Regional Study of the Locational Advantages for Innovation on New Providence Island, Bahamas

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SPECIAL REPORT 2008





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Respondent spotlight:

...ensuring a reliable Internet and telephone communications system.

The Internet laws must be brought up to date. Banks must offer Internet merchant accounts to facilitate the growth of ecommerce. Businesses in car garages in the USA, Canada, Europe and the world at large, are selling online to Bahamian consumers and businesses with no problem but Bahamian businesses cannot sell to them online. Therefore, we are using up our foreign reserves to purchase goods and services but not limiting the inflow of foreign currency that may be used to purchase Bahamian goods and services online.

...access to additional funding to expand. Most banks skimp in initial funding especially with working capital and advertising budgets...

More practical programs...

Make curriculum and programs more relevant to needs of the community and workplace.

More technical and vocational training to meet the demands of the job market.

...having to pay customs duty upfront on products purchased for sale is a major strain on businesses.

The main thing is they should make loans for new or expanding business easier to get and more information about getting loans out there. Also keep the interest on the loans very low. Also the national health insurance needs to go. They want the new business people to pay a part of National insurance and part of medical and minimum wage and now National health insurance. It is hard on the entrepreneurs.

Educate Bahamians on how to set up and operate Investment clubs of 6 to 12 investors to ease the burden of raising capital...Bahamians must be exposed to skills necessary to grow their businesses beyond The Bahamas - for example how to develop and grow a global niche market.

Viable governmental small business enterprises programs. Most critical hurdle facing new business is availability of operational capital.





WELCOME

For the last decade, I have focused on developing innovative solutions for the challenges Fortune 1000 corporations face in the dynamic and changing conditions of a global marketplace. Working as a consultant based in Rhode Island (U.S.), my experience has crossed a variety of sectors including the technological, consumer, commercial, healthcare, finance, and retail sectors. Understanding the capacity for firms to innovate through the use of design and technology has become noticeably critical to extracting new value and achieving profitable growth on both a local and global scale. Additionally, focusing on the geographic constraints and locational endowments has contributed to my understanding of innovative sustainability; it has placed me on a new path of intellectual and professional curiosity.

This study is the first independent innovation study conducted in The Bahamas. An important impetus for undertaking this study was to address the current economic slowdown along with the significant barriers preventing foreign-educated young entrepreneurs (like myself) from returning home to find opportunities in compatible and technologically advanced markets. Therefore, the ultimate aim is to spark discussions that drive efforts toward alleviating current constraints on the activities of firms on the island.

As the OECD (2005) recommends, (although it will knowingly require additional resources) the results of innovation surveys should be widely distributed to encourage participation, increase awareness, and support usage. These initial results will hopefully promote awareness on the nature of innovation, and to mobilize key stakeholders towards setting new expectations for future trajectories. That said, it is recognized that strategies, action plans, and frameworks for fully appraising and justifying the economic impacts for the recommendations posited are beyond the scope of this report and will require Bahamians to take action. It is my intention to disseminate the results in hopes to encourage formalizing the first regional innovation platform.

Readers are invited to consider the potential image of the island and of the country. During the study, I received a number of emails from interested parties and encourage individuals to continue to make contact with the Organization for Bahamian Innovation (www.BahamianInnovation.Org). Finally, I would like to extend a special thanks to all the participants in this report, especially the SMEs of New Providence Island, who were, after all, the inspiration for drafting this report.





TABLE OF CONTENTS

ABSTRACT	6
WHAT IS INNOVATION?	7
CONTEXT	8
Globalization	
Territorial Innovation Overview	
The Bahamian context	9
Island Context	
Theoretical Foundations	11
Aims and Objectives/Research Question	11
RESEARCH	12
Introduction	12
RIS Survey	13
Participants	13
Unit of analysis	13
Data collection	13
Response Rate	14
Measures	14
Data Analysis	15
Introduction	16
BUSINESS ENVIRONMENT	16
Quality of the region's transportation	17
Roads	18
Ports	18
Quality of the island's communications infrastructure	20
Cost of doing business	22
Cost of living	24
Quality of Life	25
INNOVATION NETWORKS	28
Local customers	28
Non-professional Associations	29
NORMS & ATTITUDES	31
Proactively sharing information and resources	
SUMMATION	



Overview	36
Key Priorities for New Providence	37
Recommendations	38
Reducing the cost of conducting business (directly or indirectly)	39
 Improving the efficiency and effectiveness of local and national government regulat procedures while taking advantage of dependency on home demand. 	
Improving the dialogue between local government with the private sector in order ness development	44
Conclusion	46
REFERENCES	49
BIBLIOGRAPHY	53
APPENDICES	53
Appendix 1: Table of practical recommendations, best practices, and instructional cases.	53
Appendix 2: Sample Financial Engineering Tools	54



ABSTRACT

In the modern global economy, The Bahamas remains overly dependent on two sectors: tourism and financial services. After five years in opposition, the Free National Movement (FNM) political party, led by Hubert Ingraham, returned to power armed with a publicized manifesto aimed at stimulating innovative practices for the country's business leaders.

This report aims to improve the understanding of the innovative capacity for small private firms located on New Providence Island, The Bahamas. The research findings re-assert the socio-economic influences on coevolving firms within a geographically isolated context. Such close proximity promotes cooperation and collaboration on a variety of social and economic dimensions, some of which are not traded directly in the market place, but influenced by the ecosystem that makes up the local business environment.

Adopting a regionally-based systemic approach, this study assesses the critical factors influencing economic strengths and weaknesses of New Providence Island. Recommendations are posited to foster a favorable environment to promote evolutionary growth to enhance innovative performance for small enterprises in the private sector. These recommendations respond to the need for advocacy at the local, national and regional levels in hopes of formalizing the first regional innovation platform.



WHAT IS INNOVATION?

There has been tremendous debate throughout the literature on the exact definition of innovation. It will, therefore, be important to clarify the term "innovation" for the context of this report as management scholars have not yet come to agreement on a single definition. What is common to modern interpretations is the foundation of the Schumpeterian perspective as it was he who first recognized the importance of the notion. According to Schumpeter (1934), who expands on arguments dating back to Karl Marx, innovation is the driving force of economic development. It was Schumpeter's modification of Marxian argument that noted that "imitators" were more likely to succeed in their aims if they improved on the original innovations. This interpretation contends that innovation can facilitate or induce new innovative opportunities. The Marx-Schumpeter model was introduced with the purpose to explain this long-run economic change referred to as "development". Schumpeter also defines innovation to be a result of "new combinations" of existing resources. For example, existing knowledge and resources pave the way for continuing change. For a myriad of reasons, many innovations are seen in varying degrees as "modifications", which ultimately deliver new levels and platforms that pave the way for increased economic significance. From this perspective, the potential opportunities for securing economic growth for actors in less developed economies, like The Bahamas, can now be better understood.





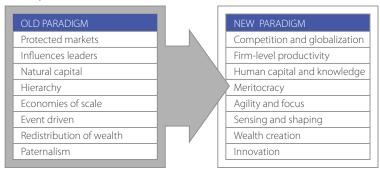
GLOBALIZATION

Economic globalization has introduced the process whereby national markets have become more integrated and more interdependent. Spatial boundaries are increasingly emerging into systems of innovation with increasing emphasis placed on socio-economic globalization and unique economic cultures (Porter, 2000).

Opponents of globalization suggest that globalization continues to worsen the inequality between and within developed and developing countries. The controversial perspective denounces the "Washington Consensus", a concept coined by Williamson (1989) with the original meaning alluding to the lowest common denominator of policy advice (advocated by Washington-based institutions including the World Bank) that ideologically marginalizes developing countries. These arguments also shed light upon the distributional issues of uneven shares of gains from both trade and foreign direct investment (FDI).

Nevertheless, globalization is a somewhat new phenomenon and the pace of change is accelerating, all the while affecting economic structure, social structure, industry, communication, information technology, knowledge, competition, and policy. In the 1990s, knowledge became the key to establishing competitive advantage and economic wealth in what was known as the knowledge economy. Today, the development of the innovation economy has advanced through applying this knowledge into factors such as uniqueness, relevance, and speed. This perspective supports the shift from an old paradigm of competition to a new paradigm of competitiveness. Characteristics of this shift are presented below (Figure 1). At the local level, the relationships between economic actors acknowledge the world is shifting towards a more complex and networked environment.

Figure 1: Characteristics of a shift from an old competitive paradigm towards a new innovative paradigm for competitiveness.



Adapted from OTF Group (2007)



Despite the dramatic progress of information and communication technology (ICT), more attention is being paid to the regional contribution to innovation, addressing concerns in regard to stimulating and enhancing innovative capabilities within a rapidly changing environment. The most important issue for economists, geographers, policy-makers, and entrepreneurs is ensuring attractive sustainable development. It is widely accepted that no single model is applicable to all areas; therefore, it is important to identify the models that fit the characteristics of New Providence Island, The Bahamas (commonly referred to by its indigenous people as Nassau).

TERRITORIAL INNOVATION OVERVIEW

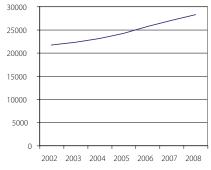
Contributions from a variety of disciplines such as economics, business management, and sociology have fused into a common viewpoint that raises the issues of the complexities of innovation and local economic development. This has moved analysis beyond the internalist bias and towards the adoption of a systemic approach that has emerged under the umbrella of "new regionalism" and "territorial innovation models" over the past two decades (Moulaert and Sekia, 2003). This approach also incorporates concepts such as clusters, industrial districts, innovative milieus, learning regions and regional innovation systems into regional attributes of innovation where local institutional dynamics play a significant role within a geographical construct. The following chapters will seek to examine a territorial approach to innovative capacity as it relates to private firms on the island of New Providence, The Bahamas.

THE BAHAMIAN CONTEXT

The Commonwealth of The Bahamas is located 80km off the southeastern coast of Florida (U.S.A.). The country has relied on its close proximity to the United States to sustain its economic growth. The country remains a centrally managed and highly regulated economy that advocates protectionism for its business and labor sectors from outside competition. This has fostered a clear split in the economic systems of the country to often favor the coexisting economies of proximity and globality. The country maintains good relations with the U.S., Canada, and Europe, but is not a member of the World Trade Organization nor does it participate as an official member of the Caribbean Community (a group of 13 Commonwealth Caribbean countries).

The small economy of The Bahamas has performed well (in terms of per capita income) and has developed successful tourism and financial service industries – a pattern that is notable in other high-performing small economies throughout the Caribbean (Figure 2). The dynamics and the consequent specificities of such economies are a central concern of this report. The Bahamas is one of the most prosperous countries in the Caribbean (it boasts the third-highest per-capita income in the Western Hemisphere), with GDP per head of U.S.\$20,956 in 2008 (up- to- date economic data is notoriously

Figure 2: Nominal GDP Per Capita (US\$) for The Bahamas



Source: Global Insight (2008)



difficult to gather, making it impossible to apply econometric models).

In the modern global economy, The Bahamas can no longer rely on basic advantages (i.e. warm climate, clear waters, and proximity to the U.S.) and remain overly dependent on two sectors: tourism and financial services. The institutional setting remains inwardly focused, leaving the business environment at a competitive paradox. Economically, the benefits of free trade allow the importing of products from lower cost producers around the world, competing in the global market for tourist and financial services, yet the country maintains policies that protect (through isolation) the business and labor sectors from competition. With the strengthening of foreign competition and technological advancements, these policies demand a new business mindset to be considered in order to ensure future efficiencies and profitability. The Bahamas maintains negligible control on the prices of the products they import and export. As a result, many economic actors remain price-takers. Additionally, as the islands are geographically isolated, consideration for local production processes and the threshold of resources, capabilities and competencies prove to be limiting factors.

The Free National Movement (FNM) political party, led by Hubert Ingraham, returned to power after a general election held on May 2, 2007, after five years in opposition. The new government, armed with a publicized manifesto, outlined one of the nation's new imperatives as sustainable innovation.

ISLAND CONTEXT

The context of locational advantages has been a subject of debate within the broader geographic literature for centuries. In the early 19th century, Herich von Thunen (1780-1850), in his book Der Isolierte Staat ("The Isolated State"), introduced a production model based on the cost to transport goods over various distances to a single market center (Thunen, 1826). Although Thunen focused on the agricultural sector, the underlying assumption to this model was that costs of transport to market centers dictate the value of resources. He theorized that producers would seek to maximize profits by producing higher value, more intensive products closer to the market center and lower value, less intensive products further away from the market. This concept formed the basis for more recent approaches such as "new economic geography" (Krugman, 1995) but fails to account for the island context alongside the technological advancements of today.

A clear disadvantage for an island like New Providence is the limitation within the production system. There are several rationales towards technological trajectories of firms and sectors that require different types of innovation support. Small size is often considered to go hand-in-hand with economic disadvantages that result from insularity and remoteness from the commercial centers of the world. Additional limitations



include: High per unit transport costs and marginalization; limited natural resources endowment; limitations on the extent to which they can diversify their economies; small domestic markets and dependence on export markets; dependence on narrow range of products; limited ability to exploit economies of scale; and limitations on domestic competition (Briguglio, 1995). Restricted macroeconomic policy exacerbates the pressures on administrators, and, therefore, has a strong impact on the modus operandi. Protected by tariffs (the basic ad valorem tariff for imported goods is 35 percent, but many items have separate tariff rates) and regulations, national policies (e.g. Bahamian Government policy prohibits foreign investors from opening retail and wholesale outlets) play a significant role towards creating a platform for competitiveness and enforcing the economic sovereignty of the island-state. This protectionism has predictably sheltered businesses from the full effects of key global trends such as technological-evolution and the enhanced efficiencies of trans-nationalization of production and distribution.

