ISCTE Business School
Instituto Universitário de Lisboa

DOES SOUTH AFRICA HAVE THE POTENTIAL TO EMERGE AS AN ATTRACTIVE OUTSOURCING/OFFSHORING DESTINATION FOR INFORMATION AND TECHNOLOGY SERVICES?

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Abstract

Weathering turbulent economic environment in the past decade, the global Information, Communications Technology industry is restructuring and the low-income nations are becoming the major suppliers in it. This study aims to assess the attractiveness of South Africa as an outsourcing location for IT services. The idea for the study emerged from a preliminary research on the topic. As a result it became evident that the topic is not fully covered yet. Therefore, the study is exploratory in its nature, where the fieldwork and the data collection are the main building elements in the theoretical propositions. This study emphasizes on the concept of outsourcing practice, the relevant benefits and constrains, and the motivation of the companies to pursue an internationalization strategy. The macro-economic analysis depicts the relevant trends that affect the performance of ICT sector in South Africa and the factors that shape the national competitiveness. In pursue to confirm the validity of the findings, the opinion of three local IT companies is collected in the form of in-depth interviews. Based on the previous findings, a general recommendation about the attractiveness of South Africa is prepared. The study suggests that South Africa has the potential to emerge as an attractive location for outsourcing of IT services. The outcomes aims to attract the attention of both scholars and business practitioners in pursue to serve as a prelude for future, more extensive, researches.

Key Words: South Africa, Outsourcing/Offshoring , Information and Technology Services, Information Technology and Communication Industry

JEL Classification: M16 - International Business Administration

Resumo

Ao passar por tempos económicos tempestuosos na última década, a industria global de informação, telecomunicações e tecnologias encontra-se em processo de reestruturação e as nações de baixos rendimentos convertem-se nos maiores fornecedores nela. A presente investigação visa avaliar a atracção da África do Sul como lugar de outsourcing para os serviços IT. A ideia da investigação surge do estudo preliminar do tema. Como resultado tornou-se claro que o tema não está ainda bem desenvolvido. Eis porque a investigação é de exploração) pelo seu carácter, onde os estudos de campo e a colheita de dados são os principais elementos edificadores nas propostas teóricas. A presente investigação sublinha o conceito da prática de outsourcing, as respectivas vantagens e limitações, bem como a motivação das empresas de implantação da estratégia de internacionalização. A análise macroeconómica ilustra as respectivas tendências que influem na apresentação do sector IKT na África do Sul e nos factores que formam a competitividade nacional. Para confirmar a validez dos resultados, as posições de três companhias IT locais foram recolhidas sob a forma de entrevistas aprofundadas. Com base em constatações anteriores foi elaborada una recomendação geral sobre a atracção da África do Sul. O estudo sugere, assim, que África do Sul tem potencial para emergir como uma localização atractiva para outsourcing de serviços de TI (Tecnologias de Informação). O estudo visa atrair a atenção tanto dos cientistas como dos círculos de negócio e servir de preâmbulo para as futuras investigações mais amplas.

Palavras-chave: África do Sul, Outsourcing/Offshoring , serviços de Tecnologias de Informação , Informação, Telecomunicações e Tecnologias Encontra

Codificação JEL: M16 - International Business Administration

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Glossary and abbreviations

BBBEE Act	Broad-based black economic empowerment Act
BEE	Black economic empowerment
CF5	Programming Language
CO2	Carbon Dioxide
DESTEP Analysis	Demographic, Economic Socio-cultural, Technological, Environmental and Political-legal analysis
EU	European Union
EUR	Euro
EUROSTAT	Statistical Office of the European Communities
FET colleges	Further education and training colleges
GDP	Gross Domestic Product
GNI	Gross National Income
i.e.	In Example
ICT	Information and Communication Technologies
IT	Information Technology
OCED	Organisation for Economic Co-operation and Development
OE	Operational Effectiveness
PPP	Purchasing Power Parity
R&D	Research and Development
RBV	Resource Based View
SMMEs	Small, medium and micro enterprises
SQL	Structured Query Language
UK	United Kingdom
US	United States
USD	United States Dollar
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

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Executive Summary

This study aims to assess the attractiveness of South Africa as an outsourcing location for IT services. The aim is achieved through understanding the outsourcing process, the benefits and risks derived from it. A macro-economical analysis is conducted in terms to understand the current trends on various national levels related to the ICT sector. In-depth interviews with three local companies are conducted to supplement the final recommendations regarding the potential of South Africa to become a major global supplier of ICT services.

