice oriented

Source: Adapted from Creswell, John W. (2014). *Research Design Qualitative, Quantitative and Mixed Method Approaches*. Thousand Oaks, CA: Sage Publications

Pragmatism, when regarded as an alternative paradigm, sidesteps the contentious issues of truth and reality, accepts, philosophically, that there are singular and multiple realities that are open to empirical inquiry and orients itself toward solving practical problems in the “real world” (Creswell & Plano Clark, 2007, p. 20-28; Dewey, 1925; Rorty, 1999). In that sense, pragmatism allows the researcher to be free of mental and practical constraints imposed by the “forced choice dichotomy between postpositivism and constructivism” (Creswell & Plano Clark, 2007, p. 27), and researchers do not have to “be the prisoner of a particular [research] method or technique” (Robson, 1993, p. 291).

3.1.5 Limitations

The emphasis will focus on quantifiable observations that lend themselves to statistical analysis. Positivism believes that objective inferences and conclusions can be reached as long as the person doing the observation is objective and disregards his or her emotions. However, human behavior naturally comes with emotional responses. Although positivism encourages researchers to disregard human emotion and behaviour, there is no guarantee that this will occur every time.

Some scholars believe that since positivists believe everything can be measured and calculated, they tend to be inflexible. Critically, positivist approaches can “disconnect knowledge from its social context and reduces human existence into cognitive knowledge” (Sandberg & Tsoukas, 2011, p. 10). Positivists see things as they are and tend to disregard unexplained phenomena. If a theory that says: A only occurs when B and C combine, then B can never be A. This belief can eliminate lateral thinking, which is the process of finding answers by creatively and indirectly finding out ways to solve a problem. Positivists seek to explain phenomena not to understand it. However, they have been criticised by other philosophical approaches for this, for example critical realists.

Critical realists try to understand what gave rise to a particular phenomenon by understanding the structures. Interpretivists would also criticise the positivist for not taking into account personal beliefs, motivation and experiences behind the entrepreneur’s actions. For example, a positivist will make an observation about exporting but will not assess the underlying values why the particular entrepreneur made the conscious decision to export or not. In the future, an

entrepreneur's situation may have changed and he or she would have become able to upgrade. With this kind of rationale, it is not possible to develop a predictive model or exporting behaviour because motivations are different from act to act, depending on their subjective opinion. Positivist approaches do not allow for the potential impact of the research on the process or people being studied. Alvesson and Sköldbberg (2000) found that as a result of research subjects being asked to reflect on an issue for the purposes of the research that it was possible to cause changes in how those subjects perceived the issue subsequently. Therefore, positivist approaches make no allowance for such unintended consequences whilst some alternative approaches founded in critical theory might deliberately seek to cause such changes in perception as a consequence of the research.

Social science is basically different to natural science, so critics of positivism would argue that the scientific methodology used in natural sciences is not applicable to social sciences. In natural science, structures exist even without our knowledge of them. For example, the law of gravity would still be applicable even if a person is not aware of its existence. However, in social science, structures only exist because we are aware that they exist. This is in direct opposition to the positivist view that the world exists without our knowledge of it. However, this is easily refuted when looking at certain structures in society. For example, the government or private sector policy with respect to using standards can only assist SMEs if the SMEs take advantage of benefits derived from the existing policies. If the SMEs did not know that government and private sector policies were in place for them to access loans at special rates to assist with implementation of standards, then the policies would not be able to assist them. Therefore, it is hard using the same methodology to explain government policy as scientists do to explain natural phenomena.

3.1.6 Justification for chosen Philosophy

Critical realism was chosen as the research philosophy for this thesis because it allows the researcher to use his own experience and pre-existing knowledge as assistance in building knowledge about the phenomenon being explored. One of the objectives of this study is to unmask how some Jamaican exporters have become successful at exporting after investing in standards but research literature has shown that there are additional reasons why exporters may have been able to internationalise; some of these factors involve manufacturing strategy,

entrepreneurial orientation, education of the entrepreneur, age and foreign travel experience. Another objective of the study is to understand if the environment had a moderating effect on investment in standards.

Now to truly appreciate the underlying mechanisms or causal relations that would persuade some SMEs to export while others do not, a critical realist approach is required to decipher the underlying structures which give rise to the issues involved. Critical realists recognise that the real-world functions as multidimensional open system. They are not led by an established set of rules instead they understand factors arise due to association among social structures, mechanism and human input. A positivist approach was not used because the results from the quantitative study would have been used to devise a theory or generalise without completely understanding the social factors which may have given rise to the phenomena in the first place. Therefore, a mixed method approach was thought to be the most appropriate method to determine the causal mechanisms and also decipher and understand the deep-rooted issues with respect to exporting in the Jamaican business environment.

Pragmatic researchers sometimes fail to provide a satisfactory answer to the question for whom is a pragmatic solution useful? (Mertens, 2010). Pragmatism may promote incremental change rather than more fundamental, structural, or revolutionary change in society (Johnson & Onwuegbuzie, 2004). Since pragmatism skips reality and truth, this research philosophy may be problematic in answering the research questions posed in this thesis. The research questions are trying to find answers to real issues in the Jamaican business environment so that practical solutions can be proffered to solve them.

Interpretive research is utilised for its value in providing contextual depth, but results are often utilised in terms of validity, reliability and the ability to generalise, referred to collectively as research utilisation. Constructivists do not generally begin with a theory when compared to post positivists rather they “generate or inductively develop a theory or pattern of meaning” (Creswell, 2014, p.8). The constructivist researcher is most likely to rely on qualitative data collection methods and analysis or a combination of both qualitative and quantitative methods (mixed methods). Quantitative data may be used in a way, which supports or expands upon qualitative data and effectively deepens the description. But the issue of research legitimisation remains because sample sizes are often very small and puts a limit on any serious quantitative evaluation which will affect scientific conclusions from being drawn.

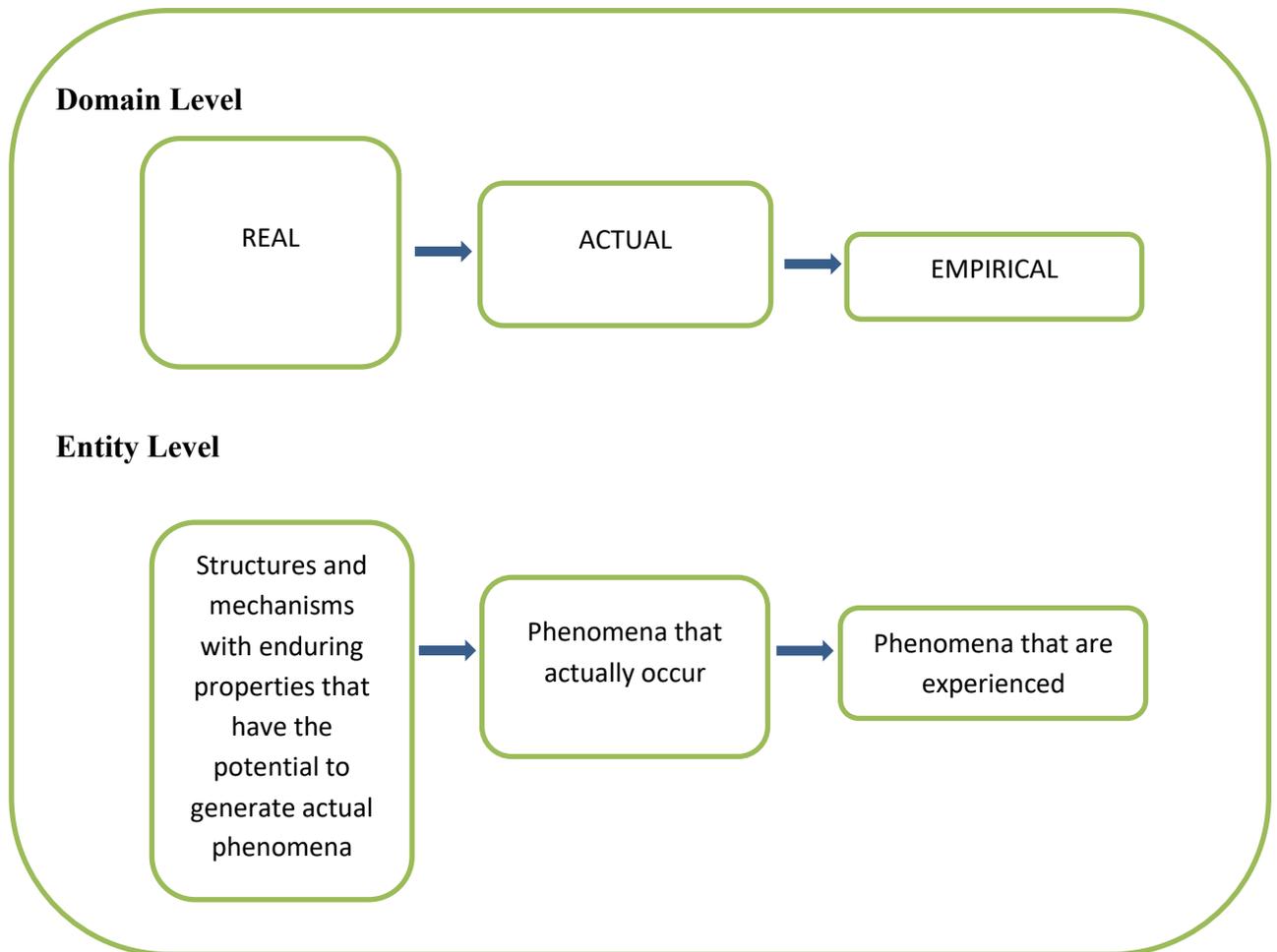


Figure 23.The Three Ontological domains

Causal mechanisms can make an impact, but the actualisation of the mechanism is dependent upon variable conditions in which the mechanism operates (Lawson, 1997). For example, an entrepreneur produces a high-quality product, he has repeat business and also has expert knowledge in gleaning high yields of his product; yet he is not interested in exporting. He rationalises that only entrepreneurs with big connections get their products into overseas markets. Therefore, he sees business and network connections as the drivers for selling in the export market. Critical realism allows the researcher to use his own experience and pre-existing knowledge as assistance in building knowledge about the phenomenon being explored. According to Lawson it would be more suitable to think in terms of the tendencies that are produced by the underlying causal mechanisms. Critical realism was more suitable for achieving the aim and objectives of the thesis and also answering the research questions. This researcher has not found in the literature a clear distinction or even if there is a distinction at all

between critical realism and post positivism. There are researchers who use both terms synonymously or those who consider critical realism as a form of post-positivism; for example Fleetwood, 2004; Fox, 2008; Patomäki and Wight, 2000. Then there are other researchers who regard critical realism and post-positivism as completely different paradigms namely Cruickshank, 2011; Groff, 2004; Guba and Lincoln, 1994. It seems as though the paradigms may overlap widely and that the decision as to whether research is described as post-positivistic or critically realistic probably depends on whether the researcher wants to emphasise the fundamentals of realism or positivism.

3.1.7 Impact on Data Collection Methods

Critical realists generally have a deep desire for understanding therefore they tend to gravitate toward the use of qualitative methods, but a mixed method approach is more likely to be beneficial if accuracy is desired. A mixed method approach offers completeness and confirmation; it can also give the broadest possible range of views and interpretations. The wider the range of perspectives the easier it may be to formulate an explanation or theory. By employing a mixed method approach a substantive and varied data set will promote hypothesis formulation. The power of quantitative methods is that they may be used to develop dependable descriptions and provide accurate comparisons. In the exploratory phase of an investigation, quantitative methods can identify patterns and associations which may otherwise be hidden. Quantitative methods can be used to test theories about how causal mechanisms work under a particular set of conditions (Mingers, 2004). Understanding the strategies used by successful exporters will require qualitative exploration as quantitative models alone will not be sufficient to identify the peculiarities involved in strategy development. To elucidate the basic characteristics of manufacturing SMEs in Jamaica, a questionnaire survey will be sent to a selected sample of these SMEs that reflect a cross-section of exporters and non-exporters. The questionnaires will also reveal the characteristics of this group. Interviews will also form part of the qualitative assessment so that greater insight with respect to the causes and other social structures can be understood.

Detailed case studies will also be valuable tools for analysing these issues. To demonstrate the complex nature of internationalisation, three companies will be used in separate mini-case studies. The benefit of using the case study approach is that it enables the results and tendencies identified from the survey research to be explored at the level of the firm. The case study

research provides insights into causality as defined by critical realism and details of the processes involved. Importers and non-exporters must be interviewed to glean from them the deeper issues which affect their decision making as entrepreneurs. Through the case studies real live unique experiences can be revealed from the owners/managers with respect to how these firms strategise to exploit and reconfigure their resources/capabilities to become competitive and internationalise. Even the firms which do not export or hope to export in the future, a deeper understanding can be had about the challenges they face, whether it is the turbulent environment and access to resources, difficulty in using or investing in standards, their entrepreneurial orientation with respect to proactiveness, risk proneness and innovation could be better understood. Revelations which come directly from these MSME owners/managers can also tantamount to solutions and recommendations which could possibly influence GoJ policy and help create a more enabling business environment for Jamaica.

The major attribute of qualitative methods, from a critical realist standpoint, is that they are open-ended. This will allow subject matter to come forward during the course of the inquiry that could not have been thought of from the beginning. Qualitative methods also assist in illuminating complex concepts and relationships that are unlikely to be captured by predetermined response categories or standardised quantitative measures. Triangulation involves using more than one method or source data. It is usually employed for three main reasons; confirmation, completeness and abductive inspiration.

Confirmation describes a set of techniques that are used to describe a fixed position. In social research, data is triangulated for the purpose of confirmation so that the reliability and validity of data can be enhanced. Another reason for using mixed methods is to counteract the imposition of biases that can be derived from using a single method (Denzin, 1989). In addition to this, quantitative and qualitative findings may validate each other and support a more rigorous conclusion than each method can on its own merit (Risjord et al., 2001).

To achieve completeness, quantitative and qualitative methods can be used so as to provide a suitable accompaniment of perspectives as well as a greater level of detail. There are a number of potential benefits to be derived from using mixed methods as demonstrated by Lashley (2001) in his doctoral thesis on *The Internationalisation of the SME: A Critical Realist Approach*. He elucidated the complexities of internationalisation that would have been much more difficult had he used either quantitative or qualitative methods alone. Both methods can

be used to demonstrate different facets of the same reality and to examine the same reality from different perspectives.

Retroduction entails the idea of going back from below or behind observed patterns or regularities to discover what caused them. Retroduction is a complementary tool which assists in providing a more comprehensive analysis of theoretically driven data. Retroduction allows the researcher to meander between theory and data. Noteworthy is the fact that data may differ from the initial theoretical framework which would have a significant impact on the discussion pertaining to the findings. The initial objective for a critical realist is an explanatory understanding based on the formulation of retroductive inferences, methodological triangulation for the purposes of confirmation and completeness but it may also play a precious role in the research process. This is because detailed observations may provide a base for making retroductive inferences about causal mechanisms that are active in any real-life situation.

3.1.8 Impact on Results and Conclusions

A critical realist approach is compatible with all three of the purposes of methodological triangulation and it may also circumvent many of the problems associated with paradigm switching. Justification for the use of the critical realist method will be supported by the use of a case study. The use of the quantitative survey will assist in identifying consistency in practice, which will probably confirm and elaborate findings from interviews. The use of both the qualitative and quantitative methods will give the study a greater sense of balance and perspective. The results from both approaches will kindle the retroductive reasoning which would have led to development of a theoretical model which will explain export decisions. The critical realist approach will help explain the underpinnings and uncover why some firms export while others are content to only operate within their domestic market. The results will assist government and private sector policymakers as well as entrepreneurs who manage small firms to design better strategies to assist these enterprises in internationalising. The strategies and policies should aim to facilitate non-exporters to become exporters and current exporters to increase the yield of their exports. The export model developed will guide policy makers and managers into determining how to improve an enterprise's ability to become an exporter as well as maximise yield.

3.2 Research Design

This study used a mixed methods design. “Mixed methods involve combining or integrating qualitative and quantitative research and data in a research study” (Creswell, 2014, p. 14). More specifically, an explanatory sequential mixed methods design will be used for this study. It involved firstly conducting quantitative research, analysing the results and then building on the results to explain in further detail with qualitative research. The terminology “explanatory” is used because quantitative data are further elucidated by qualitative data. It is also considered sequential because the research begins with the quantitative process and is followed by the qualitative process (Creswell, 2014; Ivankova et al., 2006).

The purpose of the sequential explanatory design is typically to use qualitative results to assist in explaining and interpreting the findings of a primarily quantitative study. It can be especially useful when unexpected results arise from a quantitative study (Morse, 1991). In this study, the qualitative data collection that follows was used to examine the unexpected results in greater detail. Alternatively, the qualitative data collection and analysis could be given the priority.

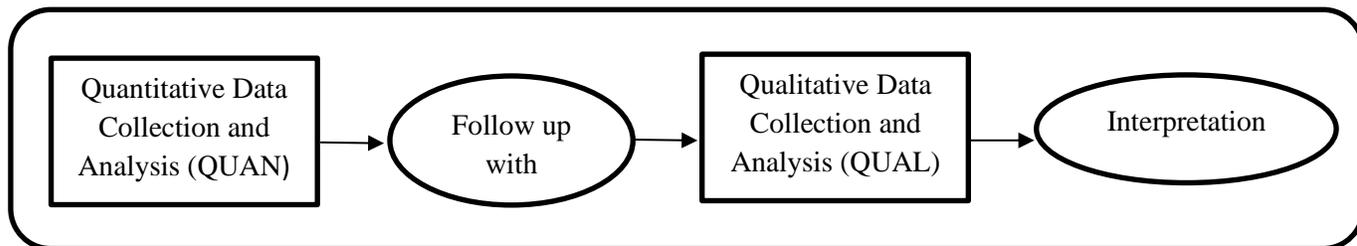


Figure 24. Source: Adapted from Creswell, J. W., Plano Clark, V. L., Gutmann, M., & Hanson, W. (2003). Advanced mixed methods research designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioural research* (pp. 209-240). Thousand Oaks, CA: Sage

But in this study, the initial quantitative phase of the study was used to characterise manufacturers with certain characteristics of interest related to the research question. These quantitative results were then be used to guide the purposeful sampling of participants for a primarily qualitative study.

Table 15 *Quantitative, Mixed and Qualitative Methods*

Quantitative Methods	Mixed Methods	Qualitative Methods
Pre-determined	Both predetermined and emerging methods	Emerging methods
Instrument based questions	Both open and closed ended questions	Open-ended questions
Performance data, attitude data, observational data and census data	Multiple forms of data drawing on all possibilities	Interview data, observation data, document data and audio-visual data
Statistical analysis	Statistical and text analysis	Text and image analysis
Statistical interpretation	Across databases interpretation	Themes, patterns interpretations

Source: Adapted from Creswell, John W. (2014), *Research Design Qualitative, Quantitative and Mixed Method Approaches*. Thousand Oaks, CA: Sage Publications

The advantages of a mixed methods design include straightforwardness and opportunities for the exploration of the quantitative results in more detail. This design can be especially useful when unexpected results arise from a quantitative study.

The pilot study only employed the use of quantitative methods as the research aimed to test the strength of relationships as well as the cause and effect relationships among the variables which had been identified in the literature. Previous studies on the internationalisation of SMEs, such as Amal and Filho (2009), Andersson et al. (2004), Chelliah et al. (2010), Williams (2009) and Wong (2015) have also used quantitative studies so it was considered important to use similar methods for comparability of findings. The strategy of enquiry involved the use of a survey and quantification of the degree of products, processes and upgrading that resulted from the use of applying standards. Entrepreneurial Orientation, Manufacturing Strategy and Government Policy will be tested to determine their significance to the study.

3.3 Unit of Analysis: Population, Sampling and Participants

3.3.1 Population

STATIN could not account for the population of MSMEs that existed in Jamaica. Therefore, the databases of manufacturers and exporters were obtained from the Jamaica Manufacturers Association (JMEA) and Jamaica Promotions Corporation (JAMPRO) respectively. The JMEA

database comprised manufacturers registered with the entity while the JAMPRO database comprised all exporters; a manufacturing company cannot export unless it is registered with JAMPRO. Both databases were merged, and redundancies were removed. Both databases amounted to 387 manufacturers; these manufacturers represented seven sectors which included:

1. **Agro-processing/Food & Juices**
2. **Chemicals, cosmetics and pharmaceuticals**
3. **Electrical**
4. **Furniture**
5. **Minerals, metal products, doors and glass**
6. **Printing and packaging**
7. **Textiles and sewn products**

The sample was chosen so that it would sufficiently generate a confidence level of 95%, a standard deviation of 0.5 and a margin of error of 0.05.

In planning a sample survey, a stage is always reached at which a decision must be made about the size of the sample. The decision is too important since too large a sample implies a waste of resources, and too small a sample diminishes the utility of the results (Cochran, 1977).

Cochran's sample size formula for categorical data can be used as follows:

$$n_0 = \frac{Z^2 (p)(q)}{e^2}$$

$$n_0 = \frac{(1.96)^2 (.5) (.5)}{(.05)^2} = 384$$

- i. n_0 is the sample size
 - ii. Z^2 is the abscissa of the normal curve that cuts off an area of the α tails; the selected alpha level of 0.025 in each tail = 1.96 (the alpha level of 0.05 indicates the level of risk the researcher is willing to take that true margin of error may exceed the acceptable margin of error).
 - iii. $(1-\alpha)$ equals the desired confidence level, for example 95%
 - iv. e is the desired level of precision or acceptable margin of error for proportion being estimated = 0.05 (error which the researcher is willing to except) (Bartlett, Kotrlik, & Higgins, 2001).
-

- v. p is the estimated proportion of an attribute that is present in a population
- vi. q is $1-p$
- vii. $p(q) = \text{estimate of variance} = 0.25$

The calculated sample size from Cochran's formula worked out to be 384 manufacturers; therefore, the total population of 387 manufacturers from the merged databases of the JMEA and JAMPRO were issued the questionnaire. According to JAMPRO (2018), "there are just over 300 manufacturers in the sector". Even though JAMPRO did not give an exact figure, the results of the merged databases from the JMEA and JAMPRO supported JAMPRO's claim.