THEORETICAL FOUNDATIONS

Classical economic theory (Smith, 1776) raised the question of how a society could be organized around a system in which every individual sought his or her own monetary gain. Also known as "laissez faire", Smith's approach claims that leaving individuals to make free choices in a free market results in the best allocation of scarce resources within an economy. This would imply that innovation should be left entirely to market forces or to a combination of market forces and voluntary intervention of individual economic actors. Although the orthodox school of innovation economics would suggest market liberalization, The Bahamas' national protectionism policies foster suitable conditions for policy interventions to enhance the diffusion of technological advancement and increased productivity: the market of innovation works by the interaction of demand and supply.

AIMS AND OBJECTIVES/RESEARCH QUESTION

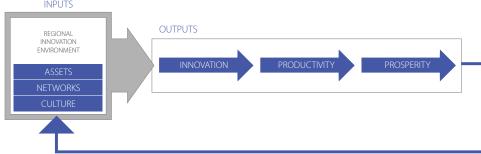
A spatial-economic approach that opposes the principles of classical and neo-classical theory, advocates that firms can strongly influence and be influenced by their environment. As a result of examining a selection of mainstream approaches, which emphasized the dichotomy of the social and economic views, two pivotal positions emerged. The social view often relies upon neo-institutional evolutionary theories to explain how innovations are adopted, adapted and driven by factors other than market forces. These factors include local networks, trust, and institutionalized practices. Secondly, the economic view considers economic behavior of firms to be partly determined by transaction cost along with the local production system.

This has guided our approach to recognize growth as a self-reinforcing, multi-faceted



process linked with strong interconnections and influences of micro-mechanisms. Businesses and entrepreneurs are increasingly utilizing open innovation strategies, placing increased importance of the complex web of actors within the business ecosystem. This emphasis has highlighted a systemic approach within a regional domain. Although a singular definition of the systemic approach is yet to be agreed by scholars, this construct understands the term ""system" as a specific methodological and analytical framework used to assess a wide array of determinants of innovation from its influence on production. The underlying principle to this systemic approach is that innovation is achieved through the multidisciplinary and multi-organizational interactions between actors. The numerous schools of thought that support this have suggested new regionalism and territorial innovation models to advocate a theoretical construct consisting of principles that explain interdependencies between actors. It is commonly recognized that every region has different sets of assets, networks, and underlying economic cultural characteristics that link the region's capacities to new opportunities, resources and influences. As shown below in Figure 3, the interplay between these innovation inputs creates the regional innovation environment that impacts the ultimate prosperity of the region.

Figure 3: Regional Innovation Environment Input and Outputs



Source: Council on Competitiveness (2005)

This report aims to improve the understanding of innovative capacity on New Providence Island. The study of territorial dynamics highlights the significance of local institutional dynamics, as they are critical to the success of firms. As the first innovation assessment, the following study will assess the regional factors that influence economic strengths and weaknesses to develop benchmarks from which to measure progress in the future.

RESEARCH

INTRODUCTION

This chapter outlines the design of the investigation covering the research question that aims to utilize a cross-sectional survey design to assess the strengths and



weaknesses of the island's innovative capacity within the context of a geographically isolated island.

RIS SURVEY

The methods described by the Council on Competitiveness (CoC) have established credibility through live application (funded by the U.S. Economic Development Administration), as part of the CoC's Regional Innovation Initiative from 2003-2005. The methods described in this guidebook were tested and refined in six regional projects: Central New Mexico; northeast Ohio; Wilmington, DE; western Michigan; the inland northwest and greater St Louis. As this tool has successfully been applied to multiple regions that differ, it is considered to be a valid and reliable construct. Furthermore, this methodology recognizes regions to be part of a socio-economic paradigm where a firm's interactions and relationships are situated within the institutional context in order to generate economic value. The survey is categorized into three subscales: the regional business environment (assets); innovation networks (networks); and regional economic beliefs, norms, and attitudes (culture). This methodology also goes as far as to recommend methods for identifying a reliable sample frame.

PARTICIPANTS

UNIT OF ANALYSIS

It is accepted that innovations may take place in all parts of the economy: in manufacturing; finance and accounting; insurance; real estate; legal; medical, including dental and health; telecommunications services; transportation and utilities; construction; architecture and engineering; data processing services; wholesale; resale and distribution; education; marketing; research and development labs; consulting; computing; hospitality and tourism; food services; agriculture; and more. It was also important that the target population focus on units that could be considered as innovators, non-innovators, R&D performers and non-R&D performers because of the ongoing debate to agree on a single definition of innovation. Although a number of practical constraints exist, a convenience sampling method was utilized. The aim was to establish a collective or accumulated view of their perceptions and opinions on factors regarding the innovative capacity of New Providence Island.

DATA COLLECTION

The survey was distributed to a representative group of businesses located in New Providence Island. This is the most populated island in The Bahamas and the majority of businesses are registered in the city of Nassau on New Providence Island. Within this sampling frame, managing directors (or equivalents) were targeted as the questionnaire aimed to collect detailed operational, logistical and economic data. It was vital to communicate that the information would remain confidential and all results would be automatically reported in aggregate by the collection system.



RESPONSE RATE

Three attempts were made to collect additional responses. This generated a final response rate of 4%. Several factors may have contributed to this low response rate.

MFASURES

As innovation is understood to be a continuous and dynamic process, the adopted approach aimed to identify the strength and weaknesses of factors that impacted innovation activities. This section outlines the divisions of the questionnaire along with an overview of the measurement methods. Three levels of analysis (of business environment, innovation networks, and regional norms and attitudes) were necessary to understand the dynamics and are explained below. The majority of the questions were based on a Likert type scale, as it is simple to administer (Zikmund, 2000), and offers a high degree of reliability and validity. This questionnaire can be described as a "mixed questionnaire" (Teddlie and Tashakkori, 2003) as it included both Likert scales and open-ended questions. Furthermore, according to Hair et al. (2003), Likert scales are best suited for most research designs that use online methods. It should also be noted that any inferences on the general findings were based exclusively on the survey answers.

The first level of the survey, dealing with the business environment, focused on the competitive assets that affect business performance. These included: the educational system, research and development base, technical and scientific concentration, qualified workforce, quality of life, and the concentration of firms. Identifying the degree of influence for these factors provided a clearer understanding of the forces that drive fragmegration (a label used to explain the intersection between the fragmenting forces of localization and the integrative forces of globalization) within the island's business environment (Rosenau, 1997). The first 27 questions utilized a Likert scale format. This response format consisted of a five-point scale, meaning respondents could indicate whether they strongly agreed or strongly disagreed with statements. A sixth option was presented where respondents could declare that the question was not applicable; they could also evaluate the level of concerns regarding attitudes that support innovation such as: willingness to partner, risk-taking, tolerance of diverse people and perspectives, and openness to new ideas. The final four questions of this level of the survey made up a summary section. Questions 28 and 29 sought to assess the attitude toward the collective condition of the region now and five years into the future. Finally, questions 30 and 31, asked open-ended questions to encourage the respondents' own words. This was deemed important to collecting the most critical issues impacting a business's success.

The second level of the survey, innovation networks, consisted of another 16 questions that utilized the same Likert Scale (described above) to explore the linkages between



institutions through innovation networks. It was accepted that formal and informal networks developed through associations, chambers, and technology transfer offices could generate key relationships, strengthen institutional fragility, create awareness and foster innovation. This perspective provided a key understanding of how relationships with regional institutions helped business to innovate. Additionally, it assessed the perceived value of interaction with regional institutions. This section ended with another open-ended question that sought to record the most valuable institutions for the respondent's business. The final question ensured that any unique relationships were captured.

The regional norms and attitudes section of the survey, comprised of 12 questions, measured the dynamics of the business and civic environment. Again, this section ended with an open-ended question to record the most important regional issues related to the respondent's prospects for business success.

The final sections aimed to collect demographic information from each of the respondents on their businesses. A key activity is to collect data from units that had an employee base below 100 employees.

The following procedures and explorative analysis aimed to assess the strengths and weaknesses of the innovative environment within the geographically isolated paradigm of New Providence Island. The assessment followed the survey recommendations, guidelines, and suggested metrics outlined by the CoC (2005). The descriptive analysis that followed described key results.

Results of the analysis were recorded without further weighting, as observed for the individual units. No absolute conclusions could be drawn from the results because the figures referred only to the participating units. For this kind of analysis, unit non-response rate was of minor importance.

DATA ANALYSIS

The descriptive method was adopted because of the commitment to the methodological framework. It was appropriate to the research proposition, and it was fitting to the practical conditions and sampling context.

The purpose of the analysis was to determine whether there were significant strengths and weaknesses in the regional inventory of New Providence Island and to develop a baseline from which to measure progress in the future.



RESEARCH RESULTS

INTRODUCTION

This chapter covers the critical findings of the quantitative data resulting from the survey's questionnaire and provides descriptive analysis of the results. Figure 4 presents an overview of the findings.

In brief, the results were considered critical when they demonstrated significant disparities between the strengths (benefits) and weaknesses (harmful). Attributes of homogeneous and cohesive results were also considered in regards to their contributions towards the territorial identity. Strong regional assets can offer wide strategic options just as well as weak assets can limit strategic choice (CoC, 2004).

Results suggest that the primary strengths of the business environment existed in the accepted overall quality of life (e.g., climate, cultural and recreational opportunities). In addition, the majority of business leaders felt that the quality of promotional and marketing campaigns featuring the island were also beneficial along with the availability of a local customer demand base. However, the number of barriers far outweighed the strengths, with cited dissatisfaction concerning the effectiveness of: island programs aimed at training entrepreneurs, local programs to help start-up businesses, and government-sponsored growth incentives containing consistent references for tax breaks and seed funding. Chief among these recorded concerns were a lack financial mechanisms, strained infrastructures (hard and soft), high costs of doing business, as well as a high cost of living. Moreover, the research indicated a high reliance on local customers with a thin supporting layer of social dialogue and social mechanics that is fundamental to potential and fertile market growth.

BUSINESS ENVIRONMENT

To gauge the influences of proximity in overcoming the challenges Bahamian businesses face on a day-to-day basis, business leaders were asked a series of questions. These elicited information concerning factors that influence their site of production and choice of suppliers. It is clear that the regional business environment influences the specificities in which firms compete. A variety of assets and conditions surveyed included: transportation and communications infrastructure, human capital, regulatory environment, financial capital, research and development institutions, quality of life and existing industrial base.

The most notable factors identified to be real threats towards a prosperous business



environment included: national and local governmental regulations and permitting procedures, the island's cost of living for employees, costs of doing business (specifically, the cost of real estate, wages and salaries, and utilities), quality of the local communications infrastructure (e.g., telephone, wireless, high-speed Internet) and the overall quality of the island's transportation infrastructure (e.g., roads, buses, air transport, and ports).

OUALITY OF THE REGION'S TRANSPORTATION

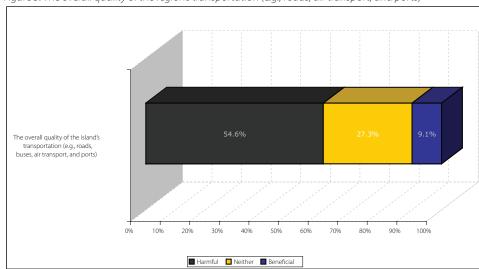


Figure 5: The overall quality of the region's transportation (e.g., roads, air transport, and ports)

The quality of the island's transportation system is a subset of physical infrastructure, and meets a variety of economic, social, cultural and environmental needs. As technological and social change progress, new infrastructure needs emerge. This plays an important role in supporting innovative activities. Conditions like factors in production, such as the state of infrastructure, may contribute to sustained competitive success (providing significant economic benefits) while creating a disadvantage to those of smaller margins or incomes. Business leaders on New Providence Island expressed a strong dissatisfaction (54.6% versus 9.1%) with the state of the island's transportation infrastructure (Figure 5) and specifically with roads and congestion.

This negatively impacted the effectiveness of spatial proximity facilities such as face-to-face communications, common conventions and norms, knowledge sharing activities, the capacity for localized learning by firms and the level of interdependencies. Additionally, the impact on the local production system's trustworthiness and reputation of suppliers, partners, and customers can be adversely affected. From an evolutionary perspective, the efficiency of the island's infrastructure could increase the



variety of locally available knowledge by linking actors to multiple environments and pools of knowledge both local and non-local.

ROADS

Concentrated economic activity on the island has become a catalyst to economic development. With approximately two-thirds of the nation's population residing on the island, this results in a densely populated island with strained physical infrastructure. As one disaffected business executive suggested in the study, "...a proper transportation policy is also needed to alleviate the chronic traffic congestion that will only get worse".

