

UNIVERSITY OF KWAZULU-NATAL

An Assessment of Durban as an Entrepreneurial City

By
Matthew Fairfoot
(962041178)

A dissertation submitted in partial fulfilment of the requirements for the degree of
Master of Business Administration

Graduate School of Business and Leadership
College of Law and Management Studies

Supervisor: Professor Shahida Cassim

2013

Declaration

I, Matthew Fairfoot, declare that

- (i) The research reported in this dissertation/thesis, except where otherwise indicated, is my original research.
- (ii) This dissertation/thesis has not been submitted for any degree or examination at any other university.
- (iii) This dissertation/thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- (iv) This dissertation/thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - a) their words have been re-written but the general information attributed to them has been referenced;
 - b) where their exact words have been used, their writing has been placed inside quotation marks, and referenced.
- (v) This dissertation/thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the dissertation/thesis and in the References sections.

Signature: _____

Acknowledgements

I wish to express my sincere appreciation and gratitude to Professor Shahida Cassim who supported me throughout the writing of this dissertation and to all the key informants who graciously gave of their time to be interviewed, without whose assistance, this study would not have been possible:

Abstract

The modern city is experiencing dramatic levels of migration of people from urban and rural areas, attracted to the economic growth and activity within cities. The migration originates not only in the hope of finding new employment but also in business opportunity, leveraging off the City's entrepreneurial activity. However, the modern city's entrepreneurial strength derives not only from the innovations of a few entrepreneurs, but also public investment to strengthen the City's entrepreneurial profile and potential. It is suggested, therefore, that successful cities around the world are led by local government policy that supports business creation, thus building business communities. The aim of this study was to examine this notion of the entrepreneurial city. More specifically the research objectives were to: (1) develop a conceptualisation of an entrepreneurial city in the context of an emerging economy; (2) develop a set of indicators by which an entrepreneurial city may be measured; and (3) assess the perceptions of the City of Durban as an entrepreneurial city. In order to establish and define these indicators, fifteen key informants, were selected from amongst public and private sector institutions across the City of Durban. They were selected on their knowledge and their interest in ensuring that Durban is not only an attractive place to live and do business but that Durban becomes the most liveable city in South Africa. Depth interviews were conducted with the key informants, probing the indicators and attempting to generate new indicators. Overall, the findings showed the need for the City to adopt a holistic approach to economic development and promotion of innovation across the entire class of the City's entrepreneurs. The consequences relate to the need to support entrepreneurs able to contribute to economic growth through exploitation of opportunity and not merely those focused on innovation and new ideas. Unlike advanced cities, where intellectual capital and innovation were found to have the highest average positive correlation with every other indicator, by contrast, demographics and liveability were found to have the highest average positive correlation with every other indicator. By contrast, intellectual capital and innovation were found to have almost the lowest average correlation with all other indicators. This suggests that Durban's is reliant on small to medium enterprise growth rather than big business led by intellectual capital and innovation. Intellectual capital and innovation were found to correlate highly with policy arrangements at an 84% correlation, which suggests that public policy has a strong influence on innovation. This again contrasted with international studies of the world's most competitive cities that found intellectual capital and innovation to correlate most strongly with health, safety and security, suggesting that the most globally competitive cities are found where residents are offered professional and personal surroundings that ensure their health and safety. These results revealed the need for greater investment in small business leading to recommendations for greater public investment in small to medium size start-up businesses.

Table of Contents

Description	Page
Title Page	
Declaration	i
Acknowledgements	ii
Abstract	iii
Table of Contents	iv
List of Figures	vii
List of Tables	viii
Chapter 1: Introduction	1
1.1 Introduction	1
1.2 Problem Statement	1
1.3 Motivation for the Study	2
1.4 Focus of the Study	2
1.5 Research Questions	3
1.6 Objectives	3
1.7 Proposed Methodology	3
1.8 Chapter outline	4
1.9 Summary	5
Chapter 2: Conceptualisation of an Entrepreneurial City	6
2.1 Introduction	6
2.2 Developing an Entrepreneurial City	6
2.3 Entrepreneurship in the Context of a Developed City	9
2.4 Entrepreneurship in the Context of a Developing City	15
2.5 Theory of Economic Convergence :The Gravity Model	20
2.6 How to Measure an Entrepreneurial City	21

Chapter 3: Research Methodology	25
3.1 Aims and Objectives of Study	25
3.2 Research Questions	25
3.3 The Study Location	26
3.4 Research Approach	26
3.5 Challenges	29
Chapter 4: Findings and Analysis	31
4.1 Introduction	31
4.2 Description of the Respondents	32
4.3 The Measurement Indicators	32
4.4 Presentation of Results	34
4.4.1 Intellectual Capital and Innovation	37
4.4.2 Technology Readiness	45
4.4.3 Transportation and Infrastructure	50
4.4.4 Health, Safety and Security	53
4.4.5 Sustainability	55
4.4.6 Economic Clout	57
4.4.7 Cost of Living	59
4.4.8 Demographics and Liveability	62
4.4.9 Lifestyle Assets	64
4.4.10 Informal Trade	66
4.4.11 Ease of Doing Business	69
4.4.12 Micro-enterprise Development – Net Business Start-ups	71
4.4.13 University / Industry Interaction	72
4.4.14 Presence of Entrepreneurs	74
4.4.15 Perceptions of Entrepreneurs	75
4.4.16 Policy Arrangements for Entrepreneurship Support	77

Chapter 5: Key Findings, Recommendations & Conclusion	79
5.1 Key Findings	79
5.2 Recommendations and Conclusion	81
Bibliography	86
Appendix 1 Example of Unstructured Interview Process	91
Appendix 2 Ethical clearance	105
Appendix 3 Turnitin Report	106

List of Figures

Number	Description	Page
2.1	Threshold growth points for Knowledge Intensive Businesses	12
2.2	Threshold tipping growth points for Knowledge Intensity by qualification	13

List of Tables

Number	Description	Page
4.1	Findings: Table of Scores	35
4.2	Findings: Table of Scores in Order of Pessimism / Optimism	36
4.3	Integrated Analysis: Table of Correlation Heat Map	36
4.4	Heat Map Range	37

Chapter 1

Introduction

1.1 Introduction

This study focuses on the concept of entrepreneurial cities. The modern city's entrepreneurial strength derives not only from new innovative ideas of a few entrepreneurs but rather the entire class of entrepreneurs that contribute to economic growth, as well as public investment in the City's entrepreneurial profile and potential. It is suggested that successful cities around the world are led by local government policy that supports business creation and building communities.

This research seeks to establish indicators that define an entrepreneurial city within the context of the City of Durban as an emerging economy in South Africa. It measures the City of Durban on internationally recognised indicators held to be important for innovation and growth of entrepreneurship, and suggests new indicators that define an entrepreneurial city within the context of a developing economy such as Durban. The City will be rated on these indicators by key informants, selected from amongst public and private sector institutions across the City of Durban, across various fields of knowledge, based on their knowledge and vested interest in ensuring that Durban is not only an attractive place to live and do business, but that Durban becomes the most liveable city in South Africa.

1.2 Problem Statement

Indicators of entrepreneurship in economically advanced cities tend to naturally focus on issues affecting entrepreneurs in advanced economies, such as technological readiness and demographics. Such indicators, however, bear somewhat less relevance in emerging economies where entrepreneurship covers the full spectrum of size and scale. A large number of entrepreneurs are survivalists, trading within informal markets or comprise micro enterprise business start-ups relying on public and private sector initiatives for support.

Studies by Acs and Szerb (2009) suggest that innovation is less important for growth in low income emerging economies compared with more advanced economies. In their study, the authors found that innovation accounts for only 5 percent of economic activity in developing economies compared to 30 percent in advanced economies, which they attribute to the heavy reliance in emerging economies on factor-driven development rather than innovation-driven development. This argument has been countered by many recent studies like Naude

(2010). Given the fast pace of technological development, this is furthermore, put into question with breakthroughs in the mobile device industry that are able to create huge advantages for survival entrepreneurs in emerging economies.

1.3 Motivation for the Study

Focus needs to be directed towards measuring the entrepreneurial strength of cities within emerging economies in order to guide policy and ensure their future success and competitive advantage. This study is the first such study to measure the entrepreneurial strength of an emerging economy and does so by identifying the indicators of the City of Durban's entrepreneurial strength and highlighting issues for policy initiative and attention.

This study is of particular importance to the growth and economic development of the City of Durban. The World Bank (2009) has shown that small business makes a significant contribution to economic development and, that countries that see the greatest impact on economic growth do the most to reduce regulatory burden. The drive to support small business finds further support in statistics issued by the International Labour Office (ILO), that suggests that informal microenterprises account for 72 percent of the labour market in Sub-Saharan Africa and 41 percent of the Gross Domestic Product (GDP) of the non-agricultural sector in Africa (in Szirmai et al. (2011).

The motivation for this study therefore is to identify and highlight areas for public policy support and engagement with private initiatives. The relevant stakeholders who have an interest in this study would include not only persons guiding such policy and leading these initiatives but also entrepreneurs in leading edge innovative business but also survivalist entrepreneurs depending on support.

1.4 Focus of the Study

Indicators have been proposed which, not only leverage off indicators used in international studies for the measurement of entrepreneurial strength of advanced economies, but also focuses on indicators unique to the study of cities within emerging economies. These indicators focus on the unique features and attributes of an emerging economy but also those necessary to identify particular areas requiring support in order to grow the entrepreneurial strength of the City of Durban's emerging economy but also to highlight key factors for public policy attention.

1.5 Research Questions

This study focuses on the concept of entrepreneurial cities, exploring the conceptualisation of an entrepreneurial city. In particular the research seeks to ask the following questions:

- 1) What are the indicators that may be used to measure an entrepreneurial city?
- 2) Are there indicators that are more appropriate to a city in an emerging economy?
- 3) Is Durban an entrepreneurial city?

1.6 Objectives

The overall aim of the research was to explore the notion of an entrepreneurial city. More specifically the research objectives are to:

- 1) Develop a conceptualisation of an entrepreneurial city in the context of an emerging economy;
- 2) Develop a set of indicators by which we may measure an entrepreneurial city using indicators; and
- 3) Assess the perceptions of the City of Durban as an entrepreneurial city.

1.7 Proposed Methodology

The research study used a mixed methods approach, combining elements of qualitative with quantitative research techniques. The qualitative aspect of the study involved interviewing key informants separately over a three month period. Informants were selected based on their unique knowledge and experience in matters concerning the City in areas of business and policy.

Forty seven people were identified as key informants for this study. They were selected on the basis of their knowledge and interest in ensuring that Durban develops as an attractive city in which to live and do business. A random sample of 15 was selected from this group of experts. This was undertaken to overcome selection bias.

Each informant was asked a leading question on each indicator, around which discussions could take place, between the informant and the researcher. Depending on the interviewee response, unstructured sub-questions would be asked to guide further discussion and response from the interviewee.

At the end of the interviewee's discussion on each indicator, they were asked to rate the indicator on a scale from 1 to 10 on how strongly they believe the City to be performing on the measurement indicator. The scale reflected a measurement scale from strongly disagree to strongly agree, with an indicator of ten reflecting the strongest approval for the City's performance on any given measurement indicator.

The interview process therefore comprised recording the discussions of the interview as well as the collection of data in the form of indicator ratings. The interviews were recorded on electronic media and later transcribed into document format for review. The indicator ratings were subjected to Spearman's Rho correlation analysis to analyse correlations between the indicators that may be useful for public policy and private initiatives.

1.8 Chapter outline

The dissertation is structured in the following chapters:

Chapter One: this chapter provides an overview of the study and proposes how the study will be conducted. It outlines the problem statement, motivation for the study, the research questions and indicators, the objectives, proposed methodology and the beneficiaries of the study.

Chapter Two: this chapter provides a review of the current literature on the subject as well as a theoretical background of the study. The literature review sets the background to the entrepreneurial strength of cities in both developed and emerging economies, and discusses how to measure the entrepreneurial strength of a city.

Chapter 3: this chapter sets out the research paradigm and approach used to conduct the study. It covers the data analysis techniques that will be used.

Chapter 4: this chapter presents and analyses the findings and results of the study. It goes into in-depth discussions on the responses to each of the indicators given by the informants and provides a tabulated correlation analysis of the ratings on each indicator. The results are then summarised and conclusions drawn.

Chapter 5: this chapter draws conclusions from the research study. It establishes clearly the indicators that correlate differently between advanced and emerging economies. This enables the research to draw important conclusions for the future of the City's economic development.

1.9 Summary

This chapter provided an overview of the study and proposed how the study will be conducted. It outlined the problem statement, motivation for the study, the research questions and indicators, the objectives, proposed methodology and the beneficiaries of the study.

It is clear that a number of stakeholders will benefit from this study including not only drivers of public policy but also private sector initiatives, local business and entrepreneurs as well as all beneficiaries of Durban's economic development. This study is the first of its kind in that it establishes the indicators of entrepreneurial strength of cities within emerging economies and is anticipated to become an important benchmark for future research on the subject. It is anticipated not only will this study present important findings for key stakeholders but will, if used to guide public policy can impact the future economic development of the City of Durban as well as other emerging cities in the developing world.

Chapter 2

Conceptualisation of an Entrepreneurial City

2.1 Introduction

Entrepreneurship is commonly thought to be a crucial ingredient to the economic success and development of regions, giving rise to the term Entrepreneurial Cities also known as e-cities (Cassim and Padalkar, 2012). Yet the entrepreneurial strength of the modern city is not just about innovation by a few. According to PricewaterhouseCoopers (2011), it requires the development of a number of factors including the development of intellectual capital and innovation, infrastructure, health and safety, social well-being, the development of arts and culture, the sustainability of economic advantage and ease of doing business.

The most internationally competitive cities adopt a holistic approach to economic development by means of the development of an entrepreneur friendly environment and culture, referred to as an entrepreneurial ecosystem within the City. This is achieved by the promotion of creativity within a city through entrepreneurial education, provision of incentives, risk financing and ease of doing business through regulatory reform. Within the framework of this enabling environment, Cassim and Padalkar (2012) argue that the most successful cities tend towards behaving entrepreneurially through efficient management of city resources and finances as well as city partnerships designed to efficiently, effectively and competitively achieve Municipal goals. Therefore developing an entrepreneurial city to its full potential involves not only developing an environment within which entrepreneurs can flourish but also acting entrepreneurially at a management level.

2.2 Developing an Entrepreneurial City

The social and economic benefits of developing an entrepreneurial city are clear. It is widely believed that entrepreneurs create new jobs and through broadening the income base, there is general social and economic upliftment amongst the residents of a city. This can be encouraged by reducing the cost and regulatory burden of doing business, encouraging and educating people towards entrepreneurial behaviour and acting as an entrepreneurial city. In 2003 the City of Medellin in Colombia, with an emerging economy similar to that of Durban, began its transformation from a crime infested city to an established business centre with the aid of Mayor Sergio Farjardo's drive towards developing the poorest parts of the City through the creation of high-tech libraries and community centres, setting up financial aid programs to help start-up businesses, innovation centres to stimulate entrepreneurship and increasing

the City's expense on education to 40% on its annual budget. Within seven years the City became a legitimate business centre and statistically a safer city to live in than Washington DC in the United States (Isenberg, 2010). Through the adoption of similar policy Durban can change its economic landscape and build the entrepreneurial strength of the City, through the upliftment of the poorest communities within the City.

Attention to the socio-economic upliftment of city life is increasingly relevant as studies evidence dramatic migration towards cities. In their study conducted in 2007, Acs et al (2008) calculated that half of the world's population lived in urban areas and that by 2030, half of the world's population, estimated at 5 billion will migrate to live within cities. Such dramatic shifts will not only affect housing, but more broadly city economics as a whole including manufacturing needs, supply chains and employment as people scramble for jobs and to start-up businesses.

This is of further importance given research findings conducted by Audretsch, Falck and Heblich which indicate the need to carefully evaluate policy towards a city's educational requirements due to its dramatic effect on a city's manufacturing capabilities. According to their study, if a city increases its share of graduate employees with a University Degree in humanities by one percent, the number of start-ups will decrease by 4.3%, whilst by contrast if it increases its share of graduate employees with a degree in engineering, mathematics, or natural science by the same percentage the number of manufacturing start-ups will increase by 8.02% (Audretsch et al, 2009).

By contrast economic indicators support the view that diversity within a city supports and promotes growth and entrepreneurial activity more than specialised activity. Entrepreneurship is therefore an important ingredient for growth and development (Helsley and Strange, 2011). Florida posed the thesis that highly qualified and creative individuals tend to reside in close spatial concentrations within urban areas attracted by cultural diversity, openness to new and different ideas, tolerance and knowledge intensity (Florida in Acs et al, 2008). Cities also offer infrastructure that attracts young and highly educated individuals which increases the supply of potential entrepreneurs (Acs et al, 2008). Since the success of new business is influenced by regional economic factors where the business located (Acs et al, 2008), the City context is crucial to the growth of start-up businesses.

Perceptions affect both the supply and demand sides of entrepreneurship. The supply of potential entrepreneurs is affected by not only a willingness to become an entrepreneur but also a person's perceived ability determined by education and availability of training programs (Davidsson in Acs et al, 2008), whilst demand for entrepreneurial activity is

affected not only by opportunity but perceived opportunity amongst entrepreneurs to start a business (Kirzner in Acs et al, 2008), which in turn is affected by regional conditions including economic and population growth, culture and policy (Acs et al, 2008). Yet whilst policy deals with real opportunities and capabilities facing target groups, this model deals with perceived opportunities and capabilities as it is an individual's perception of their environment and where they fit within the environment that drives them either towards or away from entrepreneurial activity (Arenius and Minniti in Acs et al, 2008). However, perceptions are merely persuasive and not conclusive as positive perceptions towards entrepreneurship alone do not guarantee entrepreneurial activity as potential entrepreneurs must assess factors such as opportunity cost (Lucas in Acs et al, 2008) and risk-reward factors (Khilstrom and Laffont in Acs et al, 2008).

Cities can actively contribute to entrepreneurship at the political level through the introduction of growth-oriented policies and practices within local government linking business networks to encourage entrepreneurial activity. Indeed according to Dannestam (2008), cities are increasingly gaining importance within the political space over the nation-state as economies globalise and restructure around the economy of the City, challenging the traditional approach to territorial politics by reconceptualising local politics termed a renaissance of cities.

According to Jessop and Sum (2000: p2289), to qualify as an entrepreneurial city, local government must actively and explicitly "pursue innovative strategies intended to maintain or enhance its economic competitiveness vis-a`-vis other cities and economic spaces" whilst promoting an entrepreneurial discourse that markets the City. Whilst such discourse may be outside the scope and objective of local government, the City as a relevant political entity must position and identify itself as an engine of growth and economic prosperity and apply entrepreneurial strategies for this purpose (Dannestam, 2008). The need for cities to reconstruct their identity as entrepreneurial cities is becoming increasingly relevant stemming from material trends affecting the conditions for local politics. The resultant trends including deindustrialisation, the financial crises affecting local governments, changing intergovernmental relations and the escalating socioeconomic injustices affecting cities is leading to an urban crisis (Andrew and Goldsmith in Dannestam, 2008). This crisis cannot be resolved by a singular response but requires a strategic and innovative path changing shift around the concept of the entrepreneurial city, designed and constructed around diverse and intersecting economic, political and socio-cultural narratives attempting to provide new solutions to current problems (Jessop in Dannestam, 2008).

2.3 Entrepreneurship in the Context of a Developed City

Throughout Europe, production and population density is heavily concentrated within cities. Dublin, for instance, produces one third of Irelands' gross domestic product, whilst Madrid employs 20% of the Spanish labour force (Bräuninger and Stiller, 2007). However, not all modern cities are guaranteed of success. The success of a city depends on a city's competitive positioning both regionally and internationally, which in turn depends on a host of factors including infrastructure, availability and quality of factors of production, demographics, education and even the quality of life that a city can offer. It also depends on the macroeconomic phenomena affecting a country. Between 1995 and 2004, Ireland and Spain experienced exceptionally high rates of growth in employment of 45.6% and 34.8% respectively, whilst the United Kingdom experienced a lower but still high rate of 11.9% compared to Germany's employment growth rate of only 3.4% for the same period. Such growth variances caused by macroeconomic phenomena have a huge impact on the growth and success of a city as reflected by the overall comparatively disadvantageous rates of growth across Germany's six largest cities (Bräuninger and Stiller, 2007).

According to Bräuninger and Stiller (2007), the development of a modern city is the outcome of a combination of locational factors, which include tourism, transport, commerce and finance, communication networks, the proportion of foreign nationals, continuous population growth, education and qualification levels and the use of new technologies and specialisation in knowledge-intensive services and industries. However, given the variances of factors across cities, no one particular policy is a recipe for success. Each city is different and requires tailor-made policies. The successful development of any city is the outcome of a combination of not only locational factors but also economic factors, structural trends and demographics. Therefore, whilst regional political initiatives, which require attention to a city's geographical position and role both nationally and regionally, are difficult to influence in the long term, factors which may be influenced in the long term form the basis for initiative and change. Given the multitude of factors influencing change, initiatives must be studied as a function of national parameters and regional policy and cannot be implemented in isolation (Bräuninger and Stiller, 2007).

Hutton distinguishes between soft intangible policy instruments such as education, skills and leadership development initiatives, and hard measurable policy instruments such as transport, communications and connectivity. According to Hutton it is imperative to not underestimate the importance of soft policy tools, identifying four primary soft policy instruments concerning skills development in key sectors which would benefit from innovation, leadership direction to generate key stakeholder interest and shared purpose,

distinctiveness in identity to attract skilled labour, investors, students and visitors which in turn affect economic success, and finally collaboration between cities with complementary interests. The knowledge economy and the soft policy instruments associated with it have been the defining narrative in the transformation of the world economy over the last two decades and is supported in Berger's (2005) survey of 500 multinational companies which concluded that the world's most successful companies are well organised with strong institutional networks, suggesting that success in the modern city depends on quick and innovative response to changing market conditions (in Hutton, 2007).

According to Brinkley & Lee, employment in the knowledge-based industries across Europe increased by 24% between 1995 and 2005, accounting for most of the new jobs in Europe. By contrast, employment in the remaining sectors of the economies of Europe increased by only 6% during the same period. In comparing the net increase in employment, their study found that the knowledge-based sector created two and a half times more jobs than the rest of the economy (Brinkley & Lee, 2006). Hutton (2007) explains this shift in employment rates throughout the modern cities of Europe in terms of both supply and demand. In terms of demand, the modern city has created a new consumer that Hutton calls the "apex consumer" who demands and expects more from the products they consume, demanding greater response and innovation. Whilst in terms of supply, modern cities have undergone a cognitive transformation. Between 1974 and 2001, the number of people with no qualification has declined from half of all men and women in the labour force to 13% and 15% respectively thereby creating a massive supply of educated and skilled labour considering the continuous growth in population size (Hutton, 2007).

It is suggested in this research that productivity can only be increased through innovation. This requires using capital and labour more efficiently, which in turn requires more effective and sophisticated technology and means of communication and information sharing, thereby causing a faster shift in consumer demand. Therefore to gain a competitive advantage companies should cluster innovative functions to facilitate sharing ideas and implement change (Hutton, 2007). Companies should therefore stay close to cities and city regions. This is important in today's globalised knowledge economy for two reasons. Cities offer not only productivity benefits, which include access to markets, economies of scale and specialised labour, as the most talented and skilled workers are attracted to the benefits of living in cities, but also consumption benefits, which include access to goods, services, cultural facilities and social opportunities (Hutton, 2007).