For the pilot study, 20 manufacturers from the various manufacturing sectors were administered the questionnaire and 15 responded. Out of 387 manufacturers who were issued the survey, only 89 responded and this may have affected the variability of the study. The variability is determined by the standard deviation of the population; the standard deviation of a sample is how far the true results of the survey deviates from the results of the sample that was collected. The larger the standard deviation, the less accurate the results might be, since smaller sample sizes get decreasingly representative of the entire population. The small sample size could have also affected the reliability of the survey's results because it could lead to a higher variability, which may lead to bias. A smaller sample will give a result which may not be sufficiently powered to detect a difference between the groups and the study may turn out to be falsely negative leading to a type II error (Nayak, 2010). The three main factors which must be considered are α -error, β -error and the effect size. Type I error or α -error is failure to accept the null hypothesis when it is actually true; usually it is set at 5%. The sample size has to be increased if this value has to be lowered. Type II error or β -error is failure to reject the null hypothesis when it is not true. Power of the study is equal to $1 - \text{type II error}$; hence any study should be at least 80% powered (Nayak, 2010). A larger sample size would also give more power. Power is the probability of retaining the alternative hypothesis when the alternative hypothesis is actually true in the population. If the sample size is large, there will be a smaller standard error.

Power analysis for the logistic regression was conducted using the guidelines established in Lipsey and Wilson, (2001) and G* Power 3.1.7 (Faul et al., 2013) to determine a sufficient sample size using an alpha of 0.05, a power of 0.80, a medium effect size and two tailed test.

Based on the aforementioned assumptions, the minimum sample size was 177; therefore, all 387 manufacturers from the database were issued the survey.

Table 16 *Demonstrating Variables identified from Literature*

Independent Variables	Dependent Variables
Investment in Standards	Internationalisation
Entrepreneurial Orientation	
Manufacturing Strategy	
Environmental Factors	

3.3.2 Sampling: Sampling Technique

A letter was issued to each manufacturer explaining the purpose of the questionnaire before any data was collected. The questionnaire was issued via email through Google Forms and was also administered face to face; this process was expected to take three months. The questionnaire comprised of 42 close ended questions of which 14 were measured on a Likert Scale with the assigned score of 1 to 5 to measure the interviewees' responses. The questionnaire also had questions with a quasi-filter. A quasi-filter gives the respondent the opportunity to give a neutral answer for sensitive questions.

3.3.3 Responding Participants

The surveys were issued to owners, chief executive officers (CEOs) and senior managers. These individuals were chosen because of the critical role they play in the organisations as well as the institutional knowledge which they possessed. These persons also interact with government agencies and private sector bodies so they would have been very familiar with peculiarities pertaining to their respective industries.

3.4 Data Collection Methods

A questionnaire was the most appropriate type of data collection method for this study. The advantages included the cheaper cost, a high level of general capability in representing a large population, greater statistical significance, results tend to be precise because of the standardisation of the survey, better convenience because it can be administered over the

internet or telephone (Fricker & Schonlau, 2002; Krueger & Casey, 2009) and the rapid turnaround.

Follow up interviews were conducted with four manufacturers; two exporters and two non-exporters to gain a deeper understanding of why some manufacturers export while others do not.

3.5 Scaling

This section justifies the scale used to measure the variables. Scaling is the name given to a set of procedures drawn up by social research to ‘measure’ human beings and society (Corbetta, 2003). Scaling involves replacing a concept with one or more indicators that partially overlap it; rather, it replaces that concept with a coherent, organic set of indicators (Corbetta, 2003). Therefore, a scale is a logically connected collection of items that are considered as indicators of a more general concept.

There are a number of scale construction techniques for example, Likert, Guttman’s Scalogram, semantic differential, forced-choice and sociometry. This study used a Likert scale as it was thought appropriate for use in the development and design of the questionnaire. A five-point rating scale was used, and it ranged from 1 = Strongly Disagree to 5 = Strongly Agree. The Likert Rating Scale is a simple procedure for generating measurement instruments which is widely used by social scientists to measure a variety of latent constructs, and meticulous statistical procedures have therefore been developed to design and validate these scales (DeVellis, 1991; Spector, 1992). However, most of these ignore the ordinal nature of observed responses and assume the presence of continuous observed variables measured at interval level. Although there is still much debate over the robustness to ordinal data of parametric statistical techniques for developing Likert Scales (Carifio & Perla, 2007; Jamieson, 2004; Norman, 2010), evidence shows that, under relatively common circumstances, classical factor analysis (FA) yields inaccurate results characterizing the internal structure of the scale or selecting the most informative items within each factor (Bernstein & Teng, 1989; DiStefano, 2002; Holgado-Tello et al., 2010).

Likert scales generally use four to seven response categories, and five or seven points are the most common format used in applied research (Corbetta, 2003). The preference for an odd number of response categories reflects a tendency to choose items that allow subjects to define their position as “neutral” with respect to the construct intended to be measured (Preston &

Colman, 2000). The study also used forced-choice scale where respondents were asked to choose one response that best describes his or her opinion (Cooper & Schindler, 2008; Malhorta et al., 2006).

3.6 Development of Research Instrument: Survey Questionnaire

This section deals with the methods involved in designing and developing the questionnaire as well as justification for its usability. The generalisation for each stage of design is shown below (Creswell, 2014).

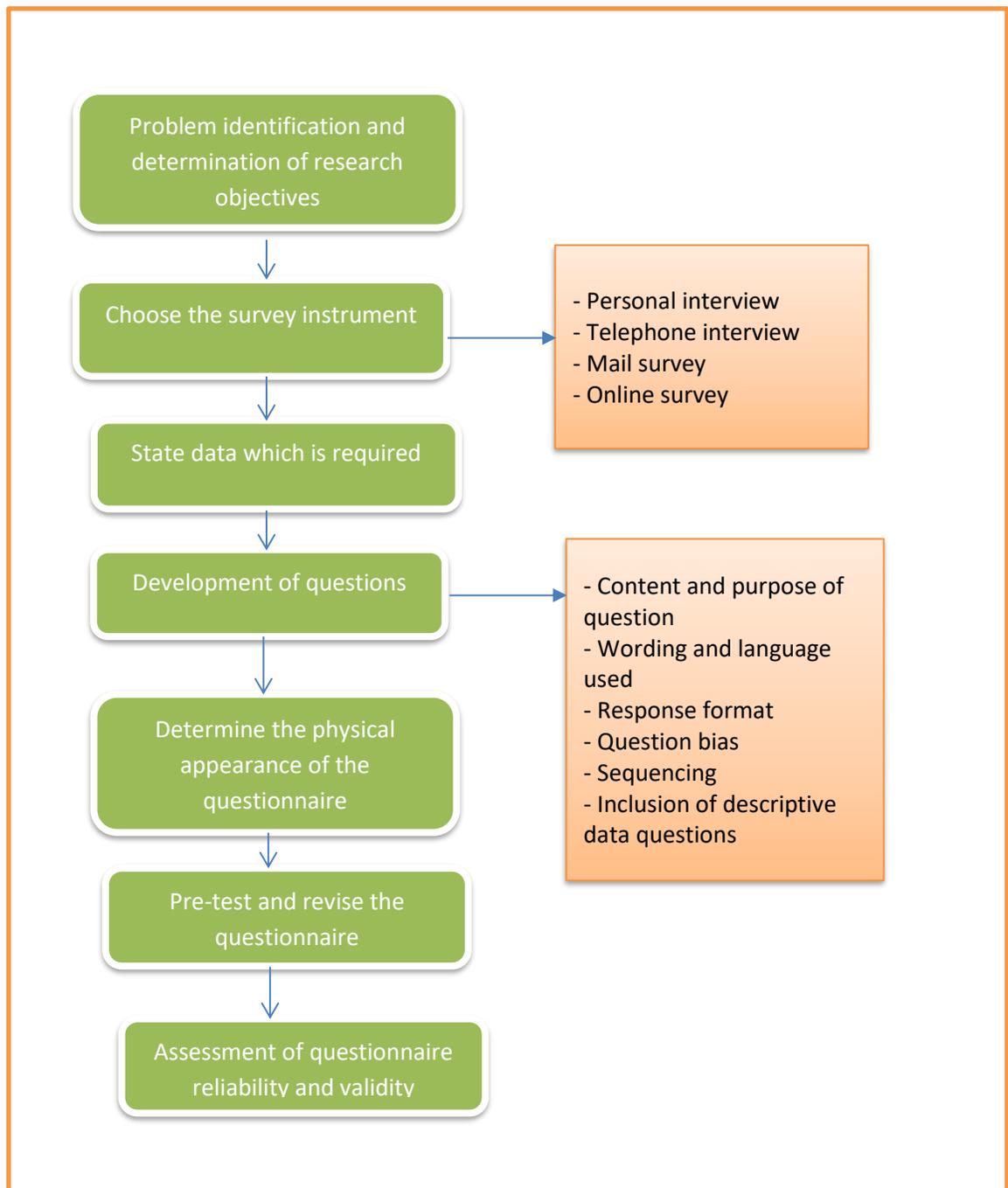


Figure 25. Demonstrating development of questionnaire

Source: Adapted from Burns, A. and Bush, R. (2003). Marketing research: Online research applications. Prentice Hall: Upper Saddle River, NJ; Malhotra, N., Hall, J., Shaw, M. and Oppenheim, P. (2006). Marketing Research. 3rd edition, Prentice-Hall: Australia.; Zikmund, W. (2003). Business Research Methods. Thompson/South-Western: Cincinnati.

3.6.1 Questionnaire Design

This research study sought opinions regarding the relationship between resources/capabilities and internationalisation of manufacturing Jamaican MSMEs. Therefore, the scale and

questionnaire structure were designed against this backdrop. An appropriate level of knowledge to respond to the research questions meaningfully was required so the owner/top management of manufacturing MSMEs were identified as potential respondents. To obtain a good response rate, the questionnaire was designed with closed questions and Likert scales to minimise participants' response time and effort. A pilot study was carried out to ensure clarity of the survey with a few manufacturers in different sectors. Suggestions obtained from the participants from this pilot study were considered for questionnaire modifications. Improvement to the pilot included a question about the average revenue earned by the company. This information was not asked initially because of the difficulty in accessing financial data due to suspicion. But it was necessary to have this information to properly classify the MSMEs. The amount of budget allotted to investing in standards was also an improvement to the questionnaire. A question was posed to the MSMEs to query whether they were using any of the international standards and another asked if they had any certification marks for any of their products. This was important since this thesis posited standards as a firm resource to upgrade and enter international markets. To improve on the depth of analysis a question probed the reasons why standards may be difficult to use.

3.6.2 Response Rate Optimisation

In April of 2017, the online survey was submitted along with a cover letter which included student information and explained the purpose of the research. The survey was sent to manufacturers in the seven sectors. This method was supposed to be quick and efficient since the manufacturers could respond at their nearest convenience. Several follow up emails were sent and, in some instances, when this failed to get responses, a visit was made to the establishment so that a physical copy of the survey could be completed. The exercise was completed in the first week of November 2017.

3.6.3 Questionnaire Content

Questionnaires were issued to both manufacturers and exporters. The rationale for this was that not all manufacturers were exporters; therefore, the study attempted to uncover the underlying reasons why some Jamaican manufacturers preferred to satisfy local demand and was not interested in entering the global value chain. Therefore, from the sample of manufacturers drawn, generalisations should be able to be made about exporting in Jamaica (Fowler, 2009).

An extensive review of scholarly literature in the fields of strategic management, manufacturing, entrepreneurship, export stimuli and internationalisation suggested that there were research gaps which needed addressing and these pertained to the internationalisation process of Jamaican manufacturing SMEs. To obtain a good response rate, the questionnaire was designed with closed questions and Likert scales to minimise participants' response time and effort. A pilot study was carried out to ensure clarity of the survey with a few manufacturing Jamaican MSMEs in different sectors. Suggestions obtained from the participants from the pilot study were considered for questionnaire modifications.

Questions pertaining to the three major disciplines in the literature review were phrased to answer the research questions and satisfy the aims and objectives of the research thesis. Demographic questions were asked to get a better understanding of the profile of the MSMEs in terms of their size, duration in business and annual revenue. The questionnaire contained questions about manufacturing strategy in terms of flexibility, computer-controlled machinery, age of equipment and whether the company can fulfil an above average order. These questions were important to assess whether the companies possessed any dynamic capabilities to become more competitive and answer research question 1 (page 47).

The questionnaire also attempted to provide an answer to research question 2 (page 66) by assessing the MSMEs tolerance for risk, proactiveness and innovation. An answer to research question 3 (page 81) was obtained by posing questions to the MSMEs about investing in standards to deepen the understanding about it as a firm resource. Probing questions whether there was difficulty in using standards, whether products became more competitive as a result of using standards and if foreign market access was as a result of standards were asked not only to obtain facts but the perceptions of the MSMEs.

Other questions with respect to government policy and export behaviour were phrased to get a better understanding of their opinions and choices made. These questions also gave insight into the environment and the perceptions the MSMEs. These questions were also used to attempt to answer research question 4 (page 84).

Table 17 *Question Type/ Number of Questions*

Question Type	Number of Questions
Company & Employee Information	11
Manufacturing	6
Entrepreneurship	1
Standards	10
Strategic Management	4
Government Policy	4
Export Behaviour	6

3.6.4 Operationalisation of Variables

3.6.4.1 Dependent Variable – Internationalisation

Internationalisation emphasises the adaption of firms’ operations to international environments (Calof & Beamish, 1995). However, Ahokangas (1998), inspired by the resource-based view, claim that internationalisation is “the process of mobilising, accumulating and developing resource stocks for internationalisation activities” (Ruzzier et al., 2006, p. 479). In this study, the resource stocks are manufacturing strategy, investment in standards, competitive strategy and entrepreneurial orientation.

3.6.4.2 Independent Variables

Manufacturing Strategy

Manufacturing strategy was assessed through the four dimensions of quality standards, flexibility, computer-controlled machinery and competitive strategy. Quality standards was measured by investment in standards, access to foreign markets, improvement in quality of products, use of international standards and difficulty in using standards. The flexibility strategy was measured by asking respondents to indicate whether the company engaged in flexible manufacturing and if they can handle an above average order on time. The impact of computer-controlled machinery was measured by assessing whether manufacturing was labour intensive or computer controlled and the age of the machinery.

Investment in Standards

Investment in standards was measured by the firms' budgetary investments in both local and international standards. This variable was not used in previous studies in strategy but was included in this study as an additional resource that firms can use to improve competitiveness and overcome barriers to entry by entering international markets. Respondents were provided with a list of international standards and asked to indicate which ones they used in their company.

Entrepreneurial Orientation

Firms which are seeking to internationalise are entrepreneurial as they face a combination of risk and innovation (Dai et al., 2014; Ibrahim & Lucky, 2014; Javalgi & Todd, 2011). Firms should display entrepreneurial behaviour to drive markets and seize new opportunities (Javalgi, 2012). In the Entrepreneurial Orientation scale, each dimension had six items and requiring the respondents to choose a position based on 1 to 5 range on a Likert Scale. It was measured with three variables; innovative products, risky ventures and flexibility.

Control Variables

Three variables were examined to assess competitive strategy and determine their relationship with internationalisation of Jamaican manufacturing MSMEs. Two additional control variables were examined in order to gain a higher degree of confidence in the results; the two control variables used were years of operation and whether it was a family business. To determine the industry type, firms were asked to state what type of manufacturing they were involved, for example textiles and sewn products or electrical.

3.7 Data Analysis

The data analysis procedures were separated into two sections, namely data preparation and data analysis. The data preparation involved uploading the data collected from the respondents which was stored in the spread sheet into Statistical Package for Social Sciences (SPSS). The data was analysed by using the SPSS software. To address the research questions, analyses were done on the sample characteristics, dependent and independent variables, and hypotheses, using various statistical techniques. Table 19 lists a summary of the techniques used.

Firstly, the characteristics of the sample in terms of ownership structure, annual revenue, years of operations, industry type, characteristics of markets and sector and owners' level of education were examined using descriptive statistics. Inferential statistics were calculated with the purpose of generalizing the findings from the sample to the entire population of interest (Allua et al., 2009). To test the reliability of the scales in the questionnaire, Cronbach's alpha was calculated for each variable. Independent t-tests and Levene test were calculated to examine equality of variances. ANOVA was also used to compare mean score of each resource category variable to determine if there were differences on firm performance.

Table 18 *Selected Statistical Techniques*

Purpose	Techniques for Analysis
Examination of the Sample Characteristics	❖ Descriptive Statistics
Examination of the Dependent and Independent Variables Characteristics	❖ Correlation Analysis ❖ Principal Factor Analysis ❖ ANOVA
Hypothesis Testing	❖ Binary Logistic Regression

Techniques such as logistic regression were used to test the hypothesis of the proposed model. Logistic regression is used to predict a categorical outcome when there are two or more predictors, which may or may not be causes of that outcome (Menard, 2018).

The outcome in this thesis is whether a manufacturing MSME in Jamaica internationalises. The quantitative research methods used questionnaires to collect the data for analysis and logistic regression, chi square and correlation analysis were the methodologies used to test hypotheses derived from the existing theories which included manufacturing strategy, entrepreneurship and internationalisation. This deductive reasoning approach helped to build new knowledge from the foundations of these existing theories from a Jamaican context.

The pilot study employed the use bivariate analysis which used both Pearson and Spearman rank correlations. Crosstabs/Chi Square was also used to analyse the data. Bivariate analysis is the simultaneous analysis of 2 variables. It explores the concept of relationship between 2 variables whether there exist an association and the strength of this association or whether there are differences between 2 variables and the significance of these differences. In terms of the

manufacturing strategy, the bivariate analysis was used to test the relationship between investing in standards and the ability to engage in flexible manufacturing and computer-controlled machinery, but no statistical significance was found between investing in standards and the other two variables. However statistical significance was found between the ability to engage in flexible manufacturing and computer-controlled machinery at 0.043. The Pearson correlation was used because these were nominal variables. The Pearson product moment correlation only told of the magnitude and direction of association between the two variables measured on an interval or linear scale. This result was important for the preliminary analysis since flexible manufacturing is a dynamic capability of the manufacturing strategy and it, therefore, means that MSMEs would be better able to engage in flexible manufacturing by introducing computer aided machinery in their plants.

Three mini cases studies were developed from three individual interviews with manufacturers who had responded to the survey. These manufacturers were chosen because of the volume of information they wanted to provide during the face to face issuing of the survey form. In depth interview questions were developed which explored certain survey questions to glean a deeper understanding of the social constructs with respect to manufacturing and exporting in Jamaica. Seven constructs were explored in further detail to help elucidate the underlying structures which may exist. These constructs were academic training and experience, competitive assets, constraints, export market, government and private sector policy, regulatory framework and use of standards.

The interviews were voice recorded by computer so that critical information would not be lost or go by undetected while the interviews were being transcribed. Each manufacturer was asked the same set of questions in the same order to assist with building knowledge in terms of manufacturing and exporting and to also examine how these manufacturing MSMEs used their competitive assets and constraints to build their dynamic capabilities and develop overall resilience to counteract environmental conditions. The purpose of these mini case studies was to also link these unique findings from a Jamaican environment to that of existing theory to capitalise on building knowledge and contributing to literature.

In terms of the qualitative research method, three unstructured interviews were conducted with three MSMEs using the aid of a computer recording device to collect data for analysis and then notes and data were transcribed. The methodology involved coding the variables gleaned according to a pre-determined framework (Appendix C) in order to assist with developing theory. The research questions and objectives were used as a guide to group the data. A bit of deductive approach was also used since this predetermined framework for the analysis had been constructed and coded (Christians and Carey, 1989; Hesse-Biber and Leavy, 2010). Coding is not just labelling, it is linking: “It leads you from the data to the idea, and from the idea to all the data pertaining to that idea” (Richards & Morse, 2007, p. 137). This framework was used to analyse the data from the interviews. In this approach, the pre-existing theories which may or may not affect internationalisation were tested. For example, MSMEs academic training and experience, competitive assets, government and private sector policies and the regulatory framework were some of the pre-existing theories explored to better assist in explaining choices made whether to internationalise. Themes and constructs (Appendix C) were decided before the analysis started and were imposed on the material.

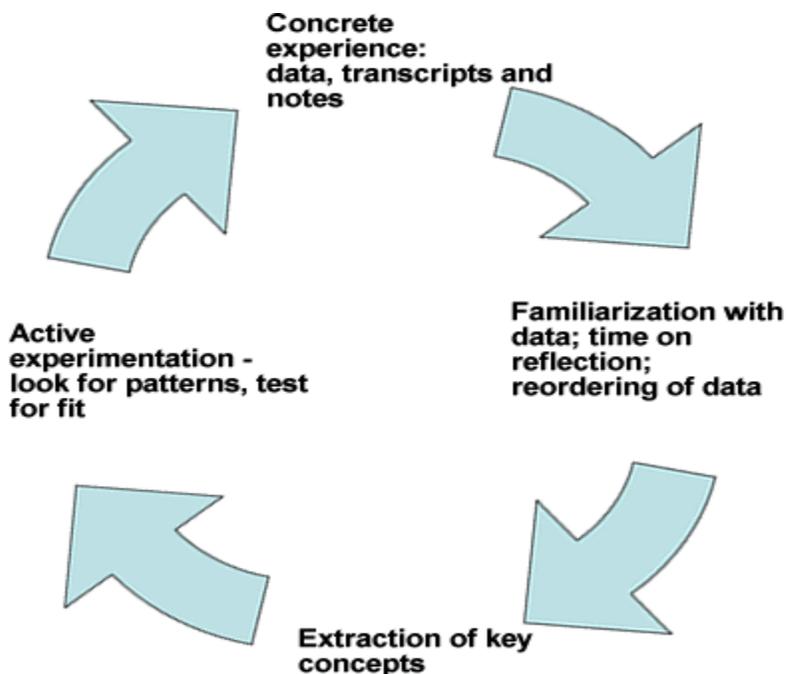


Figure 26. Source: How to Analyse Qualitative Data. Emerald Group Publishing

The constant comparison method was carried out in four stages (Hesse-Biber and Leavy, 2010): (a) comparing data that was applicable to each category, as the categories emerge; (b) integrating the categories and their properties to reduce the data set and data noise; (c) further delimiting the theory based on reduced data set; and (d) writing the theory. Instead of having a hypothesis to direct the research as in the quantitative research, the themes emerged as the data was coded and analysed. This is called naturalistic research or grounded theory. Because of the continual building of theory through analysis, the discovery of relationships begins as the initial observations were analysed. For example, MSMEs demonstrated how they converted their strongest assets into dynamic capabilities upon which they competed. These findings were then linked to the Resource Based Theory. The three MSMEs revealed how difficult it was to access bank loans and how bureaucratic conducting business was at the ports of entry in terms of importing raw material for manufacturing or exporting products and these findings were linked to the theories on Government and Private Sector Policy and Regulatory Framework.

A process of continuous refinement occurred as the coding was integral to the data collection and data analysis. A table was used to summarise the constructs and the related findings which were used to inductively build knowledge.