This study is conducted in a case study context and it is considered as exploratory in its nature, where the fieldwork and the data collection are the main building elements in the theoretical propositions. The outcomes of the study aim to attract the attention of both scholars and business practitioners in pursue to serve as a prelude for future, more extensive, researches.

The outsourcing decision is defined as the act of transferring some of a company's recurring internal activities and decision rights to outside providers, as set forth in a contract. The main driver for outsourcing of business processes is the cost benefit.

Furthermore, the companies are capable to focus on their core competencies and they have more resources available for investment in areas that sustain their competitive advantage. The outsourcing companies also enjoy the benefits from the economies of scope and scale of the external services providers.

The macro-economic analysis concludes that despite the relatively high ICT cost in South Africa, the country remains a significantly cheaper location compared to the high-income nations. Mean while it loses its competitive edge in relation to the low-income nations. However, the costs issue is manageable and the focus should be targeted at the innovation level in the quality of products and services.

The macro-economic analysis provides examples that are intended to counterbalance the existing disadvantages such as reforms in the educational system and increased supply level of talents that will meet the needs of the ICT sector. Examples such as enhancement in the technological infrastructure through a partnership between states-owned companies and private companies and the governmental readiness to support certain types of firms additionally support the positive prospects for the international competitiveness of the ICT sector. As overall results,

the operational costs of the ICT sector should account a decrease while the quality and reliability of the products services should increase. Through increasing the competitiveness of the ICT sector, the attractiveness of South Africa as a favorable outsourcing location for ICT services also increases.

The in-depth interviews provide the viewpoint of three different types of companies in terms of business strategies. By comparing them, it is evident that there are two main models for development of an IT company in South Africa. The two options are either to form the so-called "Black Company" or "White Company". A company is considered as black when it meets the criteria of Broad-based black economic empowerment Act while a white company does not do that.

The study results suggest that South Africa has the potential to emerge as an attractive location for outsourcing of IT services. Despite the fact the country is considered as upper middle-income nation it is evident that the country provides a business environment that shapes the international competitiveness of the local ICT sector. The restructuring process that takes place within the global ICT industry compensates the small domestic market. By enhancing the technological level within the country it is possible to expect a development in the domestic market size and its sophistication. The country already has established a reputation for its innovations skills and has attracted the attention of the foreign investors.

There are various constraints that have to be resolved in pursue the ICT sector in South Africa to increase its competitiveness. At present the government is attempting to improve the national skill level and there are enough suitable human resources available. However, the quality of the education system needs to be improved. Achieving that, the ICT sector will benefit from the economies of scale. It will increase its innovation skills as well as its reputation for a provider of reliable and competitively price based IT services. Further on, the government needs to tackle the red tape in regards to procedures and time required to start-up a new business as well as the relatively high ICT costs. Another important issue needed to be resolved is the high crime level, which affects the overall image of South Africa. There are evidences that there is an improvement in the field and it can be expected further progress when the unemployment rate decreases.

1. Introduction

" Research by OCED (2010) suggests that following times of turbulent global economic environment, the prospects for the global Information and Communication (ICT) industry development are good and the industry experiences a continues restructuring trend with non-OCED economies such as India and China whose importance as suppliers of ICT goods and services inclines". The global industry-restructuring pattern envisions an opportunity for growing economies such as South African one to become a major player in the supply of ICT related goods and services.

This study aims to assess the attractiveness of South Africa as an attractive outsourcing location for IT services. The aim is achieved through understanding the outsourcing process, the benefits and risks derived from it. A macro-economical analysis is conducted in terms to understand the current trends on various national levels related to the ICT sector. Finally, in-depth interviews with several local companies are made to supplement the final recommendations regarding the potential of South Africa to become a major global supplier of ICT services.

First of all to understand what is the meaning outsourcing of IT services, a definition of IT department within a firm is needed. "Bruton (2004: 4) argues that "*...the IT department is a section of the corporation serving the information and communication needs of the business*"". The organizations develop their own capabilities by using its internal resources. The IT services can be acquired from external vendors and "Carmel &Tjia (2005: 26) define them as "…*IT services firms, commonly called providers, which are the suppliers of contracted services in outsourcing (or out-tasking) engagements*"". In addition there is a third option available in which the organization retains the ownership of the IT service provider under the form of separate business entity, which competes directly on the market. The focus of the study is directed toward the assessment of outsourcing process of IT services from the corporate management standpoint.