Throughout economic history, there has never been a single guaranteed formula for economic success. According to the UK Department of Communities and Local Government,

successful cities have been built on distinctive socio-economic histories, as well as physical and geographic environments linked to nearby cities enabling them to adapt to a changing economic environment. Instead, certain principles must be applied when planning policies for cities (in Hutton, 2007), including:

1. Urban policymakers must plan policy based on the size of a city. Although the size of a city is not relevant to its success, it is important for policy planning. Since different advantages and disadvantages are associated with size, the size of a city has a significant influence upon opportunities for sustainable economic development. Specific advantages associated with large cities include higher productivity and international presence, industrial diversity particularly in knowledge industries and greater variety of cultural activity particularly attractive to knowledge workers. By contrast, large cities can become unattractive locations to do business as the cost of living increases, congestion decreases quality of life and the higher cost of salaries increase the cost of doing business making relocation to smaller cities attractive. Therefore urban policy must reflect the size of the City and how size affects industry, economic development, society and ability to adapt to changing demand.
2. The economic success of a city is directly relative to the economic success of other cities in close proximity. Cities rely on their networks and relationship to other cities and cannot be treated in isolation, thereby establishing a hierarchy of cities. The implication is that cities, regardless of size, grow or shrink together at the same rate. Therefore, as a large city grows, smaller cities in close proximity will grow at the same rate thereby establishing and maintaining an urban hierarchy of cities, suggesting that all cities, irrespective of size are interdependent. It is crucial to the economic development of a city that policy makers and entrepreneurs understand how to maximise growth advantage out of these relationships by working with neighbouring cities which can be a source of important resources, particularly labour for knowledge industries.
3. Strategies for the sustainable economic development of a city must be premised upon its economic history. The city's strengths and weaknesses are shaped by its past and therefore strategies for economic development must be based on how the economy has changed over time and continues to change currently. It is argued that, unless a city builds on its past, there is a danger of investing in fashionable but ineffective strategies given particular socio-economic and cultural circumstances. Unless a city is able to support a particular strategy to build specialist strength, it is unlikely to grow and gain a sustainable competitive advantage. A city must be

capable of providing necessary support, whether in terms of research or skills base, if a strategy is to succeed. Therefore, cities that build strategies upon existing strengths are far more likely to develop in a sustainable way.

4. Economic and social policy instruments must work together. Economic development cannot be sustainable unless it trickles down to all levels in the economy. Research has found that economic growth achieved by the development of knowledge industries is unsustainable where large sectors of the population remain unskilled, unable to access newly created jobs and benefit from the economic success.
5. Research by the UK Department of Communities and Local Government (Hutton, 2007) has found there to be two threshold points beyond which knowledge intensity of businesses within a city create higher levels of growth, being at 25% and 40% respectively (Figure 2.1). At the first threshold point where 25% of businesses in a city are knowledge based, there is a significant increase in economic growth in the City whilst at the second threshold level where 40% of business are knowledge based the returns are even greater. This principle also translates to the level of knowledge amongst the population where the tipping points are measured by the percentage of the population with university degrees at 20% and 30% respectively (Figure 2.2). It is evident therefore that knowledge industries have a significant impact on the economic development of a city. The sudden increases in economic development at the various tipping points may be attributed to knowledge density and the clustering of certain productive industries which are able to benefit from the success of similar businesses within the City. Therefore, the growth of knowledge, increase in density of knowledge workers within a city and the success of knowledge industries, create sustainable economic benefits to mutual advantage so that the agglomerative effects of increasing knowledge intensity creates sudden growth advantages across industry (Hutton, 2007).

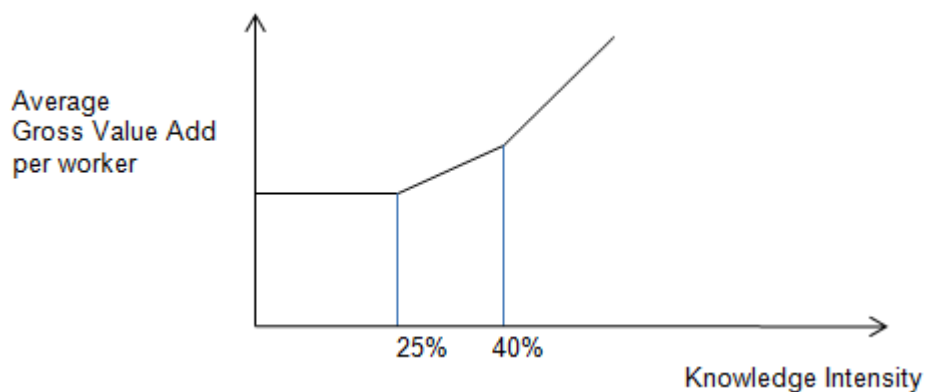


Figure 2.1: Threshold growth points for Knowledge Intensive Businesses

(Source: UK Department of Communities and Local Government in Hutton 2007: p11)

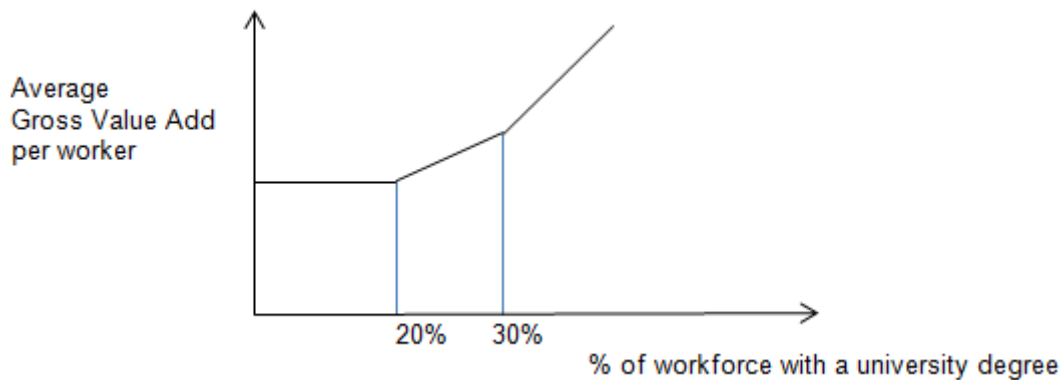


Figure 2.2: Threshold tipping growth points for Knowledge Intensity by qualification
(Source: UK Department of Communities and Local Government in Hutton 2007: p12)

Policy instruments of modern rapidly growing economies appear to focus on 'hard' policy instruments such as transport, infrastructure, attractive city centres and living accommodation. However, as cities modernise, focus is increasingly shifting towards 'soft' policy instruments such as skills and leadership development; distinctiveness and collaboration. Often 'hard' policy instruments have been distinguished as economic policy and 'soft' policy as social policy and therefore ancillary to economic development as it is often difficult to associate the benefit to the policy itself. The outcome is that 'hard' policy is generally funded through long term capital investment projects whilst 'soft' policy is most generally funded through short term revenue funding (Hutton, 2007). Yet value and economic success in the knowledge economy comes predominantly from the process of innovation often attributable to 'soft' policy instruments, so it is important to identify drivers of 'soft' policy. Hutton (2007) distinguishes four 'soft' policy instruments recommended for sustainable economic development of the knowledge economy, namely skills, leadership, distinctiveness and collaboration.

Skills are critical to success in today's modern knowledge economies. Cities must invest in skills development in response to the demands of key industries within the economy. This is necessary to increase not only the levels of productivity but also for the social growth and benefit of the cities' residents. To achieve a high level of skills within the knowledge economy, the public sector must work with employers and educational institutions to strive towards the development of necessary skills for the benefit of the economy and invest in the necessary skills development programs as a means of social upliftment and welfare (Hutton, 2007). Leitch argues that skills are important not only because it creates greater employment and wage premium benefits to individuals without skills but also because it increases

productivity, growth and innovation within the firm employing the skilled individual (Leitch, 2007).

Sustainable business needs strong leadership, which is a critical driver of economic development and success in the knowledge economy. Leadership creates not only vision but also business strategy attracting knowledge intensive businesses and workers, thereby increasing productivity (Hutton, 2007). International case studies have shown that strong city leadership that is able to exercise power at the regional level prove to be the most economically successful cities (Hutton, 2007).

Cities must promote a distinctive strategy to attract business and knowledge workers. This can be achieved through tourism, history, architecture and public marketing events such as festivals or sporting events (Hutton, 2007). However, cities also have different but complementary strengths so it is vital to the economic success of a city that other cities in close proximity work together to build strong regional inter-city links to enhance their business offerings to knowledge intensive firms and workers (Hutton, 2007).

Innovation is an important driver of economic success, however, it represents far more than the exploitation of new ideas. It not only refers to the creation of new ideas, but more importantly to the adaptation and improvement of existing ideas which includes products, services, processes or even organisational methods used in practice. Innovation is relevant to all sectors within the economy and not just science and technology (OECD, 2005).

Cities can foster innovation through the growth of knowledge intensive businesses by bringing people and business together. Assisting the flow of knowledge and ideas by means of networks where entrepreneurs and businesses work together to produce goods and services, known as the innovation ecosystem, is critically important to the growth of innovation itself (Crowley, 2011). By doing things better and in new ways, the fostering of innovation creates new markets, improves comparative advantage and increases productivity for companies within the City and region through more efficient use of capital and labour (Crowley, 2011).

Yet cities and regions may innovate in different ways and therefore localised policy may be required to provide flexible solutions to growth models. A different policy strategy, for instance is required for a knowledge intensive service industry in contrast to an industry manufacturing high technology products (Crowley, 2011). The global economy itself has witnessed massive changes over recent decades driven predominantly by knowledge intensive service industries which have generated more jobs and created more economic

growth than any other sector of the economy. The last 30 years have witnessed a 90 per cent increase in employment in knowledge intensive industries compared to less than 15 per cent in all other industries combined. As a proportion of the workforce this may be accounted for by the fact that knowledge workers comprised one fifth of the UK workforce in 1970, two fifths in 2011 and is expected to comprise over half the workforce by 2020 (Crowley, 2011).

As the structure of the economy has changed so too has the structure of business investment. Investment on the creation and exploitation of knowledge intensity has tripled over the last 30 years. Whereas in 1970 firms across the United Kingdom invested £4 on intangible investments including software, research and development and training for every £10 on tangible assets such as offices, tools and machinery, by 2004 this increased to £13 in order to increase innovation and competitive advantage (Crowley, 2011). This investment in innovation has made a massive contribution to economic growth in the United Kingdom. According to NESTA, two-thirds of the growth in labour productivity between 2000 and 2007 is attributed to innovation (NESTA, 2009).

Cities can contribute to innovation and growth by fostering knowledge creation which brings concentrations of highly skilled people together. This not only promotes the exchange of ideas and learning which facilitates the process innovation but also attracts businesses which are attracted to clusters of skilled labour and consumers. The process of innovation in turn generates spill over benefits of enormous value to firms able to absorb the benefits of the innovation without having to pay for it (Crowley, 2011).

2.4 Entrepreneurship in the Context of a Developing City

Most large cities are more entrepreneurial than countries. This difference is particularly acute in developing countries where the less entrepreneurial the country the larger the difference in terms of the measurement indicators (Acs et al, 2008). The result is that urban space and the meaning attached to it in developing countries is being recreated not for the impoverished local population but for the investor to attract high value business interests that can flourish in impoverished locations (Swyngedouw in Biddulph, 2011) leading Hubbard to suggest that “the focus of much urban governance is no longer the provision of services to city residents, but a concern with the prosperity of the City and its ability to attract jobs and investment” (Hubbard in Biddulph, 2011: p64).

The difficulties facing small business in South Africa were highlighted in the Government's White Paper on its National Strategy for the Development and Promotion of Small business in South Africa released in 1995, which provided for policies and a strategy for the

development of small business in South Africa. The Paper identified numerous constraints facing small business in terms of the tax burden, legal and regulatory issues, lack of access to markets, finance, affordable business premises, skills and expertise as well as technology and infrastructure (Department of Trade and Industry, 2005).

Despite these restraints popular business models focus on competitive advantage which distinguishes between short term price competitiveness at which the business is able to deliver its product to market and the longer term, non-price competitiveness being technology or knowledge-based competitiveness. As low to medium technology industries, as compared to high technology industries, are based on lower levels of knowledge, they have less impact on longer term possibilities of competitive advantage and future development (Wzia-Kubiak in Hirsch-Kreinsen and Jacobson, 2008).

But most innovation enabling capabilities develop naturally through a learning process being transformational and configurational capabilities and not as a result of scientific research and technological advance (Bender in Hirsch-Kreinsen and Jacobson, 2008). Thus, whilst research and development is a precondition for innovation at the level of big organisational business, it is not the most important activity for the creation of innovation which develops through experience and learning (Bender in Hirsch-Kreinsen and Jacobson, 2008). This is significant for developing economies where there are fewer innovation resources and industry is based more on low to medium levels of technology. Wzia-Kubiak points out that innovative improvements within low to medium technology based industry have more economic effect than innovative improvements in high-technology sectors thereby enabling industry based in the developing world to take competitive advantage over their counterparts in developed economies (Wzia-Kubiak in Hirsch-Kreinsen and Jacobson, 2008).

Economic development is achieved through shared and sustainable increases in per capita income accompanied by structural economic shifts towards greater value added goods and efficient methods of production. This process is facilitated by entrepreneurs who contribute by reallocating resources towards productive use and supporting structural change through the economic process of filling economic gaps, establishing economic inputs and cost discovery (Szirmai et al., 2011).

It has been suggested that innovation is less important for growth in developing economies as economic development proceeds through three stages from factor-driven development, through efficiency-driven development to innovation-driven development. Therefore, it has been argued that innovation driven growth only occurs at advanced levels of development, which according to studies reported by Acs and Szerb (2009) indicate that innovation

accounts for only 5 per cent of economic activity in developing economies compared to 30 per cent in advanced developed economies. New technological innovations tend to originate in advanced developed economies resulting from vast expenditure on research and development (Szirmai et al., 2011), and whilst the discipline of entrepreneurship is a study of opportunity recognition, creation and utilization defining entrepreneurship as the 'discovery and exploitation of opportunities' (Shane and Ventakaraman in Szirmai et al., 2011, p4), this raises important questions about innovation and entrepreneurship within the context of the developing economy, particularly relating to how entrepreneurs innovate and contribute towards economic development in developing economies and how can they be supported through this process (Szirmai et al., 2011).

Competition has become increasingly dependent on knowledge-based innovations. Even within the traditional sectors and service industries, advances in technology are leading towards higher value added activities within value chains (Szirmai et al., 2011). According to endogenous growth theory, capital and labour are subject to diminishing returns, whilst knowledge based investment generates increasing returns due to knowledge spillover and positive externalities. Due to their superior systems, advanced economies profit more from investment in knowledge based innovations than less developed economies as innovations are able to quickly diffuse throughout the economy (Szirmai et al., 2011).

However, these innovations when implemented in developing economies, can lead to rapid economic growth, as businesses may, dependant on the developing economies absorptive capabilities, creatively adapt and absorb the benefits of technological advances without incurring the cost of its development (Szirmai et al., 2011). The ability for a developing economy to absorb new technologies and catch up with advanced countries has been observed by Lewis wherein that it takes an economy at least 30–40 years to industrialize (Lewis in Szirmai et al., 2011) and that no developing economy has modernised into an industrialised economy since the Second World War without pre-war manufacturing experience (Amsden in Szirmai et al., 2011).

Entrepreneurship is arguably one of the primary sources of growth in the production function alongside labour, capital, knowledge and technology, finding new ways of combining factors of production to create wealth. However, to do this in ways that will unlock economic development and growth requires necessary institutional infrastructure (Szirmai et al., 2011) and therefore, according to Stam and van Stel, entrepreneurs play different roles in creating wealth in developing economies as compared to their counterparts in advanced economies (Stam and van Stel in Szirmai et al., 2011).

In their econometric analysis, Stam and van Stel studied the existence of entrepreneurship across different countries categorised into three groups based on institutional characteristics being advanced high-income economies, transition economies, and low-income developing economies. The existence of entrepreneurship was measured using the Young Business (YB) index which is the percentage of the adult population who is either the owner or manager of a business less than three and a half years old. The level of YB activity was measured by calculating the number of such businesses that expected to employ a given number of employees over the next five years. A business expected to employ 20 employees within five years was given a high growth expectation rating along the YB index whilst a business expected to employ six employees was given a medium growth expectation rating (Szirmai et al., 2011).

The authors found that YB activity significantly affects economic growth in developed and transition economies, but not in developing economies. They explain this due to a number of issues including the lack of complementary physical and human capital, the scarcity of larger companies that can act as a training ground for entrepreneurs and that many entrepreneurs within developing economies are survival entrepreneurs who may not be in a position to be particularly innovative and contribute to structural economic change (Stam and van Stel in Szirmai et al., 2011). Although small business accounts for the most number of new jobs and a substantial share of high value added goods and services, the ratio of its share of value add to share in the labour market is lower than that of large business because small business is less capital intensive than big business (Szirmai et al., 2011).

Yet despite these statistics Stam and van Stel, argue that small businesses are the primary driving force in the process of structural economic change in developing and transition economies (Stam and van Stel in Szirmai et al., 2011). According to International Labour Office (ILO), statistics from 2002 indicate that small businesses in Vietnam comprise 99.9 per cent of all business, employed 77.3 per cent of the labour market and contributed to 26 per cent of the country's GDP, and in Turkey small business employed 61.1 per cent of the labour market and contributed 27.3 per cent to GDP. The ILO statistics indicate that informal microenterprises account for at least half of the entire labour market in the non-agricultural sector across the entire developing world, 72 per cent in Sub-Saharan Africa and 41 per cent of the GDP of the non-agricultural sector in Africa, indicating that small businesses are the primary source of income and employment for the urban population in Africa (ILO in Szirmai et al., 2011).

According to Gebreeyesus (in Szirmai et al., 2011), innovative performance is influenced by both human and firm variables attributable to the entrepreneur and business respectively.

Amongst the variables relating to the entrepreneur, studies indicate that younger entrepreneurs are more likely to innovate than older entrepreneurs, men more than women and particularly that vocational training significantly improves innovative performance measured in terms of newness, value creation, and process. Regarding business elements, studies show that larger firms innovate more than smaller ones and, contrary to human variables, that older firms tend to innovate more than younger ones (Szirmai et al., 2011).

While innovative performance is positively related to growth through employment growth (Szirmai et al., 2011), research indicates that developing economies demonstrate lower levels of innovative performance than advanced economies. In Africa, Rooks, Szirmai, and Sserwanga attribute this to the fact that most entrepreneurs are survival entrepreneurs and thereby unable to contribute to wider economic growth (Rooks, Szirmai, and Sserwanga in Szirmai et al., 2011). Low levels of innovative performance may also be attributed to financial constraints and the lack of market opportunities and support through cooperation and linkages between different actors (Szirmai et al., 2011).

Mani (in Szirmai et al., 2011) distinguishes five categories of factors that can facilitate innovative performance. These include economic liberalization to create new market opportunities, increasing financial aid, implementation of public-private partnerships, government support programmes together with complementary private initiatives and increasing the availability of skilled labour. However, in order to create a sustainable competitive advantage, the economic activity must involve a measure of complexity that is not easy to replicate (Laestadius, Gustavsson and Long in Hirsch-Kreinsen and Jacobson, 2008).

Recent decades have witnessed an enormous increase in innovative performance and complexity of technological activities outside OECD countries in developing and transition economies. Indicators that support this include a nineteen per cent per annum increase in scientific publications and licensing of patents as well as the dramatic increase in foreign trade in high-tech products increasing by 202 per cent from \$US 5 164 billion to \$US10 431 billion in the decade between 1995 and 2005. Vietnam over this period jumped to rank 50 amongst world exporters increasing exports by 580 per cent, while China over this period increased its exports more than 500 per cent from \$US 149 billion to \$US 762 billion, transforming its economy into the third-largest exporter in the world after the US and Germany (Laestadius, Gustavsson and Long in Hirsch-Kreinsen and Jacobson, 2008). Clearly both developing and transition economies are able to make dramatic economic advances with the correct policies supporting innovative performance. However, in order to do so economies require the right business environment for new business start-ups, active

skills formation and organisational learning, risk financing and network facilitation (Mani in Szirmai et al., 2011).

2.5 Theory of Economic Convergence :The Gravity Model

As the population concentration within cities increases, economic activity also increases resulting in cities increasingly becoming the source of national wealth. Indeed, seventy percent of the gross domestic product of KwaZulu-Natal is attributed to the economies of the five main cities of Durban, Pietermaritzburg, Richard's Bay, Newcastle and Port Shepstone. However, even when they are spatially close, cities differ in economic structure, growth rates, income per capita and unemployment. Although economically diverse, cities are economically integrated and experience a level of economic convergence in accordance with the neoclassical Solow growth model, which argues that income across cities varies due to differing capital-labour ratios. Cities with higher ratios of capital to labour are wealthier because workers are more productive in response to capital investment (Coetzee, 2012).

The neoclassical Heckscher-Ohlin trade model, argues that income variances between cities are the consequence of factor pricing and levels of factor endowment. Whilst income convergence occurs through trade due to specialisation (Kim in Coetzee, 2012), Paul Krugman predicts that differing capital-labour ratios resulting from divergent industrial structures between cities will cause income divergence (Krugman in Coetzee, 2012) as high-tech, high-wage industries concentrate within certain regions, leaving other cities to rely on low-tech, low wage industries (Kim in Coetzee, 2012).

Economic Integration as the study of the creation of common markets may therefore support either economic convergence or divergence in terms of development and wealth between cities and is therefore critical to the concern with gaps in living standards (Coetzee, 2012). According to Cashin and Sahay, income convergence is driven by diminishing capital return as each additional unit of capital generates smaller measures of output and is therefore of most benefit when the amount of capital stock is small. Thus the neoclassical growth model predicts that poorer regions grow faster than wealthier ones with a given level of capital stock as cities with a low capital-labour ratio have higher capital income growth rate (Cashin and Sahay in Coetzee, 2012). This theory is supported by empirical findings based on regional incomes measured in GDP per capita, which show that the growth rate of income per capita is inversely related to initial levels of income per capita, leading to the conclusion that low income cities record higher growth rates than high income cities (Gardiner et al in Coetzee, 2012).

The gravity model is a theoretical technique for measuring the degree by which cities converge. Based on Newton's theory of gravity and adapted for purposes of studying economic convergence between economies, calculated values of convergence are mere estimates as no sales trading statistics between cities exist. According to the theory a given mass of factors of production at source is attracted to the mass of demand for goods and services at destination, the flow of which is reduced by the geographical distance between the locations. Thus, the level of trade between two cities is proportional to their size and inversely related to the geographical distance separating them, explaining the flow of goods and services between areas as a function of the characteristics of the source and destination as well as a measurement of distance (Coetzee, 2012). According to research conducted using the gravity model, studies showed that "a 1 percent increase in the size of the host economy will be associated by a 1.7 percent per annum increase in trade flows and a 1 percent increase in the size of the trading economy will be associated by a 11.5 percent per annum increase in trade flows, whilst a 1 percent increase in distance will be associated with a 2.5 percent per annum decrease in trade flows" (Coetzee, 2012, p19).

Despite the relatively high levels of trade between the principle cities across KwaZulu-Natal, there appears to be a low level of economic convergence between the cities measured in terms of growth and income disparities suggesting weak city integration and thereby refuting the gravity model. However, this may be explained by Gang's suggestion that geography and transportation costs can cause regional inequalities in modern industrial market-based economies (Gang in Coetzee, 2012).

2.6 How to Measure an Entrepreneurial City

Whilst most Small, Medium and Micro-sized Enterprises may not grow very large, they contribute significantly to the economy, driving competition, growth and job creation, as low entry costs encourage entrepreneurship and enhance productivity (World Bank, 2009). In many countries, the World Bank (2009) notes that small businesses contribute more than 50% towards a country's Gross Domestic Product (GDP), creating more than half of the jobs, most of the significant innovation and play an important role in the distribution of wealth.

Comparison between the United States and Europe demonstrates that not only is the US economy better at creating new business but also at enabling them to grow, as whilst only five percent of European businesses started since 1980 made it onto the European Union's top 1,000 largest companies list, 22 percent of American firms made it onto their top 1,000 list. Even more interesting from these statistics is that of the new businesses founded since 1975 that made it to the top 500 list, 25 were founded in the United States, 21 from emerging

economies and only three from Europe (Irwin Grayson Associates, 2010). Such statistics are even more astounding when you consider that since the Second World War, 50 percent of all innovations and 95 percent of all radical innovations have come from SMMEs (Irwin Grayson Associates, 2010).

According to the World Bank, countries that see the greatest impact on economic growth do the most to facilitate the process of red tape and reduce regulatory burden (in Irwin Grayson Associates, 2010). Thinking carefully therefore, before implementing new regulations and cautiously only regulating when it is necessary to regulate and in a manner that ensures minimum additional burden is crucial to economic growth. By contrast, surveys conducted of the perceptions of business leaders suggest that the biggest deterrents to investment are infrastructure and corruption (Irwin Grayson Associates, 2010).