3.8 Ethical Considerations

Prior to the commencement of data collection, approval was obtained from the Ethics Committee of the University of Edinburgh Napier, Scotland. The ethical issues involved in this research paper involved protecting the confidentiality and privacy of the individual firms. The firms were informed how their data will be used and what will be done with the data garnered. The information and data will only be restricted to individuals directly involved in this study. All measures were taken to ensure that all confidential information such as formulations, financial records, suppliers or buyers will not be discussed or shared with competitors. There was also informed consent in that individual firms gave their consent before any data was used or published in any format. It was also very important that during this study the reputation of the participants were not hurt or damaged in any way causing financial loss or loss of reputation. My bias as a regulator working in a standards organisation did not influence the outcome of the results. The outcome of this research must establish beneficence in that the research must be

beneficial to all concerned and the greater good of Jamaica and by extension the CARICOM region.

3.9 Limitations of the Methodology

Data collection was from single informants who were the owners or managers of the various enterprises. Although this was a typical practice of survey research, it is not the most ideal data collection method as this major personality may provide information that is skewed or be socially normal (Boone, Brabander, & Hellemans, 2000; Van Bruggen, Lilien, & Kacker, 2002). This act of giving out information directional to the researchers' desire can distort the nature of data collected. Perhaps, future studies can seek multiple informants, both from internal and external sources, to minimise this single informant bias.

Another disadvantage of the methodology was the mixed method design because when qualitative data is quantised it loses its flexibility and depth. This occurs because qualitative codes are multidimensional (Bazeley, 2004) while quantitative codes are one-dimensional and fixed so basically changing rich qualitative data to dichotomous variables produces one dimensional immutable data (Driscoll et al., 2007).

Another limitation associated with mixed method design is the possible statistical measurement limitations of qualitative data when it has been quantised as quantised qualitative data is very vulnerable to collinearity (Roberts, 2000). Researchers having to collect and analyse qualitative data may reduce their sample size for the design to be less time-consuming and doing so can affect statistical procedures like analyses of variance and t-tests. This is a serious challenge for this design as the researcher may not have enough statistical power to support their research (Driscoll et al., 2007).

The mixed method design can be time consuming and feasibility of resources to collect both types of data; the researcher must learn multiple methods and be able to know how to mix each method effectively. Interpret conflicting results & analysing quantitative data qualitatively still need to be figured out (Ivankova et al., 2006; Onwuegbuzie & Johnson, 2004).

Logistic regression attempts to predict outcomes based on a set of independent variables, but if the wrong independent variable is included the model will have very little predictive value or none at all. Each data point must also be independent of each other otherwise the model will

overweight the significance of those observations. Logistic regression is also good for predicting categorical outcomes but cannot predict continuous outcomes. Logit models are also subject to overconfidence; the models can appear to have more predictive power than actually exists due to sampling bias. Large sample sizes are required for accuracy.

3.10 Summary

Chapter 3 dealt with the research hypotheses and theoretical framework, research design in terms of strategy and method, the unit analysis (population, sampling and participants), data collection method, research instrument, reliability and validity issues.

This thesis adopted a critical realist approach to the research so that the underlying social issues with respect to why several Jamaican MSMEs were not exporting could be better understood. Therefore, a multilevel approach was used to analyse the mechanisms and social structures which existed. The methodology involved quantitative as well as qualitative research. The quantitative method employed the use of questionnaires which were issued to both exporters and non-exporters. It also assessed quantification of the degree of products, processes and upgrading that resulted from the use of applying standards.

The qualitative research employed the use of in-depth interviews with the owners of processing and manufacturing firms about their experience as entrepreneurs in Jamaica. Data from STATIN, Jamaica Manufacturers and Exporters Association (JMEA) and JAMPRO was used to analyse and assess the internationalisation trends in Jamaica with respect to the number of firms that are exporting to regional and international markets. A sample was chosen a priori that would sufficiently generate a confidence level of 95%, a standard deviation of 0.5 and a margin of error of 0.05. Cochran's sample size formula for categorical data was used to calculate the appropriate sample size. This calculation worked out to be 384 manufacturers but since the population size of 387 as was determined from the merged databases of JAMPRO and JMEA, all 387 manufacturers were issued the questionnaires.

An analysis of the different manufacturing sectors which were engaged in exporting was also conducted to better understand the MSME industry. The data which was captured was analysed to explain how Jamaican firms exploited the proposed resources such as MS, IS and EO and how these were able to upgrade their physical infrastructure and processes, improve the quality

of their product offerings, become competitive and enter international markets. The data was analysed to demonstrate how each of the proposed resources impacted the internationalisation process. An assessment was also conducted to comprehend how the local environment moderated investment in standards as a firm resource and the effect on internationalisation. The strategy to use both qualitative and quantitative methods provided for triangulation of data since any data or information missed by employing one method was captured by the alternative.

Scientific data was used as a form of measurement to interpret the impact of standards. Three case studies were used to highlight SMEs from different industries, their characteristic traits, size, export capacity, value chain analysis and dynamic capabilities used to become competitive. The study also adopted an inductive approach towards development of a theory with respect to internationalisation in Jamaica. Analysis of the data employed the use of SPSS, ANOVA and the multivariate statistical technique of logistic regression. Logistic regression was used to obtain the best forecasted accuracy with a set of predictors and one of the objectives of this study was to predict the possibility that a MSME will become an exporter based on its adoption of standards and a combination of other factors. This technique was also used because of the small sample of 384 manufacturers and the fact that logit regression when compared to probit regression is much better when it is expected that there would be outliers in the population because it has a greater tolerance for large errors that come with outliers. Two control variables namely AF and FON were chosen as possible confounding variables which would remove any predictor-criterion contamination. Chapter 4 will present the data analyses, model testing, case studies and major findings from the analyses.

CHAPTER 4

ANALYSIS OF DATA

4.0 Introduction and Overview of Chapter

The purpose of this thesis is to understand the internationalisation process of the Jamaican MSME and how standards assisted in them in entering these export markets. The thesis also seeks to understand why some MSMEs seek out overseas markets while others are only contented with their local market. The following research questions have been developed to unearth possible answers to the issues involved:

1. Does manufacturing strategy as a firm resource significantly influence the internationalisation of Jamaican manufacturing MSMEs?
2. Does entrepreneurial orientation as a firm resource significantly influence the internationalisation of Jamaican manufacturing MSMEs?
3. Is there a significant relationship between investment in standards as a firm resource and the internationalisation of Jamaican manufacturing MSMEs?
4. Does the environment have a moderating effect on investing in standards as a firm resource for Jamaican manufacturing MSMEs seeking internationalisation?

Chapter four deals with the results of the research and presents data analyses and the methods employed. Following the introduction, the analyses are divided into five sections. Section 4.2 presents the survey distribution and response rates of the participants, while Section 4.3 considers the treatment of missing values and descriptive statistics. Section 4.4 presents the results from inferential statistics in terms of scale reliabilities, correlations and regression analysis.

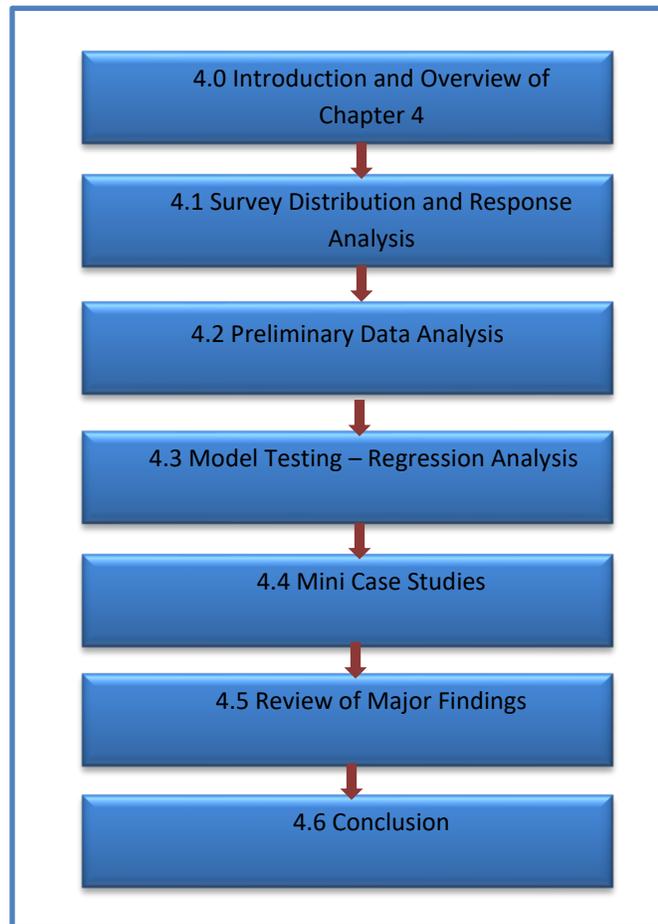


Figure 27. Outline of Chapter 4

Section 4.4 will present three mini case studies demonstrating the perspectives of three manufacturers. This qualitative study will be used to buttress the findings of the quantitative study.

Pilot Study Results

The pilot study was conducted to determine the feasibility of the quantitative method aspect of this research. It was carried out to prevent an inadequately designed study so that any problems encountered during this phase could be addressed in the future. Twenty MSMEs were surveyed for the pilot study but there were only fifteen respondents. Correlations are bivariate analyses that measure the strength of association between two variables and the direction of the relationship. The Pearson correlation was used as a statistical tool to determine correlation

between nominal variables and Spearman Rank correlation was used for the categorical variables.

In terms of the manufacturing strategy, the Pearson correlation was used to test the relationship between investing in standards and the ability to engage in flexible manufacturing and computer-controlled machinery, but no statistical significance was found between investing in standards and the other two variables. However statistical significance was found between the ability to engage in flexible manufacturing and computer-controlled machinery with p-value = 0.043. The bivariate analysis was also used to test the relationship between the quality of the products and whether standards improved the competitiveness of the products. It was found that there was a strong positive relationship between these 2 variables with a p-value = 0.009. This means that investing in standards improved the quality of the product and allowed the product to become more competitive which could lead to internationalisation. In terms of entrepreneurial orientation there was a significant positive relationship with p-value = 0.044 between the manager engaging in risky business and introducing new product lines but there was not any statistical significance between investing in standards and the two variables.

The Spearman rank correlation was used as a statistical tool when the data was ordinal. It was used to measure the degree of monotonic association between risky business and new product lines. This method of analysis was also used to evaluate whether the use of standards by manufacturing MSMEs in Jamaica has any relation to the competitiveness of their products internationally; there was a strong correlation. The Spearman rank correlation does not assume any assumptions about the distribution of the data and is most appropriate when the variables are measured on a scale that is least ordinal. It is more suitable for analysing data from questionnaires such as used in this study because the data is not normally distributed or non-normal. It is important to check for normality because deviations from normality could render the statistical tests inaccurate; therefore it is important to verify whether the data is normal or non-normal.

Chi-square (χ^2) was also used as a statistical tool in the study. It is a procedure for testing if two categorical variables are related in some population. Therefore, it was used to determine whether the manufacturers' entrepreneurial orientation would influence his/her investment in standards. The null hypothesis was rejected. $X^2(4) 10.683, p \leq 0.05$. 13 of 15 managers who

invested in standards also engaged in risky ventures. Chi-square was used to indicate whether a significant association exists between all the independent variables and the dependent variables.

It was also important to investigate the difficulty in using standards because this could have implications on whether a manufacturing MSME had the ability to internationalise. It was found that lack of training, lack of knowledgeable staff, lack of quality conscious staff and information too technical were all significant variables in relation to each other. Strategic management's commitment to investing in standards and the eventual internationalisation of the SME was investigated using bivariate analysis and there were strong correlations. The variables with strong correlations were return on investment, customer satisfaction, face to face meetings with top management, meetings with top management/functional unit areas, measurement of performance and exporting. There was a negative correlation with respect to face to face meetings with top management and exporting that was significant, $p\text{-value} = .003$.

In addition to Pearson's Correlation, Hierarchical Regression was used in the final study to determine more detailed relationships between the variables.

The main study had changes from the pilot which included questions about the annual revenue of the firm so that a proper classification of MSMEs could be determined. Missing completely at random (MCAR) is defined as when the probability that the missing data is not related to either the specific value which is supposed to be obtained or the set of observed responses (Kang, 2013). The statistical advantage of data that are MCAR is that the analysis remains unbiased and power may be lost in the design, but the estimated parameters are not biased by the absence of the data (Kang, 2013). Revenue was not a predictor of internationalisation, therefore, the missing data would not have an effect on the outcome. An attempt was made to improve the initial set of questions on standards in the pilot study. Therefore, questions with respect to the use of standards were extended to improve the depth of the investigation. For example, the pilot study did not investigate whether the manufacturers had a certification mark for any of their products or whether they were using any of the renowned international standards such as ISO or GFSI. Since fifteen MSMEs were piloted this meant that fifteen responses with respect to these two questions were absent which amounted to ten data points which were missing (See Appendix B, questions 5, 24 & 25). In addition to these there were thirty-two

other data points missing from questions in the survey which were not answered, therefore a total of forty-two data points were missing.

The absence of data reduces statistical power, which refers to the probability that the test will reject the null hypothesis when it is false. Second, the lost data can cause bias in the estimation of parameters. Third, it can reduce the representativeness of the samples. Fourth, it may complicate the analysis of the study. The MSMEs use of certification marks and international standards were parts of the construct that formed the predictor variable investment in standards (IS). Since there was not any statistical significance between investment in standards (IS) and the dependent variable internationalisation (INZ), the reduction in statistical power could have been the resultant effect.

4.1 Survey Distribution and Response Analysis

The data collection process took approximately eight months to be completed. Owners, chief executive officers and managing directors were sought to complete the survey but on several occasions, they were reminded repeatedly to complete the survey. This was a tedious exercise since they were either not accessible or directed a manager or technical member of staff to complete the survey. Out of 387 MSMEs, only 89 responses were obtained, and this represents a 23% response rate. The response rate may appear low and also a limitation of this study especially since MSMEs are not a homogenous group. According to Tomaskovic-Devey et al., (1994), a high rate of non-response creates a heightened probability of statistical biases. Indeed, any level of nonresponse can, but need not, induce non-response bias in survey estimates (Groves, 2006). Consequently, clarity about what rate of non-response should be considered 'too high' is elusive (Rogelberg & Stanton, 2007). But the 23% response rate is both above and similar to other studies in this field such as Competitive Strategy and Performance of Exporting SMEs by Julian and Ramangalahy (2003) which had 11.6%, Exporting Barriers: Insights from Portuguese Small and Medium sized Exporters and Non-exporters by Pinho and Martins (2010) which had 12% and Export Performance as an Antecedent of Export Commitment and Marketing Strategy by Lages and Montgomery (2004) which had 23.3%. Due to the difficulty in getting responses, the responses from the pilot study were included in the study. The survey was issued electronically using Google Forms, but visits to manufacturing and processing plants were also conducted due to the difficulty in getting responses. Even when visits were made, the questionnaires had to be left in some instances to be picked up another day and in some cases,

they were never completed. Visits were also made to sensitisation and training programmes for MSMEs so that owners and managers could have been targeted at these events to complete the surveys and this method proved to be beneficial in many instances. Questions with respect to the use of standards were extended to improve the depth of the investigation. For example, the pilot study did not investigate whether the manufacturers had a certification mark for any of their products or whether they were using any of the renowned international standards such as ISO or GFSI.

4.1.1 Demographic Composition of the Sample

This section describes the demographics of the MSMEs that participated in the survey. Approximately 43% of the MSMEs surveyed had between 11-49 employees and it was noted that more than 70% were in the category of Agro-processors/Food/Juices and over 70% were also family owned businesses. Most of the companies, 62% were limited liability and 21% of those surveyed were in existence for 1 to 5 years while 44% were in existence for more than 15 years. Most of the companies, 89% did not have overseas operations or branches but 44% were involved in exporting.

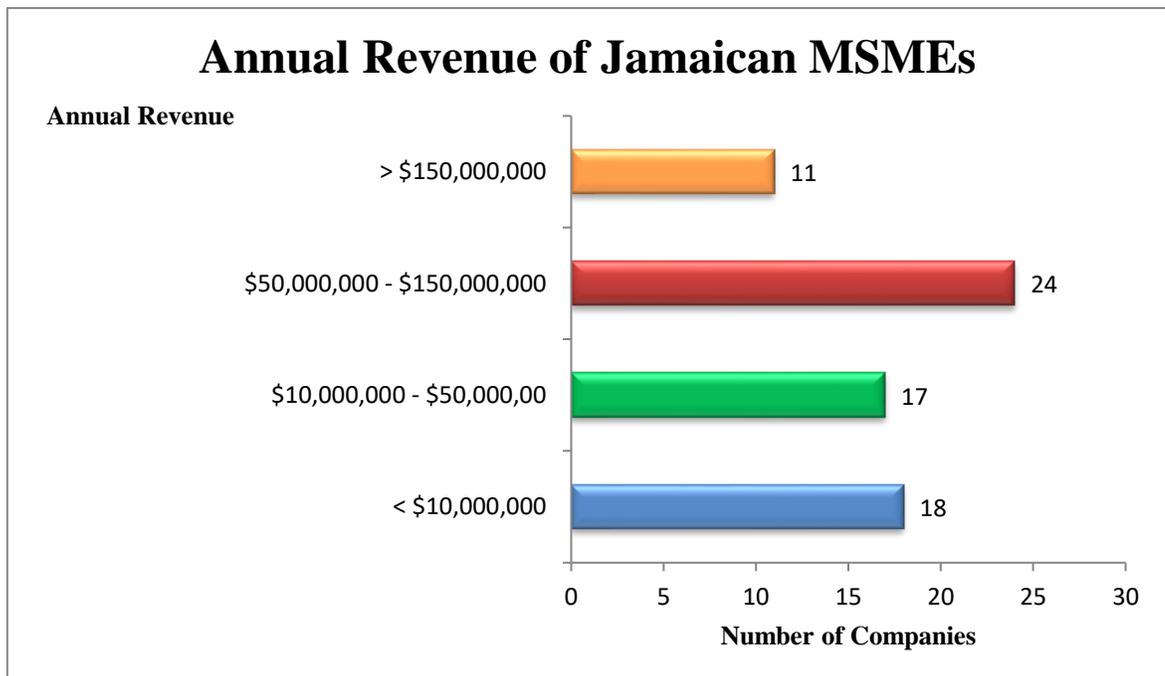


Figure 28. Annual Revenues of Jamaican MSMEs

Approximately 26% of the companies earned annual revenues under J\$10,000,000 while 24% had revenues between J\$10,000,000 and J\$50,000,000. 34% of the sample claimed they had annual revenues between J\$50,000,000 and J\$150,000,000 while 16% had revenues more than J\$150,000,000.

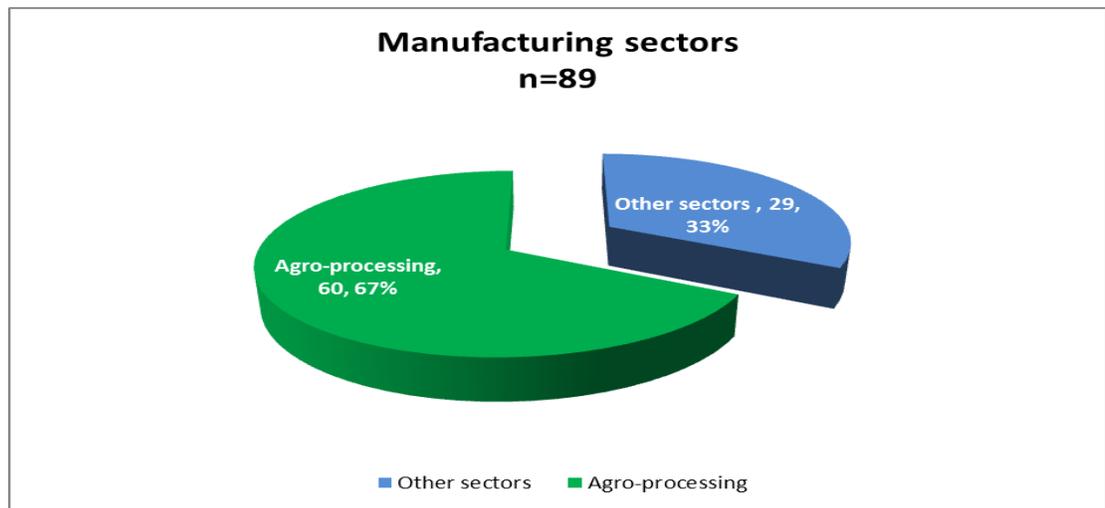


Figure 29. Jamaican MSME Industry

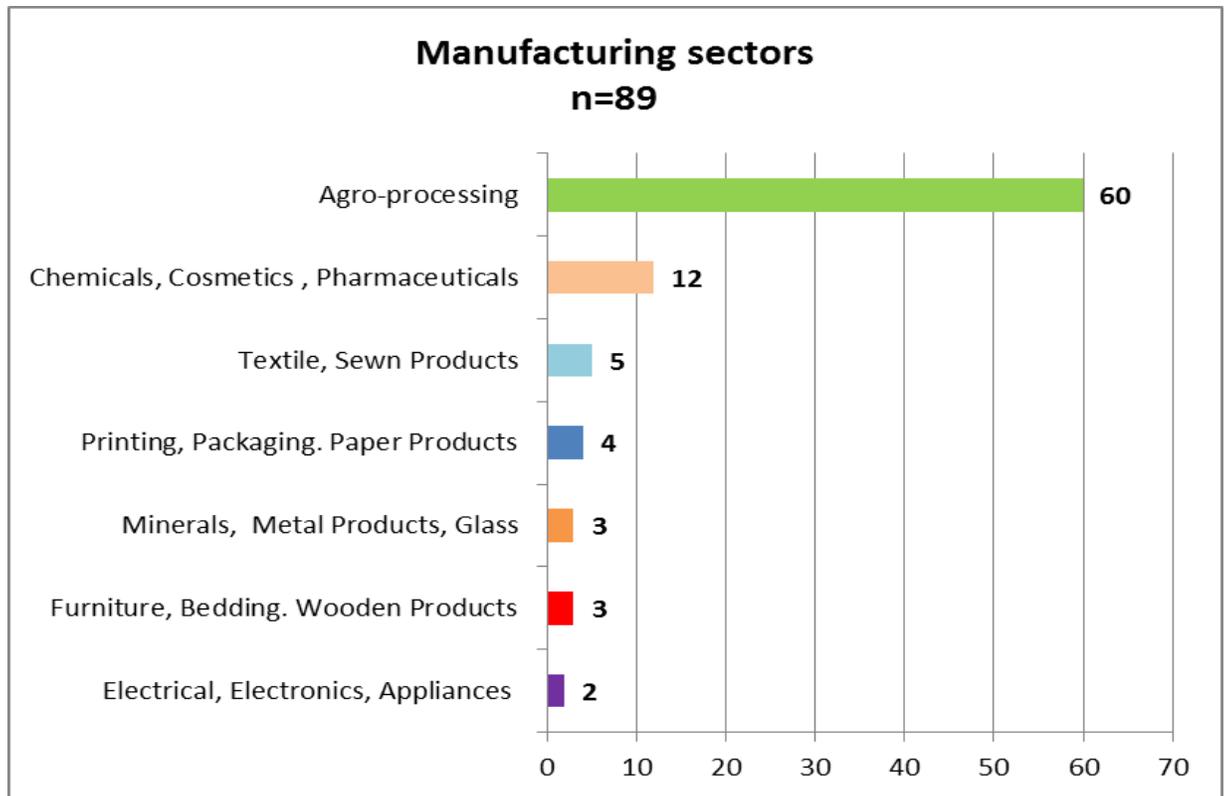


Figure 30. Jamaican MSME Industry by Sector

Figure 30 clearly demonstrates that the largest industrial sector from the sample was agro-processors. Some of the MSMEs were also involved in more than one sector; for example, there were two agro-processors that were involved in manufacturing electrical products and cosmetics respectively. The second largest sector from the sample was the chemical/cosmetics/pharmaceutical industry. Participation in the other five sectors were almost evenly distributed.