The management decision to keep in-house or to outsource the IT services is strictly connected with the strategy of each individual business organization. The study emphasizes on

the motivation of the business strategy of each enterprise. "Barney(1991: 101) introduces the concept of Resource Based View (RBV) of the company which defines "…*the firm resources include all assets, capabilities, organizational processes, firm attributes, information, etc. controllers that enable the firm to conceive of and implement strategies""*. In the theoretical framework, "Barney (1991: 102) matches the internal strengths with the external environment of the firm in pursue to define the "…*sustainable competitive advantage"* which is considered "…*when a value creating strategy not simultaneously being implemented by any current or potential competitors and these firms are unable to duplicate the benefits of this strategy""*. For that reason a review of the past and the current global outsourcing practices is conducted. Furthermore, the study focuses on South Africa as potential attractive outsourcing location and analyses the possibilities for future trends of outsourcing practice. In pursue to conduct the study and to assess the attractiveness of South Africa as an emerging outsourcing destination a primary data collection is necessary. The information is derived through interviews of managers of locally based companies that possess the talent to become the IT services providers. The secondary data collection is based on previous researches on the topic of outsourcing and the applications in the IT services. Another key source of information are academic journals, which are a guide to the accuracy of the academic approach and the relevance to the current economic period.

1.1 Project Purpose

The main purpose of the project is to assess the attractiveness of South Africa as an outsourcing location for IT services. This study emphasizes on the concept of outsourcing practice, the relevant benefits and constrains, and the motivation of the companies to pursue an internationalization strategy. The macro-economic analysis strives to depict the relevant trends that affect the performance of ICT sector in South Africa and the factors that shape the national competitiveness. The primary data collection serves the function to envision the real business environment in the ICT industry.

The research has a purpose to attract the attention of both scholars and business practitioners in pursue to serve as a ground floor for future, more extensive, researches. The aim

of the study is to create feasible recommendations based on the findings in the study, which are aligned with historical events, the current economic situation and the expected future trends.

1.2 Project Justification

Following a preliminary research on the topic of outsourcing of IT enabled services in South Africa, focused on the data bases of major online academic libraries and managerial journals; it became clear that the topic is not fully covered yet. Currently, most of the publications represent peripheral studies that do not fully cover the chosen topic. As a result the idea for an exploratory case study research is born.

The case study format, which focuses on a small number of companies, ensures an opportunity to create a greater future value for following more extensive researches. Considering the scare resources allocated for the research, it is expected to achieve a high academic value in relation to the implemented resources.

The financial resources are the main factor that serves as a limitation of the research structure and its scope. However the limitation is overcome by focusing on a small number of companies that offer or already utilize the services. The selected research method brings the academic means required to meet the original purposes of the study. It is important to highlight that the access to those companies is perceived as a vital intangible asset that contribute to the successful completion of the study.

Secondary data collection compensates the lack of financial resources. The existing researches and publications serve as a foundation for additional interpretation of the data that has been already collected by other parties. Apart from the financial aspect, the time and the human resource factors are also partially compensated by the benefits of the secondary data application.

As a result of the project valuable recommendations are achieved. They are based on both practical and theoretical approaches toward the study problem. The overall benefit is positive in terms of input resources and the achieved results.

2. Literature review

2.1 Outsourcing Concept

Outsourcing is a broad term with a fuzzy definition. “Greaver (1999: 3) refers that

outsourcing*"…is the act of transferring some of a company's recurring internal activities and decision rights to outside providers, as set forth in a contract""*. However, in academia and practice there is a slight misalignment in the definition of outsourcing. The discrepancy is derived from the degree of the firm involvement with the external service provider in terms of a transfer of resources (i.e. related human capital, physical or other assets). "Linder (2004: 26) refers to the belief that outsourcing involves a transfer of company resources to the external partner "…*Some argue that it isn't outsourcing unless a company's employees transfer to the service provider""*. The distinction is relevant in determining the extent to which the firm and the external provider interact with each other.

The geographical location is another aspect, which influence and distorts the single definition of outsourcing. The primary importance of the factor can be tailored to the need to differentiate outsourcing from offshoring practice. The two practices differ from each other in terms of implementation but they share the same goals.

In essence outsourcing and offshoring phenomena are quite similar in nature but they are not synonymous. "Contractor F. J., Kumar, Kundu, and Pedersen (2011: 8)argue that both of them represent "…*the logical outcome of the strategic focus on "core competence"*". This implies that firms should relief themselves from functions, which cannot be best performed internally at home, to external providers or foreign countries. "Sass and Fifekova (2011: 1599) define offshoring as "*... the relocation of the business process across national borders, where it may be provided by a subsidiary (captive offshoring)*"". From economical standpoint it makes sense to relocate some of the activities, while keeping the ownership, into a foreign country in attempt to maximize the benefits provided there. In comparison, outsourcing of services may or may not require a geographical relocation into a foreign country.