In this study sixteen measurement indicators were designed to compare the interests of developed economies with emerging economies and the interests of big business with those of small business and necessity entrepreneurs in order to demonstrate that successful cities balance various needs that support each other. The underlying theoretical basis for the sixteen indicators was premised on indications of entrepreneurial strength of an economy and more particularly that of an emerging economy. The indicators were drawn from internationally recognised indications of economically advanced economies, together with proposed indicators of successful emerging economies. Each indicator was titled and framed in a leading question fundamental upon principles for success in uniquely distinct aspects of both advanced and emerging economies, including:

- 1) Intellectual Capital and Innovation: “Is enough being done to meet Durban’s intellectual capital and knowledge requirements and if not how can this best be tackled?”
- 2) Technology Readiness: “Can the City of Durban compete with the developed world in technological innovation?”
- 3) Transportation and Infrastructure: “Do you think Durban measures highly in this regard?”
- 4) Health, Safety and Security: “Given that Healthcare is a basic necessity, is our health system sufficient to meet its demands?”
- 5) Sustainability: “Is Durban planning for a sustainable future and what resource do

- you consider to be the most valuable to sustainable development: natural resource, skilled labour or leadership?”
- 6) Economic Clout: “Is Durban doing enough to attract investment?”
 - 7) Cost of Living: “The cost of living is increasing beyond the means of lower income households. Are we doing enough to ensure that future generations are able to benefit from economic growth today?”
 - 8) Demographics and Liveability: “Is this a problem in Durban and if so what can we do to improve transportation and improve the standards of living to Durban’s residents?”
 - 9) Lifestyle Assets: “Urban planning for the future appears to focus more on shopping centres rather than mind zones which facilitate growth of business within a city. Do you think we are meeting these needs in Durban?”
 - 10) Informal Trade: “It has been suggested that innovation is less important for growth in low-income developing countries than in advanced economies. Do you agree? How and under what conditions do informal traders innovate in developing countries and what can be done to support innovation amongst informal traders in Durban?”
 - 11) Ease of Doing Business: “What can be done to make it easier for small business to start up and continue doing business?”
 - 12) Micro-enterprise Development – Net Business Start-ups: “Is the City doing enough to support the growth of Micro-enterprise development?”
 - 13) University / Industry Interaction: “Is the City doing enough to nurture public / private partnerships that will encourage business development and what role can universities provide in this relationship?”
 - 14) Presence of Entrepreneurs: “Are entrepreneurs providing the necessary skills and services for the development of Durban and what can be done to encourage innovation amongst the entrepreneurial class?”
 - 15) Perceptions of Entrepreneurs: “Does the City perceive entrepreneurs as a class

that can contribute to innovation and growth?”

16) Policy Arrangements for Entrepreneurship Support: “Is the City providing enough support to entrepreneurial growth?”

Chapter 3

Research Methodology

3.1 Aims and Objectives of Study

The overall aim of the research was to explore the notion of an entrepreneurial city in the context of the City of Durban's emerging economy. Entrepreneurs create not only businesses but also communities. Entrepreneurship is thus a crucial ingredient to the economic success and development of a city. Yet the entrepreneurial strength of the modern city is not just about innovation by a few entrepreneurs. It requires the development of an entrepreneurial ecosystem that comprises factors that promote growth and development. The purpose of this study therefore was to identify and measure indicators that define an entrepreneurial city by key informants and highlight key factors for the attention of public policy and the need for funding in areas necessary to support entrepreneurs and grow the City economy of Durban. Whilst similar studies have been conducted in the United Kingdom, Canada and America no study on this subject has been conducted in South Africa (PricewaterhouseCoopers, 2011).

3.2 Research Questions

International studies on the entrepreneurial strength of cities conducted by PWC (2011) have focused on the correlations between measurement indicators of the entrepreneurial strength of advanced economies. However, such studies have limited use internationally as they have only shown which indicators correlate most closely with one another in the context of advanced developed economies. This raises the questions whether similar correlations exist within an emerging economy and what, if any, other correlations would occur and how can such findings contribute towards public policy? The research questions to be answered therefore are:

- 1) How do key informants conceptualise an entrepreneurial city in the context of an emerging economy?
- 2) What indicators to key informants attribute to the definition and measurement of an entrepreneurial city?
- 3) What are the key informants' perceptions of the City of Durban as an entrepreneurial city?

3.3 The Study Location

Located on the east coast of South Africa, the City of Durban is the third largest city with a population of almost 3.5 million (Statistics South Africa, 2011). The City is the second most important manufacturing hub in South Africa after Johannesburg and is home to the busiest port in Africa. With subtropical climate and extensive beaches, the City is a major tourist destination for local and international holiday makers. However, the City's economy suffered under the historical legacy of Apartheid that deliberately and systematically impoverished the majority of the population consequently hindering economic development and relegating the City's economy to the status of an emerging economy. As such the City was an ideal area of study given its huge potential to be an economic leader within South Africa's emerging economy.

3.4 Research Approach

According to O'Leary (2004), the interpretivist / constructivist paradigm of postpositivism, which grew out of the cause and effect empirical determinist philosophy of positivism, sees the world as containing variable realities, suggesting that "reality is socially constructed" (Mertens, 2005, p.12), relying on the "participants' views of the situation being studied" (Creswell, 2003, p.8). However, this approach suggests that the interviewers own background and experiences must logically also impact on the research results (Mackenzie and Knipe, 2006). According to Mertens (2005) this led to the transformative research paradigm, dissatisfied with the dominant cultural perspective of the researchers intertwined with political agenda to the exclusion of marginalised groups (Creswell, 2003).

While the findings of empirical studies are generally accepted as truth since they are able to withstand challenge, qualitative research is inclusive of transformative research paradigms to explain and justify knowledge. However, whilst research findings based wholly on either quantitative or qualitative research methodology have their respective limitations a mixed methods approach was chosen to provide for the development of a more complete perspective of the subject matter to allow for an understanding of "greater diversity of values, stances and positions" (Somekh & Lewin, 2005, p.275).

Several methods have been suggested for conducting qualitative research the choice of which depends on the needs of the researcher. These include case studies, ethnography, grounded theory, phenomenology and content analysis (Leedy and Ormrod in Williams, 2007). Case study, ethnography and content analysis studies were not considered suitable for the purpose of this study and will therefore not be discussed in further detail whilst

grounded theory and phenomenological study founded in the adoption of an interview approach were by contrast found to be more suitable for this study.

Grounded theory studies are similar to phenomenological studies because they are both based in the interview process (Williams, 2007). However, a grounded theory approach was adopted as it is based on deriving a general theory grounded in the views of respondents (Creswell, 2003) by a process of collecting, analysing and comparing data collected across respondents. As Leedy & Ormrod explain, grounded theory is a process of describing the research question, data analysis, explaining the theory and discussing the implications, whilst by contrast phenomenological studies focus on the respondent's perceptions of meaning of an event or situation in an attempt to understand their experience (in Williams, 2007). Creswell explains that the purpose of the approach is to analyse experience to establish "intentionality of consciousness where experiences contain both the outward appearance and inward consciousness based on the memory, image, and meaning" (Creswell in Williams, 2007, p69).

Whilst quantitative research seeks to explain and predict certain phenomena to validate relationships that contribute to theory (Leedy and Ormrod in Williams, 2007) beginning with a problem statement, followed by formation of a hypothesis and quantitative data analysis to predict or confirm inquiry (Williams, 2007), qualitative research by contrast is a holistic approach towards investigation and discovery (Williams, 2007). In this study, a mixed methods approach was preferred, in order to incorporate a qualitative approach to interviews based on a grounded theoretical methodology, to establish the views of key informants on critical and important issues, combined with the quantitative methodology of collecting and analysing responses to questions posed to the respondents. This process involved collecting and analysing not only numerical data, customary to quantitative research, but also narrative data customary to qualitative research in order to address research the questions (Williams, 2007), thereby drawing from the strengths of both quantitative and qualitative research and minimising the weaknesses of both (Johnson & Onwuegbuzie in Williams, 2007).

Fontana and Frey (2005) distinguish three categories of interview process based on the degree of structure with which the interview is conducted, namely structured, semi-structured and unstructured interviews. Structured interviews are based on a set of predefined questions intended to minimize interviewer and instrument effects on the research results. Semi-structured interviews provide flexibility to the interview process providing the interviewer room to add questions during the interview based on the informant's responses and situational context. By contrast, unstructured interviews provide room in-depth understanding of the informant's response within the context of their experiences and

realities, exposing the researcher to “unanticipated themes” (Zhang and Wildemuth, 2009, p2) providing a better understanding of the informants reality.

The merit of catering for a semi structured interview process is found in the structure of a predefined set of questions minimising situational and interviewer effects, combined with the flexibility of providing for additional probing questions to adjust the conversation at appropriate moments in the process. While opting for a semi structured interview process as opposed to an unstructured process saved time in the collection of unstructured data information (Patton, 2002), it also provided a number of challenges. Since the probing questions asked during the interview process varied across interviews depending on the particular context of the interview, great effort was made to analysing the interview data to find patterns within it. Furthermore, controlling the pace and direction of the interview process created a challenge as new topics emerge during the questioning posing a threat to probe further at the risk of losing continuity.

Instead of following a structured interview process to elicit responses to a list of carefully scripted questions, the preferred approach was to adopt a qualitative interview process. This differs from structured interviews in a number of ways. First, the interview is not carefully scripted. The interviewer has a framework of questions but there is not a structured list of questions in the form of a questionnaire. Second, the interview follows a conversational mode instead of adopting a uniform approach to each respondent, which in turn leads to a social relationship as some of the interviews were conducted in coffee shops whilst others in the respondent’s offices. This permitted an opportunity for two-way interactions. Thirdly, this enabled important questions to be open ended questions around which the key informant could provide significant opinion. By contrast, limitations posed by structured interviews are that they are unable to analyse particular response trends or contextual conditions whilst a qualitative interview may specifically linger and discuss such trends and conditions (Yin, 2011) enabling a successful qualitative interviewer to learn from people rather than study them (Spradley in Yin, 2011).

Following the qualitative approach, the interview process posed sixteen central research questions instead of hypotheses, each relating to a particular measurable indicator of entrepreneurship. These were followed by probing based on each respondent’s response to the central question in order to engage the respondent in further response and ensure that the interview was not limited in focus. This approach has been suggested by a number of authors including Miles and Huberman (in Creswell, 2003) who recommend that the interview process focus on a dozen central research questions which become topics explored during an open ended interview process.

The interview process involved the adoption of five distinct strategies. First, interviewer contribution was limited to enable the respondent the opportunity to provide a full and unfettered response. Where the response was limited then probing questions were posed to provide opportunity for further contribution. The respondents asked during the conversation what makes a city entrepreneurial? This would refer to the spontaneous responses on the issue. Once the indicator was established respondents were asked to rank Durban on the indicator. Second, it was important to be as nondirective as possible to enable the respondents to voice their own opinions and perceptions in order to follow the sequence of topics as discussed by the respondents and reveal their unique perspectives. Third, a neutral strategy was adopted so as to ensure that interviewer biases or preferences did not affect the discussions and responses to central questions. Fourth, was the importance of maintaining rapport with the respondents so that they were comfortable sharing their opinions and thoughts on each topic. Finally, it was necessary to analyse key informants responses during the interview process so as to gauge when to probe for further detail and response from the informant (Yin, 2011).

The interview process took approximately one hour to complete for each respondent. However, interviews ranged in length from forty minutes to one and a half hours depending on the particular informant's time constraints and the content they were willing or able to contribute to the study. Each informant was asked to rate Durban's performance measured by sixteen indicators each represented by a separate central leading question. The indicators were rated on a scale from 1 to 10 which reflected a scale from strongly disagree to strongly agree respectively and included open ended discussions around each to enable them to share their opinion on each.

Some variables were responded to spontaneously and required very little or few sub questions in order to engage discussions, whilst other indicators received very little response from the respondents. This may be due not only to the fact that informants had little knowledge about such indicators but may also be contributed to the fact that interviewees tired during the interview process and were less willing to contribute discussion to later question rather than those asked earlier in the interview process.

3.5 Challenges

While the research was carefully planned, the field work was riddled with challenges. Firstly, securing appointments with experts took a lot longer than anticipated, Secondly, key

informants would terminate an interview if some other work related task arose. Thirdly, interview fatigue characterized some of the responses.

Future research should accommodate for interview fatigue as interviewees grow tired towards the latter part of the interview process. This resulted in interviewees tapering off their responses providing shorter discussions due primarily to fatigue and in some instances to time constraints. This problem should be alleviated in future studies by jumbling the order in which each measurement indicator question is asked in order to avoid the over weighting of compilations of data on particular indicators at the cost of other indicators. Efforts to limit interviewee response time in the earlier part of most of the interviews was difficult due primarily to courtesy as interviewees were eager to share their knowledge and ideas.

Chapter 4

Findings and Analysis

4.1 Introduction

Successful cities throughout the world are led by forward thinking local government policy that supports entrepreneurship to create businesses and build communities. To flourish, the entrepreneurial strength of the modern city requires not only the innovation by a few entrepreneurs but also investment in a variety of different variables to strengthen the entrepreneurial profile and potential of the City.

The overall aim of the research was to explore the notion of an entrepreneurial city. More specifically the research objectives were to:

- 1) Develop a conceptualisation of an entrepreneurial city in the context of an emerging economy
- 2) Develop a set of indicators by which we may measure an entrepreneurial city using indicators
- 3) Assess the perceptions of the City of Durban as an entrepreneurial city

International studies of advanced economies conducted by PWC (2011), have shown that across the world's most competitive cities, that intellectual capital and innovation correlate most strongly with every other indicator and particularly strongly with health, safety and security, indicating that the world's most competitive cities are found where residents are ensured of their health and safety. This raises the question whether similar correlations would occur within an emerging economy and what, if any, other correlation would exist and how they could contribute towards guiding future policy. The research questions to be answered therefore were:

- 1) How do key informants conceptualise an entrepreneurial city in the context of an emerging economy?
- 2) What indicators to key informants attribute to the definition and measurement of an entrepreneurial city?
- 3) What are the key informants' perceptions of the City of Durban as an entrepreneurial city?

4.2 Description of the Respondents

A sample of fifteen key informants were randomly selected to be interviewed from a population of forty seven possible candidates. They were recruited from the greater Durban region identified based on their knowledge and / or vested interest in ensuring that Durban is not only an attractive place to live in and do business but that Durban becomes the most liveable city in South Africa. They were selected from a range of diverse fields based on their unique knowledge and experience in matters concerning the City that converged along their level of expertise and interest in Durban in areas of business and policy. The aim was to solicit information from the key informants to establish what indicators define an entrepreneurial city in the context of an emerging economy such as South Africa and secondly how the City of Durban is perceived and rated on these and other indicators.

The importance of appropriately profiling the key informants was to establish indicators that best define an entrepreneurial city in the context of an emerging economy such as South Africa, and furthermore, to gauge how these key informants perceived and rated the City of Durban on these and other indicators. The profile included policy specialists, strategists, researchers, academics, project managers and experts from numerous fields such as Information Technology, Governance, Commerce and Industry, Tourism, Urban Geography, Inner City Regeneration and Urban Renewal.

4.3 The Measurement Indicators

The measurement indicators of entrepreneurship were drawn from a broad range of areas of study including socio-political and economic disciplines. Each area of study was then further broken down into categories of indicators. Each indicator was designed to be phrased as a dominant leading question to trigger conversation. Respondents were then interviewed from different disciplinary sectors within the City and selected on the basis of their interest in ensuring that Durban develop as an attractive city in which to live and do business. This approach was important as it not only led to the compilation of a large database of qualitative material pertinent to each measurement indicator, but also led to the compilation of measurable quantitative data that was subjected to correlation analysis to provide further discussion and for purposes of making recommendations.

The research comprised sixteen indicators to measure the City of Durban's entrepreneurial strength. Some of the indicators used were selected from earlier studies conducted internationally and adapted for Durban's developing economy. These indicators have been used internationally to compare the level of entrepreneurial activity between developed cities

from around the world. The present study adapted these indicators to suite Durban's developing economy and added new indicators unique for the purpose of studying Durban as an entrepreneurial city, not previously been used by earlier studies.

The indicators used in this study have therefore been highlighted as important indicators of innovation and growth of entrepreneurship in South Africa. They include:

- 1) Intellectual Capital and Innovation: "Is enough being done to meet Durban's intellectual capital and knowledge requirements and if not how can this best be tackled?"
- 2) Technology Readiness: "Can the City of Durban compete with the developed world in technological innovation?"
- 3) Transportation and Infrastructure: "Do you think Durban measures highly in this regard?"
- 4) Health, Safety and Security: "Given that Healthcare is a basic necessity, is our health system sufficient to meet its demands?"
- 5) Sustainability: "Is Durban planning for a sustainable future and what resource do you consider to be the most valuable to sustainable development: natural resource, skilled labour or leadership?"
- 6) Economic Clout: "Is Durban doing enough to attract investment?"
- 7) Cost of Living: "The cost of living is increasing beyond the means of lower income households. Are we doing enough to ensure that future generations are able to benefit from economic growth today?"
- 8) Demographics and Liveability: "Is this a problem in Durban and if so what can we do to improve transportation and improve the standards of living to Durban's residents?"
- 9) Lifestyle Assets: "Urban planning for the future appears to focus more on shopping centres rather than mind zones which facilitate growth of business within a city. Do you think we are meeting these needs in Durban?"

- 10) Informal Trade: “It has been suggested that innovation is less important for growth in low-income developing countries than in advanced economies. Do you agree? How and under what conditions do informal traders innovate in developing countries and what can be done to support innovation amongst informal traders in Durban?”
- 11) Ease of Doing Business: “What can be done to make it easier for small business to start up and continue doing business?”
- 12) Micro-enterprise Development – Net Business Start-ups: “Is the City doing enough to support the growth of Micro-enterprise development?”
- 13) University / Industry Interaction: “Is the City doing enough to nurture public / private partnerships that will encourage business development and what role can universities provide in this relationship?”
- 14) Presence of Entrepreneurs: “Are entrepreneurs providing the necessary skills and services for the development of Durban and what can be done to encourage innovation amongst the entrepreneurial class?”
- 15) Perceptions of Entrepreneurs: “Does the City perceive entrepreneurs as a class that can contribute to innovation and growth?”
- 16) Policy Arrangements for Entrepreneurship Support: “Is the City providing enough support to entrepreneurial growth?”

By investigating these indicators the aim of this study was to identify key measurable indicators that define an entrepreneurial city as established by key informants and thereby highlight key factors for the attention of public policy.

4.4 Presentation of Results

During the interview process, the key informants were prompted into a discussion on what makes a city entrepreneurial. The discussion narrowed to the 16 indicators selected for the study. Respondents were then asked to rank Durban on a scale of 1-10 on the indicator under discussion.

Scores were tabulated in the order that the informants were interviewed (Figure 4.1) and then presented on the ranks in order of strength attributed to each indicator (Figure 4.2). The mean, median, mode and range between scores was then scored to calculate variances between indicators, where mean is the mathematical average of all the terms, median if the value of the term in the middle for which the values greater than or equal to that term was the same as the number of terms having values less than or equal to it, mode is the value of the term that occurred most often and range was the difference between the maximum and minimum value.

Key Informant No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	Mean	Median	Mode	Range
Intellectual capital and innovation	3	7	7	4	6	6	6	2	5	5	4	3	1	6	3	68	4.5	5	6	6
Technology Readiness	4	8	6	2	5	5	5	4	6	4	7	6	3	5	4	74	4.9	5	4-5	6
Transportation and infrastructure	6	5	7	6	3	7	5	3	4	5	5	8	3	4	5	76	5.1	5	5	5
Health, safety and security	4	6	7	2	4	4	5	1	5	4	4	7	1	7	2	63	4.2	4	4	6
Sustainability	7	7	8	8	6	7	6	6	6	7	7	4	1	6	7	93	6.2	8	7	7
Economic clout	4	6	7	4	6	6	8	2	5	8	5	6	2	4	5	78	5.2	5	6	6
Cost of Living	4	4	8	4	6	2	4	2	6	4	7	3	1	6	4	65	4.3	4	4	7
Demographics and livability	6	6	7	5	7	6	5	4	7	5	5	6	3	6	6	84	5.6	6	6	4
Lifestyle assets	4	7	8	5	5	6	5	3	4	6	6	7	2	6	6	80	5.3	6	6	7
Informal trade	6	4	7	6	6	5	8	2	7	4	5	4	1	6	9	80	5.3	6	6	8
Ease of doing Business	5	6	8	4	6	4	5	1	6	4	4	4		5	5	67	4.8	5	4	7
Micro-enterprise development	6	8	6	4	8	4	7	2	6	7	4	6	6	6	5	85	5.7	6	6	6
University / industry interaction	4	7	7	4	7	3	5	3	5	6	6	3	1	5	5	71	4.7	5	5	6
Presence of entrepreneurs	5	6	8	7	5	3	4	3	5	4	5	6	1	4		66	4.7	5	5	7
Perceptions of entrepreneurs	3	8	7	5	6	6	7	3	7	6	5	5		7	7	82	5.9	6	7	5
Policy arrangements	3	7	8	3	6	6	5	2	6	5	5	5		5		66	5.1	5	5	6
	74	102	116	73	92	80	90	43	90	84	84	83	26	88	73					

Table 4.1: Table of Scores

The scores allocated to the indicators varied considerably. Informants' without scores denote those indicators which a particular informant refused to rank, for reason that they felt unqualified to do so. Thus from Table 4.1 it is evident that key informant number 13 refused to indicate a rank measurement on 3 of the indicators whilst informant number 15 refused to answer on 2 of the indicators. Based on mean score averages it is evident that sustainability scored the highest with a mean score of 6.2 while health, safety and security scoring the lowest with an average of 4.2.

These scores were then re-ordered from lowest to highest as shown in Table 4.2 below.

Scores from lowest to highest	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Total	Mean	Median	Mode	Range
Intellectual capital and innovation	1	2	3	3	3	4	4	5	5	6	6	6	6	7	7	68	4.5	5	6	6
Technology Readiness	2	3	4	4	4	4	5	5	5	5	6	6	6	7	8	74	4.9	5	4.5	6
Transportation and infrastructure	3	3	3	4	4	5	5	5	5	6	6	6	7	7	8	76	5.1	5	5	5
Health, safety and security	1	1	2	2	4	4	4	4	4	5	5	6	7	7	7	63	4.2	4	4	6
Sustainability	1	4	6	6	6	6	6	7	7	7	7	7	7	8	8	93	6.2	8	7	7
Economic clout	2	2	4	4	4	5	5	5	6	6	6	6	7	8	8	78	5.2	5	6	6
Cost of Living	1	2	2	3	4	4	4	4	4	4	6	6	6	7	8	65	4.3	4	4	7
Demographics and livability	3	4	5	5	5	5	6	6	6	6	6	6	7	7	7	84	5.6	6	6	4
Lifestyle assets	2	3	4	4	5	5	5	6	6	6	6	6	7	7	8	80	5.3	6	6	7
Informal trade	1	2	4	4	4	5	5	6	6	6	6	7	7	8	9	80	5.3	6	6	8
Ease of doing Business	1	4	4	4	4	4	5	5	5	5	6	6	6	8		67	4.8	5	4	7
Micro-enterprise development	2	4	4	4	5	6	6	6	6	6	6	7	7	8	8	85	5.7	6	6	6
University / industry interaction	1	3	3	3	4	4	5	5	5	5	6	6	7	7	7	71	4.7	5	5	6
Presence of entrepreneurs	1	3	3	4	4	4	5	5	5	5	6	6	7	8		66	4.7	5	5	7
Perceptions of entrepreneurs	3	3	5	5	5	6	6	6	7	7	7	7	8			82	5.9	6	7	5
Policy arrangements	2	3	3	5	5	5	5	5	6	6	6	7	8			66	5.1	5	5	6
	27	46	59	64	70	76	81	85	88	90	97	101	109	112	93					

Table 4.2: Table of Scores in Order of Pessimism / Optimism

The re-ordering of the scores produced in interesting outcome as it reflects the degree of variance contrasting pessimism with optimism across the informants and between the indicators. Across informants and indicators there was a wide dispersal of pessimism and optimism with a considerable number of extremely low scores while at the same time a very high number of very high scores.

Measurement indicators were correlated using Spearman's Rho correlation analysis tabled in a Heat Map represented in Table 4.3 below with scores grouped within a 20 percentile range formulated in Table 4.4.