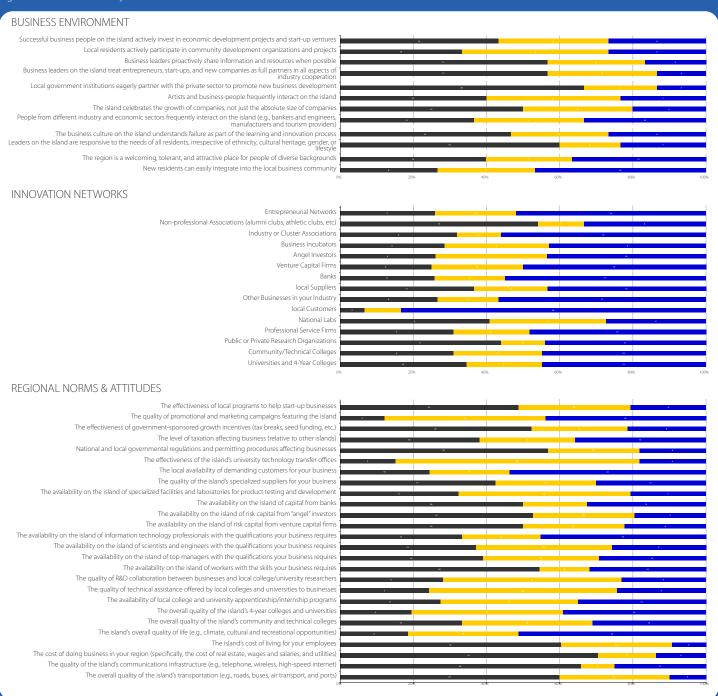
Local government as well as the Inter-American Development Bank (IDB) have both contributed funds to help alleviate the problem, but this remains a work in progress. Although this is a small island (80 sq mi), transportation conditions do play a significant role towards business prosperity. From an economic perspective, the implications of congestion result in raising operational costs, loss of productive time, increased vehicle-running costs, purchase of additional vehicles to achieve equivalent service delivery, and increased crash risk, "road rage" and pollution.

PORTS

Although this demands periodic development in infrastructure, established deep-sea trans-shipment ports on New Providence have improved access to international markets as well as providing increased viability with multinational corporations to consider the potential outsourcing and factory-relocating destinations although high labor costs remain a key barrier. There are 23 seaports in The Bahamas, allowing for increasing shipping connections to the Americas and Europe.



Figure 4: Overview of survey results





OUALITY OF THE ISLAND'S COMMUNICATIONS INFRASTRUCTURE

The canonical view of industries was largely based on traditional physical infrastructure. There is increasing recognition that the transformation towards knowledge-based economies has placed increased importance on the emergence of information and communications technologies (ICT) as a vital component to the developmental framework for social connectedness, economic growth, and innovation. The arrival of the information society and the computer web has provided new perspectives on the diffusion of knowledge, transforming the interaction between economic partners with regard to costs and interdependencies (traded and non-traded).

The overall quality of the island's communication infrastructure is critical for reducing the digital divide between different classes and stimulating innovative potential in order to overcome the geographically isolated paradigm. With the assumption that an island's geographic constraints may lack availability of some ingredients during business cycles, there is a greater importance for networking through strong and reliable communication channels. While this does not nullify the importance of proximity as innovation, it is still considered a social construct although not all aspects of every development and product cycle should be required to rely on the immediate regional capacity. In this respect, business leaders have expressed strong dissatisfaction regarding the quality of the island's communications infrastructure. One respondent added that there is a strong demand for "ensuring a reliable Internet and telephone communications system."

Another respondent advocated:

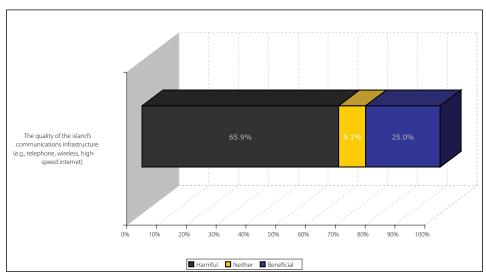
The Internet laws must be brought up to date. Banks must offer Internet merchant accounts to facilitate the growth of ecommerce. Businesses in car garages in the USA, Canada, Europe and the world at large, are selling online to Bahamians (consumers and businesses) with no problem but Bahamian businesses cannot sell to them online. Therefore, we are using up our foreign reserves to purchase goods and services but not limiting the inflow of foreign currency that may be used to purchase Bahamian goods and services online.

An improved communications infrastructure can provide the fundamental support of existing and emerging opportunities (such as access to wider markets) while alleviating some pressures for consolidation and cost containment offered by online efficiencies. When appropriately utilized, communications infrastructure can redefine space to involve networks of both contiguous and non-contiguous relations held together by virtual communications, flows of ideas and information through the supply chain, and symbolic logic (Amin and Cohendet, 2005). This emphasizes the importance of estab-



lishing efficient local and non-local channels, networks that can provide accessibility to distant knowledge centers and nodes. The quality of the firm's ability to obtain and utilize external knowledge determines to a large extent the innovation capability of an economy. Additionally, the accessibility of this knowledge is of a primal concern for the innovation process and offers a potential shift away from the current dependency on high cost tangible resources.

Figure 6: The quality of the island's communications infrastructure (e.g., telephone, wireless, high-speed Internet)



This unsatisfactory level of the island's communications infrastructure (Figure 6) carries strong negative implications towards commercial offerings, learning potential, and players within the island's institutional and business environments. The systematic provision of information can ensure realistic evaluations for market attributes, increasing the efficiency and success rate of corporate innovation activities. Furthermore, the communications infrastructure can reduce the cognitive distance between actors and create a reciprocal learning and collective affinity through increased absorptive capacity to promote effective communication. This emphasizes the need to bridge the knowledge gap by building on cognitive proximity and social affinities that can compensate for the geographic isolation and dissatisfaction with the island's physical infrastructure. Businesses with frequent and effective communications tend to coevolve complementary capabilities, for example, the standards, know-how, values and norms and shared competencies, which Guequen, et al. (2006) referred to as "ecosystemic competencies". A recognized ongoing challenge is the attempts by The Bahamas government to privatize The Bahamas Telecommunications Company (Batelco). It has consistently been met by public opposition and outcry (Global Insight, 2008). Therefore, a new tactical and transformative plan will have to be carefully considered with all

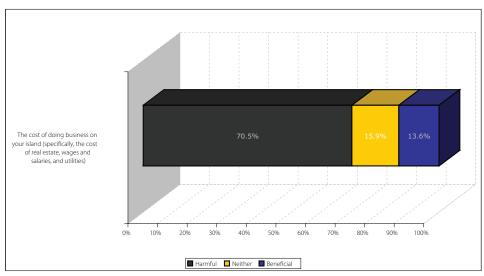


stakeholders in mind.

COST OF DOING BUSINESS

The Bahamas offers a laissez-faire business and investor environment with a stable government. The public policy environment along with other locational attributes, such as the cost of real estate, wages and salaries, and utilities are key drivers of the cost in business operations. According to the research findings (Figure 7), the cost of doing business was the primary concern for 70.5% of the business leaders who recorded that business was harmful compared to an opposing 13.6%. These findings suggested that although each licensed business was required to pay an annual fee (based on the gross profit as a percentage of turnover), the other high costs were key challenges to encouraging business growth and expansion.

Figure 7: The cost of doing business on New Providence Island (specifically, the cost of real estate, wages and salaries, and utilities)



According to a country intelligence report issued by Global Insight (2008) that draws upon the latest occupation wage survey of 2004, a large disparity in wage compensation exists throughout The Bahamas. Although it is beyond the scope of this analysis to examine the contributing factors of this disparity, it is important to recognize it, as innovation strategies will often depend on the accessibility to entrepreneurial capital and financing. Without such access, the range and scope of the innovative activities will be constrained and/or prolonged. The island's business leaders are feeling these limitations. As one respondent emphasized the most critical issue to improving his/her business was the limited "access to additional funding to expand. Most banks skimp in initial funding especially with working capital and advertising budgets".

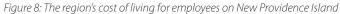


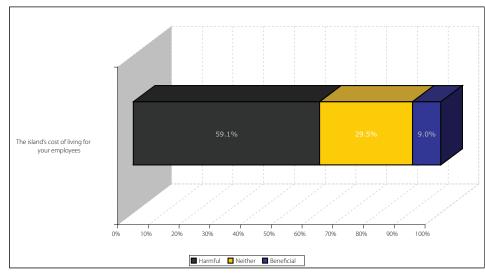
The cost of innovation can be financed internally (through use of retained earnings) or externally (through debt or equity). As the cost of capital can have a strong influence on the rate of investments, the accumulation of working capital plays another critical role in contributing to the nation's capital stock (e.g., machines, equipment) and business ecosystem, hence, generating productivity growth for the island. Working capital optimization places priority on operational programs (supply chain financing and inventory optimization strategies) and theoretically jeopardizes the allocation of capital assets for innovation programs. Tariffs were another voiced concern for the businesses on New Providence as they are paid on entry of goods into the country increasing the upfront investment on inventory and supplies. Tariff rates are very high with the government collecting approximately 65% of its total revenues by this method. The general rate of duty charges on imports ranges from 0% to 210%, with an average rate of duty of 30% to 35%. Moreover, this impacts the rate and cost of adopting new technologies that are vital to sustaining a strong competitive profile, and limits the number of adopters, which, in essence, raise the associative costs of technologies (including the total cost of ownership) to impact the macro-economic environment. This was indicated in the 2005/2006 Budget Communication, when the Hon. Cynthia A. Pratt, M.P., acting Prime Minister and acting Minister of Finance (May 25, 2005), stressed that "the ratio of Revenue to GDP of 20% is becoming increasingly hard to achieve because of the narrowness of our revenue system, heavily dependent as it is on Customs revenues and the non-taxation of services".

Finally, a promising initiative on the national level worth mentioning is the introduction of The Bahamas International Securities Exchange (BISX). This offers a potentially promising contribution as a powerful incentive for financing innovation by mobilizing capital to create strong platforms to support new product (and service) development and technological advancements. Predictably, the outcome of this initiative stands to stimulate the local economy and induce keystone business. Fundamentally, New Providence must consider lowering transaction cost, providing a greater accessibility to capital and markets while maintaining a strong currency valuation.



COST OF LIVING





Household consumption continues to be a major source of economic growth (it represents 68% of total GDP) although it is expanding at a slower pace. According to the Labor Force Report of 2005 (the latest available data), household income declined while consumption continued to expand.

New Providence Island experiences high living standards, and according to this measure the cost of living is adversely affecting the prosperity levels of its residents and businesses (Figure 8). A high cost of living can impact businesses by raising the cost of wages, retention, recruiting of staff, and the economic vitality of the area. These influences, in turn, can influence pricing strategies associated with product development and market introductions. Rising cost has also been known to effect government budgets adversely (e.g. higher administration costs and higher pensions) and, ultimately, the operating environment and community. From this macroeconomic perspective, competitiveness is regarded as essentially determined by the growth rate of productivity. One view offered in a draft report for The European Commission Directorate-General Regional Policy links competitiveness to living standards:

A nation's competitiveness is the degree to which it can, under free and fair market conditions, produce goods and services that meet the test of international markets while simultaneously expanding the real incomes of its citizens. Competitiveness at the national level is based on superior productivity performance and the economy's ability to shift output to high productivity activities, which in turn can generate high levels of real wages. Competitiveness is associated with rising living standards, expanding employment opportunities,



Figure 9: Real GDP % Change (2002-2008)

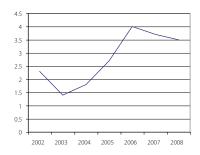
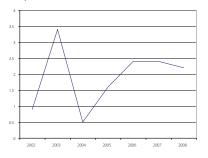


Figure 10: Consumer Price Index % change (2002-2008)

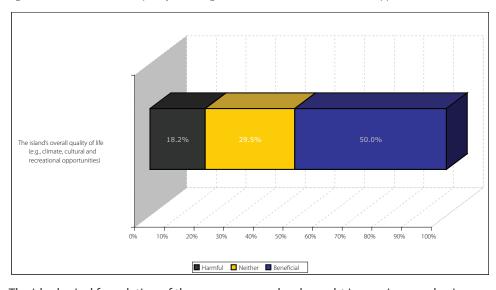


and the ability of a nation to maintain its international obligations. It is not just a measure of the nation's ability to sell abroad, and to maintain trade equilibrium. (The Report of the President's Commission on Competitiveness, 1984)

The World Economic Forum's Global Competitiveness Report contends that micro-economic reforms are key to reversing unemployment problems and translating economic growth into a rising standard of living. This appears to be a concern as decreases in the annual percentage change of real GDP currently indicates a strong potential for economic slow down and future risk of recession (Figure 9). Also presented below (Figure 10), the declining CPI supports the signal that the economy is softening (or slowing down).

QUALITY OF LIFE

Figure 11: The Island's overall quality of life (e.g., climate, cultural and recreational opportunities)



The ideological foundation of the new economy has brought increasing emphasis on the human dimensions where basic factors like the quality of life in a region can heavily influence the inflows and retention of human capital and the evolutionary notions conducive to productive growth and regional competitiveness. Although the mobility of talent is confined to the geographical constraints of the island (e.g. it is not feasible to commute to/from other islands), the quality of life has assumed greater importance in economic development practices along with the facilitation of effective "business ecosystems" (CoC, 2005; Moore, 1996). The ultimate goal of a region (or nation) is to establish economic growth that is highly stable and sustainable. Although the quality of life is arguably a subjective measure, it still contributes to economic resiliency of the island and ultimately the business environment. Despite the suggested dissatisfaction



with the transportation and communications infrastructures, the island enjoys a 50% rating favoring a beneficial quality of life (Figure 11).