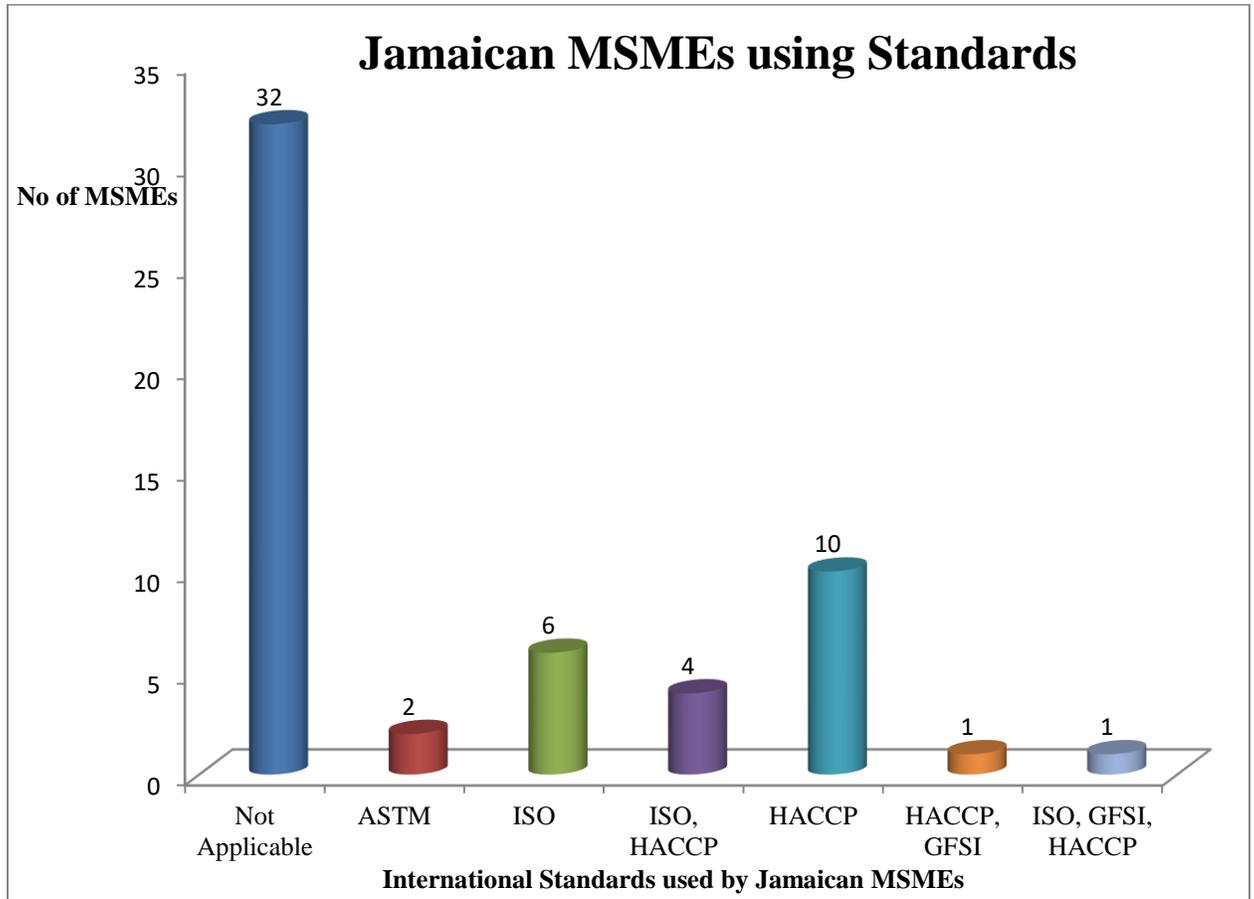


Figure 31. Jamaican MSMEs using International Standards

The graph shows that a significant number of MSMEs from the sample are not investing or using standards. However, 24 of these MSMEs are using international standards such as ISO, ASTM, HACCP and GFSI. Most of the MSMEs are using HACCP and the graph also shows some are also using combinations of these standards.

Those MSMEs not investing in standards will find themselves being very uncompetitive even in the local market and will not stand any chance of internationalising.

Table 19 *Categorical Variables*

	Frequency	Percent (%)
Number of employees		
1-5	22	24.7
6-10	16	18
11-49	38	42.7
50-99	12	13.5
>100	1	1.1
Total	89	100
Family ownership		
Yes	66	74.2
No	22	24.7
Total	88	98.9
Age of company (years)		
1-5	19	21.3
6-10	18	20.2
11-15	10	11.2
>15	40	44.9
Total	87	97.8
Business type		
Limited Liability	55	61.8
Partnership	10	11.2
Cooperative	15	16.9
Sole Trader	1	1.1
Shareholder	4	4.5
Corporation	1	1.1
Total	86	96.6
Industrial Sector		
Exporting		
Yes	39	43.8
No	33	37.1
Total	73	82
Overseas Branches		
Not Applicable	79	88.5
CARICOM	3	3.4
CARICOM, Europe	1	1.4
USA	5	5.6
Other Region	1	1.1
Total	89	100
Investment in Standards		
Yes	78	87.6
No	9	10.1
Total	87	97.7
Certification Mark		
Yes	19	21.3
No	47	52.8
Total	66	74.1

In terms of standards 87.6% of the companies claimed that they invested in standards while 21% claimed that they had certification marks for their products and 36% of the companies claimed that they did not use any international standards.

Table 20 *Difficulty in Using Standards*

Reasons	Number of Responses	Percentage
Expensive	43	72.0
Lack of company investments in standards	44	29.6
Time consuming	42	59.5
Lack of training	43	53.5
Lack of knowledgeable staff	44	50.0
Lack of quality conscious staff	43	49.5
Information is too technical	41	19.5

The most important reason for MSMEs difficulty in using standards was the expensiveness and this was followed by the time consumption for adoption and implementation.

Table 21 *Effectiveness of Government and Private Sector Policies*

Reasons	Number of Responses	Percentage
Incentives to export	80	85.4
More access to loans	80	82.0
Low interest loans	78	80.9
More incubation programmes	76	65.2
Incentives to purchase modern technology	79	84.3

MSMEs overwhelmingly felt that incentives to export was critical to the export process and this was followed very closely by more access loans and low interest rates.

Table 22 Stimulus that Initiated Exporting

Reasons	Number of Responses	Percentage
Unsolicited order	89	14.6
Company strategy	89	27.0
Local client relocating to foreign country	89	4.5
Networking	89	13.5
Recognition of a niche market	89	18.0
Recommendation by client	89	13.5
Size of local market	89	11.2

The MSMEs seemed unsure as to the reasons which stimulated exporting. But most expressed that deliberate company strategy was what initiated exporting and the second most important reason was receiving an unsolicited order.

4.2 Preliminary Data Management

The data from Google Forms was automatically entered into a database while the data from the surveys which were done face to face was entered manually and the raw data was then uploaded into SPSS 23 and coded.

4.2.1 Missing Value Analysis

Missing data reduces the representativeness of the sample and could distort the inferences drawn about the population. To properly utilise the use of data from the small sample, missing data imputation was used as a treatment so that maximum power could be obtained from the statistical tests where possible (Graham, 2012; Hair et al.,1995; Little & Rubin, 2014). In this study, data estimations were made by estimating the value of a missing score and replacing that value with the overall mean score for that item.

4.2.2 Descriptive Analysis

The questionnaire used in this research was used to measure the three constructs; manufacturing strategy, investment in standards and entrepreneurial orientation which could be responsible for the competitive strategy which led to the internationalisation of Jamaican manufacturing MSMEs. Each construct was measured using multiple items to improve chances of capturing

the deep underlying dimensions. For each construct/variable, respondents were asked to indicate the agreement of each statement using the five-point Likert scale ranging from 1 to 5, for example, “1 – strongly disagree” to “5 – strongly agree”. A five-point Likert scale was used to increase response rate and response quality along with reducing respondents’ “frustration level” (Babakus and Mangold, 1992). Other studies also suggest that five-point Likert scales are readily comprehensive to respondents and allows them to express their views (Marton-Williams, 1986).

Table 23 *Coding of Variables*

Research Constructs	Label of Constructs
Manufacturing Strategy	MS
Investment in Standards	IS
Entrepreneurial Orientation	EO
Competitive Strategy	CS
Internationalisation	INZ
Environment	EnF

Based on the structure of the questionnaire, a fixed format coding table was developed to guide the coding of raw data. (Table 23).

4.2.3 Correlation Analysis

A high correlation between variables suggested a collinearity problem when testing the overall model (Sekaran, 2003). According to Cavana, Delahaye, and Sekeran (2001), collinearity (or multicollinearity) is a situation when one independent variable was a linear function of other independent variables. This might be a problem as highly correlated variables were difficult to discern reliable estimates of their individual regression coefficients. This reason being when two variables were highly correlated, they may be measuring the same phenomenon/construct or conveying the same information.

Table 24 *Correlation Analysis*

	Mean	SD	MS	IS	EO	CS	INZ	EnF	NEM	AF	FON
MS	4.24	2.958									
IS	17.88	2.685	-.390*								
EO	18.65	3.595	-.331**	.202							
CS	39.87	4.998	-.176	.630**	.866**						
INZ	7.07	2.912	-.266*	.163	.006	.160					
EnF	7.15	2.824	.174	-.367**	-.155	-.050	-.006				
NEM	2.48	1.046	-.424**	.160	.154	-.028	.302**	-.071			
AF	2.82	1.234	-.226*	-.008	-.075	-.223	.229	-.038	.632**		
FON	1.25	.435	-.222*	.027	.107	.107	.110	-.146	-.088	-.085	

*Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed).

A statistically significant correlation is indicated by a probability value less than .05 ($p \leq .05$). The chances of obtaining the result less than 5 times in a 100, suggests there is a relationship. These correlations vary together, so when one variable increases in a positive direction so does the other. An increase in the size of a variable with negative correlation will see the decrease of the other variable and vice versa. Correlation coefficients vary numerically between 1 and 0; the closer the correlation is to 1 the stronger the relationship between the two variables.

The correlation analysis in Table 24 indicated that there were significant levels of correlation (i.e. significant at .01 and .05 levels) among variables. Table 24 also indicated there was a medium to high correlation of .22 to .86 suggesting that these constructs were pertinent as firm resources.

A high correlation between two variables suggest they may be measuring the same phenomenon/construct or conveying the same information; in particular entrepreneurial orientation and competitive strategy suggests a collinearity problem when testing the overall model (Sekaran, 2003). According to Cavana et al. (2001), collinearity (or multicollinearity) is a situation when one independent variable is a linear function of other independent variables. This may cause a problem since highly correlated variables are usually difficult to discern reliable estimates of their individual regression coefficients. Multicollinearity can be corrected by testing for variance inflation factor (VIF). The VIF identifies the correlation between the independent variables and the strength of that correlation. VIF results start at 1 without any upper limit and a result of 1 indicates that there is no multicollinearity. A result between 1 and

5 suggest that there is moderate multicollinearity. Results with more than 5 suggest serious levels of multicollinearity and the coefficients may be poorly estimated.

4.2.4 Common Method Bias

Method biases can be a problem in research because they are one of the main sources of measurement error. Common method variance is attributable to the measurement method rather than to the constructs the measures represent (Podsakoff et al., 2003). Measurement error threatens the validity of the conclusions about the relationships between measures and is widely recognised to have both a random and a systematic component (Bagozzi & Yi, 1991; Nunnally, 1978; Spector, 1987). Despite both types of measurement error create difficulty, systematic measurement error is extremely problematic because it provides an alternative explanation for the observed relationships between measures of different constructs that is independent of the one hypothesised (Podsakoff et al., 2003). Bagozzi and Yi (1991) noted that one of the main sources of systematic measurement error is method variance that may arise from a variety of sources such as consistency motif, common rater effects, social desirability, leniency biases and acquiescence biases.

Consistency motif

Persons responding to questions posed by researchers attempt to be consistent and rational in their responses also seeking similarities in the questions asked of them, thereby, producing relationships that might not exist in reality. This tendency of respondents to try to maintain consistency in their responses to similar questions or to organise information in consistent ways is called the consistency motif (Johns, 1994; Podsakoff & Organ, 1986; Schmitt, 1994).

Social desirability

Refers to the tendency for some persons to respond to items more as a result of their social acceptability rather than their true feelings about an issue or topic. This is cause for concern because it not only has potential to bias the answers from respondents which could also affect the mean level of the response but also disguise the true relationships between two or more variables (Ganster et al., 1983). Ganster et al. also stated that social desirability can serve as a moderator variable which influences the nature of relationships between variables.

Leniency biases

Leniency biases refer to the propensity for respondents to attribute socially desirable traits, attitudes, and/or behaviors to someone they know and like than to someone they dislike. Schriesheim et al. (1979) has shown that it produces spurious correlations between leader-consideration behavior and employee satisfaction and perceptions of group productivity, drive, and cohesiveness but not between leader initiating structure behavior and these same criterion variables. This implies that the consideration scale is not socially neutral and that leniency biases usually impact the relationships obtained between this scale and employee attitudes and perceptions (Podsakoff, 2003).

Acquiescence biases

This refers to the propensity for respondents to agree or disagree with questionnaire items independent of their content. This too is cause for concern because it increases the correlations among items which are worded similarly even when they not conceptually related resulting in spurious relationships (Winkler et al., 1982). Therefore, acquiescence may also cause artifactual variance in the relationship between two or more variables, other than the true variance between these variables (Podsakoff et al., 2003).

Method of Common Method Bias Test

These common method biases can be corrected by using factor analysis. Factor analysis refers to a set of statistical procedures designed to determine the number of distinct constructs needed to account for the pattern of correlations among a set of measures (Fabrigar & Wegener, 2015). Factor analysis is also used to determine the number of distinct constructs assessed by a set of measures (Fabrigar & Wegener, 2015). These unobservable constructs presumed to account for the structure of correlations among measures are referred to as factors or more precisely as common factors. The specific statistical procedures comprising factor analysis provide information about the number of common factors underlying a set of measures. They also provide information to assist in interpreting the nature of these factors. The nature of common factors is explained by providing estimates of the strength and direction of influence each of the common factors exerts on each of the measures being examined. Such estimates of influence are usually referred to as factor loadings. When the researcher does not have clear expectations or relatively incomplete expectations about the underlying structure of correlations, there are procedures to conduct an exploratory factor analysis (EFA) or unrestricted factor analysis.

When the researcher has clear predictions about the number of common factors and the specific measures each common factor will influence, there are procedures available to conduct confirmatory factor analysis (CFA) or restricted factor analysis.

Table 25 *Communalities*

	Initial	Extraction
MS	1.000	.304
IS	1.000	.539
EO	1.000	.523
EF	1.000	.181
CS	1.000	.749
INZ	1.000	.025
EFWE	1.000	.009
EDU	1.000	.123
EFL	1.000	.082
NEM	1.000	.071
AF	1.000	.001
FON	1.000	.049

Extraction Method: Principal Factor Analysis

Principal component analysis (PCA) is an approach to factor analysis that considers the total variance in the data, which is unlike common factor analysis, and transforms the original variables into a smaller set of linear combinations. PCA seeks a linear combination of variables such that the maximum variance is extracted from the variables. It then removes this variance and seeks a second linear combination which explains the maximum proportion of the remaining variance, and so on. This is called the principal axis method and results in orthogonal (uncorrelated) factors. PCA analyses total (common and unique) variance.

The communalities table shows the proportion of variance in each observed variable explained by all of the components/factors. In the initial solution, where the number of factors is equal to the number of observed variables, the 12 factors explain all of the variance in each of the observed variables. After extraction, the smaller number of retained factors explains lower proportions of variance in each of the observed variables.

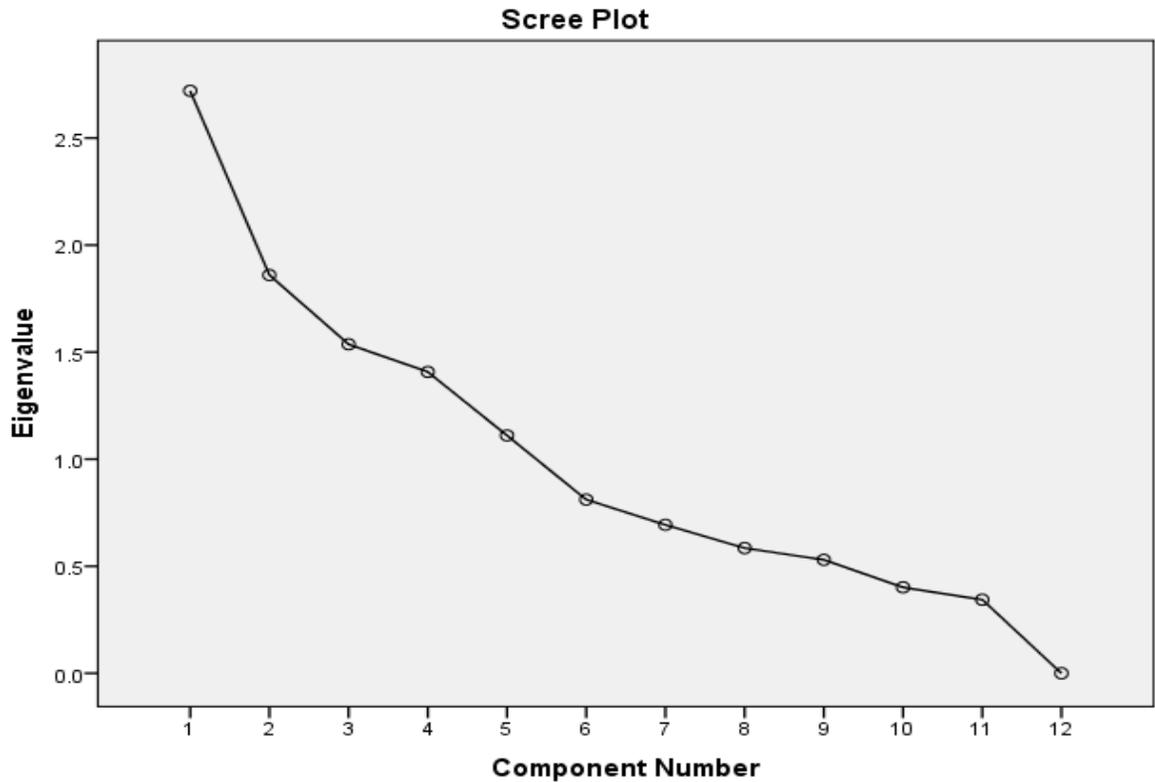


Figure 32. Scree Plot

The Scree Plot in Figure 32 demonstrates the 12 variables under consideration. It has a downward trend and levels off at the number of factors in the analysis. The Scree Plot is a decreasing function showing the variance explained by each factor in a factor analysis. It would indicate the optimum number of factors to take into account. This usually happens at the elbow, the point where the function plateaus and it is not necessary to consider anymore factors after this. In this case the manufacturing strategy factor was extracted since it had an eigenvalue of 2.721.

Table 26 *Variance Explained*

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
MS	2.721	22.673	22.673	2.721	22.673	22.673
IS	1.860	15.501	38.173			
EO	1.537	12.805	50.978			
EF	1.408	11.730	62.708			
CS	1.111	9.257	71.964			
INZ	.811	6.760	78.725			
EFWE	.693	5.777	84.501			
EDU	.585	4.873	89.374			
EFL	.530	4.416	93.791			
NEM	.401	3.345	97.135			
AF	.344	2.865	100.000			
FON	-1.665e ⁻¹⁶	-1.388e ⁻¹⁵	100.000			

The eigenvalue for a given factor measures the variance in all the variables which is accounted for by that factor. In Table 26, the eigenvalues show the amount of variance (out of the total variance) explained by each of the factors. The ratio of eigenvalues is the ratio of explanatory importance of the factors with respect to the variables. If a factor has a low eigenvalue, then it is contributing little to the explanation of variances in the variables and may be ignored as redundant with more important factors. Since the observed variables are standardised for this analysis (by default, the input data is the correlation matrix), each of the observed variables in the analysis will have a mean of 0 and a variance of 1. As a result, the total variance (in all observed variables) will equal the number of observed variables in the analysis. The left half of Table 26 presents information about the eigenvalues for all of the factors in the initial solution, while the right half presents the same information only for the factor that was retained after extraction.

In this case, we can see that a single factor manufacturing strategy (MS) was retained after extraction (using the default cut off criterion for extraction: eigenvalues over 1), and that factor explains approximately 23% of the total variance in the 12 observed variables. It must also be noted that the factor investment in standards (IS) had an eigenvalue marginally more than 1 but was not extracted.

Table 27 *Showing Component Matrix*

	Component
	1
MS	-.607
IS	.743
EO	.722
EF	-.398
CS	.881
INZ	.194
EFWE	-.054
EDU	-.316
EFL	.283
NEM	.275
AF	.029
FON	.217

Extraction Method: Principal Factor Analysis. 1 component extracted

The remaining factors from the initial solution all have eigenvalues smaller than 1, and are subsequently ‘discarded’ from the final factor analysis solution. In the case of a factor analysis that has extracted only one factor, these loadings are found in the Component Matrix table. In this example, 3 loadings are high i.e., over 0.7.