	Total Correlation	Average Correlation	Intellectual capital and innovation	Technology Readiness	Transportation and infrastructure	Health, safety and security	Sustainability	Economic clout	Cost	Demographics and livability	Lifestyle assets	Informal trade	Ease of doing Business	Micro-enterprise development	University / industry interaction	Presence of entrepreneurs	Perceptions of entrepreneurs	Policy arrangements
Total Correlation	100%	92%	-15%	12%	-14%	-6%	-30%	17%	-16%	35%	8%	-18%	-1%	9%	3%	-5%	-13%	23%
Average Correlation	92%	100%	-9%	19%	-16%	-4%	-23%	21%	-4%	38%	18%	-9%	2%	6%	14%	-3%	0%	27%
Intellectual capital and innovation	-15%	-9%	100%	58%	19%	67%	36%	66%	55%	56%	57%	36%	64%	50%	71%	33%	73%	84%
Technology Readiness	12%	19%	58%	100%	20%	75%	0%	47%	50%	52%	60%	9%	43%	28%	53%	43%	44%	70%
Transportation and infrastructure	-14%	-16%	19%	20%	100%	39%	53%	41%	0%	23%	62%	17%	-12%	-15%	-5%	53%	-14%	12%
Health, safety and security	-6%	-4%	67%	75%	39%	100%	-1%	54%	50%	61%	67%	27%	52%	47%	44%	49%	52%	58%
Sustainability	-30%	-23%	36%	0%	53%	-1%	100%	22%	37%	16%	42%	32%	8%	-21%	42%	51%	4%	14%
Economic clout	17%	21%	66%	47%	41%	54%	22%	100%	28%	36%	62%	27%	30%	56%	57%	27%	46%	59%
Cost of Living	-16%	-4%	55%	50%	0%	50%	37%	28%	100%	57%	35%	58%	64%	23%	80%	56%	37%	43%
Demographics and livability	35%	38%	56%	52%	23%	61%	16%	36%	57%	100%	41%	54%	80%	34%	49%	53%	45%	74%
Lifestyle assets	8%	18%	57%	60%	62%	67%	42%	62%	35%	41%	100%	11%	21%	18%	50%	55%	44%	59%
Informal trade	-18%	-9%	36%	9%	17%	27%	32%	27%	58%	54%	11%	100%	59%	8%	37%	39%	46%	26%
Ease of doing Business	-1%	2%	64%	43%	-12%	52%	8%	30%	64%	80%	21%	59%	100%	64%	68%	47%	71%	73%
Micro-enterprise development	9%	6%	50%	28%	-15%	47%	-21%	56%	23%	34%	18%	8%	64%	100%	55%	17%	53%	49%
University / industry interaction	3%	14%	71%	53%	-5%	44%	42%	57%	80%	49%	50%	37%	68%	55%	100%	51%	58%	62%
Presence of entrepreneurs	-5%	-3%	33%	43%	53%	49%	51%	27%	56%	53%	55%	39%	47%	17%	51%	100%	13%	31%
Perceptions of entrepreneurs	-13%	0%	73%	44%	-14%	52%	4%	46%	37%	45%	44%	46%	71%	53%	58%	13%	100%	77%
Policy arrangements	23%	27%	84%	70%	12%	58%	14%	59%	43%	74%	59%	26%	73%	49%	62%	31%	77%	100%

Table 4.3: Integrated Analysis: Table of Correlation Heat Map

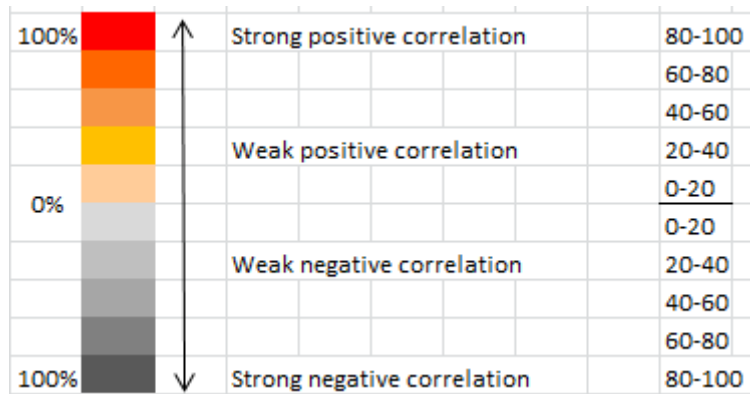


Table 4.4: Heat Map Range

The lack of clusters in the heat map suggests that the City is experiencing nascent levels of economic development. Advanced cities attract a particular profile of resident which results in distinct clusters of correlation between measurement indicators. The limited cluster's that emerged from the study of Durban indicate a high level of dispersion as Durban has not yet developed a formalised conceptualisation of what it takes to be an entrepreneurial city, particularly as respondents were often noted as saying that there was a lot more to be done to improve on each of the measurement indicators.

The high correlation between intellectual capital and innovation and policy arrangements suggests that public policy has a strong influence on innovation, while as expected the strong positive correlation between ease of doing business with demographics and liveability suggested that the ease of the city's residents can do business has a strong influence on demographics and liveability. The strong correlation between university / industry interaction with cost of living suggests that the lack of university / industry interaction positively affects the cost of living and should therefore be encouraged.

A discussion of each of the indicators appears below.

4.4.1 Intellectual Capital and Innovation

There are a number of variables to this indicator as shown by the studies conducted by PricewaterhouseCoopers including classroom size, libraries with public access, math and science skills attainment, literacy and enrolment, percentage of population with higher education, research performance of top universities, percentage of gross domestic expenditure on R&D, intellectual property protection and entrepreneurial environment (PricewaterhouseCoopers, 2011). The indicator discussion revolved around what is the importance of intellectual capital and innovation. The measurement, however, was phrased

around the question *“Is enough being done to meet Durban’s intellectual capital and knowledge requirements and if not how can this best be tackled?”*

The indicator produced one of the widest dispersions in scoring and one of the lowest net average scores. Although some respondents felt that enough was being done to tackle Durban’s intellectual capital and innovation requirements, most felt that the City of Durban did not benefit as a result. The general opinion was that the growth of intellectual capital and innovation within the context of entrepreneurship takes place within the private sector and not the public realm, as local government is indifferent towards and unconcerned with the private sector. Since local government is concerned mainly with the pursuit of political objectives and not with issues outside of its statutory mandate, the City’s management only pays lip service to the City’s intellectual capital requirements across all levels including both tertiary and secondary level as well as skills training. One informant commented that since the Provincial Government funds schools in KwaZulu-Natal on the basis of policies that get passed down from National Government, local government has nothing to do with education.

There appears to be no “touchpoint” at the local level of government as regards the funding of educational projects. For example, it was mentioned that precinct development plans make no mention of the needs of education for the City and as such there appears to be no interest shown by the City as to where schools should be located or what should be done to assist schools. Respondents argued that this is due primarily it was argued to the fact that it is not within their political concern. Most informants were therefore of the view that intellectual capital needs are being developed by the private rather than public sector.

Private sector project initiatives led by companies such as Unilever are unknown to the Municipality and the opinion was expressed by one informant that they did not get the sense that the Municipality was very interested. Neither the Mayor nor City Manager, nor any other person in charge of economic development of the City has ever made an effort to sit and talk to the Chairman of Unilever or Hullelt Sugar despite high levels of potential synergy in terms of property owned by Hullelt and intended for developments that the City want to effect. The Municipality appears not to know about this.

By comparison to Durban, the PricewaterhouseCoopers study of 2013, reflect that the developing economy Mexico City ranked very favourably on these indicators. In fact, Mexico City ranked fourth internationally in terms of classroom size, despite ranking low in literacy and even lower in math and science skills suggesting that that small classrooms do not necessarily lead to significant leaps in learning thereby undermining legitimacy for small classroom sizes. Success and support of certain measurement variables therefore do not

necessarily indicate success throughout the educational system. This point was further illustrated in the same report that showed that American cities which included New York, San Francisco, Los Angeles, Houston and Chicago, performed poorly in the attainment of math and science skills attainment in secondary school, whilst performing well in terms of percentage of population with higher education and on research performance of universities, whilst by contrast Singapore outperformed in math and science skills attainment at secondary school level but a comparatively lower college completion rate (PricewaterhouseCoopers, 2011).

Numerous informants discussed the City's attempt to connect with the City's graduates through the Municipal Institute of Learning (MILE) programme. However, it was argued by a particular informant that the City as a Municipal authority has an adverse relationship with the private sector, particularly when it comes to being critiqued. Many government reports are not in the public domain and are controlled to prevent being leaked to the private sector, primarily as the Municipality fails to understand the importance of the private sector in debate. It was suggested that this was evidenced by the number of newspaper editors who have been threatened, reflecting the City's obsession with secrecy. The informant went on to note that seven or eight years ago the City funded its own newspaper, suggesting that that intellectual activity is preserved for the public sector rather than civil society, which is duly ignored and tends towards anti-democratic behaviour.

This same informant suggested further that the constant attempt by current City Management to keep information secret did not reflect an intention that was eager to engage with the City's residents on ideas despite the private sector being a melting pot of ideas. The City is run, it was argued, by consultants focused on profits and rubber stamping political will for their own survival. This in turn denudes the intellectual depth of the City's policies, particularly, as the view was held, that decision makers that influence policy are not employed based on their convictions that will impact intellectual capital but rather affiliation to the ruling party which happens at an administrative level. By contrast, the private sector employs people based on intellectual capital requireme"

The primary problem with policy initiatives, it was suggested by another informant, is that they are posed as questions, which presupposes a guiding policy narrative. For example, the policy issue whether the football stadium should be located near the City, presupposes the subtext that the stadium is desirable in the first instance. Therefore policy outcome is guided by political will. Any consultant that drafts policy responses in contrast to the political will of guiding policy would not survive. Consequently, the City's mega projects that cost taxpayers hundreds of millions of Rands a year to maintain are not the result of open debate but the

will of the few which leads to the suggestion by a number of the informants that the City does not walk the talk.

According to one key informant, the Municipal Institute of Learning, MILE has successfully managed to assist with the retention of the City's knowledge requirements through the development and storage of knowledge and ideas within the City. The outflow of skills, particularly amongst the City's graduates from Durban to other cities in South Africa such as Cape Town and Johannesburg in search of higher salaries and career opportunities has become a welfare problem for the City. The flight of skilled professionals and graduates has resulted in a brain drain multiplier effect. The impact however has been reduced by the successful management of skills through the development and storage of knowledge and ideas. However, this requires government regulatory intervention and tax incentive to encourage economic growth within the City and the retention of skills in order to achieve its full objective, which is to open the way for the storage of knowledge to facilitate the continuation of procedures, particularly as the process of re-skilling people takes time with consequence cost implications.

There was a general sense that Durban's Intellectual capital was not being utilized to its full potential. As a result, and due particularly to the lack of opportunities in Durban as expressed by the informants, the City appears to be losing a lot of its intellectual capital to larger cities such as Johannesburg that are able to provide greater opportunity and salary growth potential particularly amongst graduates.

Although some informants were extremely pessimistic about the state of Durban's intellectual capital, some felt that the City was trying to make an effort albeit that the efforts were simply not enough, either from the point of view of existing business needs or from the perspective of attracting foreign business towards the sorts of innovations and technologies that the City currently provides.

The view was expressed that these shortcomings are a problem not only with funding but moreover with policy initiative and leadership. It was argued not only that the City does not have enough of the right policies and programmes in place, the City's leadership, both within the business community and at the local government level, does not keep it high enough on the public agenda to facilitate such initiatives.

One of the informants expressed the opinion that although intellectual capital and innovation grows out of a process of excellence, the City fails to celebrate or recognise the need for excellence and fails to engender a culture of excellence at all levels. This needs to start by

the latest in high school and preferably before. Although this is partly a financial issue, intellectual capital and innovation, and the excellence that breeds them, is more often a problem with both leadership and the educational system which is not conducive to the development of these measurement indicators. This is particularly pertinent to the City of Durban which, it was mentioned, is talking about passing students with marks of around 30 percent in order to push up the student pass rate.

Policy regarding schools leavers was a common theme discussed by informants. Numerous informants mentioned that schools across South Africa are not operating at a very high level, stating even that the standard of education in South Africa is behind that of Zimbabwe and Zambia. When questioned whether this was a funding problem, the response was that there are sufficient resources but that the resources are simply not being used effectively enough.

It was suggested that more focus should be given in schools to mathematics and the natural sciences. This is currently a problem however because there are not enough teachers in these fields. One of the informants suggested that schools should not only focus on mathematics and the natural sciences but also promote and encourage Information Technology, medicine, engineering nursing and business where mathematics and technical skills are required, suggesting that far too many students are opting for courses in the liberal sciences and humanities which, it was remarked, generate only soft skills.

This was an interesting point as it was noted by Audretsch et al, that the share of employees with a degree in humanities has a negative impact on manufacturing. Increasing the share of employees with a degree in humanities by 1% actually decreases the number of start-up business in manufacturing by 4.3%, whilst increasing the share of employees with a degree in engineering, mathematics, or natural science by the same rate increases the number of startups in manufacturing by 8.02%. (Audretsch et al., 2009). Unlike Johannesburg which has an innovative private sector, Durban is largely manufacturing particularly as few companies hold their head offices in Durban, but only branch offices whose main function is warehousing, shipping and manufacturing, which factors tend to work against innovation and progressive ideas.

It was suggested that the business sector cannot afford to remain disconnected at the sidelines waiting for the public sector to educate the next generation of recruits without carrying an equal share of the burden with the public sector in developing the City's intellectual capital. Greater levels of business engagement and adoption of new initiatives at the level of government leadership are required. This suggestion however, whilst being the general theme amongst most of the informants, faces obstacles to its realisation in consideration of

the above mentioned remark that the City fails to engage the private sector in debate and adoption of new initiatives. Neither the private nor public sector operate in isolation of each other but must engage each other in building and creating opportunity. Unless the public sector works in conjunction with the private sector to this end the City will fail to take maximum advantage of its growth potential.

Thus, whilst the City's educational system is gearing people up for employment, not enough attention is made to encourage entrepreneurial business acumen amongst younger people and tertiary level students. It was suggested that this requires a rethink of educational curriculum and the City's approach to education at the level of policy decision making. Whilst a lot of agencies have been established to promote and encourage business innovation and entrepreneurship, it is happening too late in the adult life of the target population. These agencies are targeting people who have already thought about starting a small business providing support through capital injections and financial aid.

Yet the province of KwaZulu-Natal and the City of Durban in particular, it was reported, has one of the highest literacy rates in the entire country and coupled with a higher than normal rate of semi-skilled labour which places Durban in a strategically important position relative to the rest of the country. A few informants were quite optimistic about Durban's level of intellectual capital arguing that the City's intellectual capital requirements are being coordinated properly albeit not to its full potential. The City has three very good Universities / Technikons, but is merely failing to harness them to their maximum potential and advantage due to lack of investment and partnership between industry and academia to improve innovation. Less optimistic informants, on the other hand, felt that the City's education system is simply not adequate. They argued that City and provincial universities are not competitive to other universities either internationally or domestically, which over and above investment requires a greater policy drive towards change and improvement.

Often informants mentioned that resources could be used more wisely to generate more development opportunities that could be fed back into education. One of the critical challenges for business, it was suggested, is that a good education does not translate into relevant experience necessary for the business world. The Durban University of Technology's cooperative governance division tries to tackle this problem by taking students for training to give them practical exposure needed for the right position in business. Particularly the university realises that businesses employing students from the department of the natural sciences need technically skilled and trained people to work with sophisticated machinery which is not being provided by other universities.

Overall opinions were that Durban's universities need to be at the leading edge if they are to ensure that the City meets its intellectual capital requirements. However, amongst South Africa's universities only the University of Cape Town has been rated amongst the top 300 universities in the world whilst Durban hovers around 500 which is not acceptable in consideration that education is one of the most politically relevant issues facing the country.

Opinions were mixed however, whether this was a funding or policy problem as some believed it to be more of a policy than funding problem whilst other believed it was a problem caused by a mixture of both funding and policy issues. Policy makers must understand the importance of educational structures and allowing more students to gain access to facilities of learning and particularly high performing students without having to drop standards in order to do so. The suggestion was posed for a special stream to encourage high performing students to gain access to universities in Durban as the City is losing its best students to other Universities. This requires improving the overall quality of education in order to bring it on par with universities in the Western Cape and Gauteng, which may be achieved either through improvements to existing universities or the creation of opportunities for the growth of private universities.

Certain industries, it was argued, are suffering more than others due to the intellectual shortfall of the City. Shortages are particularly acute in the City's tourism industry. The City wants to promote itself as a major business and sporting event capital of the world, but it still does not have the required skill to manage these events. The universities aren't providing study programs that focus on event management, marketing and development promotion which in turn leads to a huge skills gap it was reported. There are also similar challenges in other related business areas such as hotel staff and managers. The City has hospitality schools yet the City's restaurants and hotels still fail to find the right skills. Many of the City's top general managers in top hotels are foreigners, schooled and trained overseas with skills required to operate these hotels resulting in a critical skills gap. Skills audits have been conducted to identify these shortages however the business needs have not been effectively mobilized.

There was mixed sentiment about the incubation of innovative business in Durban. Some of the informants felt that more needs to be done regarding the incubation of innovative business. However, Durban only provides for the incubation of Information Communication and Technology (ICT) related businesses housed in the SmartXchange business incubator. These informants argued that the City needs more innovative hubs for other sectors of business. This requires a discussion for a partnership between the City and private sector. Proponents of this approach felt that the dearth of business hubs and incubation facilities

was a problem caused by a lack of funding but rather due to lack of policy initiative. They argued that funding is readily available but only for projects that the City authorities want to implement in terms of the way it sees the economy of the City and province progressing. The supporters for business incubation argued that incubation attracts intellectual capital to the City. For instance the City of Bangalore in India strategically positioned itself as the number one Virtual Production Office (VPO) for call centres. It did this by overhauling the entire telecommunications system of the City. Since it usually takes between eight to ten years to get a telephone line in India, the City decided to establish its own satellite telecommunications network regardless of what the National Government and local telecommunications networks were producing by joining forces with the private sector in order to establish an entire telecommunications network via satellite.

However, business incubation did not receive widespread support. Other informants felt that any project subsidized by the public purse was supporting inefficiency and therefore a problem. For a City like Durban with wide inequalities between rich and poor, both mega projects and business support for limited sectors of the community only tend to widen the inequalities gap, particularly given that the City has not managed to control the problem of open defecation on the streets in parts of the City. Such projects merely demonstrate which sectors of the community the City intends to franchise and which the City elects to exclude and marginalize, by providing funding towards the profits of an elite class of people in the community. Amongst the informants that shared a more pessimistic view, some felt more optimistically that whilst incubation was a positive initiative that it should be more broadly available across tertiary levels and disciplines. By limiting it to graduates in the ITC sector, very few graduates are able to use the facilities of the SmartXchange in Durban as a springboard to start-up businesses.

There was a general theme amongst a number of the informants that Durban lacks visionary leadership. Whilst the last City Manager had some great ideas as to how he saw Durban developing, he was in fact only an administrator and lacked visionary leadership. There appears to be a lack of visionary leadership in the City which is particularly unfortunate for the future of the City as many departmental managers are left to their own devices. The City needs to change its leadership.

One particular informant stated that he had seen a creeping of visionary leadership from the local level of the department of economic development. However, there are political factions within the ruling party at play that prevent real visionary leadership within the City itself and as a consequence held the City of Durban to be somewhere near intellectually bankrupt and that not enough is being done to replenish the City's intellectual capital. We are finding that

the City, as an employer, is losing a lot of intellectual capital as a lot of intellectual people reach retirement age and are not being replaced by people that have been through the same learning curve. The reasons range from affirmative action policies whereby people don't have enough experience for the position due to political motives where people are selected based on political affiliation. The result is that the City is not selecting the best qualified employees. All senior positions at the Municipality are by and large political. Unless a person is affiliated to the ruling party and tows the political line they have little chance within the City's Municipal departments as people are chosen to run departments based on their political connections and not expertise.

4.4.2 Technology Readiness

This indicator focuses on software, hardware and bandwidth capabilities required for economic growth and was phrased around the question "*Can the City of Durban compete with the developed world in technological innovation?*"

A study by PricewaterhouseCoopers has shown that amongst advanced cities there is a strong positive correlation between robust bandwidth, software and hardware capabilities and knowledge intensity. In their study, they found that there was an 81% probability that cities scoring highly on the intellectual capital measurement indicator would also score highly on the technology readiness indicator (PricewaterhouseCoopers, 2011). However, in this study, knowledge intensity, measured in terms of intellectual capital and innovation was found to have only a 58% positive correlation with technology readiness. This may be due to the fact that appeared to be a common theme amongst many of the informants, that the high cost of bandwidth inhibited many small businesses from taking full advantage of their innovative possibility and ideas.

In Singapore and certain European countries, it was pointed out that the telecommunication industries are so sophisticated the residents can get free Wi-Fi connection. Whilst Durban has experienced huge advances in realm of mobile technology and the use of cell phones for internet utilization and has huge bandwidth capabilities but the City is being held back by the very high cost of internet use not only using mobile technology but also bandwidth, ADSL and Diginet.

Great developments have been made in the technological modernization of the Durban's trade harbour. The City's agencies including the Council for Scientific and Industrial Research (CSIR) and Construction Education and Training Authority (CETA) as well as the universities including Durban University of Technology, initiatives such as the SmartXchange

Innovation Hub and the City's laying of fibre optic cables. However, most informants did not believe Durban was at the leading edge as a lot more still needs to be done and requires stimulation.

Telkom has improved over last few years and internet has become faster however, in many other countries it is almost free including Cities across Norway, Denmark and Sweden, whilst in Durban you can only pick up Wi-Fi around the City Hall. A lot has been done to bring about bandwidth capacity but unless leadership and political will prioritises these initiatives as an important element of growth then these sorts of initiatives are left to find their own way. At present the City is not ready to offer a fully developed capital in an information technology sense although the potential is there.

Durban took steps ten years ago to become a smart city and has been developing infrastructure to this effect. Advances have been huge and the City has the capability and bandwidth to take Durban to next level particularly as the City is renowned to have students that excel in math and science but this requires creating the right environment to compete and putting the right building blocks in place including bandwidth to establish a competitive and innovative environment.

Durban is ahead of most other cities in Africa in terms of technological readiness but if compared to cities in Europe, America and Australia, Durban ranges from average to below average. It would take generation before we would be able to leap frog developed cities.

There are still huge gaps in our technology which prevent us from being able to leap frog the developed world yet. However, we have gone far in introducing broadband and trying to turn city to smart city increasing access to community's access in terms of computers internet access libraries free Wi-Fi access we have a smart city programme.

Durban is far behind its leading competitive cities in terms of technological readiness and has to rely on the private sector to lead the way forward. The City's telecommunications Telkom parastatal Telkom, promised that the City would be wireless but has still not provided this. The City has great potential infrastructure but is failing to realize its potential particularly including for instance the Inanda corridor within the Durban zone. The City is not even handling the issue of street kids which is a social issue adopting the easy solution during the 2010 world cup games to dump them outside the City.

People need to be able to access the internet using Wi-Fi across the entire city and not just form hot spots a restaurant in West Street or the university Wi-Fi. It must be available to everybody, which requires government investment and policy.

Innovation comes from people not technology. However, people with great ideas can't put those into practice unless there is sufficient opportunity and infrastructure to compete and create innovative solutions. Singapore is an island nation with no natural resource, yet they have positioned themselves as the financial and intellectual capital of South East Asia. They have built excellent schools and universities which place great emphasis on education to attract intellectual capital from the rest of the world. This has led to numerous businesses opening offices there including one of Facebook's co-founders.

Durban's broadband, interface connectivity and business processing capabilities all lag behind major Cities in developed countries. Yet in terms of innovation, Durban has some great minds that could enable the City to compete internationally with the right enabling environment.

Durban is starting to get a robust platform of hardware capabilities in the sense of fibre optic network which is quite unique so that becomes at least one platform where we can begin to compete with the developed world. Ethekwini owns and operates a very large fibre optic network. Fibre in theory gives its users unlimited band width. Since not many cities have got fibre optic lines this places Durban at a huge technological advantage in term of the City's readiness.

Fibre optic lines allow hardware to be placed at each end of the line which in turn can create wireless hot spots across the City activating a potential fibre optic backbone to communication. In contrast to 3D networks, fibre optic cables allow users to connect to the internet as well as telephone voice communication allowing end users, whether they are homes or businesses to connect by plugging into the fibre or at the end of the fibre through use of hardware to create wireless hot spots to enable maximum connectivity either directly or wirelessly.

In terms of current replacement costs the investment in Durban's fibre optic telecommunication networks amounts to hundreds of millions of Rands. Through this investment Durban has leap frogged to the most advanced and leading city in South Africa in terms of its telecommunications networks. The problem lies in the marketing of the network and connecting people to uncapped band width and improvements in new software designed that makes use of it. This is where the City is falling short. If Metro Connect was a

private company as an MTN or an operation that was more commercially driven it would be opening up immense possibility in the use of the fibre line in terms of the speed of data sharing on a greater scale than at present. The City could have more houses and businesses connected to the internet allowing a business to sign up and connect at half the cost of using Telkom.