The prescription for successful regional strategies rests on the belief that people are innovators, and, therefore, the quality of place should be a central feature of economic development strategies. For New Providence, recreational assets with accompanying cultural amenities and island life all contribute to this perception of quality. This quality is communicated by promotional and marketing campaigns that feature the island, continue to attract visitors, set expectations, and deliver an economic base that provides a number of opportunities for economic participants. This was supported by the research findings that recorded that 40.9% of business leaders found the promotional and marketing campaigns to be beneficial to the business ecology with an equal portion unmoved by suggested benefits of promotional efforts for their businesses and a remaining 11.4% who suggested these campaigns are actually harmful to their business (Figure 12).

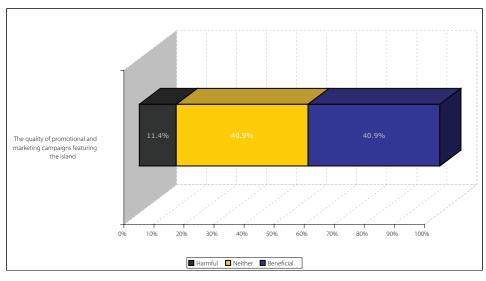


Figure 12: The quality of promotional and marketing campaigns featuring the island

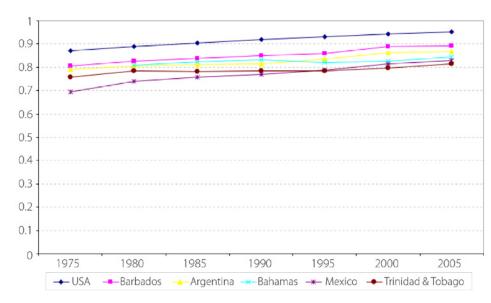
The country's educational system is supported by the Government with The College of The Bahamas, the country's center of higher education, being primarily located on New Providence. The College is slowly making progress by transitioning into a four-year institution, offering associate, bachelor and master's degrees, the latter through alliances with American universities. Students often travel to international universities for higher education programs. Respondent views support that The College is making progress and list the following issues that should be addressed to improve New Providence Island's business prospects for success.



"More practical programs..."

Since 1990, the Human Development Report (formulated by the United Nations Development Program) has published the "HDI-ranking" that represents a country's relative rank, in terms of a "Human Development Index" computed from a range of socioeconomic indicators. The HDI places The Bahamas in the high human development category, at 49th place. Moreover, since the mid-1970s (and in comparison to other high performing countries in relative proximity to The Bahamas) countries have progressively increased their HDI score with the exception of The Bahamas, which appears to be stagnating in progress (Figure 13). This is partly due to economic vulnerability that includes exposure to negative conditions in foreign places as recognized in the Prime Minister Hubert Ingraham's annual New Year's speech (on January 13, 2008). He posited the slowing growth to be due to a "cooler U.S. economy", which was softening tourism and reducing investment inflows. The Prime Minister went further to suggest that this presented varied opportunities for Bahamian entrepreneurship (Caribbean, 2008).

Figure 13: Human Development Index trends for The Bahamas and other high performing countries in relative proximity to The Bahamas



[&]quot;Make curriculum and programs more relevant to needs of the community and workplace."
"More technical and vocational training to meet the demands of the job market."



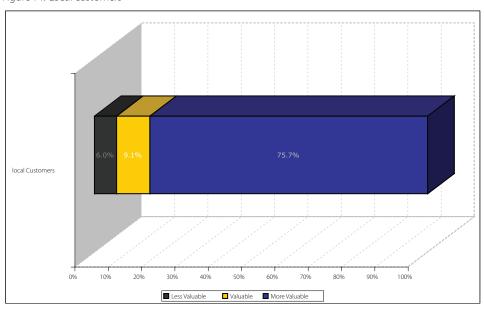
INNOVATION NETWORKS

Although maintaining a number of connections to the Americas and Europe, the dissatisfaction with the island's operational environment and infrastructure placed a higher reliance on local actors. The efficiency of the supporting mechanisms maintains a strong relationship with the effectiveness and influences on the economy.

Business can play an important role in establishing institutional order and improving working conditions. Schumpeterian principles of innovation advocate the bundling of dynamic institutional complementaries. Collaborative efforts can promote policy-making facilities such as business associations and other groups committed to institutional dialogue. Currently, the local business environment can be interpreted as having low instrumental power, leaving abundant opportunities for actors to negotiate position within the national structure (Figure 4).

LOCAL CUSTOMERS





Evidence shows that local customers are highly valued actors in the economic development of New Providence. The majority of firms (75.7%) in the sample indicated a strong dependency on the supply of local customers (Figure 14). Such territorially embedded customers suggest a grassroots RIS where demand is user driven and is less influenced by the systemic attributes often observed within technologically advanced

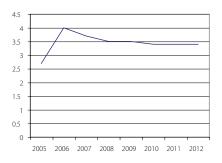


learning regions. This local context encourages vigorous competition among locally based rivals that can accelerate the rate of economic churn. As assets shift into more productive cycles that exploit the localized proximity and linkages to generate innovation, this inherently necessitates closer and more flexible relationships with customers, suppliers, and even competitors. However, assets that are acquired off the island cannot be considered a competitive advantage because those assets are available to all competitors. Unique local assets and relationships reinforce the locational paradox as they take center stage in a more global economy. Local focus and the independencies of home-buyers can act as an incubator for concentrated innovative activity, generating spillovers and increasing returns on knowledge. These innovations can be seen to be endogenous to the economic system as value creation is dispersed into the local economy through consumption mechanisms.

The results stress the advantages of home demand which can allow local firms to learn quickly how to succeed in their industry. This should also encourage domestic firms to "upgrade" competitive advantage and raise the incentive to pursue innovations. However, a recent forecast of the country's percentage changes for Real GDP (Figure 15) observed moderate growth rates that would discourage the pursuit of radical innovative strategies. This often results in incremental growth, rationalization, and a resistance to embracing new technologies among individual firms (Porter, 1990).

The local market demand is limited; 61.5% of respondents indicated their company sells (exports) products or services off the island. This alters the size of a market served, hence, providing opportunities to gain an advantage through increased economies of scale and learning. However, worth noting, if these exports target only other Bahamian islands within the cultural boundaries of the country, the idiosyncratic nature of the demand can undermine the competitive advantage of local firms by failing to anticipate needs elsewhere (Porter, 1990). That said, Porter (1990) supports that although domestic demand is often perceived to be predictable, it can only provide an advantage if it encourages investment, and reinvestment or dynamism. The confidence of this dynamism does not seem to be reflected in the economic forecast offered by Global Insight's (2008) dataset for percentage changes in Real GDP (Figure 15) which forewarns continued economic slow down and stagnation (and future risk of recession).

Figure 15: Forecasted Real GDP % change (2005-2012)



NON-PROFESSIONAL ASSOCIATIONS

Institutions are often more successful at translating tasks stemming from new and existing regional policies as they pose a wider knowledge of local realities and retain a stronger credibility in the eyes of market participants (Cooke and Morgan, 1998;



Diez and Esteban, 2000). For example, clusters are well known to beget other clusters as interactions across disciplines seed new platforms and present new opportunities for entrepreneurs to stimulate economic growth. Porter (1998) identifies a shift of key responsibilities for economic development moving from the "old model" where Government drives economic development through policy decisions and incentives towards a "new model" where economic development recognizes collaborative efforts among actors influencing operations, policy-making facilities, and establishing new institutional dialogues. On the island of New Providence, many of these efforts are recognized to fall under the umbrella of government agencies, and limited regulatory agencies. Less understood is the role of entities that Porter and Emmons (2003) refer to as "institutions for collaboration" (IFCs) that include and are not limited to: chambers of commerce, non-profit think tanks, entrepreneurs networks, standard setting agencies, and non-professional associations (alumni clubs, athletic clubs, etc). These IFCs can affect productivity and competitiveness through a variety of roles, activities, behaviors, and relationships. Although IFCs offer promising enhancements to competitiveness, they can also hinder the business environment by undermining the economic system by pursuing actions that reduce competition. These entities are also particularly important in emerging economies because they often enable a better dialogue between government and the business community. Maintaining an appropriate model of behaviors and attitudes among economic actors is vital for strengthening the fibers of the multi-level territorial-institutional construct.

Thirty-nine point four percent (39.4%) of respondents reported that non-professional association was of little value compared to 24.3% who did not agree. The results suggest there remains the need for aggregators in the private sector to fill the institutional voids by operating as intermediaries in product and factor markets (Khanna and Palepu, 2006). Aggregators in these markets can improve the flow of information to propagate and support network development. Additional mechanisms can replace the remnants of the old institutions and increase collaboration in order to address the key innovation challenges facing the community, improving commercialization and technology transfer, and supporting start-ups. These mechanisms enable co-ordination through: the sharing of resources, allowing visible performance comparisons, rapidly diffusing best practices, enhancing the ability to perceive innovation opportunities, promoting standards and behavioral norms and facilitating common actions. Furthermore, establishing functional IFCs recognizes that innovation is fundamentally a localized, path-dependent and interactive process between industry, government and university (including other higher education and research institutes)-also referred to as the triple helix--and can strengthen the collaboration and association with innovating partners (Cooke and Morgan, 1998).



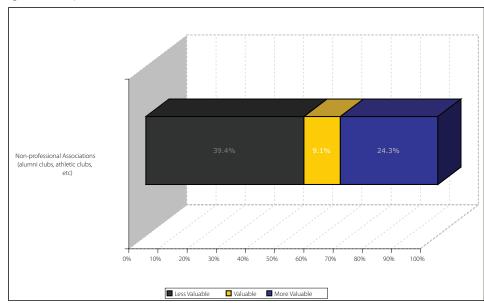


Figure 16: Non-professional associations (alumni clubs, athletic clubs, etc)

NORMS & ATTITUDES

The responsiveness and adaptability of institutions is expected to have shifted in the context of globalization (Meil and Tengblad, 2006). Aoki (2000) defines the economy as an "over-all institutional arrangement" made up of a complex set of inter-dependent "socializing agencies" (Hall and Soskice, 2001) and domains that are relevant for economic performance and development. Development can encourage norms that are efficient as well as discriminatory (Young, 1998).

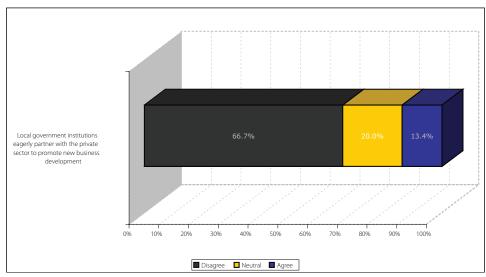
Local ecological conditions evoke culture (Kameda, 2003) that empowers participants through interaction and knowledge transmissions (Sperber, 1996; Tooby & Cosmides, 1992). However, business leaders largely disagreed that the culture of proactively sharing information exists (Figure 17). Socially-shared rules are sustained through autonomous interaction, and guide and/or constrain social behavior without formal regulating mechanisms, such as laws (Cialdini and Trost, 1998). Aoki (2001) adds that historical and social factors matter for norms to influence the selection of (social) equilibrium. Thus, systemic effects between institutions establish norms and attitudes exist in a normative realm and can strongly influence the structure of political regimes, economic transactions, and social interactions. Normative behaviors (i.e. communal sharing) function as a collective risk reduction device and have been traced back to primordial



societies (Kaplan and Hill, 1985). This primordial foundation highlights the behavioral desire to seek position through collectivism and perhaps rationalism. Through the development of market incentive and coordination-oriented policies, the institutional setting shapes a culture for innovation and social learning.

The island's social and political milieu as well as the posture of the country to the outside world shapes the market contexts (Khanna et al., 2005). New operating principles driven by the market have been identified to weaken the governance potential of existing systems due to new complexities introduced since the advancement from the traditional Fordist/Taylorist production era (Meil and Heidling, 2003; Bergmann, 2001). Even within the laissez-faire business environment of The Bahamas, it is clear that government plays a role in determining certain conditions of the operational and competitive environment. Management strategies must not only consider the market, but the conditions of the regulatory and institutional regimes within each component of their local production system. Furthermore, Knill and Lehmkuhl (2002) suggest that since the emergence of globally integrated markets, redesigning national regulations in order to avoid regulatory burdens can be seen as a form of "regulatory competition" between national governments.