4.3 Model Testing – Regression Analysis

4.3.1 The Logit and Probit Models

Logit and probit models are among the most widely used members of the family of generalised linear models in the case of binary dependent variables (Hahn and Soyer, 2005).

Logit and probit models are basically the same, the difference is in the distribution:

1. Logit – Cumulative standard logistic distribution (F)
2. Probit – Cumulative standard normal distribution (Φ)

But both models provide similar results.

In probit models, the link function relating the linear predictor $\eta = x\beta$ to the expected value μ is the inverse normal cumulative distribution function, $\Phi^{-1}(\mu) = \eta$ (Hahn and Soyer, 2005). In the logit model the link function is the logit transform, $\ln(\mu/1-\mu) = \eta$. The conventional wisdom is that in most cases the choice of the link function is largely a matter of taste. For example, Greene (1997; p. 875) concludes his discussion of the issue with the summary “in most

applications, it seems not to make much difference.” Gill also claims that the link functions “provide identical substantive conclusions” (Gill, 2001, p. 33). The following researchers Karlson, 2015; Klieštik et al., 2015; Maddala, 1983; Davidson and MacKinnon, 1993; Long, 1997; Powers and Xie, 2000; Fahrmeir and Tutz, 2001; Hardin and Hilbe, 2001 have all argued that there is not much difference between the logit and probit models. It was also generally agreed; it was only possible to discriminate between the two models when sample sizes were large and certain extreme patterns were observed in the data.

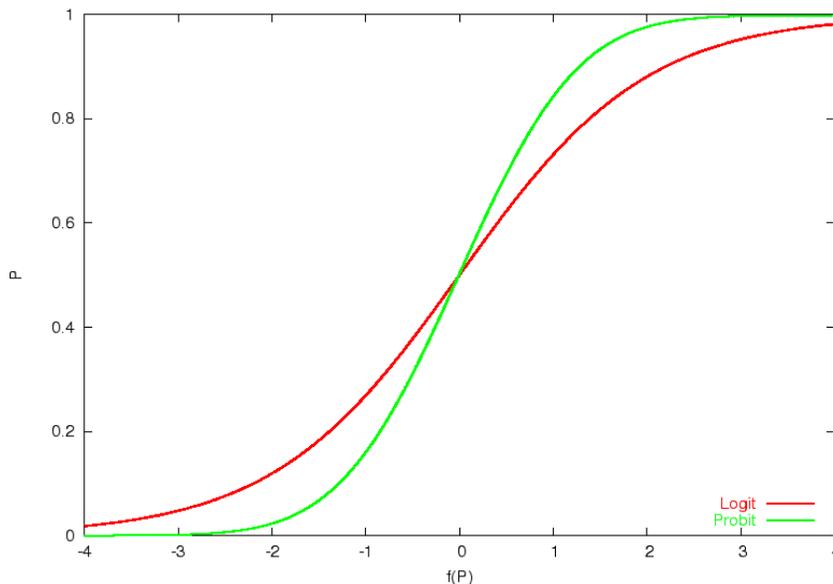


Figure 33. Graph showing Logit and Probit Curves

The S-shaped curve:

1. Respects the boundaries of the dependent variable
2. Allows for different rates of change at the low and high ends of the x axis
3. Does away with heteroscedasticity (assuming proper specification of independent variables).

Logit and probit differ in how they define $f(*)$. The logit model uses the cumulative distribution function of the logistic distribution. The probit model uses the cumulative distribution function of the standard normal distribution to define $f(*)$. Both functions will take any number and rescale it to fall between 0 and 1. Hence, whatever $\alpha + \beta x$ equals, it can be transformed by the function to yield a predicted probability. Any function that would return a value between zero

and one would be acceptable, but there is a deeper theoretical model underpinning logit and probit that requires the function to be based on a probability distribution.

Therefore, a function is required of the probability that does two things:

1. Converts a probability into a value that runs from $-\infty$ to ∞
2. It has a linear relationship with the Xs.

Probit and Logistic functions both do that. The difference in the overall results of the models is usually slight to non-existent. Juniarti (2013), research on Good Corporate Governance and Predicting Financial Distress Using Logistic and Probit Regression Model found that the results of the hypothesis test gave comparable results. In Juniarti's conclusion he stated that "in general, logit and probit models do not result in different conclusions. Both models confirm the goodness of fit of models and the results of hypothesis testing. In terms of classification accuracy, logit model proves more accurate predictions than the probit models"(Juniarti, 2012, p. 48). He further concluded that his results suggested that the logit model is superior than the probit model. Another researcher, Šimpach (2012), in his study about the Probability of Death of Celiac Disease Patients in the Czech Republic used both logit and probit models and found the results to be almost comparable.

This research will use logistic regression because it produces results that are more robust against statistical violation of basic assumption (i.e. equal variance-covariance across groups, normality of variables compared to discriminant analysis) Ghauri and GrØnhaug, 2002; Hair et al. 1998. The logistic link also leads to more intuitive coefficients. Because the log-odds can be back transformed into odds ratios, there is an intuitive way to interpret effects. However, with the probit link, it's not so easy and the coefficients are less intuitive. It is also hard to extract β from a probit regression equation to give a proper interpretation. It is also better to use logit regression when it is expected that there would be outliers in the population because it has a greater tolerance for large errors that come with outliers than probit. Probit is better in the case of random effects models for moderate to large sample sizes. Since the sample size turned out to be small in this research the logit model was used.

Similar studies like Andersson et al., 2004; Chelliah and Sullaiman, 2010; Lu and Beamish, 2001; Williams, 2009; Wong, 2015 all used logistic regression to predict performance and internationalisation.

Logistic regression provides prediction of the possibility of getting an alternative response to a dichotomous (binary) dependent variable given several nominal, ordinal or interval predictor variables. It provides the highest predictive accuracy of a given set of predictors (Hair et al., 1998). This research aims to find out whether investment in standards or investment in standards and any other combination of resources are responsible for getting MSMEs to internationalise. Because of the elegance of the Logit model and its ability to hold up to statistical violations regarding the normal distribution of the independent variables, it will be used to provide answers to these questions. The model to be estimated takes the following form:

$$\ln \left(\frac{P_i}{1-P_i} \right) = \beta_0 + \beta_1 ms_i + \beta_2 is_i + \beta_3 eo_i + \beta_4 nem_i + \beta_5 efl_i + \beta_6 efwe_i + \beta_7 efsli + \beta_8 edu_i + \beta_9 af_i + \beta_{10} fon_i + \varepsilon_i$$

Where:

MS = manufacturing strategy

IS = investment in standards

EO = entrepreneurial orientation

NEM = number of employees

EFL = entrepreneur foreign language

EFWE = entrepreneur foreign work experience

EFSL = entrepreneur foreign study and living

EDU = entrepreneur education

AF = age of firm

FON = family owned or not

ε_i = the error term normally distributed with mean 0 and variance $1/np_i(1-p_i)$ i.e. $\varepsilon_i \approx N\{0, 1/np_i(1-p_i)\}$

The function on the left is called the logistic function and it represents the odds of the outcome. It is the natural logarithm of the probability of the outcome divided by the outcome not happening. The quantity ε on the right-hand side of the function is called the error and expresses an observation's deviation from the conditional mean (Hosmer et al., 2013). The most common assumption is that ε follows a normal distribution with mean zero and some variance that is constant across levels of the independent variable (Hosmer et al., 2013).

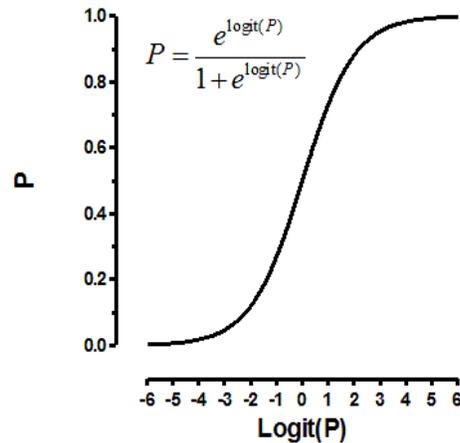


Figure 34. Graph showing Logit Regression Curve.

Source: Adapted from Will the Real “Logistic” please stand up.

The Three Meanings of “Logistic”. [Accessed from www.graphpad.com]

In this study there were four main independent variables to explain variance in the dependent variable internationalisation. Additionally, it was proposed that the environment moderates the relationship between the competitive strategy and internationalisation of Jamaican MSMEs.

A hierarchical multiple regression approach was used so that the researcher could be allowed the luxury of determining the order of entering the variables (Malhorta et al., 2002). Regression analysis is an appropriate way to predict an outcome variable (i.e. internationalisation) based on either one or several predictor variables (i.e., resource bundles) (Field, 2009). Hierarchical models were used as it allowed examination of the regression coefficients across different sub-populations, while considering strength from the full sample (Sekaran, 2003). As different types of resources can be composited and controlled in a hierarchical regression analysis, the predictive power of each independent variable on internationalisation could be tested. This was useful in drawing insights and implications from different resources towards internationalisation of SMEs. Similar studies (Covin et al., 2006; Kemelgor, 2002; Ko, 2004; Kunday & Sengüler, 2015; Wiklund & Shepherd, 2005) have used hierarchical multiple regression analysis to analyse the impact of competitive resources on SMEs’ internationalisation.

4.3.2 Hierarchical Regression Results

The variables chosen for the regression originated from the research literature where potential firm resources which can influence internationalisation were discussed. In Model 1, the

dependent variable was regressed on the control variables AF and FON. Control variables are constants whose values do not change throughout the experiment process. Control variables have the ability to strongly influence the results in the regression. Therefore, these were held constant during the regression so that the relationship between the dependent and independent variables could be tested. It is because its unchanging state allows the relationship between the other variables being tested to be better understood. Any change in the control variables would discredit the correlation of dependent variable to the independent variables. Using control variables is also a way to “correct” for and improve upon weaknesses in the data collection process. In doing so, rather than holding relevant factors constant across samples or environments through the use of an experimental or quasi-experimental design, researchers measure variables suspected of having a relationship with either a predictor (Breugh, 2008; Carlson & Wu, 2012) or a criterion (Atinc et al., 2012) and include them in subsequent analyses by, for example, entering them in the first step of a hierarchical regression model.

AF and FON were used because they were linked to the organisational experience and ability respectively. AF was used as a control because the age of the firm was not going to change throughout the course of the research. The research analysed firms between 1 to 15 years old and firms which get older would be thought to be more experienced, knowledgeable, have acquired more resources and would be in a better position to export. Conversely, as firms get older they tend to get more bureaucratic and have less flexibility to respond to new dynamics in the environment. This could have negative as well as positive effects on the correlation coefficient. In fact, there were younger firms which started internationalising before their older counterparts which had been in existence 11 to 15 years and more than 15 years; four firms which were 1 to 5 years old and 5 which were 6 to 10 years old were already exporting. Therefore, to remove any predictor-criterion contamination; a confounding variable such as AF was included in the analysis (Spector & Brannick, 2011). A confounding variable such as AF could potentially increase the amount of variance in the dependent variable internationalisation which was predicted by the independent variables and it could also introduce bias.

Since this research was investigating manufacturing MSMEs ability to internationalise and 74% of these MSMEs were family owned businesses, the variable FON was also held constant so that it would not unduly influence internationalisation and cause any predictor-criterion contamination. Family ownership can have positive effects on internationalisation but research

has also shown that the conservative nature of family firms could also cause them to be risk averse and avoid deploying resources towards internationalisation. These firms also tend to preserve the business for future generations by being over protective. This too could cause positive as well as negative effects on the correlation coefficient. There could also be an unwarranted increase in variance with respect to internationalisation and the introduction of bias.

Model 1 did not have a good fit with the population since the F-test had a p value of .083 which was not statistically significant at the 95 % confidence level; therefore, we have failed to reject the null hypothesis (Table 29). This also translates that there is not any statistically significant difference in the means of the resources required for the MSMEs to internationalise as determined by one-way ANOVA ($F(2, 69) = 2.577$). This means that the control variables of AF and FON would not be good predictors of internationalisation and would not unduly influence the outcome.

In the Model 2, the dependent variable was regressed on the independent variables; manufacturing strategy, investment in standards and entrepreneurial orientation, number of employees, entrepreneur foreign work experience, entrepreneur foreign studying and living and education. The model was not statistically significant and had a very low F value of .451. Investment in Standards had a low coefficient of .075 which probably meant that the MSMEs did not have to increase their investment in standards to internationalise; for every one unit increase in investment there would not be any internationalisation. In Table 26, the manufacturing strategy variable was extracted as a principal factor since it was determined to be the main construct responsible for the correlation (Fabrigar & Wegener, 2015), therefore it was extracted before the regression was performed. This means that there was correlation with the construct being measured; in this case, internationalisation, while the other independent variables did not have any correlation with internationalisation and could have contributed to multi-collinearity. Therefore, the proposed model was refined before it was subjected to the logit regression test. The new model would involve manufacturing strategy predicting internationalisation: $\ln(P_i/1 - P_i) = \beta_0 + \beta_1 ms_i + \varepsilon_i$.

Table 28 *Logistic Regression Results*

Variables	Model 1			Model 2			Model 3			Model 4		
	B	β	t	B	β	t	B	β	t	B	β	t
Control Variables												
AF	.567	.240	2.061*	.140	.059	.210						
FON	.875	.131	1.123	.910	.136	.619						
Independent Variables												
MS				-.394	-.136	-.506	-.768	-.266	-2.255*	-1.399	-.480	-2.386*
IS				.082	.075	.318						
EO				-.087	-.107	-.464						
NEM				.664	.239	.793						
EFL				.127	.016	.072						
EFWE				-.947	-.163	-.629						
EFSL				1.294	.204	.754						
EDU				-2.021	-.189	-.838						
R²		.069			.192			.071			.231	
F value		2.577			.451			5.087*			5.692*	
Adjusted R²		.043			-.234			.057			.190	

Dependent variable: MSMEs' internationalisation (INZ)

*p < .05, **p < .01, ***p < .10

Therefore, in Model 3, the dependent variable, SMEs' internationalisation (INZ), was regressed on the variable manufacturing strategy. The overall model is statistically significant since the F-test had a p value of .027. Therefore, there is a statistically significant difference in the mean of the resource required for MSMES to internationalise as determined by one-way ANOVA (1, 67) = 5.087.

Table 29 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	47.176	10	4.718	.451	.901
	Residual	198.783	19	10.462		
	Total	245.959	29			
3	Regression	41.995	1	41.995	5.087	.027
	Residual	553.078	67	8.255		
	Total	595.072	68			

The R^2 value is a statistical measure that represents the proportion of the variance for the dependent variable that's explained by the independent variable. It is also the percentage of the response variable variation that is explained by the linear model. The R^2 value is .071 (Table 28) meaning that 7.1% of the variability of internationalisation is accounted for by the MS variable in the model. The R^2 value of .071 is low but since the MS variable is statistically significant and correlates with INZ, it means that MS does not account for much of the variability in INZ, but other factors possibly do. In Model 2, when eight other variables including IS and EO are included, the R^2 value is 19% but the model is not significant. The adjusted R^2 value accounts for 5.8% of the variability of internationalisation even after taking into account the number of predictor variables in the model. The coefficient for the variable indicates the amount of change that could be expected in internationalisation given a one unit change in manufacturing strategy. Therefore, we would expect a decrease of .768 units in internationalisation for everyone unit increase in resources in manufacturing strategy (quality standards, flexibility, computer-controlled machinery). Therefore, the null hypothesis is rejected, and this result is similar to Amoako-Gyampah and Acquah (2008) in terms of significance even though they found that manufacturing strategy had a positive influence on firm performance.

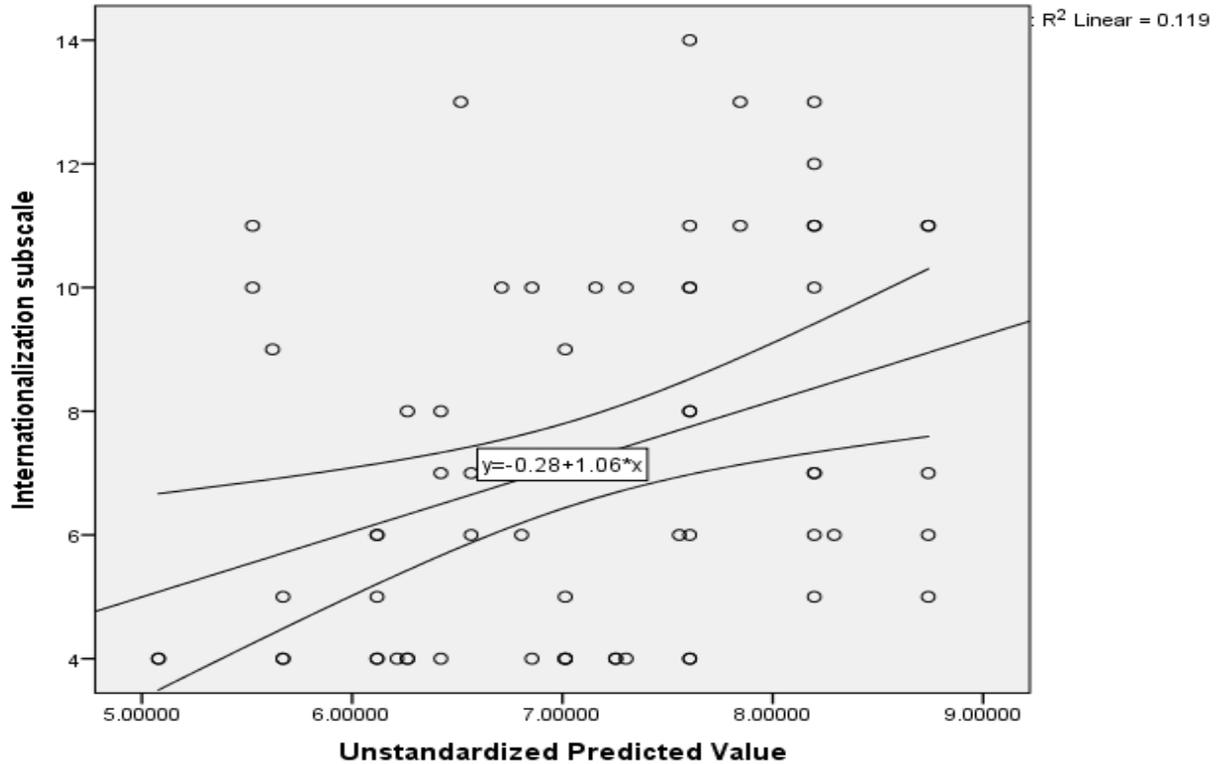


Figure 35. Regression Scatterplot of (Model 3) INZ vs Unstandardised Predicted Values Adding Lines of Best Fit for R^2

Figure 35 shows a scatter plot which has both strong and weak associations therefore some linearity is observed. These data points demonstrate both positive and negative correlations between the independent variables and internationalisation. A moderate number of data points fall near the lines, and there are also some outliers. These outliers would not have any significant effect on internationalisation.

In Figure 36, the scatterplot seems to be more non-linear than Figure 35. The data points move in both positive and negative directions and the associations tend to be weaker than Figure 35 and there are also a number of outliers.

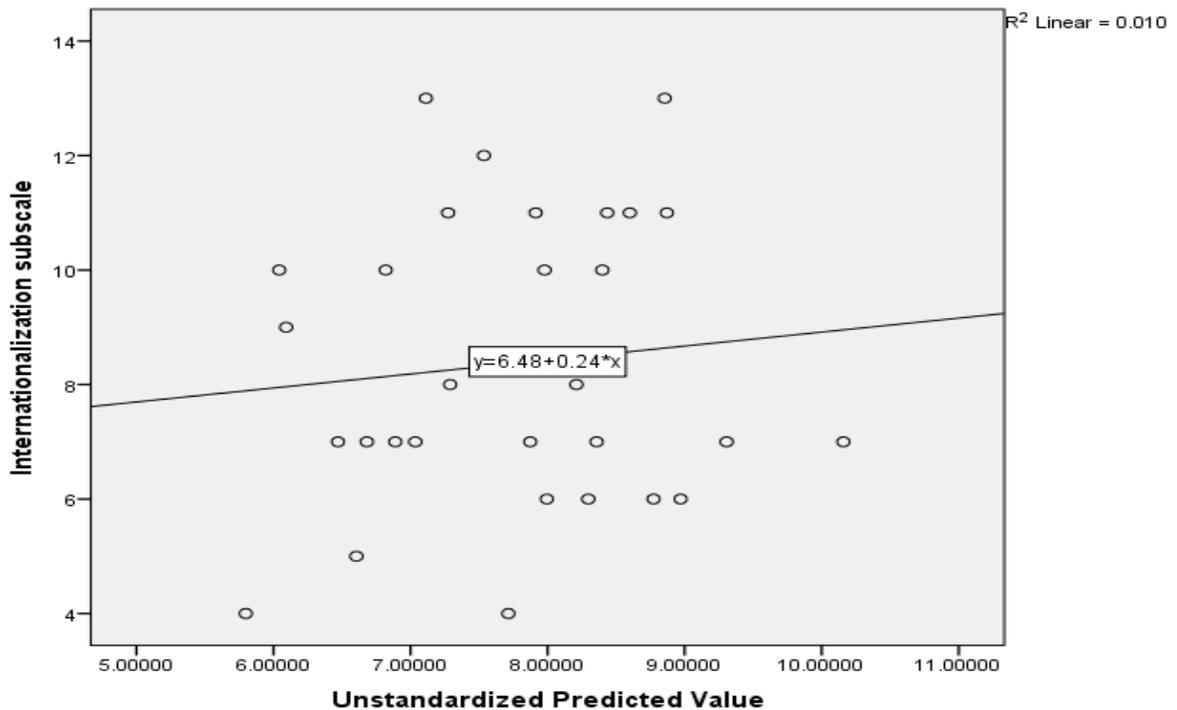


Figure 36. Regression Scatterplot of (Model 2) INZ vs Unstandardised Predicted Values Adding Lines of Best Fit for R^2

The fourth model saw internationalisation being regressed on manufacturing strategy in the non-agro processing industry; the R^2 value increased from .032 in the agro-processing industry to .231 in the non-agro processing industry. There was also a significant shift in the F value from 1.524 in the agro processing industry to 5.692 in Model 4. The coefficients also increased from -.508 to -1.399. Therefore, every one unit decrease in resources used for manufacturing strategy there was a 1.399 increase in the level of internationalisation in only the non-agro processing industry in Jamaica.