2.2 Benefits of Outsourcing

From organizational standpoint, an outsourcing decision of a firm appears to be on macro level. Nevertheless, in practice, the outsourcing engagement for each individual activity requires an independent justification, which is a decision on a micro level. Therefore, the approach toward delineating the direct benefits is broad in its nature. "A list some of the main benefits of outsourcing are"*...reduced costs, greater flexibility, and increased scope economies* (Ellram,

Tate, Billington 2008: 148-63)"". As mentioned earlier, outsourcing process allows the firms to focus on their core competences, which means that the operational accent falls to the activities that are performed best. Following this logic, through access to skills and new technologies, the firm will achieve overall improvements on operational level in the fields where it used to be behind its rivals.

Cost reduction is one of the most popular benefits derived from outsourcing practice. The direct result of cost reduction is the increased financial resource of the company, which can be reinvested, distributed among the shareholder or shared with the customers. "Corbett (2004: 10) states that "…*Through Outsourcing, the organization moves toward a business structure where it's able to make more focused investments in the areas that provide its unique competitive advantage""*. This is a deliberate decision to sustain the competitiveness of the firm based on what it does best. It may attract new investors, new customers or develop new products or services.

The cost reduction benefit might be the best-known benefit from outsourcing practice but it is not the sole one. "Greaver (1999: 34) argues that outsourcing practice reflects the firm by an "…*Increase Flexibility to Meet Changing""*. Flexibility can be based on the cost structure of the firm. "According to Corbett (2004: 13) outsourcing enables the opportunity for a firm to shift towards *on-demand model"*. In essence, the firm can react to the market changes and this reflects the investment level in operational activities according to the current market demand. It is also a useful benefit to meet the constant changing business environment and technology enhancements.

Economy of scope is another important benefit derived from outsourcing. "Corbett (2004: 14) refers that "…*service providers are more specialized and are serving many customers they have a much deeper talent pool""*. Therefore, firms gain access to specialized skills and technologies which otherwise have to created internally. Furthermore, the external providers tailor their activities toward the best practices available through their own research and development programs and the gained experience through operations. Of course, depending on the degree of partnership, there might also be joint efforts in the field in obtaining greater mutual benefits.

2.3 Constraints of outsourcing

Outsourcing and offshoring practices require a disaggregation, a reconfiguration and a dispersion of some of the firm finer sliced value chain activities into external providers. "Contractor F. J., Kumar, Kundu, & Pedersen, (2010: 1420) argues that the primary fundament of decision lays on the function and the time factors".

The function factors assess the extent to which value chain activities are sliced down into numerous sub activities. For each sub activity the decision is carried on the base of an organization mode (outsourced) such as in-house, contract provider, alliance. On the other hand, geography (offshoring) decision is driven by the comparative advantage provided by the external firm environment in the foreign location.

The time factor is critical factors for the outsourcing/offshoring decision. In essence, it is important to achieve a coherent global system in terms of chronology in coordination and integration of the activities of the firm. In case of any misbalance in the coherence in the system, a rise in the cost may be inquired.

Function and time factors are key determinants of the success rate of the outsourcing decision. From managerial standpoint, the complexity level in the system increases. "Contractor et al. (2010: 1421) suggest that the relocation of a bundle of activities, beyond optimal point, may increase the managerial complexity and communication efforts". As a result of the increase of management and communication efforts, the overall cost may be observed.

The primary benefits of outsourcing are based on cost benefits. However, a loss of control issue emerges when certain activities are relocated to an external provider or into a foreign country. "Contractor et al. (2011: 29) argues that "…*certification and quality concerns"* arise due to the fact there are not uniform regulatory standards and each "…*government sets different standards, requirements and procedures*"". The threat can be surmounted through closer partnership with the external provider in terms of exchange of resources (i.e. human capital and technology). Another possible way involves a selection of contractual relationships with providers that possess managerial and reporting skills that can potentially decrease the level of the threat.

The cost based benefit driver and the comparative advantage of certain nations lead to formation to offshore zones in the emerging countries such as India and China, Bangalore.