Figure 17: Local government institutions eagerly partner with the private sector to promote new business development



The majority of business leaders who responded (66.7%) disagreed that local government institutions eagerly partner with the private sector to promote new business development. Regional growth and innovation systems are dependent on market and production conditions and the methods through which they are regulated and supported. Although popular for larger multinational organizations, this can threaten the



private business environment on New Providence as firms begin to consider "regime shopping" (Streeck, 1998, 2001) to find more suitable operational and production resources off the island. Nassau's famous straw market that historically sold and traded indigenous fruits, vegetables, meat, and fish is a prime example of this shift in strategic orientation. Today, there is no formal requirement that the origin of products should remain Bahamian, and in an informal study reported by The Nassau Institute (2007), only 19% of the products sold are made of straw; 13% of the products sold are Bahamian, 52% of the stalls sell no straw products and 50% of the stalls sampled sell no Bahamian products. Moreover, it was also reported that vendors claimed that foreignmade products were more profitable and Bahamian products were not only poor in quality but the supply was less reliable rendering the poor configurations within the national systems. Increased dialogue can help negotiate a more appropriate, flexible, and adaptable environment with new configurations that enhance the competitiveness of the island and influence the various ways the social, economic, and political processes provide goods (Knill and Lehmkuhl, 2002). Hall and Soskice (2001) examined the means of co-ordination under different institutional structures and reported, "each economy displays capacities for co-ordination that will condition what its firms and government do". With such strong dissatisfaction, there is need for increased social dialogue to promote the necessary solidarity for new linkages among institutions, value-driven orientations, co-evolution, and institutional restructuring demanded by the increasingly global and knowledge-based society.

PROACTIVELY SHARING INFORMATION AND RESOURCES

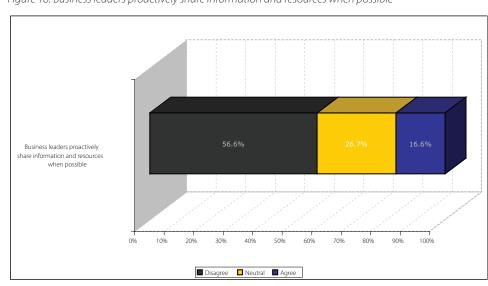


Figure 18: Business leaders proactively share information and resources when possible

According to transaction cost theory (Williamson, 1985), a firm exists because it is



capable of organizing resources more efficiently than markets. This approach is not explained by economies of scale but rather by transaction costs, which include the costs connected to conventions, communication, coordination and decision-making. Accordingly, Boulton et al. (2000) classify the intangible and tangible assets as the keys to creating value in changing business environments.

Information supply is considered a key component in the process of innovation. It is dependent on the notions of environmental sensing, limited rationality, decision-making, and "organizational relationship capital" (Agarwal and Selen, 2007), along with the learning and diffusion process that affects the directions of technology development (Porter, 1990). Schumpeterian principles of innovation between bundling and dynamic institutional complementarities influence interactions through the economic, political, social, and organizational interface. However, enhancing coordination or bundling is seen to be a particular challenge on New Providence, as 56.6% of respondents expressed business leaders do not proactively share information or resources (Figure 18). This can ultimately result in potentially higher transaction costs as actors cannot rely on efficient (with limited unforeseen contingencies), equitable, and mutually beneficial transactions often afforded ex ante by good reputation. This factor was identified in the study to be one of the most important issues to improving business prospects for success and trust. Additionally, the island's business environment lacks an efficient information and communication infrastructure and the government accepts little responsibility to signaling the emerging trends and problems for firms (as noted with MITI in Japan), and up-to-date information is notoriously hard to garner. Local firms must therefore fend for themselves and play a stronger role in sensing factor disadvantages and trends, while identifying opportunities. Solidarity and social capital are necessary conditions for establishing self-organization and building of bottom-up initiatives through effective use of local knowledge (Cooke and Morgan, 1998). Participants identified the following factors which supported the need to exchange ideas, information and resources in order to improve their prospects for success on New Providence: increased participation in business decisions; the need for continuous learning; overcoming the inefficiencies of many businesses/daily activities; improvement of the social environment; more small business interaction with large ventures; maintaining a good reputation; partnering with local government and successful business leaders to promote successful new businesses; and enhanced government responsiveness with improved infrastructural developments (e.g. improved services from BTC). This entails persuading private-sector actors to share information, improving the ability to make credible commitments, and altering their expectations about what others will do so as to pursue long-term benefits from mutual cooperation. However, the study suggested that 56.7% of respondents expressed that entrepreneurs, start-ups, and new companies did not receive all aspects of industry cooperation and partnership (Figure 19).



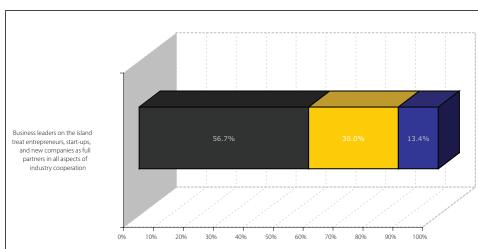


Figure 19: Business leaders on the island treat entrepreneurs, start-ups, and new companies as full partners in all aspects of industry cooperation

Porter (1990) recognizes that sharing information and/or resources can introduce circumstances of conflicting economic interests between vertically or horizontally linked firms (e.g. suppliers' and buyers' negotiations ultimately to determine the division of profits) that may bias or restrict information flow in the pursuits for stronger relative bargaining power. Mechanisms (such as trade associations, alumni networks, family/ quasi-family ties, concentrated geographic proximity, etc.) must facilitate interchanges to ease transactional difficulties. Information flows, along with the information architecture within territorial structures, act as a conduit for innovation and give meaning to something intangible or "in the air", as Marshall (1891) described it, which permits innovation to proceed in some places while not in others.

■ Disagree ■ Neutral ■ Agree

Nevertheless, as identified in the study, the interconnectedness of firms enhanced the exchange and flow of information. Improving the social environment can become a mechanism for overcoming inertia and inflexibility and is of growing importance in modern competition. This may also encourage business leaders on the island to treat entrepreneurs, start-ups, and new companies as full partners. Respondents expressed that industry cooperation was of importance for New Providence's business environment. This could improve the likelihood of new approaches that according to Porter (1990), tend to impact the environment by vertically deepening (more specialization) or horizontally widening (diversification) industrial developments. Porter further states: "Information is a means to overcome inertia and create a sense of urgency in firms. It is integral to upgrading of competitive advantage in established industries and to compete successfully in new industries."



Figure 20: Current ratings of the island as an overall place of business

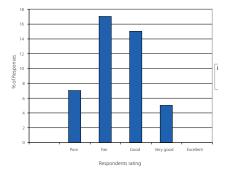
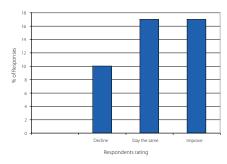


Figure 21: Five-year outlook for the overall quality of the island as a place of business



Both the informal and formal mechanisms, ranging from relationship capital to contract enforcement, play a critical role for structuring the market and ultimately shaping the sub-optimal norms and business behavior observed on the island.

SUMMATION

Despite the critical factors identified in the research, respondents rated the island as an overall moderately good environment for conducting business (Figure 20). The majority of respondents considered the island to be "fair," with a notable faction awarding a "good" rating. When presented with a question that focused on a five-year outlook, the majority of respondents were split on setting their expectations beyond the level of conditions as they exist today (Figure 21).

RECOMMENDATIONS EMERGING FROM RESULTS

OVERVIEW

This study adopted a systemic approach to the non-linear, evolutionary, and functional perspectives on socio-economic innovation processes. It is clear that existing businesses and entrepreneurs will face significant challenges to establishing an environment more conducive to economic progress. Although a strong environment of regional innovation does not guarantee a prosperous economy, a weak one has been found to almost always result in an under-performing one (CoC, 2004).

Many microeconomic factors need to be revisited in order to support the island's critical social development. Wint (2003) postulates that ignoring the smallest firms can lead to serious negative implications. For example, using the latest numbers for employment-generation (provided by the Bahamas Department of Statistics, 2004), it is estimated that approximately three times more employees work in smaller companies with employees ranging from 1 to 49, compared to larger companies.

The innovation climate within New Providence has been cited to possess problematic features such as:

- a mediocre business environment (poor infrastructure),
- inadequate levels of operations,
- · challenging norms and behaviors,



· weakened learning cycles effecting new business development.

Benefits can only be sustained if national investment and reinvestment are encouraged. The literature points to various dichotomies affecting global and local production systems, national and regional level innovation and trade versus non-traded market activities. This paper draws on early lessons learned from the Commission of the European Communities (2004) by choosing to reduce these dichotomies to basic forms. Approaches range from, "not doing anything" (a laissez-faire approach that implies that innovation should be entirely left to market forces) to "doing something" (presenting options for continual efforts intended to stimulate debate and launch a process of consultation). The "doing something" option accepts the new innovative paradigm (Figure 1), and requires removal of key barriers to foster a favorable innovation climate.

KEY PRIORITIES FOR NEW PROVIDENCE

The analysis in the foregoing sections identified a number of barriers impeding innovative capacities (Figure 22). New Providence Island must make attempts to support and promote innovative initiatives to sustain their quality of life while building global competitiveness. New Economic Strategies (2003) describe innovation "...as not simply about technology or the adaptation of technological tools; it is about new governance models, new ways of working together, and new uses of technology to address a challenge or exploit an opportunity in a continuous fashion."

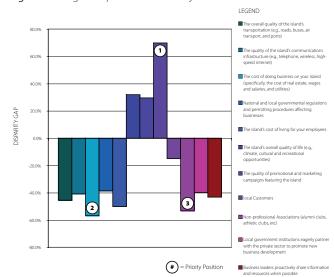


Figure 22: Largest disparities detected by results

The results of the research suggested that transformational and transitional activities remain highly reliant on a stable macroeconomic foundation. It will require new kinds



of institutional mechanisms, which can shape the needed microeconomic change to overcome geographic isolation and build new competencies to attract foreign investments.

The most effective mechanisms for government support of small firms lie in activities that respond to their most pressing challenges. Chief among these are the disparities that inhibit the formation of innovative systems. To overcome the current inertia and revamp economic trajectories, the island's immediate priorities lay in developing new policies and incentives to strengthen the business environment, innovation networks and linkages, and the social constructs (norms and attitudes). It is accepted that the island cannot be competitive in all areas of production and services. Its leaders must commit to a common vision and agenda. For the immediate term, development is contingent on activities that deliver strong growth potential supported by research. Factors that currently have the largest impact on business prosperity (Figure 22) are those that reduce the cost of conducting business (directly or indirectly), improve the efficiency and effectiveness of local and national government regulations and improve the dialogue between local government and the private sector. Table 1 presents the relationship between most disparate factors and the recommended response strategies.

Table 1: Top three disparities with priority responses aimed at delivering strong innovative potential

PRIORITY	DISPARITY FACTOR	RESPONSE STRATEGY
1	Local customers	Improving the efficiency and effective- ness of local and national government regulations and permitting procedures while taking advantage of dependency on home demand
2	The cost of doing business on New Providence Island (specifically, the cost of real estate, wages and salaries, and utilities)	Reducing the cost of conducting business (directly or indirectly)
3	Local government institutions eagerly partner with the private sector to promote new business development	Improving the dialogue between local government with the private sector in order to promote new business development.

RECOMMENDATIONS

The following recommendations constitute an action plan to address key barriers to innovative performance and productivity. These barriers are considered to be adversely affecting the productivity and growth of the island. The current stagnation of growth, poor productivity, and low innovation performance implies deterioration of Bahamian enterprises' competitive performance. Looking through the lenses of social agency, the



lack of entrepreneurial spirit and narrow global consideration is an important issue to the negative socio-economic system and innovation. Maintaining the current trajectory, the island will soon experience difficulties sustaining its real wages and quality of life. Building an innovative culture will contribute to sustainable developments and growth patterns that improve productive capacities and strengthen business competencies and profitability. The basic conditions for development of the innovation capacity require: building awareness, involvement of stakeholders, a shared and realistic strategic vision, building endogenous process for the exploitation of locational specificities and assets, and the knowledge of the changing global, national and regional contexts. Asheim's (2004) findings can be applied to support this prescription. Notably, New Providence will have to reduce risk and promote sustained business performance for its indigenous and ambitious small enterprises. The following speculative solutions aim to enhance a new economic dynamism while recognizing the heterogeneity of firms. The mutually reinforcing multiplier effects are better understood against a complex adaptive system theory. The associative complexities demand multiple approaches at the firm, region and national level. The ultimate goal is the development of new behavioral characteristics and interfaces throughout the business ecosystem. As this innovative outlook is the first of its kind for New Providence, instructional cases will be selected to support the recommendations and lessen barriers.

REDUCING THE COST OF CONDUCTING BUSINESS (DIRECTLY OR INDIRECTLY)

Today, on New Providence, no programs exist which explicitly target improving the technological capabilities of local suppliers. Reducing the cost of conducting business (directly or indirectly) will demand ongoing identification of local assets, creation of strategic government programs, access to new information and knowledge, and new policies. Strong rhetoric captured during the study suggested the need for an endogenous approach to access financial resources. It is recommended financial resources be pooled from several sources. These include personal funds, private sector contributions, development agencies, academic institutions, funds from subsidiaries or associated companies, joint guarantees of loans, venture capital or local investment funds, micro-credit schemes, funds from other business enterprises, venture capital funds, local authorities, funds from government and funding from supranational and international organizations. A number of instructional cases have been identified (Appendix 1). One successful example is reported by the European Regional Development Fund (ERDF), namely under the IMP (Integrated Mediterranean Programme).