4.3.3 Moderator Analysis

It is proposed that environmental factors have a moderating effect on the investment in standards and overall competitive strategy of the model. Moderation suggests that a moderating variable affects the strength and/or direction of the relationship between and independent and dependent variable. Therefore, this enhances, reduces or changes the influence of the independent variable (Aiken & West, 1991).

Table 30 *Correlations*

		INZ	IS	EF	ISxEF_Moderator
Pearson Correlation	INZ		.163	-.006	.095
	IS	.163		-.367**	.469**
	EF	-.006	-.367**		.641**
	ISxEF Moderator	.095	.469**	.641**	

Dependent variable: MSMES' internationalisation (INZ)

*p < .05, **p < .01, ***p < .10

Table 31 *Moderator Effect of the Environment*

Model		Standardised Coefficients	Unstandardised Coefficients	Results		
		B	β	t	Sig	
5	(Constant)	-34.390		-1.234	.228	
	IS	1.944	1.792	1.488	.149	X
	EF	.659	1.916	1.383	.178	X
	ISxEF Moderator	-.031	-1.974	-1.352	.188	?

*p < 0.10, **p < 0.05, ***p < 0.01

✓ signifies strong support for the hypothesis; X denotes disconfirmation of the hypothesis; ? denotes some support but not significant

The first step was to estimate the effect of the independent variable on the dependent variable then in the second step both the independent and the moderating variables were run on the dependent variable. Table 24 shows that there is a negative correlation between investment in standards and the environment. This means that for every one unit decrease in budgetary allocation to investment in standards there was a .367 increase in the level of environmental factors causing turbulence. However, there was not any significance between the interaction term ISxEF and INZ but there was a positively significant correlation between the interaction term and IS. There was not any significance for the interaction term in Table 28 and therefore, it is difficult to explain the moderator effect.

Regression Results

Table 32 *Results of Hypothesis Testing*

Variables	No.	Hypothesis	Supported (Overall Sample)	Supported (Agro- processing)	Supported (Non-agro processing)
MS	H1	Manufacturing strategy as a firm resource significantly influences the internationalisation of Jamaican manufacturing MSMEs	yes	no	yes
IS	H2	Investment in standards as a firm resource significantly influences the internationalisation of Jamaican manufacturing MSMEs	no	no	no
EO	H3	Entrepreneurial orientation as a firm resource significantly influences the internationalisation of Jamaican manufacturing MSMEs	no	no	no
EnF	H4	Jamaican manufacturing MSMEs' investment in standards as a firm resource is moderated by the environment	unsure	unsure	unsure

4.4 Case Studies

Case studies were discussed in Section 3.17 and these were carried out to extract the unique experiences of the owners of manufacturing firms. When the questionnaires were issued, not all owners or directors answered directly since they had delegated responsible personnel. Therefore, by conducting the case studies with the persons spearheading the daily operations, the deeper issues with respect to conducting business in the Jamaican environment could be understood. The underlying causal mechanisms which influences choices and also enables one MSME to export but denies another could be better understood. These causal mechanisms will be linked to existing theories with respect to manufacturing strategy, investment in standards and entrepreneurial orientation to further elucidate the decision making process with respect to internationalisation. This will contribute to new knowledge in terms of understanding the challenges to internationalise and how these are overcome by creating dynamic capabilities according to the perspectives of MSMEs from an island nation such as Jamaica. In the circumstances where a manufacturer may have chosen to not export, the case study would also

explain mind-set as well as the environmental conditions which would have contributed to the decision making process. Understanding these causal mechanisms would enable government as well as private sector to tailor suitable policies to assist in upgrading these MSMEs and also provide a more conducive environment for conducting business. Therefore, three mini case studies will be reviewed to attain insights from exporters and non-exporters. The names of the companies have been altered to protect their privacy.

4.4.1 Quality Paint Incorporated

Quality Paint Incorporated (QPI) is a manufacturing paint company which began operations in 1992. It produces high quality paints and finishes custom tailored to withstand variable tropical weather patterns. The company's products are distributed to hardwares, wholesalers, retailers, hotels, guest houses and construction companies. The Technical Manager and Technical Sales Representative were interviewed at QPI. The Technical Manager has overseas experience working at paint companies such as Dupont Industrial & Marine in the US and Berger Paints in the UK. The Technical Sales Manager has extensive overseas training and participates regularly in paint seminars and webinars. QPI is a medium sized paint company with 49 employees which has been in existence for the past twenty-five years. Its inventory of products includes veneer plasters, waterproofing compounds, acrylic trowel-on finishes, emulsion paints, and masonry fillers. The company has five major competitors, all larger than itself but QPI believes that it has excellent products and doesn't engage in widespread marketing compared to its competitors. Instead QPI meets customers on site at various building projects such as housing and hotels. Here the products are introduced directly to the customer so that the customers are exposed to the technical aspects of painting. QPI emphasised that "painting is not simply dipping a paint brush into a can of paint and then brushing a wall; a lot of surface preparation has to be done. This is where QPI believes it distinguishes itself from the competition since it imparts knowledge on the customer and also offers onsite training. The Technical Manager stated that as a result "QPI has the best customer service in the industry".

QPI has targeted niche markets because they cannot compete with the larger companies in the industry with respect to marketing. They also cannot compete in terms of large-scale production, so the company has engaged in a production turnover strategy where turnover is fast since the company only produces to satisfy demand but does not store inventory. QPI's

competitive assets are its customer service, on site visits, decorative paint, comparative painting – surface preparation (powdered form). Imparting technical knowledge with respect to painting is seen as extremely important. Teaching the customer about paint preparation, surface coating and the proper use of tools are seen as important aspects of the company's competitive assets.

QPI's main internal constraint is its lack of buying power and the unstable economy also exacerbates this situation. Competitors can purchase raw material in bulk at much cheaper prices, but QPI is unable to and therefore pays higher prices.

There is regular participation in expos, for example the Building Expo, JMEA Expo etc. At these expos technical advice and knowledge is given to potential customers about the product offerings. QPI believes its secret to success is its human resource; it has a cadre of committed staff who are technically competent.

Jamaica's unstable exchange rate costs QPI dearly in terms of prices. It pays different prices throughout the year for its raw materials. The company is also content to suffer losses just to maintain its customer base. The company is very dissatisfied with the government policy of allowing imported paints from China, Dominican Republic and Israel when the paints could be supplied locally at a very high quality. The company also believes that the correct duties are not being applied to these imports and therefore these paints are sold much cheaper than those locally manufactured; the local industry will be in jeopardy of being destroyed if this continues. Overseas investors building hotels on Jamaica's North Coast purchase raw material from the parent country. Sometimes when they run out of product, it would be purchased locally. But in the case of the Dominican Republic, local manufacturers are asked to match price, quality and standard as that of the Dominican Republic. QPI believes that these practices will hurt the local industry. The company believes that the government should have stipulations where a certain percentage of raw materials should be purchased locally.

The company also lamented the long time it took to clear containers from the ports of entry. The Technical Manager stated that it was necessary to go to several agencies to process documents and it would take approximately 3 to 4 days to clear a container despite the Automated System for Customs Data (ASYCUDA). It would also take 5 days to process documents for exporting and it would become necessary to "offer incentives to an officer to

expedite”. QPI has been exporting for over seventeen years. It exports to CARICOM, Turks & Caicos, US Virgin Islands and St. Maarten. The company’s main exports are plasters, trowel on finishes and sealers.

The Technical Manager sits on the BSJ Technical Committee for Coatings and the company is in the process of implementing ISO 9000. The company ensures that every batch of paint and surface coatings manufactured is tested in its laboratories. The products are tested according to international test methods from the USA and Canada. Samples of its products are also sent to the BSJ for testing, but the company has issues with respect to the fact that they are required to meet local standards, but the local standards body is sometimes not equipped to carry out certain tests.

4.4.2 JSS

Janitorial and Sanitation Supplies (JSS) is a company that trades and distributes janitorial supplies. The company also manufactures furniture for schools and lately got involved in manufacturing products made from bamboo. The owner of the company got involved in the business through his father who manufactured furniture for the GOJ. The younger entrepreneur was able to change the design of school furniture and was also able to influence the change in the standard specifications for these products. He studied at an overseas university and obtained an Electrical Engineering degree; because of his technical skills he is capable of setting up factories from scratch. He has skills in computer science, robotics and Artificial Intelligence (AI). He has led a number of projects as team leader and has described himself as an experienced world traveller and has been the beneficiary of experiencing many different cultures.

This entrepreneur has a very interesting perspective on doing business in Jamaica; he was advised by his father to do business the “Chinese Way”. He continued, “this means finding a niche market which has a demand and fill it at a low cost”. He believes that incubator programmes such as those supported by the Jamaica Business Development Corporation (JBDC) tend to fail. The reason is that a lot of investment goes into research, developing business plans, finding investors and markets while there are very little returns. He also claims that Jamaica is a “country of samples” because very often a sample of products may be sent

overseas because of interest expressed at trade exhibitions but this does not often translate into export markets. The furniture manufacturer says that he constantly “scans the environment for opportunities and fills demand”. He cited an example where he had a garbage bag line and then expanded into garbage bins, brooms and eventually to paper supplies such as toilet tissue all because of customer demand and he didn’t have to spend any money on product testing or market research. These are entrepreneurial traits which are characterised by Alvarez and Busenitz, 2001 who stated that entrepreneurship is the recognition and exploitation of opportunities that result in entrepreneurial rents accruing to the firm.

JSS’s future intentions are to increase its customer demand, improve on speed of delivery and offer products at a cheaper cost. According to the company its competitive assets are service delivery, customised products, cost and delivery. The company is located near to major thoroughfares giving it easy access to locations such as New Kingston, downtown Kingston and Eastern Jamaica making access to clients and suppliers simple. The entrepreneur also admitted that its major constraint was working capital. A lot of resources was spent on medical bills for his long ailing father who eventually died. The company owner stated that financing a small business in Jamaica is peculiar since access to loans are very difficult. The process is very bureaucratic because of the large volume of paper work involved and the collateral required. He believes that his employees have easier access to loans to purchase consumer products such as motor vehicles rather than him as a business owner. A lack of working capital will also delay any expansion plans the company may have but there is interest in expanding its product lines.

One of the company’s pet peeves is that international agencies offer grants, but the money is not accessed by MSMEs. The reason for this is that costly project proposals are required for access to these loans and as a result of the costliness, the grants lay around at local banks and eventually go back to the donor. JSS started exporting bamboo charcoal to the USA, however, due to a failed business relationship this business venture was short lived. The company is currently looking for a new investor and market. The company controls a very small segment of the industry which is less than 20% of the local market.

The company strongly believes in networking and offers this advice to young university graduates going into entrepreneurship. The company is not a member of the JMEA and the reasons for this is the exorbitant annual fees which it says cannot be justified and the fact that it is not exporting respectively. The owner says that the company is not exporting because it

has local demand which it cannot supply. Currently, the owner does not think that his products would be competitive overseas unless he finds a niche market. He also believes that there is too much bureaucracy involved in exporting. He claimed that he attempted to export a 20-foot container and had to fill out 39 forms from different agencies and least 7 of these documents were unnecessary. Some of the agencies involved were Port Authority, Customs, Customs Brokers, Kingston Container Terminal (KCT), Certified Pallets, Plant Quarantine and BSJ.

JSS does not budget for investing in standards because the owner sits on several BSJ Technical Committees and assists in the development of standard specifications for different products. He also does not think that it is difficult to use standards because his goal is to deliver quality products at all times since cheaply made products would compromise quality. One of the challenges he faces is that he cannot sell certain products as the customer demands. The rationale for this is that the local standards body has set specifications which limits fulfilling customer demands. For example, toilet tissue must have a minimum sheet count of 300 sheets but there are customers who can afford tissue with a sheet count of less than 300 but neither JSS nor any other manufacturer would be able to meet that demand because they would be in breach of the standard specification and would result in the product being removed from the market place.

4.4.3 Juicy Juice

Juicy Juice is a privately-run family business located in Kingston, Jamaica which produces four lines of juices and drinks. The company has been in existence for the past 26 years. The juice company's main market is the local market and control 8-10% of the market for low end products, 25-30% for mid-range products and 40% for premium products.

The Managing Director (MD) holds a Bachelor of Science in Finance and Accounting from an overseas university. He has ten years' experience functioning in the capacity as MD. Initially when he started working at the family business, he held the post Business Development Manager.

The MD says that over the past twenty years the company's revenue has increased six-fold while staffing increased from 40 to 150. He also says that his role has evolved from operational to providing strategic direction. Middle managers have been hired in recent times to handle

production operations and it must be noted that the company is not afraid to hire managers who are outside of the family, but the Board of Directors are strictly family. The MD made the point about trust and the company being wary about protecting their investments and shareholdings. The designs of their products have become bolder and, in the case of a low end drink, the company has dropped the product's description as being 'artificially flavoured' in favour of 'flavoured drink'; and the words "quality products since 1990" are boldly stencilled at the top and base of the box. Juicy Juice has transitioned by improving the brand by placing more emphasis on the quality of the product and trying to highlight this on the package. The company has tried to equate the quality of the design with the product in the box. To mitigate the misconception that the carton represents a lower-grade product, the company redesigned the box to highlight the quality. Juicy Juice has also experimented with the recipe for its low-end drink which now has 40 per cent less sugar but the recipe for the mid-range juices remain unchanged.

The company has focussed on growing various market segments, for example, the supermarkets, shops, some institutions and the hotel trade. The company believes that exporting will be a natural progression. The MD said over the last eleven years, Juicy Juice carried out major expansion work at an investment of about J\$100 million in new equipment for its 10,000-square-foot factory. The company's major competitors are LASCO, WYSYNCO and Pepsi. One of Juicy Juice's strategies for competing is to use its distribution network to deliver the product directly to the consumer as fast as possible rather than always distributing through wholesales. The company has ownership of its trucks and distribution centres; the distribution centres are located in Kingston, Mandeville, Montego Bay and Runaway Bay. Juicy Juice's competitive assets are its brand equity, location, experienced staff and distribution network. The company's constraints are that the market is marginal, competition from other juice manufacturers and there is a struggle to source financing. The MD stated that banks are comfortable lending to the larger companies because smaller companies are seen as risk.

The MD says that the company is heavily regulated and is visited by at least four agencies, namely Jamaica Customs Agency (JCA), Public Health Department, Food Storage and Prevention of Infestation Department (FSPID) and BSJ. Juicy Juice has been given Authorised Economic Operator (AEO) status by JCA. AEO's are economic operators who are rewarded by

their by national customs agency for being compliant with both customs and the regulatory bodies and as a consequence have their shipments inspected at their warehouse or factory. The MD claims that despite the company's compliance level they are subjected to excruciating long and detailed audits by JCA especially when sugar is exported. The recent GoJ health policy on reduction of sugar in food and drinks has affected Juicy Juice's operation. The government has threatened to impose taxes on manufacturers who do not reduce sugar content. This policy was implemented because of the high incidence of obesity in children and adults in Jamaica. The Heart Foundation of Jamaica also launched a campaign in the media about the dangers of consuming too many sugary drinks. Juicy Juice says it will gradually reduce the sugar content of its products so not to drastically affect consumer preference.

One of Juicy Juice's internal constraints is the current size of the plant. The company realises that it may have to relocate at some time in the future but also acknowledges that this will not be a simple exercise because of the infrastructure already in place. The company also bemoans the fact that it is very difficult to access financial loans from banks. The MD said that the banks view smaller companies as risky business and rather not deal with them. He also acknowledged that he is aware of venture capitalists but have not approached them because of the obligation to protect family interests. The company finds it difficult to source raw material locally in the quantity and quality that it desires, therefore, it has to import, and the fluctuating exchange rate affects the cost the company pays for the raw material. The MD laments the fact that the Jamaican agricultural industry is not organised in a modern and professional way which will allow for the implementation of policy, infrastructural development and standards that will allow the industry to supply local needs both in quantity and quality.

Currently the company does not export frequently because of the prohibitive costs involved to satisfy overseas regulatory requirements. The MD says that "exporting is over rated, I can increase the capacity coming out of the plant, apply a full mark up and receive cash instantly and there would also be a low probability of return. If Juicy Juice was to export to Barbados, for example, I would receive cash in about 120 days and the company would also have to risk leakage, spoilage and returns". The company honestly believes that its return on investment (ROI) is higher in the local market than for the export market due to compliance costs.

Table 33 *Summary of Case Study Findings*

	QPI	SSS	Juicy Juice
Academic training & experience	Technical Manager worked at paint & coating companies in USA and UK. Technical Sales Representative extensively trained in technical aspects of paint manufacturing.	Owner has an Electrical Engineering degree from overseas university. Skills in computer science, robotics and AI. The owner can set up factories from scratch.	The MD has BSc. in Finance & Accounting from an overseas university. He also has 10 years' experience as the MD.
Competitive Assets	Niche market, human capital, customer service, on site visits, quality products.	Networking, niche market, low cost for products, fills demand, service delivery, customised products, and location.	Brand equity, location, experienced staff and distribution network. The company also owns trucks and distribution centres.
Constraints	Lack of buying power, unstable economy.	Access to loans difficult and bureaucratic, lack of working capital	Access to loans, unstable economy, cannot access raw material locally in quantity and quality desired.
Export Market	CARICOM, Turks & Caicos, US Virgin Islands, St. Maarten.	Exported to USA once but plans to resume in the future.	The company does not export but occasionally exports 2-3% of sales. It would like to export regularly in the future.
Government & Private Sector Policy	GoJ allows importation of foreign products which can be sourced locally, wrong duties being applied to imports, % of local product should be used for foreign direct investments	International grants offered to GoJ are difficult and bureaucratic to access. Costly project proposals are also a deterrent.	GoJ policy does not facilitate trade but rather destroys industry.
Regulatory Framework	Long time to clear containers at ports, several agencies to process documents, 5 days documents for exporting.	Exporting process is too bureaucratic. Once filled out 39 forms just to export a 20-foot container.	Heavily regulated by local agencies.
Use of Standards	Participates in technical committees at BSJ, performs internal quality tests on products, compliance tests at BSJ, preparing for implementation of ISO 9000.	Participates in technical committees at BSJ. But finds that some product standards are too prescriptive and therefore cannot satisfy customer preference.	The MD's father participates in Technical Committees. The company is preparing to implement HACCP.

The MD says that the cost to export one container is very high when that cost could be used to expand trade locally. The company meets its local regulatory obligations by practicing GMPs and ensuring that they compliant and are registered under the Standards Act as required by law.

The company has its own laboratory where internal quality testing takes place for each batch of products produced. Products are also sent to the BSJ for testing as part of the regulatory requirement for registration. The MD also pointed out that if in-house laboratory results are outside of the norm, samples of the respective batch of products are also sent to BSJ for testing. Juicy Juice is also planning on getting HACCP certified and therefore the relevant measures are

already being implemented and the company operates with a high standard on a daily basis to demonstrate its readiness.

4.5 Review of Major Findings

The regression results demonstrated that there was a statistically negative relationship between manufacturing strategy and internationalisation. This result seems unique to Jamaica as the other research show positive effects on performance. But this research still supports work done by Williams et al. (1995) and Tunälv (1992), who all found a relationship between manufacturing strategy and performance. The manufacturing strategy also had a negative relationship with investment in standards. This means that for every dollar invested in standards there was a decrease in resources allocated to manufacturing strategy. It also showed that investment in standards did not have any impact on the internationalisation process. It is unclear whether the moderator term had any effect on investment in standards' impact on the internationalisation process. The correlation matrix showed that there was a positive relationship between the size of the firm and internationalisation. Autio et al. (2000) stated that as firms get older, they acquire more resources and are better able to internationalise.

Research findings also revealed that the environment had a negative impact on investment in standards. This fact and the opinions expressed in the case studies confirmed that the Jamaican economic climate was uncompetitive which was also complicated by bureaucratic regulatory, government and banking procedures. These findings agree with Ahmad and Hoffmann (2008) and Busenitz et al. (2000) who stated that the regulatory framework which includes the laws, rules and state policy either facilitate or restrict new businesses, decrease or increase the risks for SMEs, and assist or impede access to resources.

The case studies also confirmed that firms do not have to implement top down strategic processes but craft or reconfigure manufacturing strategies suitable to their small size and organisational resources. For example, QPI who is unable to compete with larger companies, provide onsite technical information about their paint products and the application techniques to their potential clients. These are consistent with Acquaah & Amoako-Gyampah, 2011 and Nielson et al. 2005 who stated that resilience can be achieved by linking manufacturing strategy to competitive strategy and hence meet customer expectations and superior performance. QPI

is also forced to overcome the bureaucratic nature of the regulatory environment by giving incentives to expedite its paperwork for export. This is consistent with Ahmad and Hoffmann (2008) and Busenitz et al. (2000) who stated that the bureaucratic framework can have a debilitating effect on MSMEs.

SSS does not invest in research and development but satisfies a niche market; supplies customised quality products at low cost and provide service delivery. This cost leadership strategy by SSS is consistent with Hitt et al., 2011 who said that products should be made with acceptable features which appeals to customer satisfaction but at the lowest cost to that of competitors. Juicy Juice's stance that the company rather increase output from the plant and apply a mark-up than export due to prohibitive costs is consistent with Fischer & Serra, 2000 who argued that standards are applied to raise the compliance costs of the new entrants relative to the incumbents thereby restricting competition. Therefore, tactical decision making and crafting or reconfiguring of firm resources is what helps these firms develop their dynamic capabilities which would give them the competitive edge (Cagliano, 2001; Castrogiovanni, 1991; Teece et al., 1997).

4.6 Conclusion

This chapter described the tools used for data analysis and results. The descriptive statistics of the participating MSMEs were presented, followed by the inferential data analyses including correlation analysis, principal factor analysis, hierarchical regression and results, and examining the moderating effects of environmental factors. The comparisons between regression and results indicated that the results showing the hypothesised relationships in the conceptual model were basically the same (refer to Section 4.5 on Review of the Key Findings). The resources of manufacturing strategy (H1) have shown support for internationalisation of MSMEs, while organisational resources such as number of employees have indicated partial support. However, the findings indicated that investment in standards and entrepreneurial orientation (H2) and (H3) did not have any relationship with internationalisation of SMEs. The last examined whether environmental factors (H4) moderated the relationship between investment in standards and MSMEs' internationalisation. The results indicated the moderating effect of environmental factors was possibly supported. The next chapter will provide interpretations and implications of the results for theory and practice.

CHAPTER 5**CONCLUSION and RECOMMENDATIONS****5.0 Introduction and Overview of Chapter 5**

This Chapter presents the discussion and interpretation of the research findings. In total the chapter has eight sections.