It's clear that the City's technological readiness is in place from a hardware perspective but it is not clear why Metro Connect is not being used to its maximum advantage. The general theme was that the Municipality is not good on marketing or the fact that the Municipality is not ruled by profit or the public interest. However, it was clear that if this technology was in the hands of a private company it would be maximized upon. One particular informant suggested that the City is suffering on implementation partly because it is constrained by public sector legislative prescripts such as the Public Finance Management Act and Municipal Finance Management Act, which make it difficult for the City to do business with the private sector. A limited number of private companies are using Metro Connect through Dimension Data but this is small in consideration of the potential for the City.

The Municipality is leading other City Municipality's in designing a new metro scale revenue management system in partnership with a private software company commissioned to develop the software. The idea was to sell the product to other Municipalities across South Africa and the continent of Africa at a discounted price instead of them paying for SAP. However, the original budget was estimated at 90 million Rand but so far it has cost the City 590 Million Rand and it's only partially completed. Despite this extreme waste, the informant still expressed optimism in the belief that the City will be able to compete with the developed world in the future.

Durban's fibre optic network, Metro Connect, is not used by the City to its optimal advantage and has not yet recovered its return on investment on the technological innovation through savings on Municipal telephone costs. Whilst employees of the Municipality are able to talk to one another on their telephone lines for free, Metro Connect has not yet been exploited to the advantage of the vast local economy or private sector to the extent that it should have or could have been.

This innovation could make connectivity available to the entire population of Durban for free but such measures have not been implemented and it was anticipated by the informant that it was doubtful whether this had been thought about as the cost of linking to Metro Connect is considered to be too high in the short term even though it will save in the long term. Therefore, the City is doomed to slow technological progress and economic development

due to the short sightedness of the City's policy drivers, which predicts the City to lag behind its advanced African counter parts such as Cameroon where telecommunications and access to the internet is virtually free.

The project is hampered by the Municipality's Last Mile philosophy which requires payment in order to link an individual user to the network. Initially the municipality decided it would link customers for free in order to benefit from future revenue streams. However, this approach was disputed and as a consequence the project was never implemented and no users have been connected despite the understanding from the Municipality that the network could easily be made available for free given anticipated future revenue streams from its use.

Thousands of Municipal employees speak to one another for free without accessing Telkom networks saving the Municipality millions of Rands, whilst everybody else pays Telkom tariffs. The City of Durban holds the key to extremely advanced and innovative technological robustness but unfortunately City leadership is not using it progressively to the advantage of the community and the fact that so few people know anything about Metro Connect is testimony to the City leadership's anti-progressive position. If the City anticipated Durban being a smart City when this technology was rolled out to the private user then the question remains why the City has not yet rolled the project out for the benefit of the City?

Informants were generally of the opinion that this is a problem with both Government structures and leadership, whilst a few believed it to be the outcome of the City's anti-democratic behaviour, particularly in consideration of the fact that the person who persevered to get the project implemented was charged in the Manase report. This view was further supported by the instance that Mike Sutcliffe, the former City Manager encouraged progressive thinking and proposed converting sewage to drinking water which was mooted by Neil McGowan. However, the current Council took some time to approve the project which categorizes the current Council's anti-progressive tendencies.

A number of informants were of the opinion that local government does not encourage progressiveness mostly because there are so many rules which make it impossible to manage a municipality effectively and comply with every rule. This seems to be a huge inhibitor to the City being entrepreneurial, technologically robust and finding new ways of doing things. One informant suggested that in many cases the people leading the Municipal departments know a lot more than the Councillors who are making the policy decisions who due to their lack of experience and background tread too cautiously to be progressive, which under the present climate in Durban is very intimidating as they don't want to repeat the Manase incident which has led to a high a degree of paralysis in Durban. The consequence,

therefore according to this informant was that the political process at the level of City management is a crucial inhibitor to the adoption and spread of new ideas towards technological innovation and progress.

4.4.3 Transportation and Infrastructure

Transportation, infrastructure and connectivity are essential to a strong economy, particularly as social and economic networks can transform a thriving city into a global centre. Transportation connects people and creates communities essential to economic growth. However, the cost of transportation is negatively correlated to housing, quality of living and literacy, which suggests that citizens will accept higher transportation costs for better housing and quality of life (PricewaterhouseCoopers, 2011). Studies have shown that transportation costs are the second highest expense for the average household in America and that the economy loses 4.2 billion hours and \$87 billion in productivity and wasted fuel due to traffic congestion (PricewaterhouseCoopers, 2011). This measurement indicator therefore was led by the question “*Do you think Durban measures highly in this regard?*”

The general opinion was that Durban has an amazing road infrastructure. However, real cost must be measured in time wasted in traffic during rush hour. Although traffic congestion was not generally perceived to be a problem in the City as the traffic is able to move relatively freely, there does appear to be a huge cost to the economy of congestion into and out of the port which can result in traffic queues for truck drivers lasting many hours.

The City has not harnessed the potential of creating a connected city. Umhlanga is a small example of success, where there is greater connectivity between the nodes of business as traffic is able to flow easily around the outer ring road up on the ridge. There is a great deal of connectivity between the outer ring, the freeway, industrial parks, residential areas, tourist and shopping facilities all being in close proximity which creates greater connectivity. Offices, housing, shops and public transport are within walking distance from each other and provides an example, whilst not the best or most efficient example, of how expansion can be utilised to unlock great value.

Many informants, however, felt that the greater Durban city area however, is not so well laid out. There was some positive sentiment about city public transport. Discussions took place ten years ago about concessions around public transport however, there was huge opposition from trade unions over public transport and modernising the freight rail link to Johannesburg as the cost on public roads and damage caused by heavy vehicles to the

roads which could be transported by rail is enormous let alone the cost of accidents and on lives.

The transport authority is engaged in developing plans for a bus system but the sheer magnitude of investment to make this work is enormous as a third of the City is tagged as requiring upgrade with three trillion Rand being allocated to transportation networks over the next 10 years. There are plans for a high speed train but these plans are mostly for the transportation of goods to Pinetown, Inchanga, Port Shepstone, Richards Bay, Pietermaritzburg, Mooi River, Ladysmith and Johannesburg.

Planning for the City's new plan for an integrated bus transport network is all in place and anticipated to solve many of the City's transport problems as it will be provided at affordable costs and will use a new fleet of busses to work alongside your private owned local minibus taxis linking residential and shopping areas. Although the bus service is currently subsidised by the City, there are many areas outside the City where there is no bus service but only taxi services which are not meeting the City's demands.

Many people within the boundaries of the municipality have to take two or three taxis to get to work and to shorten travel times the City is planning to get public transport moving faster by providing designated travel lanes for particular kinds of transport and develop new rules where ever necessary as transportation infrastructure varies considerably across the City. In the northern areas the infrastructure is first world whilst southern areas need a lot more investment.

A lot of money has been invested in the new Integrated Rapid Bus Transport system, which is a bold step towards providing new transport modalities allowing commuters to travel using busses rather than taxi's and at cheaper rates. In certain areas of the City it's more economical to travel by train which forms part of the new integrated rapid transport network system.

The three areas of Inanda, Ntuzuma and KwaMashu are being combined into a single area, referred to as INK. The area's main transportation hub, twenty kilometres north of the City centre, is a rail station and taxi rank. Seventy percent of commuters within this area use rail transport while the rest travel by minibus taxis and buses. The City is currently modernizing the rail link intended for completion by the end of 2013, to enable more commuters to use the passenger rail network instead of combining modes of transport between trains, buses and taxis.

International opinion is focusing towards densified cities to enable public transport to work more effectively as increased population density enables economies of scale. However, city residents will only shift their patterns of transportation usage if the City invests in the public transport. This while Durban has a much better public transport bus system than it did five years ago, which has led to an increase in the public transport usage by the higher income groups it still requires massive further investment which it is now receiving.

The overloading of roads, high rates of traffic accidents and congestion are shifting focus towards the revitalisation of rail. However, there was general opinion amongst respondents that the City is lacking in transportation infrastructure particularly for the lower income households, unlike in more advanced cities where everyone uses public transport. Whilst Durban residents are able to easily move around the centre of Durban, transportation is not meeting their needs outside the City centre as public transport is still required to bring people from outlying areas into Durban and Umhlanga.

The suggestion was made that Durban needs a sky train to connect the beachfront, City, Berea and major hotels and business districts as they have in Sydney, as well as upgrade of existing infrastructure to improve connections up and down the north and south coast. However, there is no indication that such plans are within project plans for the foreseeable future.

The development of rail from King Shaka International Airport to existing networks would only require an additional fifty kilometres of rail track. However, no current plans exist to lay these networks given the concern whether it would be used as people need to be convinced that it is safe and reliable as they do in Cape Town and Johannesburg's Gautrain.

A lot more needs to be done to existing networks and to bring down costs before the City will consider new investment despite the need to find new ways of moving goods to and from the airport. A lot of small medium micro enterprise businesses rely on road infrastructure and these costs impact profit margin through cost of petrol. Therefore, investment must focus on rail to provide a positive impact.

The new dug out port and investment in rail infrastructure is increasing the capacity of the rail and road network to the harbour but plans to move all freight onto rail is crucially affected by the high infrastructural development costs which have not yet been assigned the necessary investment. The primary problem with the existing ports is warehousing space and transportation in and out of the ports. There is talk of a dry port outside of Durban in Inchanga which will be able to handle large volumes of cargo when the second port has

reached its capacity whereby goods will be taken direct from the port to warehouses via rail and truck, .but plans have not yet been developed towards this.

4.4.4 Health, Safety and Security

Correlation analyses amongst advanced cities indicates a strong positive relationship between health, safety and security and other indicators including intellectual capital and innovation and demographics and liveability measuring with a correlation of 87% and 84% respectively, suggesting that healthy and safe cities provide quality of life and productive energy (PricewaterhouseCoopers, 2011). In this study, health safety and security also correlated highly with intellectual capital and innovation at 67% correlation, and with demographics and liveability at 61%. However, contrary to the international study by PWC, and surprisingly this indicator correlated most positively with technology readiness at 75%. The leading question to this indicator was *“Given that Healthcare is a basic necessity, is our health system sufficient to meet its demands?”*

There was some positive responses regarding the City’s health care system but the general feeling was that the public sector still had a long way to go in terms of efficiency as it is not as good as private health care. It doesn’t help if the private sector is good as the vast majority of the City’s residents do not have access to private health care as it is not affordable and there were no known initiatives to improve the public sector despite it being better than many other public health care system’s across South Africa.

The Metropolitan Police force, it was said, are abysmal as there are dreadful deficiencies at an operational level due to inefficiencies as well as bribery and corruption rather than policy. Yet other respondents suggested that there was an almost total collapse in the police force linked to maladministration, fraud and corruption which the City refuses to address.

During the four weeks leading up to and including the 2010 football World Cup, residents could walk anywhere in the City and feel safe raising the question why international life is more valued than local life. The biggest detractor for local investment is safety. If people feel safe it rubs off onto international sentiment. Controlling crime is the single most important factor for business growth and therefore the City should not put a price tag on safety and security yet there appears to be a lack of political will towards this goal.

There is a huge gap in social welfare and treatment of the City’s residents, particularly street children. The provincial department of health has insufficient funding to do anything significant so the City relies on a voluntary system of aid because it is not forthcoming from

the City. To resolve the problem of street children the City needs financial support to secure premises to operate homeless centres which has been a struggle for the last twenty years.

KwaZulu-Natal is one of the poorest provinces within South Africa with very high HIV rates, which passes as a death sentence for poor communities. Meeting these needs is crucial as HIV carries an enormous burden socially, as many children are looked after by elderly people on pension. Nutritional care and the medical support is not enough for people living in the more rural areas where 65 percent of the populations within KwaZulu-Natal reside.

The problem is not financial aid, as from the budget speech it is clear that the two biggest things from the government's point of view are health and education but rather that the allocated budget is not used effectively. Tuberculosis, HIV and Aids are creating a significant threat to small businesses. Kwa-Zulu Natal as a province has an amazing success rate in decreasing mother to child transmission of HIV, but treatment is not being fully utilized for those in need whilst in other areas great work is being done particularly Albert Lutuli Hospital which is trying to develop as training hospital to develop medical intellectual capacity.

The consensus however was that demand on basic health care infrastructure in the City is reaching epidemic proportions. Many government hospitals are simply not able to cope with the volume of patients. King Edward, Albert Lutuli and Addington Hospitals are bursting at the seams. King George is now meeting the demand for the particular area, Albert Lutuli Hospital is managing to cope because it's a newer hospital but Addington Hospital is not able to cope at all.

There is talk of shutting down Addington Hospital because it's so run down and services are inadequate. This is clearly a funding problem raising the question whether the City intends to refurbish the hospital.

There seemed to be a split between informants as to whether they believed funding to be a problem. On the one hand informants believed that the state of the public health care system and hospitals was a funding problem. McCord hospital nearly closing at the time of interview due to lack of Government subsidy and funding, and now at time of writing now being closed, whilst the hospital's HIV and Aids clinic was already shut down for financial reasons. The hospital almost shut down other departments on other occasions before the government came to their rescue at the last moment except for the HIV and Aids department which was closed.

Other informants on the other hand believed that it was not a funding problem as there is plenty of money available but rather a lack of proper strategy, administrative infrastructure and expertise at a management level, where the problem lays not with the medical staff but rather administration that requires political will to change the management. It was suggested that the public health care system should implement a hybrid of public and private principle so that they operate like a private hospital but retain public funding, which is the theory behind the national health insurance scheme funded by government to bring the level of the public sector hospitals up to private level care, like they do in the United Kingdom.

The health care system should operate more effectively, efficiently and entrepreneurially at every level even down to reducing waiting time. Some patients have to queue an entire day for chronic medication. It's really about the business model and culture. There must be the will to introduce business principles and we should be agitated towards this. Part of the entrepreneurial model is to get all stratospheres to shift towards an entrepreneurial city encompassing someone from health system, thereby integrate our health care system with the private sector to allow industries to dispense chronic medication to avoid long patient queues. Mobile technology is available to enable hospitals to operate more efficiently but it is not being implemented.

4.4.5 Sustainability

Growth models based on principles established during the Industrial Revolution are growing increasingly obsolete reflecting a shift from economic models based on industrial output to models based on quality of daily life and renewable energy. Whilst developing economies face infrastructural constraints, these issues must be dealt with in consideration of other issues relating to waste management, water and energy consumption, water purification and resource extraction. This indicator was therefore framed around the question *"Is Durban planning for a sustainable future and what resource do you consider to be the most valuable to sustainable development: natural resource, skilled labour or leadership?"*

The problem facing sustainability, it was argued is that the national government only pays lip service without real action whilst the national development plan did not even mention sustainability as an issue for discussion at the Mangaung conference. This is probably due to the fact that politicians focus on the short term five year political cycle whilst real outcomes in sustainability usually take five to ten years, and as such the concept of longer term sustainability is not compatible with the national political process. Discussion on sustainability appears as mere rhetoric as little is being done. Industrial pollution, fires, spills

and explosions are increasing instead of decreasing as a number of informants remarked that the City lacks sufficient leadership to make a bold step to take the City forward.

There is a provincial plan and Durban is bringing back the best practice planning commission that previously fell out of favour with the last City Manager. The City has produced a good strategy that is business friendly, yet unlike Europe where continuity between orders is seamless, when the City Manager changes in Durban there is huge upheaval as the new order tries to disparage the old order which hinders development in sustainability which is unable to progress without seamless continuity. Immaturity is clearly a factor impeding sustainability which requires political will and leadership. Structures are weak, immature and the ANC leadership allows factionalism which complicates movement for change.

One of the biggest problems the City has is lack of understanding sustainability at a leadership level. Environmental consciousness does not take route when a person reaches a particular position or role in life but starts from a young age, and the City is not doing enough to conscientise the younger generation not to litter, to reuse resources and reduce their environmental footprint. Differentiating between metals and plastics when dumping rubbish requires habit that starts young, which requires a great deal of education which does not factor into the consciousness of poorer communities who remain at the losing end as tens of thousands of people are relocated to make way for the new dug out port.

Although the City's securing of the climate change conference in 2011 demonstrates the City's commitment to sustainability, when compared to smaller cities within South Africa, Durban is not doing enough to keep the City clean and well managed. For example, the termination of the blue flag project which benchmarked the quality of sea water, the golden mile of beach and ablution facilities along the beachfront demonstrates that an inconsistency towards environmental issues and sustainability. Dropping critical initiatives of this nature demonstrates arrogance within the City leadership which is not good. The Blue Flag project holds competitions every year to compare the cleanliness of beaches and Durban does not even come into the top three lagging far behind Cape Town and Port Elizabeth.

Sewerage spills into the Umgeni and Isipingo rivers which inevitably flows into the sea. Those are basic issues that the City is not managing effectively. The beach past Virginia airport is littered with rubbish which is not cleared. The spillover effects for tourism are huge particularly as tourism is one of the critical revenue sources for the City and province and given that the amount of investment required for these issues is not significant. Numerous

informants suggested that the lack of response to issues of sustainability were lack of resource and energy available to address it in any serious way that will make a difference.

Despite these negative suggestions, it was remarked by other informants that Durban has a long term development framework based on environmental sustainability. The national road and City development plan emphasizes sustainable projects including cleaner building and environmental practices around the City that are adopting new technologies, while the City is investing in solar energy and environmentally sustainable infrastructure.

The Department of Environmental Management manages a range of programs that look at influencing environmental sustainability. The environmental branch of the City now insists that all new developments and improvements must comply with environmental regulations before plans will be approved, including for instance solar heating for bathrooms. Yet the City still has a long way to go before embracing policies around recycling.

Certain areas of the City have been set aside as open spaces which cannot be developed upon. These are often strategic areas in a traditional sense because they are crucial for poor communities living close to them. The City is active in the natural resource space in terms of environmental sustainability where Dr Deborah Roberts and her team at the Department of Environmental Protection and Climate Protection (EPCPD) at eThekweni Municipality have developed a phenomenal resource of literature over the last ten years from the diversity of water treatments and biodiversity to climate change and environmental management. The Inner eThekweni Regeneration and Urban Management Program (iTrump) has an environmental section whose approval is required before a developer can build within one of the nine districts within iTrump's geographical region of control. However, there is a disproportionate focus on natural resource and therefore an insufficient set of interventions around skilled labour and leadership.

4.4.6 Economic Clout

Economic clout reflects enduring economic strength stable through financial crisis enabling a city to build institutions and networks dealing with issues that extend an economies financial strength and credibility beyond its borders (PricewaterhouseCoopers, 2011). Discussions on this indicator were led by the question *"Is Durban doing enough to attract investment?"*

It was stated that major events have a huge impact on Durban's economy. The City conducts economic impact assessments bi-annually to assess how much the City attracts during the summer and winter seasons in order to measure the impact of events on the local

economy. For instance, during the winter months of 2012, the City generated 2.3 billion Rand in revenue due particularly to major events including the Indaba, Durban July and the international TV show Top Gear hosted by the City, measuring income by means of economic indicators regards cost and expenditure and the economic multiplier effect.

While the City does well on events, it was suggested that it should do more in others area such as manufacturing. The problem, it was suggested lies with City regulations which impede investment particularly where the environment is concerned. The first target for investment is international investment the benefits whereof is not just the investment in plant machinery itself but also creating jobs. However, the problem is that international companies are more attracted to establish manufacturing head-quarters in cities such as Johannesburg or Cape Town.

The City of Durban and province of KwaZulu-Natal have started to position Durban as a gateway to business in the rest of Africa. The City is competing quite strongly on an economic basis and a number of large scale projects have now been proposed within Durban. Out of the 14 Presidential Strategic Initiative projects proposed by the National Government, eleven of those fourteen are for KwaZulu-Natal and six of those eleven are for the City of Durban. These are the results of efforts from the Premier's office to strategically position Durban for many of the projects and unlock the City's growth potential.

Projects include the expansion of the existing N3 highway between Durban and Gauteng that will bypass Harrismith to make the movement of traffic from Durban to Johannesburg from five and a half hours to only four hours cutting down significantly on fuel costs and time. The expansion of the Durban harbour from the point into the south industrial basin will result in moving the container terminal currently residing in Mayden Wharf to Clairwood thereby enabling ships to come right up to the port area, which will be a huge advantage and provide the City with a growth strategy for the next twenty years.

There were contradictory views regarding the harbour as some informants argued that despite Durban being the largest container port in Africa, the City is not taking full economic advantage of the port. While other respondents argued on the contrary that the proposal to strengthen the rail link between Durban and Gauteng to take full advantage of the expansion of the Durban harbour into the south industrial basin was a strategic project that will take advantage of the Durban's harbour through its expansion reflecting City opinion regarding the critical importance of the harbour as the City's biggest asset in terms of the economic growth potential.

The port of Durban is the busiest and largest functioning harbour on the continent of Africa. It competes with Alexandria in Egypt and in terms of containerized traffic Durban is the largest on the continent and with the expansion of the back of port over the next ten years, Durban will treble the number of containers that pass through the port, particularly as most container goods coming into the region are coming from or leaving Durban. Yet despite the successes of the City in terms of its port, delays in planning approvals, environment impact assessments, access to finance and regulatory environment appears to be a concern as these issues fail to instil confidence amongst investors.

There was a surprising level of disagreement regards Durban's Investment Promotion Agency. Most informants felt that the agency played an important role in attracting international investment to the City. However, one informant expressed the belief that the agency was largely ineffective and that most work in attracting international investment was done by Trade and Investment KwaZulu-Natal as well as the Durban Chamber of Commerce and Industry despite limited resources available to the latter body.

A number of informants raised concern about delays caused by the regulatory framework around planning and administrators who regulate investors and developments. One of the primary hindrances to investment is town planning regulation and the second is environmental building regulations which appear to be an uphill battle. So although the City appears to be aggressively attracting investment however the main problem is the lack of packaged products for investors and is looking at its own investment bureaucracy.

4.4.7 Cost of Living

Measured against total tax rate, cost of living and business occupancy and purchasing power, the five lowest cost cities analysed by PricewaterhouseCoopers were surprisingly all located within developed economies of North America. In 2010, Johannesburg ranked first on this indicator, but dropped to eighth position alongside Santiago in 2011 amongst 26 cities studied, making Johannesburg and Santiago the only non-Western cities in the top ten (PricewaterhouseCoopers, 2011). This indicator was led by the question "*The cost of living is increasing beyond the means of lower income households. Are we doing enough to ensure that future generations are able to benefit from economic growth today?*"

The City's growing GDP, it was suggested, seems make little difference to low income households, as Durban has one of the largest gini coefficients amongst South African cities and the gap is widening. The problem, it was argued, is that the City has no idea how to manage the distribution of prosperity, which is not simply about taking from the wealthy and

giving to the poor. Shopping malls increase prosperity but do nothing for poor households except expose them to increased spending habits of wealthier communities within the City as the City fails to exploit opportunities.

The soaring costs of electricity and fuel hurt the poorer communities the hardest despite attempts to support lower income households through social grants. The national development plan prioritizes battling poverty and inequality for the poor through attempts including the Masakahane Project which provides a support mechanism to address poverty in the locations.

As the cost of living increases, so does the hope towards home ownership fall outside the reach of the average person, which includes not just the capital cost of purchasing a property but renovating and up-keeping a home disenfranchising lower and middle income households from property ownership. So it was argued that a lot more needs to be done to create economic opportunity for the next generation as empowerment in the true sense of the word, is not happening fast enough which means those that are affected are not getting the opportunity they need.

Of crucial impact on economic growth is the ability to create opportunity and the City is not doing enough to create entrepreneurs and provide opportunities to nurture and sustain entrepreneurs. The future of growth is not about unsustainable job creation but business creation for sustainable growth linked to creating jobs through expansion, so it was argued that the City is not giving opportunity to increase the opportunity for others to create employment.

Despite higher rates of interest than in the developed world, it was argued by one informant that South Africa has no culture of saving. In Japan the average Japanese saves 30% of their salary whilst the average South African saves not more than 5%. This may be attributed to lower incomes but even if the interest was changed it was argued that the average South African employee is indebted to an average of 125% of his salary so that his entire salary goes on servicing debt so that the average employee borrows more to service debt than he earns which continues the cycle. The South African National Defence Force conducted a study in 2002 on gearing finance by their personnel and the South African Police department released the findings of a similar study in 2006 on the police. They found that the high rates of growth in the micro loan sector that lends money against future earnings was based predominantly on the back of the two major components of government employees. Therefore unless the cycle of high borrowing is broken, no matter what the interest rates is, people will continue borrowing.

The City provides a variety of policies and programs that target indigent families including zero property tax on properties up to a certain value and only charging water, electricity and waste removal. However, despite such programs, inflation is still hitting indigent families hard and it was felt that the City is not doing enough to ensure energy and food costs are kept as low as possible as the City is subject to Eskom price increases which gets passed onto to households including indigent families as rates in Durban are not cheap compared to other major cities and increases are even higher than some of the other cities.