The research findings suggested that businesses are restricted by a financial chasm or equity gap limiting products and services. The view was often expressed that the upfront cost of incremental innovative initiatives is simply too high, challenging the likeli-



hood of economic success. The island faced fundamental challenges to linking its private sector with its capital providers and establishing business support organizations. This challenge is not new, as other countries have dealt with similar circumstances, as witnessed in the EU through the Risk Capital Action Plan (RCAP) and Gate2Growth program. Both seek to match supply with the demand for risk capital. (Currently, Bahamian governmental policies display little confidence concerning the ability of small firms to create new ideas, processes and products and to translate them into economic value and wealth). Nevertheless, renewed policies and enhanced financial engineering tools (Appendix 2) can increase confidence in the Bahamian business environment by encouraging access to diverse forms of financing (seed, angel, venture, and corporate), influencing micro-level cost-benefit calculations, and installing new incentives for economic development.

Successful models in the UK are observed where business "angels" have delivered financial support and experience to innovative projects. For example, in Wales, to improve the understanding of demand for innovation finance amongst Welsh firms and to identify supply weaknesses, the Wales Innovation Relay Centre (WIRC), Welsh Development Agency (WDA), and Xénos were established to provide access to capital through connecting wealthy individuals (so-called "business angels") to promising small and medium enterprises (SME). Also in the UK, the Aston Reinvestment Trust (ART), based in Birmingham, is being used to fill the gaps in the conventional finance market. It operates in a niche between bank lending, grant funding, and charitable donations. Their return is social rather than financial and repayment terms range from six months to 10 years. On New Providence, for financially engineered initiatives (like those in Kera, Finland in 1971 at the regional level) to be successful, the business environment must offer the needed capital. Supporting businesses need to open their capital to third parties while mainstream financial institutions work on heightening their level of risk tolerance. The reduction of upfront investments is seen to be especially important for small start-up businesses that normally have limited funding. This notion was expressed by one of the research respondents, who stated that "...having to pay customs duty upfront on products purchased for sale is a major strain on businesses".

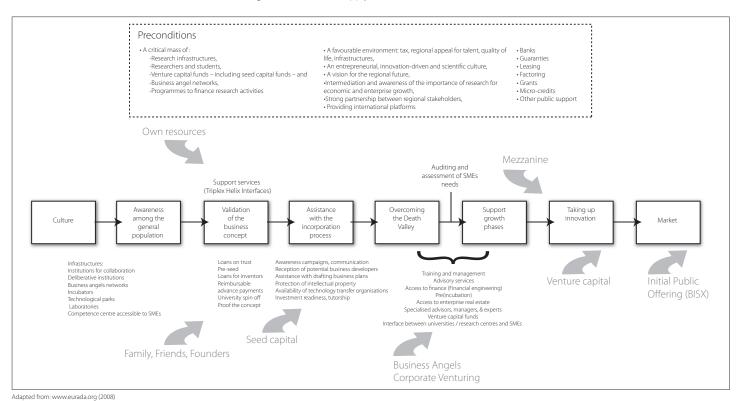
Increasing interaction between businesses can lead to the development of mutual innovative strategies (i.e. cooperative supply of inputs) that can help firms cope with the rising costs and promote a quality driven focus as opposed to price competition. Similar cases are observed in Wales through the North Wales Training and Enterprise Council Limited (Celtec).

Many respondents displayed neo-classical reasoning by advocating a system of sales tax or value added tax (VAT). Although introducing a new tax system would incur



high implementation and maintenance costs, a successful program would theoretically allow tax to be applied to higher valued goods, post the innovation process. This could fundamentally alter the absolute cost of a number of production processes and ultimately impact the island's comparative advantage. However, tax reductions or subsidies may not induce the needed change to overcome the existing barriers to innovative processes. Furthermore, considering the government's dependency on this revenue, taxation presents a critical challenge to building a strong innovationbased economy without eroding the island's current locational conditions. The CoC (2001) suggests that models targeted at lowering costs of inputs (i.e. wages, taxes, and recruiting companies through financial incentives) are ultimately self-defeating. An evolutionary approach encourages the path to sustainable prosperity through the development of corporate and strategic capabilities (at the firm, regional and national levels) that lower risks and the associated costs to support higher productivity (in terms of value creation and social conditions) and enhanced regional economies. The CoC (2001) further suggests that such conditions may be measured by the costs of products and services.

Figure 23: Financial Supply Chain



New Providence firms that hope to innovate rely heavily upon a variety of local sup-



port agents, such as banks, investors, lawyers, consultants, and training bodies. A number of weaknesses in the financial supply chain were identified during the research (Figure 23). These weaknesses were noted in the following statements from survey respondents:

- The main thing is they should make loans for new or expanding business easier to get and more information about getting loans out there. Also keep the interest on the loans very low. Also, the national health insurance needs to go. They want the new business people to pay a part of National insurance and part of medical and minimum wage and now National health insurance. It is hard on the entrepreneurs.
- Educate Bahamians on how to set up and operate Investment clubs of 6 to 12 investors to ease the burden of raising capital...Bahamians must be exposed to skills necessary to grow their businesses beyond The Bahamas for example how to develop and grow a global niche market.
- Viable governmental small business enterprises program. Most critical hurdle facing new business is availability of operational capital.

Although the island is home to a strong financial services industry, banks are positioned as lenders not investors meaning that firms seeking growth finance must meet strict criteria to qualify for loans. As a result, indigenous small enterprises often depend on a negotiated bank overdraft to continue operations, which Cooke et al. (2001) state is not the best route for new economy growth firms. Cooke et al. report a similar case in Northern Ireland. Banks should not be expected to take the lead in boosting the island's innovation economy. Subsequently, to guide and nurture new businesses, and as the Northern Ireland case demonstrates, it is essential to disseminate information and financial know-how (i.e. different risk mitigation methods) through mechanisms such as entrepreneurship classes. Activities of investment facilitators can proactively provide the tools necessary for firms to overcome risk and cost barriers. Simply bringing investment seekers and providers together periodically and complementing more informal "First Tuesday" style monthly gatherings with expert public presentations would make a compatible first step.

IMPROVING THE EFFICIENCY AND EFFECTIVENESS OF LOCAL AND NATIONAL GOVERNMENT REGULATIONS AND PERMITTING PROCEDURES WHILE TAKING ADVANTAGE OF DEPENDENCY ON HOME DEMAND.

The regional view of innovation systems ascribes a strong role to regional government because of the strong impact of public and private governance (Porter, 1990, 1998;



Best, 1990, 2000). As Guinet and Pilat (1999) state:

Innovation is no longer dependent on how firms, universities, research institutions and regulators perform, but on how they work together. Institutional and organizational rigidities can stifle innovation and deliberate government policy is needed to break such strictures down...The barriers to innovation are several and a detailed analysis of the functioning of [the] innovation system is often needed to identify the possible policy responses...Governments have a new and responsible role, which is to build the coherent policies needed for innovation to flourish and the knowledge-based economy to grow and prosper.

Business leaders expressed key concerns about the structural nature and inefficiencies of government regulations, corruption, rent-seeking behaviors, poor training, and anti-productive permitting procedures. Market inefficiencies and less effective regulations must be resolved to induce effective change. Additionally, for efficient and effective regulations to be installed, knowledge must be diffused and policy lessons learned (Asheim, 2004). Existing bottlenecks in the local production systems must also be addressed. Strengthening government permit procedures, institutional mechanisms, and local infrastructure will generate necessary linkages for upgrading the innovation system as was achieved in Scotland. The lack of systemic thinking through unproductive industrial and innovation policies led to the inception and successful implementation of the Scottish Enterprise Association.

One respondent referred to the issue of corruption in government agencies as another area of concern. It was expressed that in his industry, "favored" competitors enjoyed reduced rates on imports while he suffered the disadvantage of a slow (perhaps deliberate) application processing time. Such diseconomies of time, either intentionally or due to poor processes, demand changes. The establishment of efficient counter powers (such as a Department of Institutional Integrity) can ensure a more reliable system of meritocracy as well as a control on bureaucratic inefficiencies. For example, the World Bank's Department of Institutional Integrity (mandated by the World Bank Group) offers another instruction model for developing a department committed to investigating allegations of fraud and corruption in operations as well as allegations of staff misconduct. Nevertheless, implementing regular institutional audits that focus on innovation related obstacles would begin a process of transparent reform and development while encouraging the new institutional mechanisms to act as honest brokers to serve a common vision. Such audits should be implemented by independent bodies, which possess the capabilities to make recommendations and monitor the application and effectiveness of resulting programs. Furthermore, as Aubert (2004) supports, establishing efficient counter powers, made chiefly of users of the public services (including entrepreneurs), will get the services better functioning and less sensitive to corruption. Ensuring increased transparency will strengthen the regulatory and proce-



dural frameworks by enhancing standards and operating practices; policy reform will improve the overall environment for healthy competition. The evolutionary approach that advocates for the learning-to-innovate framework must complement the willingness to adopt new social behaviors. Strengthening the social fabric provides vast contributions to the absorptive capacity of firms (e.g. in the case of Third Italy), raising the level of competitiveness-- which is the greatest challenge to Bahamian firms. Undeniably, there will still remain the risk of vulnerability to market versatility but this approach can help to upgrade local markets and enhance sophistication. The current lack of sophistication in New Providence's home markets, contributes to bottlenecks for pursuing innovations (historically proven in the cases of the Bahamian tobacco, tomatoes, shipbuilding, and pineapple industries). Craton (1962) recounts a number of these cases where more economical technologies of competing regions (Florida, Cuba, Jamaica, and Hawaii) gradually replaced Bahamian trade.

IMPROVING THE DIALOGUE BETWEEN LOCAL GOVERNMENT WITH THE PRIVATE SECTOR IN ORDER TO PROMOTE NEW BUSINESS DEVELOPMENT.

The results of the study identified that, generally speaking, existing policy instruments do not promote the advocacy needed to provide synergies for private sector development and economic growth. Improving the dialogue between local government and the private sector begins with building awareness for an innovation culture. International examples can be observed in regions such as the Da Vinci Overijssel Innovation Award (Netherlands), Forum Innovation Limburg (Belgium), Technological Institutes in Valencia (Italy), and the 'Smart Wales' initiative (Wales) to name a few (Appendix 1). Improved social agency will also require a long-term commitment to improving the climate of mutual trust among partners. Local proponents must begin by bringing attention to the key issues and policies affecting the private sector and needed to strengthen the links within the region to increase capacity for global opportunities, resources and influences. Intermediate structures (such as development agencies, chambers of commerce, businessmen's associations, etc.) offer tools for interface between the government and private sectors, managing transactions, and pursuing objectives towards implementing/improving regional public policies.

Results of the study mirror the results found in the SMEPOL project, implemented in the European Union. Another example is observed in the introduction of the OECD LEED methodology confirming that strategic alliances are becoming increasingly important for developing new processes. This is not to suggest abandoning the current hierarchical mode of intervention (where principal institutions dictate the coordination of markets through hierarchies and with formal arrangements between firms in a supply chain) but to recommend a wider and more diverse set of policy modes to suit mul-



tiple environmental conditions. A consistent flow of mutual interchange can address issues of the "people's climate" as well as of the "business climate" (Florida, 2000; 2002a; 2002b). In Limburg, Belgium, actions aimed to foster conditions for innovation have resulted in initiatives that aim to bring government and firms closer together while fostering closer co-operation between the government services and departments. These actions include the successful implementation of a "one stop shop" in combination with a feedback box, which allow actors to participate directly and efficiently in forums (referred to as 'Forum Innovation Limburg') to collect feedback and reports of contradictions and shortcomings in laws and/or regulations.

Shifting towards a new business paradigm demands businesses reconsider their institutional and regulatory context and self-sustaining paradigm to include key relationships between local government agencies to harvest the advantages of non-market relations. This perspective recommends the development of new specialized institutes for collaboration in order to support horizontal strategic interaction, both across and within supply chains. These linkages also help to communicate a powerful collective voice and tool for interfacing with government while pursuing objectives towards implementing regional policy instruments. At the same time, caution is recommended for any departure from the well-established and historical institutional endowment. Radical changes toward new institutional models may disrupt the existing routines for solving coordination problems and ultimately risk dissolving existing sources of comparative institutional advantage. Specialized collaboration should focus on the key challenges of effective proximity to increase their embeddedness within local agglomerations. Experience from the Technological Institutes in Valencia (Italy) demonstrates the valued contribution of specialized centers.

Considering the required interventions for indigenous small enterprises within the island's context, new policies are indicated to help these small enterprises overcome size-related barriers that currently limit their innovative capability (Smallbone et al., 2000). Specific emphasis on good practice with innovation policy principles can be identified through a number of cases world-wide (Appendix 1). Common to the majority of cases, developmental agencies often are established to act as the needed change agents in their sectors and regions. Within many of these cases, institutional recognition of genuine and efficient representation (especially within management and decision-making bodies) is a prerequisite for success. For New Providence, key benchmarks should include: number of jobs created, number of companies supported, number and duration of partnerships, volume of co-financing mobilized, methods used to mobilize private partnerships, composition of decision-making and management bodies, legal framework developed, intervention mechanisms, budget involved, and duration of operation.



Finally, strengthening the dialogue between the triple helix (university, industry and government) would increase the utilization of local knowledge resources towards gaining alignment among institutions, economic developers, and entrepreneurs to support innovation. Less innovative small firms need to be mobilized toward a more cooperative mode that encourages local mediation and negotiation between economic actors and government while defining common strategies and institutions. This will enhance the degree of local autonomy while improving vertical and horizontal co-operation mechanisms throughout the value chain.