Figure 37. Outline of Chapter 5

5.1 Discussion about Resources and Internationalisation

This thesis incorporated theory from strategic management, entrepreneurship and international business and was limited to MSMEs to help expand our knowledge about these firms from a Jamaican perspective. A research model was developed which was presented in the second

chapter from which hypotheses were derived and tested; the results have been presented in Table 32.

Table 34 Hypotheses Developed for this Research

Variables	No.	Hypothesis	Supported (Overall Sample)	Supported (Agro-processing)
MS	H1	Manufacturing strategy significantly influences the internationalisation of Jamaican manufacturing MSMEs	✓	X
IS	H2	Investment in standards significantly influences the internationalisation of Jamaican manufacturing MSMEs	X	X
EO	H3	Entrepreneurial orientation significantly influences the internationalisation of Jamaican manufacturing MSMEs	X	X
EnF	H4	Jamaican manufacturing MSMEs investment in standards as a competitive strategy for internationalisation will be moderated by the environment	?	?

The results from the overall sample demonstrated that manufacturing strategy was significant to the MSMEs' internationalisation process and therefore, supported the hypothesis H1. Interestingly though, there was also significance in the non-agro processing industry and not the agro-processing industry but nevertheless the overall sample was supported. However, H2 and H3 were not supported.

MSMEs manufacturing strategy, investment in standards and entrepreneurial orientation had never been tested previously from a Jamaican perspective. Therefore, these competitive resources were examined to investigate the impact on MSMEs internationalisation. It is recognised though that other resource bundles are necessary for a firm to be able to compete effectively. MSMEs may be challenged to find financial resources to purchase computerised equipment and advance machinery or even invest a significant portion of their budget investing

in standards but it is imperative that owners, managers and directors of companies determine the suitable bundle of resources for their individual companies to compete effectively.

The following sections will discuss the results of each hypothesis with reference to previous research.

5.1.1 Manufacturing Strategy

The constructs which measured manufacturing strategy were quality, flexibility and computer-controlled machinery. Manufacturing strategy was negatively correlated with investment in standards. By investing in standards, both local and international, product quality is supposed to be improved and market access achieved but the negative correlation suggests that Jamaican manufacturers' manufacturing strategy may not necessarily be using the right combination of resources. The theory linking manufacturing strategy to internationalisation was supported by H1. Most of the studies with respect to manufacturing strategy and business performance found a positive impact. However, this researcher did not find any studies which found a negative correlation between manufacturing strategy and performance/internationalisation. An interesting development occurred whereby the largest manufacturing sector which was agro processing did not show any significant impact on internationalisation but the non-agro processing sector did. This means that the MSMEs in the alternative manufacturing sector were more advanced in their technological outlook and were using computer-controlled machinery. This means that their products were more uniformed and standardised and probably had higher yields of output. It would also mean that they could efficiently service unsolicited orders from potential clients. The flexibility of these MSME firms also gives it competitive advantage in having the ability to meet different customer expectations without absorbing excessive costs, time, organisational disruption, or loss of performance (Ling-yee & Ogunmokun, 2007). But at the same time, educational intervention is crucial for success of any manufacturing flexibility adoption effort. These MSMEs need to understand the role of these practices and adopt innovative techniques to improve process flows, reduce engineering time and implement flexibility-oriented production system (Mishra, 2016). These non-agro-processing firms probably had a wider variety of products and shorter delivery lead times. These MSME firms also had high quality products which allowed them to enter the international market and compete. High levels of conformance quality must be attained before trying to improve any other of the performance dimensions (Nakane, 1986; Ferdows & De Meyer, 1990). The logic

is that manufacturers would have to discard or rework the products as a result of poor conformance quality. Higher total levels of inventory increase production lead times and thus negatively influence delivery performance and in this case internationalisation. It could be said the non-agro processing industry is more competitive than their compatriots in the food industry or they may have more access to resources to attain computer-controlled machinery and advanced machinery.

5.1.2 Investment in Standards

This research did not find any significant correlation between investment in standards and internationalisation. However, investment in standards was positively correlated with the competitive strategy of manufacturing Jamaican MSMEs. The lack of correlation meant that the MSMEs did not have to expend any additional resources with respect to internationalisation; for every budgetary increase or decrease in investment, the internationalisation process would not be affected. One explanation for this is that the MSMEs would only benefit from investment in standards in highly competitive environments. These MSMEs probably suffer from isomorphism (Su et al., 2015); since most of the manufacturing MSMEs in Jamaica are agro processors, it could probably mean most of them usually meet similar standards for regulatory purposes in an uncompetitive Jamaican environment. Another point is that most Jamaican MSMEs because of their small size, lack the resources needed to meet even the minimum standard requirements. Therefore, after investing in resources to meet these minimum regulatory requirements, these MSMEs cannot endeavour to acquire a suitable bundle of resources to compete in a foreign market. The fact that investment in standards had a strong positive correlation with competitive strategy meant that standards are an important resource for firms to upgrade their processes and products so that they can compete on a global scale. Therefore, firms should not only strive to meet the minimum requirements for regulatory purposes in their local market but also strive to meet the process standards such as ISO 9000 and HACCP as well as the respective international food safety standards such as BRC and SQF for those in that sector. Not all MSMEs have the financial means to implement the process standards or international standards but this is where government as well as private sector policies should make provisions to accommodate and assist these MSMEs on their path to internationalisation.

Once standards are obtained some MSMEs face difficulty in implementing the standards because of complexity, a lack of knowledge or resources to achieve the desired intent (European Union, 2012). The time and resources available to dedicate solely to the implementation of standards may also be limited within smaller companies, and they may lack training opportunities for employees to ensure personnel are able to implement a standard. The reason for the implementation of a standard is to achieve business goals, and it is important that SMEs are able to evaluate the implementation of these standards and the impact of their use. However, the management of smaller firms is largely involved in the daily operational practice, and there is little time or money available for activities that are not directly related to this primary process. Small firms' ability to export will also be affected by long inspection times as well as costs and time associated with testing as well as the general bureaucracy associated with exporting; this too is a turnoff for local manufacturers.

5.1.3 Entrepreneurial Orientation

Studies done by Miller and Le Breton-Miller (2006) and Zahra (2003) found positive effects of family ownership on internationalisation. Fernandez and Nieto (2006) and Graves and Thomas (2006) found negative effects of family ownership on internationalisation. Unlike these studies, the investigation into entrepreneurial orientation as an additional resource for internationalisation by Jamaican manufacturing MSMEs did not yield any significant results. The rationale behind this is the fact that seventy-five per cent of the sample demonstrated that Jamaican manufacturing MSMEs firms are family owned or managed by the owner. Since, family ownership is an important determinant of a firm's strategic choices (Chen & Hsu, 2009; Sciascia et al., 2014; Silva & Majluf, 2008), then these strategic choices will determine whether the firm gathers the resources required to internationalise or protects existing resources by being risk averse. Ownership type can influence corporate strategy because it is associated with different degrees of risk aversion and the firm's resource endowment (Fernandez & Nieto, 2006).

A possible explanation could also be a significant number of Jamaican entrepreneurs do not possess the typical tenets of entrepreneurial orientation which involve risk proneness, proactiveness, innovation and constantly adding new products. These family businesses tend not to import decision making managers into their fold, preferring to maintain family control over business decisions, thereby limiting their potential for creativity, innovation and

expansion. Considering the resource-based view, these businesses also do not attempt to develop the requisite talent pool of managers because family priorities take precedence over business issues that consequently reduce the availability of unique resources, such as managerial capabilities, capable personnel and financial capital (Voordeckers et al., 2007). Graves and Thomas (2006) attest that launching into the international arena will require a team of managers with requisite skills and international experiences to configure and leverage firm-specific resources effectively.

Some firms are successful on the local market but are not interested in exporting. These firms exhibit the characteristics of entrepreneurial orientation and even introduce new products but find the exporting process bureaucratic, time consuming and over rated.

Frank et al. (2010) have suggested that EO may have a negative effect on performance in certain configurations. Their study further indicated a positive connection between EO and performance becomes applicable when there is a dynamic environment combined with high access to financial capital. Frank et al. (2010) also suggested positive effects when there is a stable environment with low access to financial capital. But in the Jamaican context neither of these conditions exist and this may explain the result of EO having no effect on internationalisation.

5.2 Discussions about the Relationship among Resources, IS, EnF and Internationalisation of MSMEs

The environment has been known as one of the critical contingencies in organisation theory and strategic management. Since environmental factors include the laws, rules and state policy that support or restrict new businesses, decrease or increase the risks for SMEs, and facilitate or hamper access to resources (Busenitz et al., 2000), Jamaican firms will have to negotiate appropriate strategies to overcome local environmental conditions. Institutional factors affecting Jamaican manufacturing MSMEs' strategic development include: excessive red tape, inadequate protection for local industry, satisfying a myriad of regulatory agencies, unstable economy, fluctuating exchange rate, difficulty in accessing loans; excessive administrative discretion and corruption; improper import duty structure; high inflation; a low degree of institutional openness; and a lack of transparency in general. These findings are consistent with Puffer and McCarthy (2001), Terjesen and Hessels (2009) and Thai and Chong (2008). All

these factors characterise a bureaucratic business administration system in Jamaica and may be regarded as obstacles to doing business.

The RBT claimed that firms' internal factors are responsible for generating competitive advantage and superior performance through internationalisation. RBT explains the importance of internal drivers such as tangible and intangible resources for SME internationalisation (Barney, 1991; Penrose, 1959; Shepherd & Wiklund, 2005). A firm's competence to gain and keep profitable market share depends on its ability to achieve and defend advantageous positions regarding relevant resources important to the firm (Conner, 1991). The heterogeneity of small firms and the environmental conditions under which they operate makes it difficult to properly identify these critical resources needed for internationalisation.

Investment in standards was proposed as an additional resource that MSMEs in Jamaica could use to get them on the internationalisation path. It is critical that these MSMEs design a competitive strategy with a unique bundle of resources with which to compete. Hypothesis 4 demonstrated that environmental factors did not moderate the relationship between IS and MSMEs INZ. However, the correlation matrix in Table 25 had shown that environmental factors negatively impacted investment in standards. This may also mean that there is support for moderation, but it is not significant. A possible explanation is that MSMEs who cannot afford to implement local, international and private standards due to its high cost will have less chances of exporting. This finding is consistent with UNCTAD's which have shown that some developing countries have suffered considerable export losses due to their inability to respond to restrictive and duplicative environmental standards and regulations imposed in developed countries. They went on to explain that these requirements cover a wide array of instruments and include product-content standards, mandatory and voluntary labelling, testing and certification procedures. This is also consistent with the views expressed by manufacturers QPI and JSS from the mini-case studies who both complained about the several regulatory requirements which must be satisfied for each respective regulatory agency. Therefore, when compliance with standards and technical regulations in developed countries impose significant cost burdens on small firms and hamper their ability to export, the likelihood of internationalising will decrease tremendously.

5.3 Theoretical Implications

The configuration of resource stocks or bundles and not just the possession of these resources is what is required by firms to compete effectively. Firms may occupy similar environments with similar resources, but it is the strategy employed by the individual firms is what characterises their success. The findings of this study contribute to the resource-based theory as it provides a deeper understanding of the resource base and how the configuration of resource and strategy improves performance. The significance of this research is entrenched in the importance of investment in standards and the resource-based view and how this relationship influenced the internationalisation of manufacturing MSMEs in Jamaica.

This thesis also considered entrepreneurial orientation and manufacturing strategy as potential resources for internationalisation; these resources were not considered in the Jamaican context previously. The research did not find any significance between entrepreneurial orientation and internationalisation. The research considered entrepreneurial orientation from the perspective of risk, proactiveness and introduction of innovative products and in quite a few cases the owner/manager's delegate responded to the questions and this may have skewed the direction of the relationship between the variables.

Dynamic capabilities or priorities is an important aspect of strategic management and as described in Section 2.2.2 it is a critical part of firms' resources and competitive advantage. DiStefano et al. (2010) and Wilhelm et al. (2015) stated that the conditions under which dynamic capabilities influence firm performance are still dubious and require further research. It is therefore important to explore the potential relationship between resources and dynamic capabilities and the reconfiguring of the business enterprise's intangible and tangible assets (Teece & Pisano, 1997).

The internationalisation of the MSMEs and the various theories were also studied in great detail. But all three of the models; Uppsala, network and innovation should be investigated further with respect to MSMEs. Since MSMEs are in various stages of development, a particular internationalisation model should not be prescribed blindly because combinations of these strategies may be applicable. Therefore, this research has set a foundation for further investigation into the linkages among resources, firm characteristics, the environment and the ability of MSMEs to upgrade and export.

5.4 Managerial and Policy Implications

The internationalisation process for firms will be affected mostly by their outlook and strategy employed to hire persons who worked in an exporting environment as well as managers with the relevant educational background, industry experience, ability to speak a foreign language, international exposure and the ability to manage cultural differences to the home market. These managers may also be able to form linkages through overseas trade fairs, exporting seminars and improve networking capabilities. This research did include the owner/manager's education (EDU), foreign language proficiency (EFL), the entrepreneur's foreign work experience (EFWE) and entrepreneur's foreign study and living (EFSL) as resources for predicting internationalisation. But none of these resources had any effect on the internationalisation process in Jamaica. Williams (2009), did find positive correlations between these variables and export stimuli.

Since SMEs are not a homogenous group, these strategies may be easier stated than adopted because some SMEs are family owned and have a reluctance to relinquishing control of the establishment to outsiders. These outsiders who are typically non-family members are perceived to not have the same business interests and risk aversion. One of the strategies owners could adopt is to utilise the advice of retired managers, non-pay advisors, government institutions and private sector bodies such as PIOJ and PSOJ. Many business owners pride themselves on their honesty and integrity; they also yearn for the reciprocation of mutually beneficial business relationships. These qualities foster the development of business relationships in the international market, especially with other SME owners who share similar characteristics. Therefore, relational qualities are very important skills or traits for owners and managers to possess as this can facilitate internationalisation of the SME.

Internationalisation requires managers to be proactive where they would seek out new business opportunities in foreign markets through the development of new and innovative products. This means that it is very important to develop and sustain entrepreneurial qualities within the firm especially in the areas of marketing, risk taking, independence, innovation and proactiveness. It is also very important for managers and their key personnel to have strong global and visionary mindsets. As mentioned in the preceding section it is very important that these managers and key personnel be mindful of international standards and quality management

systems because these are not only key to internationalisation but also essential to competing once there.

5.5 Limitations of the Research

One of the limitations of this study is that only manufacturing MSMEs were considered and not those in the service industry or agricultural sector. Another limitation is that not all manufacturers have registered with the JMEA and some of these may not be exporting so they would not have been captured in the JAMPRO database. It was also expected that not all members of the sample were likely to respond to the survey and this was evidenced by the fact that only 89 responses to the questionnaires were received from a total of 387; it was very difficult getting the cooperation of the MSMEs. Several emails and follow up phone calls were sent before any responses were received and the electronic responses proved even more difficult to achieve. The MSMEs also preferred that the questionnaires were left with them and picked up at a later date because they were very busy. A larger sample would certainly allow a more in-depth examination of the inter-relationships among variables and possible concepts to emerge within the SME context. A larger sample size would have also enhanced the robustness of the research and allowed for greater generalizability (Tanaka, 1987).

The questionnaire had several questions which were nominal and ordinal but lacked quantifiable data. The techniques used for analysis, particularly bivariate analysis were very good in establishing the strength of relationship among the variables and correlation among the variables. These techniques were used in other studies involving the internationalisation of SMEs (Chelliah et al., 2010; Lashley, 2001; Wong, 2015). Overall the relationships among the variables supported the theories.

This research did not consider resources such as human capital, access to capital and management commitment as potential resources for internationalisation. These resources are also critical stockpiles of resources for improving firm performance; therefore, in the future, these should be considered in the context of Jamaican MSMEs.

5.6 Future Research Opportunities

A longitudinal study could perhaps be considered in the future to analyse the respondent MSMEs in the questionnaire as well as those in the case study. This would assist in clarifying

issues and attitudes changed over a period of time. An analysis of a few more case studies would also contribute to revealing the deep underlying structures affecting MSMEs internationalisation. Another important factor would be to conduct this research in another Caribbean nation such as Trinidad and Tobago which has a more robust and dynamic economy as this will certainly assist in theory building. There would also be knowledge building with respect to how the structures and contingent environments perform under different conditions, for example government policies, modern equipment and computer aided manufacturing. Another future research opportunity could be to measure MSMEs performance in terms of revenue before and after they implemented standards.

5.7 Conclusion and Recommendation

For process or product standards to have a significant impact on the capacity of firms to either engage in functional or inter-chain upgrading different strategic and technical capabilities will be required. Moreover, it is this capability to upgrade functionally and into new chains which provides the capacity for sustained income growth over time in many value chains.

It is important therefore to determine the impact of standards on each of the MSMEs main business functions and associated activities. According to Kaplinsky (2010) there are five significant reasons why standards have become important for low income country producers participating in global markets:

1. Standards are now a significant determinant of market access, particularly in high income markets.
2. Many high-margin market segments are defined by product and process standards.
3. In developing the capacity to achieve standards, many producers upgrade capabilities which improve their competency and their capacity to systematically increase productivity.
4. Conforming to standards is generally an expensive process, and consequently this can become a non-tariff barrier to entry low capacity and informal producers.
5. Many standards, for example process standards, require coordinated steps along the value chain, and this systemic performance may be unrealistic.

Standards are increasingly becoming a focal point in global value chains; therefore, the GoJ must lend support for producers striving to enter the global economy in a manner which provides for sustainable income growth. Therefore, they must get involved with the challenge

of promoting standards (Kaplinsky, 2010). The training of MSMEs is crucial to development of their skills and increasing knowledge base. Agencies such as the BSJs Training Unit and the JBDC must develop targeted strategies for enhancing technical skills in terms of manufacturing and processing as well as developing business. MSMEs must be made aware of the regulatory practices required for doing business in addition to familiarisation of the relevant standards in their respective industries. The BSJ could also play a greater role in educating those MSMEs who have potential to export about the regulatory framework for major regional and international trading partners.

The government and private sector in Jamaica must work closely together to provide an enabling environment which is conducive to the development and growth of business. The bureaucratic processes which plague doing business rapidly and efficiently must be addressed in addition to costliness which is a major factor in hampering competitiveness. A recommendation for this area would be to design a policy which aid in reducing the very high cost of utility rates for MSMEs. By reducing their operational cost, they can use resources more efficiently and increase productivity levels. This policy could possibly take into consideration the size of the operation and volume of utility dependent equipment. Another recommendation would be to enhance the technological capability of the regulators with whom the MSMEs must engage. This would assist with the reduction in processing and turnaround times to issue conformity certificates, test results and permits where necessary.

Despite a plethora of financing options available, MSMEs seem not aware of the existence of these funds. MSMEs also face limited access to financial capital and therefore, the appropriate sources should be developed to meet the various needs since these MSMEs are heterogeneous in nature. Private sector should work towards developing a programme where non-traditional forms of collateral will be accepted, for example, equipment, intellectual property or patents. There should be a promotion of angel funding or venture capital to increase equity financing for funding MSMEs. There should also be an establishment of policies that incentivise the private sector to increase the supply of credit to MSMEs taking into consideration their heterogeneity. Dormant funds in the banking sector could also be used to provide a source of financial aid to MSMEs. Government should also ramp up a greater supply of financial resources through private financial sector lending. Lending must also take into consideration lower interest rates or special rates conducive to MSME borrowing. MSMEs must also be

encouraged to make use of the Trade Credit Insurance scheme offered by the Export-Import (EXIM) Bank of Jamaica. This scheme will allow MSMEs to expand into new markets and also increase their capacity for growth. MSMEs because of their small size will be able to absorb shocks from the environment, for example default on payments from foreign buyers. Loans can also be accessed from the bank by using the insurance as collateral. The GoJ should also look at passing the necessary legislation for micro-financing options that would curb predatory lending practices and interest rates which usually stifle the growth of MSMEs. These laws would enable institutions like credit unions to be more sensitive and accessible to these small firms (Whittam et al., 2015).

Jamaica is ranked as the seventh most entrepreneurial country in the world and this status must be further developed through education at all levels of the school system. Therefore, the curricula at primary and secondary schools must be modified to reflect such. The degree programmes in entrepreneurship implemented at the University of the West Indies (UWI) is a positive step in the right direction that could only increase the entrepreneurial outlook in the future. Young entrepreneurial minded citizens should also be encouraged by monetizing innovative ideas or intellectual property.

The Tourism Ministry should also work towards setting up linkages between tourists and local manufacturers. Jamaica had a record breaking 4.3 million visitors to its shores in 2017 (Jamaica Tourist Board, 2017). This is a large number of persons who can be introduced to what Jamaica has to offer in terms of its processed foods, textiles, cosmetics and pharmaceuticals especially in terms of its naturopathic remedies. By bringing the manufacturers and their products to the hotel chains and for example, having the visitors sample savoury sauces with their meals or delicious juices and have local manufacturers entice the tourists without being intrusive that they could readily have access to these products in their home market could not only be a valuable marketing strategy but also a niche building tool. Manufacturers could also not only give free samples of cosmetics and naturopathic remedies but also have the tourists try these products at the salons and massage therapy parlours at these all-inclusive hotels.

An important recommendation to GoJ is to provide a taxation framework designed for MSMEs that would facilitate sustainable growth and competitiveness. For example, the government could issue tax incentives to manufacturers for purchasing modern equipment and technology.

Manufacturers who upgrade their facilities and manufacturing infrastructure should be given tax breaks for a period of time or be allowed to pay less taxes. GoJ should also allow manufacturers to write off equipment after a certain amount of established time so that these manufacturers could purchase modern and technologically savvy equipment which will allow them to maintain competitiveness. This was introduced by the Trinidad and Tobago government in 1987 and has allowed that country to become the manufacturing powerhouse in the Caribbean. This move will allow Jamaican manufacturers to improve their manufacturing strategy and become more competitive with their regional and global counterparts. Modern manufacturing equipment will also give MSMEs a competitive edge in terms of fulfilling unsolicited orders as well as sustaining orders awarded at trade shows.

Beyond government support, managers and employees of Jamaican manufacturing MSMEs need to keep themselves informed of the latest information regarding technology, new products, or processes in their industry (Theresa et al., 2016). The notion of competing based on a single capability has been overshadowed by the need to offer more value across a range of capabilities if the firm wants to successfully compete in global markets (Theresa et al., 2016). For this reason, manufacturing SMEs should broaden and improve their manufacturing capabilities to capture and retain more business (Theresa et al., 2016).