According to statistics released by the department of Race Relations, unemployment is escalating. As one informant pointed out, one out of two youths in the City between the age of 15 and 35 is unemployed. As such Durban is sitting with huge challenge because it has a poorer population compared to Cape Town which has a higher ratio of affluence across the population. Therefore, the more affluent people in Durban need to bear a higher brunt of the social costs of the challenges facing the City.

In many respects Durban performs better than Cape Town because people in township have cheap electricity and huge efforts are undertaken to provide affordable water and sewerage disposal as well as decent roads but it was argued that the gap between rich and poor is increasing and the City is not doing enough to redress the problem of inequality.

The City is not growing at its determinate rate which affects the needs of the entire City's population. Although the City has plans mainly for infrastructural development the cost of a basket of goods that comprise the cost of living including fuel, transport, education, property maintenance as well as all the other costs of living the general view was that the City is not doing nearly enough. As one informant argued that good education it was said is far too expensive and is therefore often compromised, suggesting that the education system should be run more like a business based on performance management measures without the profit motive.

On the whole, informants were pessimistic about this indicator, although there were outlying informants that believed that the City is performing well as there is a level of consciousness within the City to look at the wellbeing of lower income households particularly bearing in mind persisting inequalities and that Durban has a large pool of unskilled labour. The City simply needs to be smart about the type of industry that it attracts particularly the automotive industry being home to Toyota manufacturing that pays decent salaries.

4.4.8 Demographics and Liveability

Variables that comprise this indicator include housing, thermal comfort, commute time, age of working population and quality of life and living (PricewaterhouseCoopers, 2011). In terms of travelling commutes and liveability, the total cost of congestion in the New York City region has been estimated at more than \$13 billion per year by adding to the cost of doing business resulting in lost time and productivity and an estimated 52,000 jobs annually (PricewaterhouseCoopers, 2011). Although the cost of congestion to Durban's economy is dwarfed by comparison, the implication on demographics and liveability are real. Therefore, this indicator was phrased in the leading question *"Is this a problem in Durban and if so what can we do to improve transportation and improve the standards of living to Durban's residents?"*

There was considerable agreement amongst the informants that Durban has a very pleasant climate. A number of informants noted the high standard of living whilst one informant mentioned this was due primarily to the still relatively inexpensive cost of housing and the abundance of low cost housing. Particularly housing in the centre of Durban is inexpensive where there are no transport problems. The City also maintains social services such as art galleries and museums, cycling tracks and walking trails. The cycling track from the Umgeni bird park to the Blue Lagoon and Durban beaches has been extended along with the Umhlanga promenade are very popular.

However, one particular informant remarked that art galleries and cycle tracks only accessible by a limited sector of the community and that primarily to be an entrepreneurial city people must have access to water, electricity and education. Many households in Durban do not have access to clean water and electricity with informal settlements around the City over the last five years becoming a problem for the City as there is a backlog in housing settlement. The City appears to recognise the need to improve the quality of life for its residents and has established the vision to be the most caring and liveable city by 2030 clearly marking its intention to improve existing standards of living. The biggest share of the budget goes towards the developing less affluent areas and less towards those areas that are already better serviced and managed.

There was mixed opinion about the spatial layout of the City. Some believed the City to be relatively compact particularly compared to many other large South African cities providing relative accessibility and shorter commute times across the City thereby improving quality of life compared to other South African cities with the beach and game reserves on an hour's drive away. Whilst other informants believed the City to be spatially disjointed which is a

problem for certain communities that spend too much time on public transport having to wake up very early to get to work costing a greater percentage of a person's disposable income on transportation costs highlighting the need for an integrative public transport system.

The City recognises that every time a new shopping centre is built, there is a restructure of domestic demand as the older shopping centres lose trade to the newer centres. This whilst the City recognises the need to improving shopping malls which are moving into the townships the informant suggested the answer was not to build new shopping centres but to develop manufacturing particularly small industry close to residential areas. As a general trend the move is towards improving demographics and living closer to work building homes closer to economic nodes and transport.

The first challenge is the lack of public transport affecting small businesses which rely on public transport. The public transport system is unreliable and not safe. The City is developing a new mode of public transport called the rapid bus transport system. But the City is losing job opportunities and hindering the growth of small business by taking so long to fix up the public transport system. This is alleviated to an extent by the taxi market, but it is not sufficient. A lot of discussion was made around the inaccessibility of the port and time wasted by truck drivers entering and leaving the port being a huge problem as drivers can wait between eight and ten hours to leave the port wasting a huge amount of fuel.

For many communities in Durban the liveability standard is considerably lower as there is huge disparity within Durban which is a very divided city between the more established areas and the poor areas from the townships to the rural areas. Many people don't have access to income, living far away from the City having to travel in to the City to look for work making it very unliveable for those people who are spending a proportionally enormous amount of money on transportation. This kind of spatial disintegration across the City which is directly attributed to apartheid planning is a crucial problem.

Durban has very high dependency ratios, with every one person employed is supporting it was argued, six dependants which is double that in Johannesburg. This inevitably contributes to the crime rate which is a big problem facing Durban especially for small businesses have no insurance, despite being less of a problem compared to Johannesburg and Cape Town.

Forty five percent of the land in KwaZulu-Natal is underutilised and is owned by the Ingonyama Trust on behalf of the tribal authorities that represents small villages, tribes and

people throughout KwaZulu-Natal. The provincial growth development plan intends to unlock the value that belongs to the Ingonyama Trust by entering lease agreement by means of a public private partnership between the government, Trust and private sector. This is expected to unlock the Zulu land triangle from Durban to Piet Retief in the north and Newcastle in the west and the greater economic corridor linking the cities of Durban, Richards Bay, Pietermaritzburg, Ladysmith and Harrismith as the greatest contributors to the lack of economic activity in the lack of infrastructure and connectivity between provincial economic nodes to unlock all the little towns creating huge economic activity.

4.4.9 Lifestyle Assets

This indicator comprises green space, culture, leisure and tourism (PricewaterhouseCoopers, 2011). According to the Monocle rankings the world's most liveable cities in 2011 were Munich, Copenhagen and Zurich because of their small size and easy access by bicycle making it easy to build relationships (Edvinsson in PricewaterhouseCoopers, 2011). As value creation shifts away from harbours, offices and industrial areas towards networks of people, cities need to identify sources of such value creation and identify how the City can be a potential for building relationship capital necessary for economic growth. Discussions on this indicator therefore were led by the question *“Urban planning for the future appears to focus more on shopping centres rather than mind zones which facilitate growth of business within a city. Do you think we are meeting these needs in Durban?”*

Whilst many of the informants remarked that the City's extension of the promenade from Durban past the Blue Lagoon to the Bird Park and along Umhlanga added enormous lifestyle value to the City particularly through the addition of new cycle lanes and walks, they added that the majority of the City considered such cycling tracks to be elitist and did not care about these issues. People that use the publicly available lifestyle assets such as the promenade, one informant commented, tend to not value or respect such assets thinking it to be somebody else's responsibility to maintain them, which requires educating people to use these city assets responsibly.

Given the topography and humidity of the City, cycling in Durban is for the hobbyist rather than a mode of transport. It's difficult to create space for cyclists in Durban as the City simply was not built with cyclists in mind. Furthermore, given the large number of road fatalities for cyclists the roads are simply not safe. The legislative penalty for drunk driving is also not as severe as in Europe so drivers are less afraid of the consequences. Thus whilst the City is doing impressive things along Durban beachfront for the tourists and recreational cyclists the

City does not see value in providing cycling facilities for commuter purposes. To change this is going to take a very long time and be extremely expensive.

The City has also spent a lot of money redoing parks across the City. Bulwer Park near the university never used to be well used as people were afraid to use it. Since the City started redoing the park putting in paths and benches as well as an outdoor gym using resistance training equipment which requires minimal maintenance and upkeep many people have now started to use. The City's maintenance of its numerous parks, natural diversity and green spaces has created a completely social space where people now meet. Numerous informants remarked that the City needs to create more spaces connecting people through public activities such as walking particularly near residential areas rather than private commercialized activities unaffordable to many sectors of the community.

Durban's lifestyle and particularly its weather is good for small business growth. West Street in the centre of Durban has a thriving community spirit with thousands of people hanging around. However, safety is still an issue in high volume areas.

Some informants believed that getting in and around the centre was easy using public transport others argued that public transport is a problem for small business suggesting that the transportation system is not meeting the needs of small business owners using public transport to carry on business activities. Shifting focus towards high density living away from township developments is considered to have a big impact on small business owners using public transport. New developments near the airport suggest that the City already sees value in this development paradigm which is expected to shift transportation usage towards rail and light rail networks.

The City has many shopping centres all easily accessible by public transport. One of the informants commented that the irony is that the largest sector of the community who hasn't had access to good retail facilities in the past consider good shopping centres to be the primary lifestyle asset over mind zones, recreational facilities and lifestyle experiences such as bike tracks and music in park which they consider elitist.

Umhlanga which is one of the wealthiest communities in the Durban area closed its library and reopened it a year later whilst the black townships don't even have libraries. Shopping centres are doing more to connect people. They provide a great activity for the whole family providing a complete range of activities designed to keep people there for longer by creating activities for children and the entire family.

Durban night life in the city centre is very quiet compared to most places in Johannesburg which are buzzing at night, including particularly Yeoville and Rosebank. This was attributed to salaries which are much lower than Johannesburg salaries as being the primary contributing factor to low night life lifestyle in Durban. Other factors included the distance between the critical nodes of recreational space being inaccessible without your own car or public transport which stops at night. The city centre is not easy to bike or walk around and some of the critical facilities have moved away like restaurants and malls have shrunk.

4.4.10 Informal Trade

Informal trade is primarily an indication of growth in developing economies and was measured by the Municipalities attention survival entrepreneurs in terms of facilities and provision of support. The indicator was led by the following questions *“It has been suggested that innovation is less important for growth in low-income developing countries than in advanced economies. Do you agree? How and under what conditions do informal traders innovate in developing countries and what can be done to support innovation amongst informal traders in Durban?”*

It was stated that the informal trading sector is of enormous interest to the City of Durban especially from the perspective of traditional medicine and other cultural interests. Warwick market makes an enormous amount of money every year on its main product which is food not only creating jobs but reducing crime. But although the City's informal sector compares extremely favourably to the rest of Africa, the City's informal trading policy needs revision particularly how the City perceives informal traders.

The old policies promoted by Caroline Skinner were extremely progressive. The City promoted informal trade instead of stifling it creating stands for informal traders which catered for neater management of trading areas with ablution facilities around the Warwick area. But recently there has been a continual harassment of informal trade.

The City has been clamping down on informal traders and whilst it had a progressive policy ten years ago the City's recent approach around the Warwick triangle market encapsulates the City's changing approach to the informal sector. This shift backwards was reflected most noticeably during the World Cup in 2010 when the City attempted to remove traders from stalls closing informal markets for international cameras. One informant even remarked the City's intention was to demolish the informal sector because it was competing with supermarkets.

However, not all the informants were so pessimistic arguing that informal trade should be supported much more than it is because it's a great means for people to make a living under difficult circumstances. Whilst early informal trading policy at the Warwick junction required traders to have a licence to trade, either fining or imprisoning traders without licences, the City has since realised this is not the best way to manage the informal trading sector and after a consultation process has started to adopt more progressive ways of effectively controlling the sector.

The informal trading of cooked mealies at the Warwick informal trading market in the City is an enormous economy. More vegetables are sold in the Warwick triangle than anywhere else in Durban. The informal trading of cooked mealies supports an entire industry from the farm supplier to the person who delivers the mealies into the City, to the people who cook them in drums in an area adjacent to fire station demarked for mealie cookers to the vendors who sell them. Every one of the informants said that the City should provide facilities to provide a more formalized entrepreneurial type environment for informal traders whose business should not be constrained.

One of the informants argued that innovation is extremely important to developing economies such as Durban's particularly at the micro level creating new opportunities and permitting new business to thrive as small enterprises provide solutions to economic problems. According to the informant the economies of cities and villages across India are extremely innovative at the micro level as they make different components for appliances in different villages, spreading economic opportunity through micro-enterprises which are growing the entire economy of a city.

The various informal trading markets across the City including the Warwick triangle, Pinetown, Verulam and Amanzimtoti central business districts need stronger focus on formalizing informal trade, including safer access to toilets and care of children as many of the informal traders are women with children. There is currently a Non-Government Organisation (NGO) working with City to create a crèche for the mothers.

The Warwick triangle has been a huge investment for the City and despite a backwards shift in recent years is a blue print for the informal sector. About 15 years ago Durban was very innovative in recognizing informal trade as a legitimate activity. Regulations and by-laws were changed to allow informal trading in certain areas. Shelters were provided for traders to trade from by the City and storage built for them to store their wares. Training programs are also provided to traders who are required to have licenses. However, the informal economy

is deemed to be a survivalist sector of business so if a trader is not behind the store for two days in a row they are closed down.

Most of the informants believed the informal trading sector to be well regulated, which predominantly controls proliferation to prevent informal traders setting up wherever they want. This not only to establish market density but also reduce cost as the City spends a considerable amount of money cleaning up after informal trade.

It was suggested that the City should use technology as an enabler to help informal traders operate more effectively alongside the formal sector, leveraging off the City's fibre optic network and providing traders with free wireless access through mobile devices. The Municipality's fibre optic line has already been laid and is already accessible. It simply needs to be made available for the benefit of City's economic development needs including informal traders who can use cheap hand held devices. Most traders already have smart phones with Mzansi accounts which allows them to receive and pay accounts via their cell phones without a bank account. The City has the ability to allow informal traders to connect for free to the fibre optic line.

With such connectivity, traders selling vegetables would be able to log onto their supplier's website using their phones to check the prices of items to purchase the night before trading and allow them to order and pay for stock in advance on their Mzansi account. This could operate almost like Pick n' Pay's home delivery service with busses operating up and down Smith and West Street, the beachfront and Warwick delivering goods. The City already owns and controls this kind of technological enabler. It just requires political will and leadership to implement for the benefit of informal traders.

There was considerable disagreement amongst informants about Acs and Szerb's (2009) suggestion that innovation is less important for growth in low income economies. According to their study developing economies are driven predominantly by factor-driven development rather than innovation-driven development finding that innovation accounts for only 5 per cent of economic activity in developing economies compared to 30 per cent in advanced developed economies (Acs and Szerb in Szirmai et al., 2011). It was suggested however, that breakthroughs in the mobile device industry has created huge advantages in the informal trading space where people are using mobile technology to grow their business.

International best practice is using mobile devices to practice and market products allowing entrepreneurs in the informal space to manage their products in more innovative ways including the management of stock through mobile device rather than by memory. User

friendly applications are constantly being developed to better grow and assist business. All areas of business need software developers and business analysts designing applications based on practical problems faced daily by people in business.

Durban's leap in formalizing informal trade many years ago whilst having made big contributions to many homes over the years, has unfortunately it was remarked, become over traded and abused by original tenants who sublet their licensed sites to refugees and economic migrants with strong entrepreneurial talent from other parts of Africa. The most successful traders in Durban are the foreigners because they use their family with enormous cost saving benefits, collaborating and working together in consortiums, while local residents need to employ people to assist them at cost disadvantage. Creating hubs for informal business development, one informant suggested is a great way to grow the informal sector as business owners with similar trades work in close proximity enabling greater collaboration between business owners who are able to help and support each other.

The City has established small industrial hubs around the City which comprise a series of small mini factories each between 50 and 60 square metres in size. Businesses that have come out of these hubs are now well established and flourishing businesses some employing as many as 30 to 40 people after being started by only one person who operated out of necessity. This informant argued that the City concentrates too much on formal business with the potential to list of stock exchange forgetting to focus on micro enterprises and informal traders suggesting that hubs are a great way to establish businesses in an informal environment particularly as sole proprietorships can drive economic growth the informant argued.

4.4.11 Ease of Doing Business

Variables of this indicator include regulations that impede business activity and labour laws controlling the hiring and firing of employees. Discussions were by the question "*What can be done to make it easier for small business to start up and continue doing business?*"

It was remarked by a number of informants that establishing a business is very expensive not least because there is a lot of red tape involved particularly with registering a company at the company's office (CIPC). There are so many costly procedures to set up a business and some small business are not able to endure this procedural cost, which often takes months and even more burdensome when non-compliant businesses incur fines for non-compliance. This opinion was supported by the remark that Durban particularly has an unfriendly regulatory environment often requiring permits without providing sufficient support to enable

individuals to acquire such permits. The process is often complex and it's not realistic to expect enterprising individuals to obtain them quickly and easily without such support.

In South Africa at the moment the turn-around time to set up a business can take up to sixty days whilst in some other countries a business can be established within only 15 days. If an entrepreneur approaches an investor with an idea that will take two months to establish, much of the euphoria surrounding the idea can be lost in this time which may affect business survival, particularly that the longer it takes to start a business the longer it takes to generate income.

By contrast however, it was remarked that regulatory burden is not the problem. The City does not need fewer regulations and forms restricting growth, but rather better implementation of process management in place. Start-ups that fail do so because of lack of finance and lack of compliance such as SARS tax clearance certificates. Finance, it was argued was the primary issue as the economic environment generally does not promote small business and as a consequence the primary difficulty facing small entrepreneurs is getting hold of start-up capital and advice.

Despite such pessimism the City's SMME unit and SEDA which offers business advice to small business, were generally supported. The City provides business and skills training for potential entrepreneurs such as basic computer skills, but it is doubtful whether these skills are really adding value and benefit to the trainees. The City needs a better understanding of what is required to facilitate business and address the value added benefit to the trainees regarding what these persons can do post training that they could not do before.

Programs are required that will improve income levels of small business and facilitate in the ease of running and doing business. Whilst the City is doing a lot, it was suggested that is not sufficiently coordinated or correctly monitored. It is doubtful whether the City is getting value for money in the implementation of the up-skilling and assistance of small business, which is recognised to be the key to job creation, particularly given that statistically small business accounts for twenty percent of the City's employment.

The City supports numerous programs particularly the Business Support and Development units as well as the ICT incubator and Entrepreneurial Support Centre. The incubators provide business space including manufacturing space if required for entrepreneurs that demonstrate a good business model. The space is provided for two years to incubate the business through the early phase until it is established to run on its own. It was suggested that the City needs a craft hub where people can trade their crafts at subsidised rentals and

electricity under cover from the rain similar to China city which was posed as a good example of the City's support of traders.

More focus it was suggested needed to be paid by the City to the service sector. Durban however, is not geared towards high the level service industry like most of Europe. When countries such as the United Kingdom suffer cyclical declines in manufacturing, unemployment is hardly affected as consumer demand for services has largely overtaken that of manufacturing. Entrepreneurs starting their own business tend to repeat the same kinds of services already provided such as hairdressing amongst examples. Business minded people within the City are not inventing new and innovative services mostly attributed to the lack of demand as it is unlikely that consumers would use new and innovative products if it was developed unlike Europe where amazing new services are being created that people are using.

There was also a comment made by one of the informants during the interview on this indicator that there is insufficient rotation planning with City tenders resulting in the same people repeatedly winning the same tenders, enriching the same tenderpreneurs at taxpayer's expense instead of creating business. This was a difficult problem to tackle as public figures only ever pay lip service to fighting corruption whilst nobody is charged.

4.4.12 Micro-enterprise Development – Net Business Start-ups

This indicator looked at net business start-ups and the ease and support provided to the growth of Micro-enterprises. It was phrased with the leading question *“Is the City doing enough to support the growth of Micro-enterprise development?”*

Despite comments about limited resources, informants were largely positive about micro-enterprise development particularly with regards to the City's partnership with the Small Micro Medium Enterprise unit called SEDA and the private sector, where the City runs workshops and provides seminars to assist small business development. The Ethekwini website also provides a section dedicated to micro business support and whilst the Durban Business Fair may not be as successful as the City would like, it is a positive initiative.

However, the suggestion was made that the City needs a web portal dedicated to advertising for micro businesses which describes the business and enable growth through linking business home pages to prospective customer. By providing this at a city level the City could help to promote micro enterprise development.

Mention was made that the City of Durban is currently revising the notion of business incubation, particularly providing for an incubation process suitable across markets and not limited to businesses in niche markets such as the Information Communication Technology (ICT) incubator known as SmartXchange in Durban. This policy initiative was in response to debate at City management level that Durban is lacking in business hubs where people across business backgrounds can gain access to resources.

One of the informants remarked that the process of identifying entrepreneurs who need assistance is currently lacking and needs to be improved. To this end it was suggested that micro business owners should be put through a formal trading process such as psychometric testing to identify and distinguish who may require guidance counselling and mentorship. This would not only identify the passion of the entrepreneur but also their capabilities, strengths and weaknesses to establish appropriate tailor made guidance programs. This would importantly ensure that the right people get the right guidance.

4.4.13 University / Industry Interaction

The interaction between universities and industry helps nurture and encourage business development facilitated through government support. More important for business development in developing economies, this indicator provides insight into the various roles Universities and Industry play. Discussions were led by the question *“Is the City doing enough to nurture public / private partnerships that will encourage business development and what role can universities provide in this relationship?”*

There was a mixed perception of this indicator. Positively, it seems that the City has tried to incorporate academics and their research into its work and projects and even tried to incorporate them when implementing programs to create strategic partnerships. So progress is being made despite the need for greater co-coordinating efforts and increasing resources.

Considerable efforts and improvements have been made over the last two to three years in the implementation of mentorship programs for post graduate students providing experiential learning and strengthening the relationships by inclusion of guest lecturers at talks hosted by the City. Durban University of Technology is one of the tertiary leaders in terms of trying to get proper education off the ground hosting the association of cooperative education in Durban in 2013 but more needs to be done to ascertain the graduate needs of the private sector

It was argued by one of the informants that the City does not have the constructive relationship necessary to take full advantage of the measures that it endeavours to implement, partly due to the lack of communication between the City, industry and the universities which is perceived by industry to reflect a lack of interest towards the growth of entrepreneurship noted in the lack of interest and attendance of talks about academic curricula and business issues hosted by the Durban Chamber of Commerce and Industry.

Not enough attention is paid to mathematics and the sciences particularly, as too many students opt for the soft sciences which are perceived by industry to hone receptiveness to new ideas instead of accumulate a body of knowledge. As a consequence universities fail because they don't understand what is really required for business. Graduates are disconnected from industry requirements, graduating with theoretical knowledge irrelevant to business and requiring considerable training before becoming effective employees. As such business is reluctant to employ recently graduated staff without experience and training.

Even government is finding that they are employing graduates with degrees from reputable Universities that lack the skill or practical experience to be employable which has led to the introduction of internship programs which in turn need to be encouraged within the private sector. At the level of provincial governance the KwaZulu-Natal Treasury Department has a unit called the Tertiary Skills Development unit looking at how universities can come up with the right curricula. The universities are also recognizing this need and are starting to look at the way their curricula are structured and focus more on business requirements.

The City signed a memorandum of understanding to ascertain the extent to which the Municipality could work with the universities and ensure that courses offered meet the technical needs of the Municipality and supported by the Construction Education and Training Authority (CETA). However, policy relies too heavily on think tanks that are about making money, relying on graduates straight out of university to write policy. Instead it was suggested that more emphasis should be placed on higher level academic researchers who would provide greater knowledge and skills to the process for a fraction of the cost. The style of City management is arrogant, it was argued as, for the price of one junior advisor from a consulting company equates to the same cost for three PhD students studying post-doctoral research at the university, reflecting the lack of synergy between the Universities and Government.

4.4.14 Presence of Entrepreneurs

This indicator raised the question whether entrepreneurs are providing the necessary skills and services for economic growth and development in the City. Therefore discussions on this indicator measurement were framed by the question “*Are entrepreneurs providing the necessary skills and services for the development of Durban and what can be done to encourage innovation amongst the entrepreneurial class?*”

It was agreed across all informants that the City needs a healthy network for entrepreneurs to operate effectively. However, the City’s entrepreneurs are not providing the necessary skills and services that the City needs which requires the City to create a more enabling environment through community building for entrepreneurs to share their own personal ideas and experiences and listen to inspirational persons compliant with tax laws and can advise young entrepreneurs how they can do better through compliance.

To this end it was suggested that the City should invite successful entrepreneurs to come and talk in Durban, such as Raymond Ackerman, Mark Shuttleworth and Patrice Motsepe about their experience and challenges and how they over-came those challenges to motivate new entrepreneurs. It was also commonly argued that the City is not effectively encouraging entrepreneurship as entrepreneurs are not contributing to the next generation. Successful entrepreneurs should be sharing their knowledge with the next generation to encourage them to become entrepreneurs. One informant remarked that government policy seemed to rather encourage tender-preneurship instead of entrepreneurship as business minded people wanted to make a fast buck easily.