CONCLUSION

It is apparent that the effectiveness of the island's operational environment and supporting infrastructure are influenced by the interplay of many businesses operating in the island. Each of the recommendations has responded to the need for advocacy activities at the national, regional and firm levels. In a perfect market, it is accepted that economic value is agreed upon by supply and demand. However, the novelty and uncertainties of innovations influence the price mechanism toward quixotic responses. Therefore, it is argued that businesses as well as policy-makers must consider advocacy activities to reinforce the success rate within local economic systems. Stimulating the regional economy and promoting long-term change and improvement will be critical to the future competitiveness of the island.

The aforementioned discussion identifies New Providence Island to be unique in terms of size, economic structure, culture, and history. The legacy of the past has resulted in a relatively low level dynamism between economic actors restraining the atmosphere for entrepreneurship. Many of the tangible assets in the region are operating at moderate levels making it hard to sustain competitiveness. A new focus on enhancing intangible assets is needed to reinforce the value of the creation process and the perception of regional excellence. Despite it all, the island possesses the autonomy to address its place-specific barriers and enhance the seemingly neglected contribution of its indigenous small enterprises. Inter-institutional relations and new methods of implementing supportive policies may deepen the absorptive capacity needed to induce change.

In the open-ended questions, the majority of respondents advocated for reactive policy orientation that would attempt to raise local endowments. However, allocating additional inputs for innovation must be accompanied by increased awareness and supporting efforts that contribute to enhanced resource utilization (Nauwelaers and Wintjes, 1999). Greater investments in local developments, infrastructures, financial mechanisms, institutions, training, and institutions for collaboration can enable economic development and economic growth potential. Innovation policies should build on the evidence and remove the key barriers to systemic innovation. In the



longer term, through an evolutionary perspective, new policies should begin to display more pro-active orientation and ultimately strengthen the island's innovative capacity and regional prosperity. In the shorter term, the complex model for policy intelligence must take into account island specificities with emphasis on engaging in an interactive and "partnership minded" mode of policy intervention to provide for the needs of small enterprises (Nauwelaers and Wintjes, 1999; Ashiem and Isaken, 2002; Ashiem, 2004).

AREAS FOR FURTHER RESEARCH

Knowledge gained in other countries has clearly made key contributions to the innovative initiatives of economies worldwide. However, the results of this analysis detected that regional specificities play a significant role in hampering the innovative potential of small enterprises within the context of an island. Acquiring local experience will make vast contributions to the reliability and validity of future results. To make an impact in the future, the priorities in the aforementioned recommendations will need to be supported and strengthened by complementary efforts at the operational, regional and national levels. In this respect, a concentrated innovative body will need to be constructed to consider tactical approaches for addressing the disparities related to the innovative potential of New Providence Island. Thus, establishing consensus, along with a strong impulse to mobilize available resources, and building relevant indicators will be areas for action in further steps. More specifically, this will require the successful formation of a steering group with key representatives from both the regional and local business and governmental bodies.

The primary goals of this steering group will be that of influencing and justifying priorities, policies, and practices for strengthening the regional innovation platform. In turn, this demands constructing optimal indicators to inventory, evaluate and monitor innovative assets in combination with the changing environment (regional and global). The resource limitations applied to the aforementioned study will need to be overcome to include the entire population and to adopt a full research process that includes face-to-face interviews. It follows that enhanced measurement instruments must rely on key indicators to monitor the economic strengths and weaknesses for both the short and long term (as seen in the regional and national measures outlined by the European Commission in the context of the Lisbon strategy). Continuous intelligence related to the broader-based innovation strategy must actively evaluate the activities, obstacles, capabilities, linkages, and benchmarks (i.e. PRO INNO Europe initiative) to remain current on its agreed agenda. Such practical considerations will require annually collected and more up-to-date location-specific data. Today, relatively weak



statistical programs and facilities lack reliable information (concerning key aspects of innovation), and largely dampen the enablement of innovative strategies that seek to develop the island's competitiveness, economic growth, and social agenda. Relying on existing metric programs (for these innovative initiatives) restricts any possibility for implementing targeted innovation interventions or support for sophisticated measurement methodologies. Moving forward, involving the Department of Statistics in the collection process can improve the non-response rate and extend industry coverage, resulting in a valuable contribution to the reliability and validity of results. By extension, this can play a key role in strengthening consensus among regional leaders responsible for introducing a regional innovation program.



REFERENCES

Agarwal, R. and Selen, W. (2007). "Elevated service offering in service value networks: Building dynamic Capability". Production and Operations Management 18th Annual Conference.

Aoki M., (2000). "Towards a comparative institutional analysis, mimeo", Stanford University Press.

Aoki, M. (2001). "Toward a Comparative Institutional Analysis, Cambridge", MIT Press.

Asheim, B. T. (2004). "SME innovation policy and the formation of regional networked innovation systems", in Potter, J. (ed.), Global knowledge flows and economic development. OECD, Paris, 19-50.

Aubert, J-E. (2004). "Promoting Innovation in Developing Countries: A Conceptual Framework". World Bank Institute.

Bahamas Department of Statistics (2004). "Number of Business Establishments by Number of Employees, Industrial Sector and Island: 2004". Excel document.

Bergmann J. (2001). "Shop stewards within shareholder capitalism: helpless: some findings from a survey among shop stewards in: fractures and continuity. Perspectives in natioal and internalional labour relations". In J. Abel and H.J. Sperling (Hrsg.), Umbrüche und Kontinuitäten. Perspektiven nationaler und internationaler Arbeitsbeziehungen, München/Mering, S.

Best, M. (1990). "The New Competition: Institutions of Industrial Restructuring". Oxford: Polity Press.

Best, M.H. (2000). "The Capabilities and Innovation Perspective: The Way Ahead in Northern Ireland with A Statement by the Economic Council". Research Monograph 8. Belfast: Northern Ireland Economic Council.

Boulton, R. E. S., Libert, B. D. and Samek, S. M. (2000). "A business model for the new economy". Journal of Business Strategy.

Briguglio, L. (1995). "Small island developing states and their economic vulnerabilities". World Development, Vol. 23, No. 9.

Caribbean (2008). "Bahamas Risk Summary". March, 2008. p. 8.

Cialdini, R. B., and Trost, M. R. (1998). "Social influence: Social norms, conformity, and compliance." In D. T. Gilbert, S. T. Fiske, and G. Lindzey (Eds.), The handbook of social psychology (4th ed., Vol. 2, pp. 151-192). McGraw-Hill.

Commission of the European Communities (2004). "Extended Impact Assessment Report. On the Proposal for an Action Plan for Innovation". Draft. v.26 03 2004.

Cooke, P. and Morgan, K. (1998). "The Associational Economy: Firms, Regions and Innovation". Oxford: Oxford University Press.

Cooke, P., Roper, S., and Wylie, P. (2001). "Developing a Regional Innovation Strategy for Northern Ireland". Belfast: Northern Ireland Economic Council.

Council on Competitiveness (2001). "Clusters of Innovation Initiative: Research Triangle",



www.compete.org.

Council on Competitiveness (2004). "Fanning the Flames of Economic Progress: Igniting Greater Rochester's Entrepreneurial Economy", Prepared by the US Council on Competitiveness for Infotonics Technology Center, Inc. and Greater Rochester Enterprise, September 2004.

Council on Competitiveness (2005). "Measuring Regional Innovation: A Guidebook for Conducting Regional Innovation Assessments", www.compete.org.

Craton, M. (1962). "A History of The Bahamas", Collins, London, 1962.

Diez, A.M. and Esteban, M.S. (2000). "The evaluation of regional innovation and cluster policies: looking for new approaches", Paper presented to the session: Decentralisation and Evaluation. Fourth EES Conference. Lausanne. October 12-14, 2000.

Florida, R. (2000). "Place and the New Economy. Transcript of Champions of Sustainability Lecture". Broadcast on WQED August 27, 2000.

Florida, R. (2002a). "Bohemia and economic geography". Journal of Economic Geography.

Florida, R. (2002b). "The Economic Geography of Talent". Annals of the Association of American Geographers.

Glogal Insight (2008). "Bahamas (Country Intelligence". Report printed on 13 April 2008.

Gueguen, Pellegrin-Boucher, and Torres (2006). "Between cooperation and competition: the benefits of collective strategies within business ecosystems. The example of the software industry", Eisam: 2nd Workshop on Competitive Strategy, Milan, Italy, September 14-15, 2006.

Guinet, J. and Pilat, D. (1999). "Promoting Innovation – Does it Matter?", OECD Observer, 217/218 Summer, pp.63–65.

Hair, J. F., Bush, R. P. and Ortinau, D. J. (2003). "Marketing Research. Within a Changing Information Environment", McGraw-Hill, Boston.

Hall, P.A. and Soskice, D. (2001). "An Introduction to Varieties of Capitalism" in Hall and Soskice, eds., Varieties of Capitalism: The Institutional Foundations of Comparative Advantage. Oxford: Oxford University Press.

Kameda, T. (2003). "An evolutionary game approach to culture: Illustration by an adaptive norm development". CEFOM/21, 2nd Workshop, Culture, Norm, and Evolution. Hokkaido University. Aug. 6-8, 2003.

Kaplan H. and Hill K. (1985). "Food sharing among Ache foragers: Tests of explanatory hypotheses". Current Anthropology, 26, p.223-246.

Khanna, T. and Palepu, K.G. (2006). "Emerging Giants: Building World-Class Companies in Developing Countries". Harvard Business Review. October 2006. p. 60.

Khanna, Palepu, and Sinha (2005). "Strategies That Fit Emerging Markets", Harvard Business Review. June 2005.

Krugman, P. (1995). "Development, Geography and Economic Theory". London: MIT Press.

Knill C. and Lehmkuhl D. (2002). "Private Actors and the State: Internationalization and



Changing Patterns of Governance". Governance 5 (1), 41-64, 2002.

Marshall, A. (1891, 1916, 1961). "The Principles of Economics", London: Macmillan.

Meil P. and Heidling E. (2003). "Competency development in distributed work environments", Proceedings of the International working conference on human aspects introduction management (vol. 1), European Series in Industrial Management, Shaker Verlag.

Meil P. and Tengblad, P. (2006). "Policy, social dialogue and institutional structures". The transformation of work in a global knowledge economy: towards a conceptual framework, Workpackage 3: Theories and concepts. Edited by Ursula Huws (WLRI).

Moore, J.F. (1993). "Predators and Prey: A New Ecology of Competition", Harvard Business Review. May-June 1993.

Moulaert, F., and Sekia, F. (2003). "Territorial innovation models: A critical survey", Regional Studies, Vol. 37, pp. 289-302.

Nauwelaers C. and Wintjes R. (1999). "SME policy and the Regional Dimension of Innovation: Towards a New Paradigm for Innovation Policy?". SMEPOL final report, Oslo, 1999 - edata.ub.unimaas.nl

New Economic Strategies (2003). "Connecting the Greater Philadelphia Innovation Economy: A Road Map for Regional Growth". For: Innovation Philadelphia Greater Philadelphia Chamber of Commerce City of Philadelphia. May 21, 2003.

OTF Group (2007). "The Bahamas in the Era of Total Competition". June 2007.

Porter M. (1990). "The Competitive Advantage of Nations". Free Press. New York, 1990.

Porter, M. E. (1998). "On competition". Boston, Harvard Business School Press.

Porter, M. E. (2000). "Attitudes, Values, and Beliefs, and the Microeconomics of Prosperity. Culture Matters: How Values Shape Human Progress". L. Harrison and S. Huntington. New York, Basic Books: 14-28.

Porter M. and Emmons W. (2003). "Institutions for Collaboration: Overview". Harvard Business School Publishing.

Rosenau, J.N. (1997). "Along the Domestic-Foreign Frontier: Exploring Governance in a Turbulent World". (Cambridge: Cambridge University Press, 1997), passim.

Schumpeter, J. (1934). "The Theory of Economic Development", Harvard University Press, Cambridge, Massachusetts.

Smallbone, D. et. al. (2000). "The role and characterisitics of SMEs. In Isaksen", A. et. al. (Eds.), SME policy and the regional dimension of innovation. Report to the European Commission (TSER Programme). STEP-group, Oslo (28-43).

Smith, A. (1776). "The Wealth of Nations".

Sperber, D. (1996). Explaining culture: A naturalistic approach. Blackwell.

Streeck W. (1998). "Industrial relations in an internationalized economy". U. Beck (Hg.), Politik der Gobalisierung, Suhrkamp, Frankfurt, S.

Streeck W. (2001). "International competition, supranational integration, national solidarity:



the emerging constitution of social Europe", in Kohli M. and Novak M. (eds.), Will Europe work? Integration, employment and social order, Routledge, London.

Teddlie, C., & Tashakkori, A. (2003). "Major issues and controversies in the social and behavioral sciences". In A. Tashakkori & C. Teddlie (Eds.), Handbook of mixed methods in social and behavioral research (pp. 3-50). Thousand Oaks, CA: Sage.

The Global Aviation database (2008). www.theairdb.com.

The Nassau Institute (2007). "The Nassau Straw Market Puzzle", The Nassau Institute, September 2007.

The Report of the President's Commission on Competitiveness, (1984). "The Report of the President's Commission on Competitiveness", written for the Reagan administration, 1984.

Thunen, J. H. (1826). "Der Isolierte Staat in Beziehung auf Landwirtschaft und Nationalökonomie". F. Perthes, Hamburg, (1780-1850).