The manufacturing strategy results may also mean that the firms may be investing heavily in the wrong bundle of resources which is negatively affecting the internationalisation process. This study also did not measure cost of the product and location as resources and this could have affected the results. Financial institutions may very well be less unwilling to give these agro-processors loans not just because of their size but the market may appear to be saturated and the products undifferentiated. Therefore, GoJ should not only offer incentives to agro-processors to become more dynamic and innovative but also assist in developing the other industrial sectors in Jamaica such textiles and sewn products which would support an already vibrant local fashion industry. This industry could also be bridged to the cosmetic industry because of the obvious linkage to fashion. The electrical products, chemicals and pharmaceutical industries are areas where Jamaica could place greater emphasis so that manufactures in these sectors could also tap into the global value chain.

GoJ in conjunction with the private sector should also pursue an Information and Communication Technology (ICT) strategy to build out resources which would provide a platform within the MSME sector to facilitate them marketing their products as well as conducting business transactions online. The promotion of social media networks such as Instagram and Facebook should also be encouraged for promotion of their products.

Awareness and knowledge should be the building blocks for a policy on standards and beneficial participation in global value chains. A key challenge for Jamaican policy-makers will be to ensure that a system of incentives is set up to encourage both the demand for appropriate standards by firms wishing to participate gainfully in global value chains, and the capacity of local standard bodies to assist local firms seeking to achieve certification and accreditation such as the National Certification Body of Jamaica (NCBJ) and the Jamaica National Agency for Accreditation respectively (JANAAC) (Kaplinsky, 2010).

Problems may potentially arise for small firms operating in Jamaica, since complying with standards is a relatively expensive process. Evidence shows that the standards-agenda is to a large extent a function of market-characteristics, and in general low-income markets such as Jamaica are less standards-intensive than are high-income markets (Kaplinsky, 2010). This argument suggests that individual producers in Jamaica may actively segment these markets. Some firms may be dedicated to the low-income markets, whilst others develop the standards' capabilities to participate in high-income markets. Therefore, the GoJ must pursue a policy of striving to encourage manufacturers to adopt quality standards such as ISO 9000, HACCP, SQF and any other standard that will satisfy requirements for international trade. The GoJ is also encouraged to pursue the acceptance of CROSQ standards as a strategy for MSMEs expanding their trade into regional markets. It will also assist the smaller manufacturers who are unable to compete in larger markets in the developed world to learn the internationalisation craft by competing with regional neighbours. This is a situation for the Jamaica Exporters Association (JEA) and the GoJ to engage in industrial policy designed to maximise the gains from participating in the global economy.

The turbulent economic landscape which has plagued Jamaica has been detrimental to the growth of small businesses. This thesis sought to examine the role MSMEs can contribute to

the economic development of the island state by earning foreign exchange and the resources required to achieve that goal. As the seventh most entrepreneurial country in the world Jamaica has potential to overcome its economic hurdles but for this to happen the MSMEs must be given a fighting chance by operating in a business-friendly environment which is not only regulatory driven, but which also facilitates business development. This research also employed the critical realist approach which assisted in understanding the underlying deep phenomena or structures associated with internationalisation by using case studies.

5.8 Contribution to Practice

The purpose of this research thesis was to investigate whether standards could have been used as an additional firm resource to aid MSMEs in exporting. It was to demonstrate to MSMEs that there are economic benefits in applying standards; their processes could be upgraded, quality products produced and their output of these products increased. By increasing their output, it may become necessary to not only increase staff complement but also hire staff with a myriad of skills and competencies which would benefit the firm in terms of increasing competitiveness. By increasing the output of these manufactured products, the Gross Domestic Product (GDP) of the country could also improve to some extent. By upgrading, firms will become more competitive not only locally but internationally as well.

Positing standards as an additional firm resource was also an original contribution to practice because it contributed to the literature on resource based theory and dynamic capabilities of MSMEs. This research proposed a model which had a unique bundle of resources namely investment in standards, manufacturing strategy and entrepreneurial orientation upon which Jamaican MSMEs could possibly compete. The results from the mini case studies were very intriguing because the three MSMEs which were studied proved that it was the configuring and re-configuring of both tangible and intangible resources that gave them their competitive edge. Even in instances where it may have appeared that these MSMEs were hindered due to their size and financial capital, they were able to maximise their unique bundle of resources by converting them into dynamic capabilities upon which they competed and became successful.

This research also demonstrated that it is critical for Jamaican MSMEs to implement management systems such as ISO 9001 and HACCP. This is very important for building confidence in the quality of products and improvement in the operational performance and since

these systems are expensive, they may be out of the reach of MSMEs. Therefore, it is both instructive and imperative for the GoJ and private sector to make financial provisions available to assist these manufacturers in upgrading if they are to enter the global value chain. Researchers such as Kafetzopoulos et al. (2015) and Taninecz, (1997) have demonstrated that the implementation of quality policies such as ISO 9000 will improve quality performances by ensuring products conform to established and specified requirements, yield improvements and decrease customer rejection rate. Nadvi & Wältring, (2002) explained that control of quality within international supply chains, improving market transparency of suppliers, and reducing transaction costs are related with quality management.

The environmental factors and its moderating effect on investment in standards was also another major contribution to practice to help elucidate the stranglehold the environment may have on doing business in Jamaica. Even though there was a possibility of moderating effects, the quantitative results are inconclusive. But the results from the mini case studies clearly elucidate how the imposition of the negative environment poses a threat to conducting business in Jamaica. It clearly shows that the regulatory framework in terms of financial policies affecting MSMEs getting loans, the regulatory policies which pose bureaucratic hurdles in terms of multiple inspections from border agencies, clearing products from the ports for imports and exports as well as the turnaround time involved is not conducive for creating a competitive environment. Therefore, this information is critical for the policy makers to be made aware so that they can address with urgency the creation of a business friendly environment.

This research thesis produced unexpected yet original results in terms of manufacturing strategy having negative significance with internationalisation. This researcher did not find any other thesis where a negative significance was obtained. But this result was instructive since it was clearly signalling that Jamaican MSMEs needed to upgrade their factories in terms of their processing equipment, innovative technologies and computer aided equipment. It also meant that they needed to be more flexible in their operations to accommodate unsolicited orders and new product lines. Manufacturing strategy also had a significant but negative correlation with investment in standards. This clearly shows that as MSMEs attempt to improve their products and comply to local regulations by investing in standards, the less they can afford to invest in new equipment and updated technologies. Therefore, these factors are very important

considerations for the GoJ to create an enabling environment for access to finance and business development services for MSMEs.

The results of the research and recommendations should also influence government as well as private sector policy makers to continue to implement policies and strategies which will create and facilitate an enabling environment that would not only attract Foreign Direct Investment (FDI) but also assist firms which have the basic competences but lack the necessary resources and capacity to enter the global value chain. By entering the global value chain Jamaican manufacturing MSMEs can earn valuable foreign exchange which will not only improve the country's finances but also stabilise the fluctuating exchange rate. The results must also be able to influence policy makers in other CARICOM states as well as other developing nations to provide a framework for MSME upgrading in those states as well. Therefore, the key findings, recommendations and conclusions of this research thesis will be condensed and presented in the form of a report to the JMEA, MICAFA, PIOJ and PSOJ so that the information therein can be used to influence MSME policy and aid in securing Jamaica's economic future.

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Appendix A – Statement

I am a Doctor of Business Administration (DBA) student at Edinburgh Napier University conducting a research project titled “The Internationalisation of the manufacturing Small and Medium Enterprise (SME) in Jamaica” – How have standards assisted? The aim of the research is to identify the role standards played in upgrading MSMEs’ processes, products and their eventual internationalisation. The study will also try to understand why some SMEs choose to export while others are contented to satisfy their local market. 387 MSMEs from seven manufacturing sectors across Jamaica were selected for this survey.

The research will investigate the impact of labelling and product standards on the internationalisation of SMEs in Jamaica, the challenges SMEs face in applying standards, investigate managers’ perspectives and perceptions on internationalisation choices and also investigate the significance of government and private sector policy on the internationalisation of SMEs.

A questionnaire will be sent you as part of the data collection process. I fully appreciate that you are a busy professional; however, the questionnaire should only take about ten minutes of your time. Your assistance in completing the questionnaire would be greatly appreciated. All responses will be treated in the strictest confidence. Note as well that you may be selected for a more in-depth interview at a later date.

Yours sincerely,

A solid black rectangular box redacting the signature of Wendell Richards.

Wendell Richards

Appendix B – Questionnaire

Company Information

1. How many persons are employed at this company?
 2. Is the company family owned?
 3. How long has this company been in existence?
 - i. 1- 5 years
 - ii. 6- 10 years
 - iii. 11-15 years
 - iv. > 15 years

 4. Is this company a
 - i. Sole trader Yes [] No []
 - ii. Partnership Yes [] No []
 - iii. Limited liability Company? Yes [] No []
 - iv. Shareholders Yes [] No []
 - v. Cooperative Yes [] No []
 - vi. Corporation Yes [] No []

 5. What is the annual revenue of the company?
 - i. Less than J\$10,000,000
 - ii. J\$10,000,000 – J\$50,000,000
 - iii. J\$50,000,000 – J\$150,000,000
 - iv. More than J\$150,000,000

 6. Does the company have branches in: CARICOM USA Europe Other

 7. How has the company evolved over the past 5 years concerning?

	Declined	Remained the Same	Increased
Product Offerings			
Sales			
Profits			
Employees			
Capital			
Exports			
Quality Systems			
Research & Development			
-

Employees/Managers/Owners

8. Can the owner/manager speak a foreign language? Yes [] No []
9. Has any of the owners/managers worked in a foreign country? Yes [] No []
10. What is the owner/manager highest level of education? Primary[] Secondary[] Tertiary[]
11. Has any of the owners/manager studied or lived in a foreign country? Yes [] No []

Manufacturing

12. Is the manufacturing process labour intensive? []
13. What is the average age of the company's machinery? []
14. Does the company use computer-controlled machinery? []
15. Does the company engage in flexible manufacturing? []
16. If the company was to receive an above average order, would it be able to fulfil the order on time? []
17. Which manufacturing sector do you belong?
- i. Agro-processing/Food/Juices
 - ii. Chemicals, Cosmetics & Pharmaceuticals
 - iii. Electrical, Electronics, Appliances/Automotive
 - iv. Furniture, Bedding & Wooden Products
 - v. Minerals and Metal Products/Windows/Doors
 - vi. Printing, Packaging & Paper Products
 - vii. Textile & Sewn Products

Standards

18. Does the company invest in using standards? Yes[] No[]
19. What percentage of the company's budget is spent on standards?
20. Has using standards contributed to improved foreign market access?
- 1 2 3 4 5

Strongly disagree**Strongly agree**

21. Has the use of standards improved the quality of products?
- 1 2 3 4 5

Strongly disagree**Strongly agree**

22. Has the use of standards improved the competitiveness of products?
- 1 2 3 4 5

Strongly disagree**Strongly agree**

23. How was foreign market access achieved?
- Products met foreign country regulations
-

- Products met international standards
- Products were of a high quality
- Products were competitive

24. Do any of the company’s products have a certification mark? [Yes] [No]

25. Does the company use any of the following international standards?

- i. ISO
- ii. HACCP
- iii. ASTM
- iv. GFSI
- v. BRC

26. How difficult is it to use standards?

1 2 3 4 5

Not difficult

Very difficult

27. Why is it difficult to use standards?

	Strongly Agree				Strongly Disagree
	1	2	3	4	5
i. Expensive	1	2	3	4	5
ii. Lack of company investment in standards	1	2	3	4	5
iii. Time consuming	1	2	3	4	5
iv. Lack of training	1	2	3	4	5
v. Lack of knowledgeable staff	1	2	3	4	5
vi. Lack of a quality culture	1	2	3	4	5
vii. Information is too technical	1	2	3	4	5

Government/Private Sector Policy

28. Is government/private sector policy effective towards SMEs? Yes[] No[]

29. How effective is government/private sector policy in enabling SMEs?

1 2 3 4 5

Not effective

Very effective

30. What would make government/private sector policy effective?

	Strongly Disagree				Strongly Agree
	1	2	3	4	5
Incentives to export	1	2	3	4	5
More access to loans	1	2	3	4	5

Low interest loans	1	2	3	4	5
More incubation programmes	1	2	3	4	5
Incentives to purchase modern technology	1	2	3	4	5

State any additional information

31. Are you aware of any venture capital or angel funding? Yes [] No []

Entrepreneurship

32. Please indicate your level of agreement about entrepreneurial orientation in your company:

		Strongly Disagree				Strongly Agree
i.	Owner/manager is proactive when competitors initiate actions	1	2	3	4	5
ii.	Owner/manager support risky ventures	1	2	3	4	5
iii.	There is sufficient emphasis on research and development and new technologies	1	2	3	4	5
iv.	The owner/management invests in innovative products	1	2	3	4	5
v.	The owner/manager changes posture with dynamic environmental factors	1	2	3	4	5
vi.	The company consistently introduces new product lines	1	2	3	4	5

Export Behaviour

33. Do you export? Yes No (If no go to question 38)

34. Who is responsible for exporting in the company?

35. How long has the company been exporting?

36. List the top 5 countries you export to

37. What was the stimulus that prompted exporting?

- i. An unsolicited order
- ii. Company strategy
- iii. Recognition of a niche market
- iv. Recommendation by clients
- v. Saturation of local market
- vi. Networking
- vii. Size of local market
- viii. Local client relocating to foreign country

State any additional information

38. What is preventing your company from exporting?

Strongly

Strongly

		Disagree				Agree
i.	Contented with satisfying your local market	1	2	3	4	5
ii.	The company does not know how to export	1	2	3	4	5
iii.	No one in a foreign country would be interested	1	2	3	4	5
iv.	Lack of business networks	1	2	3	4	5
v.	Lack of information about foreign markets	1	2	3	4	5
vi.	Unable to service a larger market	1	2	3	4	5
vii.	Too much bureaucracy	1	2	3	4	5
viii.	Exporting is too time consuming	1	2	3	4	5
ix.	Exporting is too expensive	1	2	3	4	5
x.	Inadequate resources	1	2	3	4	5

Strategic Management

39. How important is each of the following factors in evaluating the performance of the business unit or functional area personnel?

		Unimportant				
	Important					
i.	Objective strategic criteria such as return on assets	1	2	3	4	5
ii.	Return on investment	1	2	3	4	5
iii.	Cash flow	1	2	3	4	5

40. How difficult is it for your company to change its strategic plan to adjust to each of the following contingencies?

		Not Difficult				Very
	Difficult					
i.	The emergence of new technology	1	2	3	4	5
ii.	Changes in economic conditions	1	2	3	4	5
iii.	The emergence of an unexpected threat	1	2	3	4	5
iv.	Changes in government regulations	1	2	3	4	5
v.	Diversified customer tastes and preferences	1	2	3	4	5
vi.	Modified supplier strategies	1	2	3	4	5
vii.	Political decisions that affect the industry	1	2	3	4	5
viii.	The emergence of an unexpected opportunity	1	2	3	4	5
ix.	The entry of new competition	1	2	3	4	5

41. Rate the extent to which your company uses the following scanning devices to gather information on the business environment:

Not Ever **Frequently**

		Used			Used	
i.	Routine gathering of opinion from clients	1	2	3	4	5
ii.	Explicit tracking of the policies and tactics of competitors	1	2	3	4	5
iii.	Special marketing strategies	1	2	3	4	5
iv.	Forecasting sales, customer preferences & technology	1	2	3	4	5
v.	Government publications, trade magazines, news media	1	2	3	4	5
vi.	Gathering information on suppliers	1	2	3	4	5

42. How important is each of the following in making sure your company's employees and business strategies meet predetermined objectives?

		Unimportant			Important	
i.	Face to face meetings between top managers and business unit or functional area personnel	1	2	3	4	5
ii.	Informal face to face meetings between top managers and business unit or functional area personnel	1	2	3	4	5
iii.	Measuring performance against subjective strategic criteria such as improvements in customer satisfaction or progress on product innovation	1	2	3	4	5

Appendix C – Interview Questions

Personal Details	Responses
Company Name	
Date & Time	
Name of Interviewee	
What is your occupation in the company?	
What is your job description/ duties?	
What qualifications do you bring to the job?	
Do you speak another language?	
Is this helpful in foreign operations?	
For how many years have you been with the company?	
Do you have any experience of international markets from a previous job?	
What was your position when you started work at the company?	
How has the company changed since you started?	
How do you see your position changing in the future?	
Firm Details	Responses
What would you say are the company's main competitive assets? (Cost/ quality/ service/ other)	
What would you consider the main internal constraints on the company? Size/Lack of skills base/Manufacturing Space/Technology/Other	
What are the benefits of the company's current location? Transport/ Skills base/Proximity to markets/Other	
Do all operations take place on one site (manufacture and R&D)?	

Are there any plans to expand or change location in the near future?	
Do all operations take place on one site (manufacture and R&D)?	
Are there any plans to expand or change location in the near future?	
Do you operate under any explicit business policies?	
How many exhibitions does the company take part in every year?	
What are the details of your transport operations, domestic and abroad?	
What are the company's main plans for the future?	
What would you say is the secret of the firm's success?	
External Environment/ Relationships & Networks	Responses
What external variables influence your planning most? Exchange rates/ interest rates/ transport costs/ taxes?	
Where is the company's main market?	
Where is the company's main supply source?	
Has the company received any external support? Chamber/ Government/ Local Authority	
Where and who would you consider the other leading manufacturers in your sector to be?	
Do these competitors affect the way you plan your operations?	
The Exporting Process	Responses
For how long has the company been exporting?	
What is your main export product?	

What is the value of your exports?	
What is the company's main export market? Currently and previously.	
Is there an explicit company strategy for exporting?	
How does exporting actually operate? Agents/direct?	
Do you consider exporting more profitable than domestic sales?	
How committed are you and the company to the exporting aspect of operations?	
What sort of planning occurs before entering a new market?	
Initial exporting: Ad Hoc Order/ Recommendation by clients/ Domestic client moving abroad/ Proactive search, Other. Which would you consider most important?	
Could you describe what actually happened in detail? (Did your other customers affect your move into exporting?) (Did your suppliers affect your move into exporting?)	
Were any difficulties experienced initially? Subsequently?	
Have other options apart from exporting been considered, such as manufacturing abroad?	
Do you consider the product's reputation as very important in your export ventures?	
Do you employ any sort of pricing policy to foreign markets?	
What are the company's plans for the future concerning exporting and international activity?	
What do you think is needed to succeed abroad?	
Non-exporters	Responses
Why doesn't your company export?	

Don't know how/Prepared to serve domestic market only/Don't have the resources	
What do you think are your major resources?	
What would make you consider exporting? Better government policy/incentives	
Do you think that overseas consumers would appreciate your product?	
Why or Why not?	
Standards	Responses
Does your company invest in using standards?	
What percentage of the budget is invested in standards?	
Is it difficult using or meeting standards? Explain	
Has your company met any of the following? ISO 9000 SQF GFSI BRC HACCP BSI CE UL	
Why not?	
Do you intend to meet any of those?	

Appendix D – SPSS Data Output**Table 1**
Responsibility for Exporting

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	48	53.9	53.9	53.9
Business Owner	1	1.1	1.1	55.1
Ceo	1	1.1	1.1	56.2
CEO	1	1.1	1.1	57.3
CEO, GM	1	1.1	1.1	58.4
Chairman/Owner	1	1.1	1.1	59.6
Commercial & Corporate Affairs Manager	1	1.1	1.1	60.7
Director	3	3.4	3.4	64.0
Director of Sales & Operations	1	1.1	1.1	65.2
Director Sales and Marketing	1	1.1	1.1	66.3
Export Co-ordinator	1	1.1	1.1	67.4
Export Manager	1	1.1	1.1	68.5
Export Manager-CEO	1	1.1	1.1	69.7
Factory Manager	1	1.1	1.1	70.8
General Manager	2	2.2	2.2	73.0
Gifford Coombs/John Bailey	1	1.1	1.1	74.2
in house broker	1	1.1	1.1	75.3
Jennifer Mahfood Forte	1	1.1	1.1	76.4
Management Team	1	1.1	1.1	77.5
Manager	3	3.4	3.4	80.9
Manager, Director	1	1.1	1.1	82.0
Manager/Owner	1	1.1	1.1	83.1
Managing Director	4	4.5	4.5	87.6
Managing Director, Administrative Assist	1	1.1	1.1	88.8
Marketing & Sales Export Manager	1	1.1	1.1	89.9
Marketing Director	1	1.1	1.1	91.0
Md	1	1.1	1.1	92.1
N/A	2	2.2	2.2	94.4
Operations Manager	1	1.1	1.1	95.5
Owner	1	1.1	1.1	96.6
Sales Report	1	1.1	1.1	97.8
Technical Director	1	1.1	1.1	98.9
export manager	1	1.1	1.1	100.0
Total	89	100.0	100.0	

Table 2

	Initial	Extraction
MS manufacturing strategy	1.000	.301
IS investment in standards	1.000	.546
EO entrep. orientation	1.000	.616
EF Environmental factors	1.000	.086
CS Total MS IS EO	1.000	.846
INZ Internationalisation subscale	1.000	.024

Table 3
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
MS	2.418	40.303	40.303	2.418	40.303	40.303
IS	1.252	20.875	61.177			
EO	.995	16.576	77.753			
EF	.810	13.500	91.253			
CS	.525	8.747	100.000			
INZ	3.331e ⁻¹⁶	5.551e ⁻¹⁵	100.000			

Table 4
Component Matrix

Component	1
	MS
IS	.739
EO	.785
EF	-.293
CS	.920
INZ	.155

Table 5
Model Summary- Overall

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.266	.071	.057	2.873

Table 6
ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	41.995	1	41.995	5.087	.027
Residual	553.078	67	8.255		
Total	595.072	68			

Table 7
Coefficients

Model		Unstandardised Coefficients		Standardised Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	10.298	1.452			7.090	.000
	MS	-.752	.333	-.266		-2.255	.027

Table 8
Model Summary- Agro Processors

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.179 ^b	.032	.011	3.003

Table 9
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.737	1	13.737	1.524	.223 ^c
	Residual	414.742	46	9.016		
	Total	428.479	47			

Table 10
Coefficients

Model		Unstandardised Coefficients		Standardised Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	9.355	1.776			5.268	.000
	MS	-.508	.411	-.179		-1.234	.223

Table 11
Model Summary- Non-agro Processors

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.480	.231	.190	2.582

Table 12
ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.935	1	37.935	5.692	.028
	Residual	126.636	19	6.665		
	Total	164.571	20			

Table 13
Coefficients

Model		Unstandardised Coefficients		Standardised Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	12.728	2.525		5.042	.000
	MS	-1.355	.568	-.480	-2.386	.028