Certain communities contribute a higher percentage of entrepreneurs than other communities as it was noted that the Indian community particularly contributed a lot of entrepreneurial activity to the economic space whilst the white community contributed less and the black community the least and mostly through necessity according to one informant. The trend is improving largely thanks to the City’s Indian population that leads in the Entrepreneurial space. The traditional Afrikaner was extremely successful in business because they operate within a broader community network whether maintaining contact through shared experiences of culture and religion such as rugby or church. The Muslim community also excels in entrepreneurship as it is supported through a broad community network.

The main problem is that schools are anti-enterprise in South Africa. Whilst some schools teach entrepreneurship most and even the best schools do not encourage young children to

be enterprising but rather attempt to mould children to be employees. Most schools that do encourage entrepreneurial activity tend to adopt a more cynical approach such as Durban's Collegiate school for girls encouraging entrepreneurship albeit that their idea of entrepreneurship is limited to selling muffins cooked by the children's parents which does not really establish an entrepreneurial spirit.

It would make a big difference to the presence of entrepreneurship if it was encouraged in schools. However, the difficulty with this is that the teachers are not entrepreneurial and so do not effectively contribute to instilling entrepreneurship. But it was suggested that even just a simple understanding of finances and basic accounting including debits and credits would enable budding entrepreneurs to understand simple principles of running a business.

A company in Paraguay owns four schools that operate a number of enterprises including a dairy farm teaching the children basic principles of running a business. The schools are self-sufficient and the business enterprises are run by the children. Each graduating pupil has hands on experience with running a business and not one will want for employment after leaving school it was suggested. The City should be encouraging woodwork and metal work in schools that the school could make for sale, generating income for the school and assisting the children in learning how to run a business.

Whilst some people might be skilled they don't necessarily have business knowledge to know how to manage their business properly. People need to be taught to be business minded at school and university as too often people start businesses as a result of necessity instead of passion for their business. There needs to be a change in mind set to encourage people to understand the need to help themselves and understand business principles that drive success.

4.4.15 Perceptions of Entrepreneurs

Perceptions of entrepreneurs complements the presence indicator as it indicates a city's approach and support for entrepreneurial development and their ability to innovate and contribute to the economic growth of the City. However, it was distinguished from the indicator on the presence of entrepreneurs in the City to gauge any policy inhibitors that may be blocking their growth. This indicator was therefore framed in the leading question "*Does the City perceive entrepreneurs as a class that can contribute to innovation and growth?*"

The City's perception of entrepreneurs appeared to vary widely across sectors and accordingly responses were also varied. The City's attitude is deeply entrenched in

municipal bureaucracy. Some informants argued that the City does not see entrepreneurs as innovators and developers of intellectual capital who are able to drive growth but rather mainly as survivalists, trading in commodity goods and baseline bottom end services and therefore not important to the growth of the City. Informants more positive to the City's perceptions argued that the City understands that entrepreneurs are the drivers of the economy and thereby encourages people to become entrepreneurial.

The City has not however, fully exploited the entrepreneurial class which needs to be clearly defined and perceived as a class that can grow the economy and create jobs and not merely as start-ups if they are to successfully grow and create real sustainable growth for the City. One of the difficulties is that anybody that starts a business can be called an entrepreneur but really it was suggested that an entrepreneur is a person who takes risks. Thus whilst the City perceives risk taking entrepreneurs to be important to the future development of the City, it is not clear whether it perceives anybody that starts a business to be an entrepreneur.

There is a perception that it is not good enough that entrepreneurs merely contribute to business but must also contribute to innovation which they are not sufficiently doing at the moment. Certain sectors of the City target entrepreneurs within the City but unfortunately they are not targeted as a class therefore there is no coherent strategy towards them for economic development. When the City failed to take the informal sector seriously and pass plans for a new mall in place of the informal business settlements the reaction of businesses in the sector lead to the shelving of plans which demonstrated the City's existing attitudes and perceptions towards resident entrepreneurs.

The city's business support unit looks after the interests of the sectors of the entrepreneurial class through the creation of incubators and hubs, but there is no common strategy linking departments and business units. The Business Support Unit, Durban Tourism and Durban Investment Promotion all have different strategies. There is no common strategy or link between them. Unless they come up with a common strategy, of which there is none for discussion, the City will fail to unlock its full potential, which comes down to leadership.

The city's Integrated Development Plan (IDP) makes the right statements, which demonstrates a commitment to stimulate entrepreneurial activity. However, it was argued that given the important role of small business to the economic development of the City and that small business employs a substantial portion of the economic workforce, unless the City invests in and nurtures small business, the economy will stagnate.

4.4.16 Policy Arrangements for Entrepreneurship Support

This indicator analyses government support for entrepreneurial growth and skills required by the City for its development and economic growth. It was therefore discussed around the question “*Are we providing enough support to entrepreneurial growth?*”

It was argued that in the developed world failure is considered to be an important and necessary lesson in the step towards long term success. However, in the developing world it is not considered to be acceptable. Thus if an entrepreneur fails at their first business attempt the funder is too often reluctant to reinvest in the same entrepreneur.

It was remarked that there is an over-supply of support for new business growth. The City invests a lot in youth start-up business support but a lot is wasted because they often fail or don't amount to much. Problematically, however, there is not enough information regards market and business requirements particularly there is no available information regards Durban's manufacturing needs. Unless an entrepreneur previously worked in the industry and has knowledge of its needs they will not know there is a business opportunity and ready market to be captured. Such information should be more readily available and it's not beyond the capacity of the Department of Trade and Industry to create a data base of widgets imported into South Africa and what is needed.

The city needs more entrepreneurial hubs that facilitate the flow of information and work opportunities. Car manufacturers such as BMW import metal panels for their cars because nobody makes panels to their specification. This information can be extremely important for local business.

The size of the South African market imposes natural constraints to the support of many large initiatives but for small business there are a lot of component parts needed in business and it would be extremely valuable if this information was readily known. Entrepreneurs simply need access to information as to who would buy what component if it was available.

The problem, it was expressed, is not the lack of support, but the lack of sufficiently coordinated support units who, whilst they coordinate their own initiatives fail to pool resources for maximum effect. Resources need to be pooled between the three tiers of government namely national, provincial and local government as well as the private sector, Department of Trade and Industry, SEDA and national economic development ventures.

Whilst the City provides for skills and business development it is not all provided under the single idea of entrepreneurship. Policy needs to focus more strategically on all aspects of running a business including accounting, business management, innovation, drivers of ambition and managing both life and work.

One of the key informants commented that the City provides one of the best policy arrangements geared towards the support of entrepreneurial development in the world. According to the findings of a nine year policy study called The Policy Dialogue of the Informal Economy pitched through the Municipal Institute of Learning (MILE) at a management seminar on the informal economy conducted by a range of international researchers including Professors from Cornell University, Harvard, Cambridge and the University of KwaZulu-Natal, the study showed that from amongst the five cities studied that Durban has one of the best developed policies catering for the informal economy. This suggests that the City provides a good enabling framework to support survivalists, however more resources must be allocated to helping them in terms of access to funding and procurement systems. The question then raised by the informant was not whether the City is doing a lot but whether it was having a real impact which is difficult to ascertain as there are no monitoring systems in place to identify whether training is making an impact. Thus whilst tools are in place to provide assistance there are no tools to monitor whether the assistance is really making a difference.

The city has a preferential policy towards procurement to support entrepreneurs but this is not enough. The city's preferential procurement supply chain management policy and practices simply enriches the wealthy tenderpreneur in the tender process. Since the barriers to winning tenders are often very high, policy has provided for advance publishing of large tenders to enable entrepreneurs to manage the risks, arrange finances, find the technology, bring in a partner and do whatever they may need to in order to have a realistic chance at winning the tender. This if the job is less than R 50 000 the City only requires three written quotes which are adjudicated in house. If it is between R 50 000 and R 200 000 the City will advertise the tender for seven days on the cities website and if it's over R 200 000 the decision must go through a committee system for adjudication and evaluation.

Instead what seems to happen at present is that whilst the process is supposed to be random, it was said that the big tenders always go to the big companies that are politically connected and know about it long before it was advertised. Thus, whilst policy can assist smaller businesses to grow through government contracts the process simply enriches larger business instead of growing smaller ones.

Chapter 5

Key Findings, Recommendations and Conclusion

5.1 Key Findings

The investigation of key indicators and ranking of results on these indicators produced some interesting findings. The lack of clusters in the heat map compared to the PricewaterhouseCoopers (2011) study of developed cities internationally is clear indication that Durban's is still doing business at low level of economic development. Advanced cities attract a particular profile of resident resulting in distinct clusters of correlation between measurement indicators as they have formalised a conceptualisation of what it takes to behave as an entrepreneurial city. Such behaviour creates and nurtures correlations between indicators. By contrast the limited occurrence of clusters of correlation that emerged from the study of Durban indicates a high level of dispersion among indicators thereby reducing correlations between indicators as the City has not yet developed a formalised conceptualisation of what it takes to be an entrepreneurial city. This was particularly noted amongst respondents often commented that there was a lot more to be done to improve on each of the measurement indicators.

Of particular interest in the study of Durban was the high correlation between intellectual capital and innovation and policy arrangements with an 84% correlation. This indicates that, within the context of Durban's emerging economy, that public policy has a strong influence on innovation. By contrast, PWC's study found that intellectual capital and innovation correlated most strongly with health, safety and security, suggesting that the most globally competitive cities are found where residents are offered professional and personal surroundings that ensure their health and safety and are less influenced by already advanced new policy arrangements.

A strong positive correlation was found between ease of doing business and demographics and liveability. This correlation matched PWC's finding where they found ease of doing business to be strongly correlated with not only demographics and liveability but also technology readiness. By contrast, this study found ease of doing business to be poorly related to technology readiness at a correlation of only 43% which suggests Durban's comparatively low levels of use of technology, partly attributed to the Municipality's failure to expand use of its fibre optic networks for public and private use.

It is noteworthy is that university / industry interaction was found to have a strong positive correlation with cost of living. The cost of living indicator is an economic measure of a City's residents ability to not only afford education but also build business. Therefore a high correlation between these indicators suggests that high levels of economic expansion and activity can be leveraged through university / industry interaction.

Similar to PWC's study, most of the hard economic indicators being cost of living, transportation and infrastructure, and economic clout correlated poorly with cost of living and transportation and infrastructure having a zero correlation. Yet whilst cost of living, being the most blunt economic measure, showed a poor positive correlation with economic clout, PWC found these measures amongst internationally advanced economies to show a weak negative correlation. This illustrates that as cities modernise they focus less on traditional industry and more on education, science and technology reflecting Durban's higher levels of dependence on industry rather than technology.

The study, failed to show a strong correlation between social and educational variables evidenced in PWC's study across more advanced cities. To sustain success, cities need to continually attract highly educated and technologically adept individuals who demand quality of life. The low levels of correlation witnessed in this study between social and educational variables suggest that Durban is failing to attract such intellect necessary for technological advancement of the City compared to more advanced cities internationally.

Unlike advanced cities, where intellectual capital and innovation holds the highest average positive correlation with every other indicator, this position was instead held by demographics and liveability. By contrast to advanced cities, intellectual capital and innovation had almost the lowest correlation with every other indicator correlating negatively (matched only by informal trade, and only surpassed by sustainability and transportation and infrastructure) suggesting areliance on small to medium enterprise growth rather than big business led by intellectual capital and innovation.

Unlike advanced cities in PWC's study, health, safety and security had a low average negative correlation with all other indicators. This suggests that Durban developing economy relies heavily on survival entrepreneurs and less on intellectually adept and innovative residents who place a premium on health, safety and security, who naturally gravitate towards cities that rate highly on these indicator measurements.

5.2 Recommendations and Conclusion

Given time limitations to compile sufficient data necessary to provide effective conclusions for City policy, the study was limited to the City of Durban. Further research on this subject should compare the City of Durban with other major cities including Cape Town and Johannesburg. Such a study could provide an analysis of the competitive advantage of cities across South Africa. This could help develop a more comprehensive assessment of entrepreneurship across South Africa.

The general theme elicited from the interviews was that in order to improve its business enabling environment, attract entrepreneurs and flourish as an entrepreneurial city, the City of Durban needs to make a considerably greater difference to its business climate and culture than it is currently doing. Economic growth depends on productivity, therefore the City must attract the right people to grow production and expand economic activity. Statistics have shown that the most productive people are often also the most mobile. One quarter of international patent applications filed from the US as well as engineering and technology start-ups founded in the US were both filed and founded respectively by immigrants (Irwin Grayson Associates, 2010). It is critical to the economic expansion of Durban that the City creates an enabling environment to attract the right people to the City.

Building the City's business climate must be viewed in conjunction with creating a culture that attracts the right people to the City. The most creative people are attracted to places that offer not only satisfaction of their material requirements but also intellectual stimulation, surrounding themselves with other creative people (Richard Florida in Irwin Grayson Associates, 2010). City's that are able to meet these material and intellectual wants and needs create increasing levels of growth as educated people tend to cluster together enabling the sharing of ideas which foster technological progress. Arguably, Durban's economic prospects depend on whether it is a city that people want to live and work in. Attracting the right people to the City could make a significant difference to the economy of the City.

The findings reported by Acs and Szerb (2009) which indicate that innovation accounts for only 5% of economic activity in developing economies compared to 30% in advanced economies, raised important questions amongst informants about innovation and entrepreneurship within the context of the Durban's developing economy. Overall the findings showed the need for the adoption of a holistic approach to economic development within the City and the promotion of innovation across the entire class of the City's entrepreneurs and not limited to sectors of knowledge intensive entrepreneurs. This raises

the need for supporting entrepreneurs able to contribute to economic growth through and by all levels of economic activity.

Findings from the interviews raised considerable concern regarding the City's pursuit of political objectives to the exclusion of synergising with private initiatives by local big business, which are never involved in debate. There should be a greater level of inclusion of private business and stakeholders in discussion to ensure that the interests of business are included at a City management level. Barriers preventing the sharing of information at the level of City management should be broken down to ensure that the City behaves and acts entrepreneurially in order to aid in the growth of entrepreneurial activity.

Focus needs to direct policy attention not only towards aiding entrepreneurs in fields popularly attributed to innovation, notably the ICT sector, but more broadly assisting entrepreneurs operating businesses in fields associated with less knowledge intensive sectors of the economy, as these form the foundation of economic activity in developing economies. The City's revision of the current business incubation model to allow for business incubation across markets is a positive step towards this process, however, it needs to be accelerated if entrepreneurs operating outside niche ICT markets are to also have a competitive advantage. Several policy options may be advanced for this including the dedication of a web portal hosted by the City to advertising for micro businesses providing a platform for small business to link with prospective customers.

The lack of common strategy linking departments and business units, noticeable in the lack of support across the entrepreneurial class, has been exacerbated by the clear perception that entrepreneurs must contribute to innovation to be of value to the City and worthy of investment. However, small business comprises a considerably larger share of the total businesses in developing and emerging economies compared to advanced economies (ILO in Szirmai et al.,2011). Furthermore, all business starts from humble and small beginnings and if the City's economy is to grow and become competitive both domestically and internationally then small business across markets need investment and nurturing.

Entrepreneurial hubs not only nurture the growth of small business they also facilitate the flow of information and work opportunities between businesses across niche markets within the same industry. Sharing information can be extremely important for a small start-up business able to pool resources when in close proximity.

City Management's failure to make use of its new fibre optic telecommunications network available to local business through the implementation of Wi-Fi hotspots across the City

demonstrates a lack of entrepreneurial culture at a City leadership level. The telecommunications network has cost the City's residents hundreds of millions of Rands, enabling the City to potentially leapfrog many developed cities from a communications perspective. A limited number of businesses using Metro Connect through Dimension Data have been able to take advantage of the hardware. Clearly this needs to be more widely accessible particularly through the availability of free internet access across the City.

The lack of public transport was noted as being a serious challenge affecting small businesses that rely on the public transport network system. Plans to spend three trillion Rand on transportation networks over the next 10 years is one of the most clear indicators of the City's intentions to make the City accessible to business interests. In particular, the City's new plan for an integrated bus transport network will solve existing problems at the poorer end of the market. This reflects a bold step to provide affordable transport to commuters which is expected to significantly assist micro business.

The high dependency ratios within families, given the number of dependants for each person employed, contributes not only to the huge economic disparities across the City between the established wealthy areas and the less advantaged poorer areas but also the high crime rates facing the City. This is exacerbated by the fact that communities that do not have access to income, usually living far from the City, spend a disproportionate amount of money on transportation. This poses a lost opportunity to the City.

Given the massive underutilisation of land owned by the Ingonyama Trust, the provincial growth development plan to unlock value contained within the land owned by the Trust is an extremely positive step. However, this requires public private partnership between the government, the Trust and the private sector. Given the high level of concern amongst many of the informants regarding the City's lack of synergy with private initiatives and local business excluded from debate, such barriers to information sharing between City Management and the private sector highlighting the City's failure to act entrepreneurially is expected to reduce the impact of such growth development plans. This will in turn hinder the growth of entrepreneurial activity. This is a significant concern to the City's advancement of entrepreneurial interests as the value contained in the land owned by the Ingonyama Trust has unparalleled value in comparison to other major cities across South Africa. Accordingly, it is recommended that in order to unlock the full potential of the land owned by the Trust, the City must enter into public discussions with the private sector.

The huge gap in social welfare and treatment of City residents, particularly street children is a serious concern. The comment by one of the informants that the sector relies on a system

of voluntary aid due to lack of funding by the City is extremely alarming. Failure to tackle this problem will not only sustain current problems but have huge cost implications for the future not only in respect of crime but lost business activity as disenfranchised City residents will not have the necessary skills and resources to contribute in meaningful and sustainable ways to the growth of the City. These problems need to be resolved not only by increased funding but by more effective use of the available budget and by the inclusion of private sector initiatives that can perform public tasks more cost effectively. This may include for instance charitable initiatives such as boarding houses for street children, already in operation known as Boys Town and Girls Town. Failure to deal with these crucial problems more effectively will negatively impact small business and the economic growth of the City.

The lack of synergy appears to not be limited to the relationship between the City Management and the private sector, but includes also the relationship between the universities and industry, where universities fail to fully understand the needs of business. This disconnection between university deliverables and industry requirements is evidenced in the level of further training that graduates require to become effective employees. This is somewhat bridged by the implementation of internship programs across government departments employing graduates, however clearly not enough is being done to ensure that university graduates are ready for employment. Internship and training programs should be adopted across industry and big business. Such programs could be extended to include vocational guidance at a peer level able to provide process learning beyond immediate vocational requirements.

Government departments drafting policy documents should rely less on “think tanks” that employ graduates with no business experience or political acumen. They should instead rely on Work Integrated Learning (WIL) programs which employ students and academic researchers with far greater knowledge and skills within particular fields of study and knowledge that charge a fraction of the cost. Not only would this contribute towards university funding simultaneously alleviating the hardship of academic costs but also create greater diffusion of skills training similar to internship programs to junior academics providing great value for money than enriching wealthy partners and directors of consulting agencies. Whilst the MILE has already adopted such programs, they should be more broadly across Government departments.

Innovative approaches to doing business is crucial to small and micro businesses if they are to gain a competitive advantage. Innovation facilitates cheaper and faster solutions to businesses. Micro level business enterprises across cities and villages in India for instance work together by making different components for appliances, thus growing city economies

by spreading economic opportunity across these micro-enterprises. Such intervention can be harnessed through use of mobile communication technologies. Such technologies can be more effectively used to expand informal trading market and micro business across Durban where there is huge growth potential through community networks.

Technology should be used as an enabler to help informal traders and micro enterprises operate more effectively alongside the formal sector, leveraging off the City's fibre optic network and providing small business traders with free wireless access through mobile devices. Most small and micro business traders already have smart phones with Mzansi accounts, allowing them to receive and pay accounts via their cell phones. Such technologies should be harnessed through the City's engagement with the private sector and local business initiatives to enable informal street traders and businesses to connect with one another for free off the back of the City's fibre optic line via free mobile web applications such as Whatsapp. This would enable traders to log onto their supplier's website via their phones to place orders dramatically saving communication and transportation costs. These savings can be passed onto the consumer expanding business and growth.

According to the statistics by the International Labour Office discussed earlier in this paper, small business comprises a considerably larger share of total businesses in developing economies compared to advanced economies accounting for at least half of the entire labour market in the non-agricultural sector across the entire developing world (ILO in Szirmai et al., 2011). It is surprising therefore that entrepreneurship is not encouraged in schools. Educational policy and curriculum needs to be changed to include entrepreneurial studies, which should include how to run a business. This should include organisational behaviour, acting entrepreneurially, methods and approaches in best practice as well as understanding and running finances and accounts.

A crucial limitation to the expansion and growth of the City appears to be its limitations in manufacturing exacerbated by the fact that international companies are more attracted to establish manufacturing head-quarters in either Johannesburg or Cape Town. The City of Durban needs to position itself actively as a gateway to business in Africa if it is to compete with the manufacturing sectors of Johannesburg and Cape Town. The most likely means to this end will be the expansion of the port currently under development. However, this must also include the unlocking of land owned by the Ingonyama Trust to manufacturing interests at low rentals to attract business and manufacturing interests to the City.

It may thus be concluded from the depth interviews conducted on key informants that Durban's emerging economy is lagging behind advanced international economies in a

number of fundamental respects. While City Management is doing much to develop and advance the economy of the City, they are failing to act entrepreneurially through the inclusion of private initiative in public debate on projects affecting the City and economic development generally. Such exclusionary policy is at a huge cost to the economy as a whole through loss of private initiative support. This may be attributed to a number of factors, from cost of including private initiative in public debate to lack of political will or the mere intent to retain control over management issues to the exclusion of contrasting studies.

Bibliography

Acs, Z., Bosma, N. and Sternberg, R. (2008). The Entrepreneurial Advantage of World Cities; Evidence from Global Entrepreneurship Monitor Data. *Scientific Analysis of Entrepreneurship and SMEs*. Zoetermeer.

Acs, Z., and Szerb L. (2009) The Global Entrepreneurship Index, *Foundations and Trends in Entrepreneurship*, Vol. 5, No. 5, pp. 341–435.

Audretsch, D. Falck, O. and Heblich, S. (2009). Who's got the aces up his sleeve? Functional specialization of cities and entrepreneurship. [Online] Available from: <http://link.springer.com/> [Accessed 10th December 2009].

Biddulph, M. (2011). Urban design, regeneration and the entrepreneurial city. *Progress in Planning*. Vol. 76, pp. 63–103. Elsevier Ltd.

Bräuning M. and Stiller, S. (2007). Europe's Leading Cities – Success Factors and Policy Perspectives. *Intereconomics*. November/December, pp. 335-340.

Brinkley, I. and Lee. N. (2006). The Knowledge Economy in Europe. *The Work Foundation*. London.

Cassim, S. and Padalkar, A. (2012). The Entrepreneurial City Possibilities for eThekweni. Unpublished presentation to the Deputy Mayor of the eThekweni Municipality, University of KwaZulu Natal, Westville Campus.

Coetzee, C. (2012). City Economic Convergence in KwaZulu-Natal – Integration or Isolation?. Unpublished thesis, University of KwaZulu Natal.

Creswell, J.W. (2003). Research Design: Qualitative, Quantitative, and mixed methods approaches. Second Edition. Sage Publications. London.

Crowley, L. (2011). Streets Ahead: what makes a city innovative?. *The Work Foundation*, London.

Dannestam, T. (2008). Rethinking Local Politics: Towards a Cultural Political Economy of Entrepreneurial Cities. *Space and Polity*, Vol. 12, No. 3, pp. 353–372, Routledge Taylor and Francis Group.

Department of Provincial and Local Government, South Africa, (Undated). Inanda, Ntuzuma, KwaMashu (INK) Nodal Economic Development Profile. Business Trust.

Department of Trade and Industry of the Republic of South Africa. (2005). Integrated Strategy on the Promotion of Entrepreneurship and Small Enterprises. Mini Print Hatfield.

Fontana, A., & Frey, J.H. (2005). The interview: From neutral stance to political involvement. In Denzin, N.K., & Lincoln, Y.S. (eds.), *The Sage Handbook of Qualitative Research*. 3rd ed. Thousand Oaks, CA: Sage, 695-728.

Helsley, R.W. and Strange, W.C. (2011) Entrepreneurs and Cities: Complexity, Thickness and Balance. *Regional Science and Urban Economics*, Vol. 41, No. 6, pp. 550-559.

Hirsch-Kreinsen, H. and Jacobson, D. (2008). Innovation in Low-Tech Firms and Industries. Edward Elgar Publishing Limited, Cheltenham UK.