Tooby, J., and Cosmides, L. (1992). "The psychological foundations of culture". In J.H.Barkow, L.Cosmides, and J.Tooby (Eds.), The adapted mind: Evolutionary psychology and the generation of mind. Oxford U. Press.

Williamson, J. (1989). "What Washington Means by Policy Reform", in: Latin American Readjustment: How Much has Happened? Washington: Institute for International Economics. 1989.

Williamson, O.E., (1985). "The Economic Institutions of Capitalism: Firms, Markets and Relational Contracting". New York, Free Press, 1985.

Wint, A.G. (2003); "Competitiveness in Small Developing Economies: Insights from the Caribbean"

www.eurada.org. (2008)

Young H.P. (1998). "Social Norms and Economic Welfare". European Economic Review. Vol. 42

Zikmund, W.G., (2000). "Exploring Market Research". The Dreyden Press, (7th ed.), Fort Worth.



APPENDICES

APPENDIX 1: TABLE OF PRACTICAL RECOMMENDATIONS, BEST PRACTICES, AND INSTRUCTIONAL CASES.

The table below presents practical recommendations and best practices for New Providence Island (through the relationships between the island's priorities with the strategic level for transformation)											
VISION: Increasing the capacity of Indigenous small businesses to innovate and prosper in the context of New Providence Island.											
PRIORIIES	A. Build an innovation culture	B. Reducing the cost of conducting business (directly or indirectly)			C. Improving the efficience local and national govern permitting procedures who of dependency on home	ment regulations and hile taking advantage	D. Improving the dialogue between local government with the priva- sector in order to promote new business development				
STRATEGIC OBJECTIVE	A.1. Broadening the understanding about innovation	B.1. Creation of new governance programs	B.2. Reducing upfront costs	B.3. Improving access to financial resources through new financial mechanisms	C.1. Increasing the innovative culture	C.2. Strengthen regulatory framework in light of reducing risks for SMEs.	D.1. Promoting dynamic interaction	D.2. New vision and policies			
ACTIVITES & INTILITIES FOR REACHING THE OBJECTIVES	A.1.1. A.1.2. A.1.2. A.1.2. A.1.3. A.1.3. A.1.3. A.1.3. A.1.3. A.1.4. Competition fromation metwork individual information formation metwork in the first part of th	B.1.1. Setting up of: Regional funds for crediting innovation B.1.2. B.1.2. Setting up of: Regional funds for crediting communicate the winners). (Renaud Communicate the winners). (Renaud Communicate the winners). (Renaud Dutreul, Harnes) B.1.3. B.1.3. B.1.4. Setting up local initiative platforms where capital is made available at and/or guarantee to enterprising people. (Sarthe Economic Expansion Committee (France): Area (France): Are	8.2.1 Funding for technological modernization (Central Macedonia) 8.2.2 Funding for technological modernization (Central Macedonia) 8.2.2 The financing of innovation (Limburg, Belgium) 8.2.3 Informal investor network established (Weish Business Angels Network called "Zenos", Wales Link CLMS, South West Threatment Groug (M.), STRA Pfaint)) 8.2.4 First stop shop in combination with a subsidy expert (Limburg) 8.2.5 8.2.5 EMM Venture Capital Fund (Yorkshire and the Humber) 8.2.6 EMM Venture Capital Fund (Yorkshire and the Humber) 8.2.7 Innovation fund (South Sweden) 8.2.8 Technology Development Programs, Grants to assist with the costs of employing a full time technologist to develop a new product or process. (Cilagopov Development Agency, UK) 8.2.9 Establish a prototype development program. Bepayable grants to assist with the costs of employing a full time technologist to develop a new product or process. (Cilagopov Development Agency, UK) 8.2.9 Establish a prototype development production prototype for new and innovative products. (Glasgov) Development Agency, UK) 8.3.0 Third-Party-Financing which is a technique that econsists in having the engineering or material supplier finance the investment in its especially used to year the investment in its especially used to year the modern of the production prototype for new and innovative products. (Glasgov) Development Agency, UK) 8.3.1 Financial Mediation. Advice given to SMEs by intermediary crapinations on the own to approach financial institutions when seeking loans or venture capital. (COM Wasnes Falaent, Belgium) 8.3.1 Financial Mediation. Advice given to SMEs by intermediary crapinations on the own of the production prototype for new and innovation centres can pusue general objectives and offer general services (general management advice, secretarial and marketing subport, access to financing, accounting, technological and legipla divice, etc. Incubators networks in Flanders (Belgium), Mod Tables de Callais Firanco): Régie Départementale des Ruches of tempers se	B3.1. Setting up of: B Regional fund for guarantees for venture investment. (Males, UK) B Early financing program (se. Finance Walles Program) aims to develop self-sustaining funds to support the continued growth of SMEs. Provides commercial funding (debt and equity) to invest in start-up and early stage SMEs (Wales, UK) B3.2. Setting up a mechanism for co-financing of projects (Birmingham, UK - Aston Reinvestment Trust) Trust) B3.3. Stabilishment of institutions for collaboration for point guarantee of loans and services. B3.4. Grants and loans should be considered differently when defining equity within a company. B3.5. Setting up a supervisory framework (the assessment of management process to identify, reasons of the control risks). B3.6. Innovation Network Program (West Midlands, UK) offers financial support to groups of at least three regional SMEs who are working together on the development of an innovative product, process or service and to enable the sharing of best practice, widen the skills best, educe overheads and improve competitiveness. B3.7. Estabilish Bankruptcy Prevention Centers (Antwerpen, 1996) B3.8. Financing start-ups without loss of independency (SPINCRETE, Regional VC in Crete) B3.9. Risk Capital for new product and services. Grants, loars to be repaid after success, owwers capital filters, if rund of Innovation of the Department of the Rönne). B3.10. Rit for purpose financial systems. (PRAXE Program, Greece) B3.11. Setting up local venture capital or a local investment fund, (MGATE, Filtam, France) B3.12. B4.13. Setting up local venture capital or a local investment fund, (MGATE, Filtam, France) B3.13. Setting up local venture capital or a local investment fund, (MGATE, Filtam, France) B3.11. Setting up local venture capital or a local investment fund, (MGATE, Filtam, France) B3.13. Setting up local venture capital or a local investment fund, (MGATE, Filtam, France) B3.13. Setting up local venture capital or a local investment fund, (MGATE, Filtam, France) B3.13. Setting up local ventu	C2.1. Diffusion and communication activities through seminars in different places around the region. (Castilla-La Mancha) C2.1. Innovation and entrepreneurship (commercial requests) system to simplify the access to finance to expensive the commercial requests) system to simplify the access to finance to though creating a one stop shop for the available public resources. (C3.2. Human resources support mechanisms used to train, re-train or reinregrate workers in the labour market. C2.3. Second Chance Schools, Plan aimed at reintegrating youth falling out of school in the world of learning/training. (Marseille, France: Setübal, Portugal)	C21. Setting up stronger legal regulations regulations concerning the protection of intellectual property. C22. Install a Department of Institutional Integrity C2.2 Implementation of a rone stop-shop in reduction of the concerning regulation re	D.1.1. Establish new targeted regional policy measures D.1.2. Mentoring program to provide access to honowhow at affordable prices for SMEs. (Lyon, Farnce) with retired executives. (PLATO Programme, Kempen, Belgium) D.1.3. Create agency that assumes task to fund the needs driven research required by a competitive business and industrial sectors, and to strengthen the networks that are such a necessary part of this work. (VMNOVA, Swedish Covermental Agency for Innovation Systems) D.1.4. Create project that enables and facilitates remained and international partnerships. (South Covermental Agency for Innovation Systems) D.1.5. Close to operation between the public and international partnerships. (SOSPTE LVK, Germany, Italy, Sweden, Cirece, Budgaria) D.1.5. Close to operation between the public and private sectors. Simple and international partnerships. (SOSPTE LVK, Germany, Italy, Sweden, Cirece, Budgaria) D.1.5. Close to operation between the public and private sectors. Ghannon Development (Fedand), D.DDE Haute-Garonne. DDE (France), Kond-Pass de Calalis DRA (Fenance), COM (Belgium), Judiux (Belgium) and private sectors. Ghannon Development (Fedand), DDDE Haute-Garonne. DDE (France), Kond-Pass de Calalis DRA (Fedand), DDDE Haute-Garonne. DDE (France), Edminute end spay). (EU) D.1.7. D.1.7. D.1.8. Adopting a new partnershipp immided approach to policy interventions and shifting away from the hierarchical policy modes. (Tribit class)', Italy, SMEPCU. Study, EU)	D2.1. Setting up a project Steering Committee consisting of representatives of the regional government, chambers of commerce, representatives of the regional government, chambers of commerce, industrial associations and trade unions, higher education institutes, research centers, financial institutions and innovation support actors. D2.2. Strong role for regional government in partnership with entrepreneurial firms mission-driven agencies and education and training institutions, or support actors. D2.2. Establish group of experts to promote the need for structural mobility for address the gap between the political retoric about the knowledge science and the reality of budgetary and other control of the reality of budgetary and other way of the reality of budgetary and other way of the reality of budgetary and other way of the reality of budgetary and other way. D2.4. Conduct Foresight exercises as framework to inspire, select, and launch some new initiatives from governmental side. (Flanders, Belgium D2.5. Community Policy in favour of SMEs and the Regional Policy. West Midlands Enterprise Board and Lancashire PLC (which in the new and the regional Policy.) West Midlands Enterprise Board and Lancashire PLC (which in the new and the regional Policy of the partnership			



APPENDIX 2: SAMPLE FINANCIAL ENGINEERING TOOLS

EURADA (EU Association of Regional Development Agencies) define financial engineering tools, as the following:

Business angels (informal venture capital): private individuals who invest part of their estate in start-ups in the form of venture capital and also contribute their personal managerial expertise.

Business Angels Networks (BANs): standing regional platforms that promote the matching of business angels with potential investees.

Buyouts: existing investors' shares in a business are bought by the latter's own management team (MBO—Management Buy Out) or by another management team supported by a venture capital fund.

Corporate venturing: venture capital invested by existing firms for the purpose of funding innovative businesses set up by their own staff or active in industries considered of strategic importance.

Development or expansion capital: financing provided for the growth and expansion of a company, which may or may not break even or trade profitably. Capital may be used to: finance increased production capacity; market or product development; provide additional working capital.

Early stage (or start-up) finance: equity invested in businesses that are past research and development but need additional funding to market their products and services.

Equity: Ownership interest in a company, represented by the shares issued to investors.

Expansion: growth, bridging or restructuring capital.

Factoring: a technique whereby SMEs sell invoices to specialized firms.

Financial package: a combination of different funding sources.

Grants: subsidies paid—without an obligation to refund—by public authorities to companies investing in a region for the purpose of facilitating their establishment or expansion.

Leasing: hire-purchase of capital goods.

Loans and debt: the main sources of funding for SMEs.

Mezzanine: combination of equity and loans. Applicable interest rates are often comparatively high.

Proof of concept: Finance provided to a researcher's team to support the validation of their business ideas. Often, the financial instrument takes the form of a grants and subordinated



loans.

Quasi-equity investment instruments: Instruments whose return for the holder (investor/lender) is predominantly based on the profits or losses of the underlying target company, are unsecured in the event of default and/or can be convertible into ordinary equity. In assessing the nature of such instruments, the Commission will have regard to the economic substance of the instrument rather than to its name and the qualification attributed to it by the investors. In particular, the Commission will take into account the degree of risk in the target company's venture borne by the investor, the potential losses borne by the investor, the predominance of profit-dependent remuneration versus fixed remuneration, and the level of subordination of the investor in the event of the company's bankruptcy. The Commission may also take into account the treatment applicable to the investment instrument under the prevalent domestic legal, regulatory, financial, and accounting rules, if these are consistent and relevant for the qualification.

Replacement capital (also called **secondary purchase**): Purchase of existing shares in a company from another private equity investment organization or from another shareholder or shareholders - an investor buys another's stake.

Risk capital: Equity and quasi-equity financing to companies during their early-growth stages (seed, start-up and expansion phases) in the hope of a return on investment (ROI) that is both large and speedy, on a par with the level of risk taken.. It includes: (1) informal investment by business angels; (2) venture capital; (3) alternative stock markets specialized in SMEs and highgrowth companies.

Seed capital: Financing provided to study, assess and develop an initial concept. It precedes the start-up phase. Seed capital is required to fund a business project before the product or service is marketed. Seed capital is often pivotal in high-tech projects to allow businesspersons to conduct surveys as well as research and development on prototypes that will become companies' core business.

Start-up capital: Financing provided to companies for product development and initial marketing. Companies may be in the process of being set up or may already exist, but have not sold their product or service commercially and are not yet generating a profit.

Venture capital: Investment in unquoted companies by investment funds (venture capital funds) that, acting as principals; manage individual, institutional or in-house money. It includes early-stage and expansion financing, but does not include replacement finance and buy-outs.

NB: **Loans and debt** are still the main sources of funding for SMEs; this is why regional guarantee schemes are also useful tools to support SMEs in their search for financial sources.



Who are we?

BahamianInnovation.Org is a small group of elite business minds committed to the future position of Bahamian competitiveness. A nonpartisan, nongovernmental organization, BahamianInnovation.Org aims to urge the debate on competitiveness, technological trajectory and innovative capacity.

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