Hutton, W. (2007). D/Building Successful Cities In The Knowledge Economy: The Role of Soft Policy Instruments. The Work Foundation.

Irwin Grayson Associates. (2010). Entrepreneurship development policies: principles & practice. [Online] Available from: <http://www.irwingrayson.com/igPapers.php> [Accessed 3 February 2013].

Isenberg, D.J., (2010). How to Start an Entrepreneurial Revolution, *Harvard Business Review June*, p.10.

Jessop, R. and Sum, N.L., (2000). An Entrepreneurial City in Action: Hong Kong's Emerging Strategies in and for (Inter) Urban Competition, *Journal of Urban Studies*, Vol. 37, No. 12, pp. 2287–2313.

Leitch, S., (2007). World Class Skills: Implementing the Leitch Review of Skills in England. Department for Innovation, Universities and Skills.

Mackenzie, N. and Knipe, S. (2006) Research dilemmas: Paradigms, methods and methodology, *Issues In Educational Research*, Vol 16

Mertens, D.M. (2005). *Research methods in education and psychology: Integrating diversity with quantitative and qualitative approaches*. (2nd ed.) Thousand Oaks: Sage.

National Endowment for Science, Technology and the Arts (NESTA). (2009). *The Innovation Index: Measuring the UK's investment in innovation and its effects*. NESTA Publishers.

Naudé, W., (2010). Entrepreneurship, developing countries, and development economics: new approaches and insights, *Journal of Small Business Economics*, Springer, Vol. 34, No. 1, pp 1-12.

O'Leary, Z. (2004). *The essential guide to doing research*. London: Sage.

Organisation of Economic Co-operation and Development (OECD). (2005). *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*. 3rd Edition. OECD Publishing.

Patton, M.Q. (2002). *Qualitative Research and Evaluation Methods*. Thousand Oaks, CA: Sage.

PricewaterhouseCoopers (2011). *Cities of Opportunity. The Partnership for New York City, Inc.* [Online] Available from: <http://www.pwc.com/gx/en/psrc/global/cities-of-opportunity-2011.jhtml> [Accessed 5th September 2012].

Somekh, B., & Lewin, C. (2005). *Research methods in social sciences*. London: Sage.

Statistics South Africa (2011). *Metropolitan Municipality Ethekwini*. [Online] Available from: http://beta2.statssa.gov.za/?page_id=1021&id=ethekwini-municipality [Accessed 22nd March 2014].

Szirmai, A., Naudé, W. and Goedhuys M., (2011). *Entrepreneurship, Innovation, and Economic Development*. Oxford University Press.

Van Winden W., Van den Berg L. and Pol P., (2007). European Cities in the Knowledge Economy: Towards a Typology. *Urban Studies*. Vol. 44, No. 3, pp. 525–549. Routledge Taylor and Francis Group.

Williams, C. (2007). Research Methods. *Journal of Business & Economic Research*. Volume 5, Number 3, pp. 65-71.

World Bank. (2009). *Doing Business 2010: reforming through difficult times*. A co-publication of The World Bank, IFC and Palgrave MacMillan. Washington.

Yin, R.K. (2011). *Qualitative Research from Start to Finish*. The Guilford Press. New York.

Zhang, Y., & Wildemuth, B. M. (2009). Unstructured interviews. *Applications of Social Research Methods to Questions in Information and Library Science*. Westport, CT: *Libraries Unlimited*.

Interview Date: 15 January 2013

1. Intellectual Capital and Innovation

Is enough being done to meet Durban's intellectual capital and knowledge requirements?

I don't think so. There is a lot more that can be don't to do that for instance innovation hubs can be set up. There are no innovation incubators in Durban except the smart exchange. It requires both a discussion fr a partnership between the City and business sector.

How can the government get involved? Is it just a funding problem?

No they must actually get involved. Funding is not a problem it depends on what the government wants to do in terms of the way it sees the economy of the city and province. It requires attracting intellectual capital to the city. If you take the city of Bangalore in India it decided to position itself as number one city for VPO and call centres. It takes 8 to 10 years to get a telephone line in India so what they did was instead of waiting 10 years to get a telephone line they over hauled the entire telecommunications of the city by setting up satellite telecommunications in the city and thereby networks and thereby regardless of what government and local telecommunications were producing the joined with private sector to establish an entire telecommunications networks viva satellite.

How do relevant person in Durban see the city and challenges.

Durban has great opportunities. We have 2 fantastic assets that are underutilised. 1 is the port of Durban and second is the sea side. If you harness those 2 assets coupled with the 3rd asset which is... we have a high degree of literacy and semi-skilled labour in the province compared to the rest of the country. If we harness these 3 assets and position the city we can see Durban emerging as a very strong contender to Johannesburg in terms of taking over the economic growth of the country.

Ok but you say that we have a literacy problem?

No we don't have a literacy problem. We have one of the highest literacy rates in the country. Durban KZN have a higher literacy and semi-skilled rate than the rest of the country.

We have natural assets. We have human resource assets and those can be put together to change the face of Durban.

Rating: 5

2. **Technological Readiness**

Can we compete with the developed world in technological innovation?

Ok that is 2 relevant questions to me. One is about existing infrastructure and 1 is about innovation. Competing in infrastructure I think we lag behind in competing in infrastructure but I think we have the ability to compete in innovation. So we don't have sufficient infrastructure. If you look at our broadband capabilities, our internet connectivity capabilities, our business processing capabilities we lag behind developed countries but in terms of innovation I think we have some great minds in Durban we can easily compete internationally if you provide the right environment for that. We are losing a lot of intellectual capital because people are moving to other parts of the world

Ok so how do we go about attracting and maintaining that?

Providing opportunity. If you take for instance Singapore an island nation and they have no natural resource at all except they decided to position themselves as the financial and intellectual capital of South East Asia. So they came up with the best schools and universities built from scratch, great emphasis on education, great emphasis on making business easier. Creating an environment to attract talent from the rest of the world, not only developing the local population. If you ask anyone, why the Facebook co-founder is sitting in Singapore, it's because he sees the opportunity in the region, because they created an opportunity to attract intellectual capital.

Innovation comes from people it doesn't come from technology. Given the opportunity you can compete on the innovation side of things. So you have intellectual capital, people with great ideas and minds but they can't put those into practice or to fruition because there is insufficient opportunity and infrastructure but competing on innovation: yes we can.

Rating: 4

3. Transportation and Infrastructure

Do you think Durban measures highly in this regard?

No, I will probably get shot down for saying so. I don't think we have harnessed the potential of creating a connected city so transport is in isolation, infrastructure is in isolation. A small example of how this can be put into place successfully is probably Umhlanga where you see a greater connectivity between the nodes of the city itself. The way the road network has been set up the way the connectivity between the buildings has been done, the way the transportation flows on the outer ring road up on the ridge. So if you look at the connectivity of the outer ring, the freeway the close proximity how the industrial parks have been set up, the way the different nodes of the residential, the tourist the shopping you see a greater deal of connectivity. You have industry you have sufficient housing on walking distance to work, you've shopping walking distance to home, you've got buses and taxi ranks all within walking distance. It's an example of how it can be done. It may not be the best or most efficient but it's an example of how it can be unlocked to unlock great value. The greater Durban isn't good.

Rating : 5

4. Health, Safety and Security

Is our health system sufficient to meet its demands?

No, the demands are increasing every day and we are not keeping pace with it so if you take our hospitals in the city and take the basic health care infrastructure in the city its reaching epidemic proportions already in terms of its failure so I don't think we are able to meet this particular demands at all. Taking Edward hospital its bursting at the seams, Albert Luthuli is able to cope because it's a newer hospital but Addington is not able to cope at all, it's a failing hospital. King George is now meeting the demand for the particular area.

Is it a funding issue? Why is it failing?

No there is plenty of money available. There is lack of expertise, lack of management, lack of a proper strategy, management administration infrastructure.

Is it at a political level, hospital admin level, medical staff?

I don't think it's the medical staff. It may be an admin level but that can be resolved by a political will. The political will can change your management. I don't think that political will has been applied properly as yet. All these hospitals are government hospitals and if the manager is failing it requires some political intervention and I don't think that intervention is taking place properly.

Maybe if they implemented a hybrid of private principles versus public so they retain public funding but keep it private

Well that is the theory behind the national health insurance scheme funded by government which will bring up the levels of the hospitals to the private sector like they do in UK and other parts of the world that would bring up the levels of those hospitals to the private sector, If you look at those that access private hospitals at the moment and the amount you pay into medical aid it makes it unaffordable to the greater of the population and asking everybody to contribute to bring up the levels isn't feasible.

I wasn't thinking of a health care cost, it should still be free but maybe applying strategies of the private sector.

Well then there is the argument that in order to do so you need to raise more funds and in order to do so you must raise more taxes and would we be happy to pay more taxes. You have sufficient funding at the moment to run it but if you are talking taking the levels higher but still making it free then that means a greater burden on the national budget which means higher taxes and rates and I don't think we have the ability to pay more taxes.

Rating: 4

5. Sustainability

Is Durban planning for a sustainable future?

Durban is planning for a sustainable future. If you look at some of the projects that are taking place around the city in terms of adopting new technology, adopting a cleaner environment and building practices. If you look at the national road development plan, there is a lot of emphasis on sustainability projects, so we have solar energy the city itself putting a lot of money into how its infrastructure is being rolled out as well so there is a great deal of emphasis being placed on sustainability. But I think leadership is the most important. We

have sufficient natural resource, skilled labour you can always create skilled labour but leadership is what's required to make a bold step to take the city forward.

How can they build leadership? Is it something they do in schools or universities?

Maybe I misunderstand your concept of leadership. I was thinking more in terms of existing leadership in terms of the city manager, the mayor, the provincial leadership. That needs to have political leadership will as to whether we must build leadership from a young age. One of the biggest problems that we have is to understand sustainability and environmental consciousness does not start in a person reaching old age it start young and we are not doing that. We are not teaching children not to litter, and reuse resources, to reduce their impact on the environment. So if those children do not start at a young, to get them to start 10 or 20 years from now when they are adults is too difficult. Take for instance, if you have to start now differentiating between your metals and your plastics when dumping your rubbish it is difficult to make that a habit, but if you start that off at a young age its easier. So it does require a great deal of education. We are tending towards being a city that has a great deal of natural resource to sustain its population but the population is growing the resources are reduced so we are going to have a problem in the future unless we learn how to reduce our impact on the environment we are going to have a problem.

It sounds like a problem of school curricula at a young age?

No it's not about curricula at a young age it's also about practical teaching at a young age, not exam modules just how do manage these issue.

Rating: 7

6. Economic Clout

Is Durban doing enough to attract investment?

Yes it is and no as well. Its doing more than other cities because there is a great deal of emphasis placed on Durban as a important city to the economy of South African if you look at the way the city of Durban and province of KZN have now started to position itself placing Durban as a gateway too business in Africa so yes its competing quite strongly on an economic basis and a number of large scale projects have now been proposed within Durban. If you look at the 14 presidential strategic initiative projects that have come from national government. 11 of those 14 are in KZN and of those 11 six are in Durban.

These include the new road connectivity and cargo hub between Durban and Gauteng, so there is a new road that has been proposed for the expansion of the existing N3 between Durban and Gauteng. Parts of the freeway will be new. There is a proposal of by passing Harrismith totally so making the movement from Durban to Johannesburg from 5 and a half hours to 4 hours cutting on down some time. Proposal of a rail link, strengthening of the rail link between Durban and Gauteng. The back of port expansion of the Durban harbour into the south industrial basin. It's a bit contentious at the moment because of the social impact but as a strategic project, the expansion of the Durban harbour itself, the positioning of the harbour as the biggest asset of the city in terms of the economic growth potential. If you look at the Durban harbour as it expands from the point area all the way through to Jacobs area. Now what they are talking about is extending it into the Jacobs area what is now called the south industrial basin, Jacobs and Clairwood, so instead of the containers residing in Maydon wharf they would then reside in Clairwood which would then be the container terminal.

There is 300 metres that separate the water to the main road itself. The container terminal can reside in Clairwood with ships coming right up to the port area. It's not a huge change of land mass it just means an extension of the back of port.

See city of Durban web site www.durban.org.za

Or google Durban city back of port, provincial growth development plan. It will give the entire growth development strategy for Durban over the next 20 years.

The 14 presidential projects sit under the president's office. He had a team of people across the country coming up with strategic investment projects. One of the members of that commission was Premier Mkhise who heads the Economic development portfolio championed for a lot of the projects to happen in KZN.

It's interesting that they managed to get most of the projects here in Durban, so obviously at a national level the political will is identifies durban as an extremely attractive city for growth and opportunity.

I don't think it's at a national level, it's the other way round. It's the city of Durban that positioned itself at the national level to say that this is a city that unlocks the future. As I said earlier on, if you look at the way Durban has positioned itself, as the gateway to doing business in Africa. So if you look at the port of Durban it's the busiest and largest functioning harbour on the continent of Africa. It competes with Alexandria in Egypt. In terms of

containerised traffic we are the largest on the continent. So with the expansion of the back of port we will in the next 10 years have coupled or in fact trebled the number of containers that would have passed through the port of Durban. So if you look at the main shipping lines, within the SADAC region the containerized goods entering into the SADAC region through the port of Durban so Durban positions itself as a citrus harbour, Port Elizabeth as a motoring harbour for the motoring industry, Richards bay has become the mineral harbour. So if you look at the main line of minerals leaving Mpumalanga region heading into Richards bay whereas durban is still containerised so most container good coming into the region are coming from or leaving durban.

Add to that the fact that the western seaboard of Africa we have oil and gas serviced out of the west of Africa. Now with gas being found on the eastern coast of the continent means there is a huge expansion of the oil and gas industry, durban becomes a key in the service of the oil and gas industry

Yes it is doing a lot to attract investment, no its not doing enough to attract.

Rating: 8

7. Cost

Are we doing enough to ensure that future generations are able to benefit from economic growth today?

I don't think so. I think we can do a lot more. The cost of living is increasing. We are coming to a point where the basic necessity which is a home has become out fo the reach of the average person so if the standard home is out of the reach of the average person the next few years if the cost of living increases as it is the middle income will find it difficult to afford a standard home. It's not just a capital cost but renovation cost. We need to do a lot more to create economic opportunity for the next generation.

How can we do that, is it based purely on growth and development or do you think its political economic will, policy decisions / interest rates or do you think empowerment is not happening fast enough.

Empowerment is not happening fast enough that true. If you talk about empowerment in the true sense of the word, it's not happening fast enough which means those that are affected are not getting the opportunity at all. In term of the interest rate it's not going to help

economic growth. Even in times when south Africa had high interest rates between 1990 and 2000 when interest rates were 27 % we continued to have economic growth so I don't think interest rates have a huge impact. They do have an impact but I don't think they have a huge impact on economic growth. But what does have an impact on economic growth is the ability to create opportunity. We need to harness that opportunity at the same time. So we are not doing enough to create entrepreneurs and give opportunities to entrepreneurship to nurture and sustain entrepreneurs. The future is not about being employed by business it's about people creating business to employ others. So we are not giving opportunity to increase the opportunity for others to create employment.

But that does stem from interest rates surely because if you look at London 2.5% versus 27% that a huge differential in your profit margin

That's assuming that the business needs to gear. It will not look at your borrowing, it's a material thing but if you look at your interest and savings rate in London its linked so if I was borrowing at 2.5% then I get 1% on my savings whilst if I borrow at 27% then I get 25% on my savings.

Does this have a big impact on savings?

Yes but that's a new debate on savings. We have no culture of savings if you look at Japan the average Japanese saves 30% of their salary whilst the average south African saves not more than 5%. No matter what you change you interest rate to the average south African employee is indebted to an average of 125% of his salary so that means his entire salary goes to service his debt in fact he borrows more to service his debt than he earns which continues the cycle. Unless you break the cycle of high borrowing, no matter what the interest rates is people will still continue borrowing.

The south African national defence force did study in 2002 on the personnel on the gearing ratio. The south African police department release a study in 2006 on the police. Amongst the 2 major components of government employees, if you look at the high growth rate of the micro loan sector that lends money against your salary of that industry it was based on the back of government employees.

Rating: 4

8. Demographics and Liveability

What can we do to improve transportation and improve the standards of living to Durban's residents?

I don't think it's a problem in Durban at moment, Johannesburg has bigger problem than Durban. We haven't reached that level of traffic congestion at the moment. One of the good ways that Durban was built is that if you look at the old town planning of Durban compared to Johannesburg is that in Johannesburg areas were built and then roads linked to those areas whereas in durban roads were built and then areas came about around those roads. So your road infrastructure came about first so if you look at the way roads link to areas is a lot more efficient than Johannesburg so we haven't reached the levels of congestion as Johannesburg so we have a lot more latitude in terms of congestion yet although you see evidence of it when people are leaving work and you see the congestion in certain areas. There are certain main link areas where congestion happens. as we go along the infrastructure will improve but rather expending infrastructure we are not creating opportunities so if you look at the main residential areas Kwamashu, Chatsworth, Phoenix which is inheritance of apartheid development system which never gave thought to the way the country is now so we don't have a good enough transport infrastructure in place rail is not there. If we had a high street rail system between Umhlanga and Amanzimtoti we would be able to unlock the people living in Amanzimtoti and working in Umhlanga and not congesting the road itself. Currently you have the congestion on the west of the city.

I don't think there are plans to link the city with the west of the city but there has been talk of creating a high speed rail link between the airport and the city like Johannesburg and Gautrain. It is a great project but there is not necessity at the moment.

There is a lot of underutilised land between the airport and Durban. Are there plans to develop that?

There is a debate around that. If you develop the land then you lose an entire sector of the economy from sugar cane in the agricultural sector. It impacts the economy of the province. You then import outside the province you bread basket and lose an export commodity being sugar. There is a balance between unlocking land for industrial usage versus the loss of an entire industry.

Forty five percent of the land of KZN is underutilised and sits in the Ingonyama trust which is a tribal authority and no development has taken place on this land. There is going to be change of that land.

So if they want to use that land they must buy it from the trust?

There is different strategy around that, rather than buy it they will lease it from the trust what we call public private partnership between the government, the trust and the private sector.

The Ingonyama trust represents the land that belongs to the tribal authorities which means that these are small villages, tribes and people throughout KZN. Under the provincial growth development plan the idea is to unlock the value that belongs to the Ingonyama trust.

The greater economic corridor is the city of Durban, Richards Bay, Pietermaritzburg, Ladysmith and Harrismith. The triangle starts from Durban to Piet Retief in the north and Newcastle in the West, called the Zulu land triangle. There is little economic activity the greatest problem is lack of infrastructure connectivity. One the greatest contributors to the lack of economic activity is lack of infrastructure and connectivity. There is a main freeway running from Durban to Richards bay but nothing running north. If you do that you unlock all the little towns in the north creating huge eco activity.

Rating: 5

9. Lifestyle assets

Urban planning focuses more on shopping centres than mind zones which facilitate growth of business. Are we are meeting these needs?

Bicycles in Durban won't work because of the hills. Also the humidity of the City. There is no only challenge with the topography of the city but also psychological due to humidity of the city. But we can create nodes to create opportunities. In the city could stop traffic coming into the city like they have done in London and then encourage people taking cycles.

There is educational aspect as well.

We have a lot of green space with parks. We have the best weather in the country. People don't use parks in city after work.

I was thinking of mind zones to attract people?

Shopping centres are doing that. If you look at gateway it has everything. People want to do their basic shopping. The idea of shopping centres is to keep people away for longer. This is done by creating activities for children, for the father and mother and entire family.

We are doing a lot but are the citizens using it no.

Rating: 6

10. Informal trade

It's been suggested that innovation is less important for growth in low-income developing countries than advanced economies. Do you agree? How and under what conditions do entrepreneurs innovate in developing countries? What can be done to support innovation in Durban?

Necessity is the mother of innovation. We have a lot of necessity in the city. Innovation is extremely important to developing countries. Because it brings about new opportunities. If you look at the kinds of business that drive. We have not done enough in South Africa to inculcate entrepreneurship but we talk about it at a formal level. We are not talking enough about it an informal level. If you look at the rest of Africa necessity is the mother of innovation.

Small enterprises provide solutions to economic problems. India has a great deal of innovation at micro level. You won't find a company making an entire stove. They have villages that specialise in components of the stove and another for building the stove. This creates opportunities. So micro-enterprises assist in growing the economy and the city.

Talk shops are not the best to talk business I think creating hubs that allow people to set up micro business. If you look back a few years ago there a few centres of set up in the city known as small business development community which set up small industrial hubs around the city of small mini factories of 50 to 60 square metres. If you look at the businesses that came out of those hubs they are now established businesses that employ 30 to 40 people which started as one man shows growing out of necessity we are not doing enough to establish these kinds of businesses in an informal environment. The one man show can drive eco growth. We tend to concentrate on formal business which has potential to list of stock exchange we are forgetting to focus on micro, informal one man trader. If you look at

ladies on beach that service curios. they are sold as south African but they come from other parts of Africa via wholesaler instead of producing them locally.

Rating: 4

11. Ease of doing Business

What can be done to make it easier for small business to start up and continue doing business?

If you look at south Africa at the moment it takes up to 60 days to set up a business where other places they are looking at 15 days below.

Imagine if somebody approaches you with an idea to set up a business but that it will take you 2 months to do so, after 2 months he will lose a little of the euphoria that he started with. The longer it takes to start a business the longer it takes to generate income.

Rating: 4

12. Micro-enterprise development – net business start-ups

Is the city doing enough to support the growth of Micro-enterprise development?

The city is doing a lot. You have the city's SMME unit, the city's partnership with SEDA and the private sector, the major companies and micro enterprise development. There is a lot of emphasis on workshops and seminars and development generally.

Rating: 7

13. University / industry interaction

Is the government doing enough to nurture public / private partnerships that will encourage business development?

Universities are starting to do so. I had a chance to chat to the chancellor of the business school and a few of the other tertiary education institutes and out of the universities there is a high level of teaching influence on lecturers and curricular unfortunately the graduates are disconnected with what industry requires. University graduates come out with theoretical

knowledge but are unemployable by business. Business are finding that the people they employ need training as graduates to ensure that are equipped to do the job they are qualified to do. Business are reluctant to employ recent graduates unless they have some experience and training so the universities are starting to look at the way curricular are structured and what business require. So even at government level within provincial treasury. MEC for KZN treasury Cronje has a unit within the department called the tertiary skills development unit. They are looking at how universities can come up with the right curricula.

Even government is finding that they are employing people with degrees from reputable university's without the skill or practical experience to be employable. So they introduce the internship programs. We can encourage this in the private sector to produce internship programs.

Rating: 6

14. Presence of entrepreneurs

Are entrepreneurs providing the necessary skills and services for the development of Durban?

There are 2 aspects of this. are we getting entrepreneurs that are growing the economy. Well are we encouraging entrepreneurship. I don't think we are. If we encouraged entrepreneurship we would get th entrepreneurs that would contribute to the city. The second part is that those that are entrepreneurial are they contributing to the next generation, I don't think so.

There is also an opportunity that comes to mind that those successful entrepreneurs sharing their knowledge with the next generation to encourage them to become entrepreneurs. If we had people like Steve Jobs coming to Durban talking about their experience and challenges and how he over-came those challenges it becomes motivation to them we don't have mentoring programs. There are small organisations doing a small amount of mentoring but we require a high degree of mentoring.

If you take a person like Raymond Ackerman teaching young entrepreneurs and imparting some of his skills and encouraging the next generation or Mark Shuttleworth or Patrice Motsepe. That is what we require.

Are the incubators providing the skills durban requires? Are the entrepreneurs providing the requires skills of the city or just what they think the city requires?

I would assume that it's what they think the city wants. I don't think a study has been done in this regard.

Rating: 4

15. Perceptions of Entrepreneurs

Does the city perceive entrepreneurs as a class that can contribute to innovation and growth?

Yes they do. They understand that entrepreneurs are the drivers of the economy, they encourage people to become entrepreneurial. They have created incubators and hubs but there is no common strategy. The business support unit, Durban tourism, Durban invest Durban investment promotion all have different strategies. There is no common strategy or link between them. Unless they come up with a common strategy that will unlock the potential of the city.

That comes down to leadership?

It's about whether the people have approached the city and said as the business sector, as the entrepreneurial sector or academic sector or as the graduate school of business suggesting research findings how can research flow back into the city. There is little communication between all the people

Rating: 6

16. Policy Arrangements for Entrepreneurship Support

Are we providing enough support to entrepreneurial growth?

We can do a lot more. We need entrepreneurial hubs that create flow of information, work opportunities there is little flow of information. There are tender notices that go around There are few manufacturers geared toward the export market.

Rating: 5