"According to Contractor et al. (2011: 29) "*...the rising labor and other costs at offshore locations*" diminish the advantage". Considering the substantial costs associated with the initial setting and operations, the outsourcing and offshoring practice meets a new barrier. In comparison, "Farrell (2006: 85-92) argues that the competition among offshore nations will put a price ceiling, which would be approximately 40% cheaper than US based wages in IT sector". The question for firms is in which nation they should base their foreign operation according to additional benefits they might obtain other then cost driven considerations.

The close collaboration with the external provider leads to a threat associated with a leakage of knowledge. When the technology is shared with the external provider, he can master the skills and to become a competitor to the firm that was originally a customer. On the other hand, the personnel of the external provider can leave the company and to transfer their knowledge and skills to the rivals. Privacy and data security is strongly related to the knowledge leakage threat. The external service provider has access to the information of its client. "Contractor et al. (2011: 30) discuss the option for the IT professional to encrypt the information and that it is a common practice for the outsourcing companies to use different service providers and to divide the data among them in a way that no single unit can assemble the whole record".

"According to Contractor et al. (2011: 29) xenophobia and protectionism in advanced economies is a serious barrier for outsourcing and offshoring". The authors provide an example from Dell Inc. who was forced to move back their call center from India to US due to poor services and language difficulties. This can be a serious damper for the practices especially in the customer services sector and not that much in the manufacturing and R&D sectors. However, the quality and language level are not the sole reasons. Outsourcing and especially outsourcing offshoring practice result in job loses in the home countries.

Outsourcing and offshoring practices may or may not influence the firm reputation. From customer standpoint the practices are sensitive issue. In case the speed of service quality is increased or the price is lowered, the concerns are put in rest. On the other hand, "Corbett (2004:19) states that the third party involvement does not have to be visible or in other cases it might be used to enhance the brand image by using well known and customer approved brands such as FedEx delivery service".

Benefits	Constraints
♦ Focus on the core competences ♦ Free resources available for investment in areas that sustain the competitive advantage ♦ Access to skills and new technologies ♦ Reduced costs ♦ Greater flexibility to meet the changing external environment ♦ Increased economies cope	♦ Increased managerial complexity ♦ Increased communication effort ♦ A potential loss of control ♦ A potential leakage of knowledge ♦ Privacy and data security issues

Table 1 The benefits and the constraints in outsourcing practice Source Adaptation by the author

2.4 Outsourcing in the strategy implementation

In pursue to describe the way outsourcing phenomena incorporate in the strategy of the business organizations, the meaning of term strategy has to be revealed. "Grant (2010: 13-14) looks at the origin of the word "*…the term strategy derives from the Greek word strategia , meaning* ***"generalship"".*** However, it is possible to trace the roots of the word back to 500 BC in the Sun Tzu's classic "*The Art of War* (Tzu, 1988)". Through the years "strategy" found different application including the business terminology. "Grant (2010: 14) defines its contemporary meaning, in business content, "...as *the overall plan for deploying resources to establish a favorable position"".* From the statement it is possible to conclude that there is a strong relation between usage of resources, strategy, and firm competiveness.

The concept of strategy finds applications in various business organizations. "Lasserre (2003: 34) defines the three most common types of strategy as "*…business strategy (competitive strategy) and corporate strategy*"". While the business strategy is related to the operational level in certain industry segment and provides a definition of the means of the business that want to compete in its segment, the corporate strategy deals with a portfolio of businesses that a company has ambition to be in and the way of allocation of resources among them. In similar manner, if the served market is global, the company will follow a global business strategy, which defines how it will compete across the world. On the other hand, global corporate strategy incorporates the strategic choices in regards to regions and countries in the business portfolio.

In 1990 a new business management tool, known as Resource Based View (RBV) of the firm emerged as a principal base of firm strategy formulation. The approach in the RBV system

is based on the assessment of the firm resources, which is the foundation of the core competencies and defines the internal strength of the firm. "Barney (1991: 99) suggests "*…that firms obtain sustained competitive advantages by implementing strategies that exploit their internal strengths, through responding to environmental opportunities, while neutralizing external threats and avoiding internal weaknesses""*. The sustained competitive advantage is considered as the primary source of profitability, which is the key goal of any business organization.

RBV approach requires the in-depth knowledge and understanding of the core competencies of a firm. "Prahalad and Gary (1990: 82) refer to them as*"...the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technology""*. The focus is targeted at the way firms utilize the internal resources. In other words, the resources represent the inputs for the activities that take place. "Barthelemy and Adsit (2003: 88) characterize the core competencies as "*...the resources and capabilities of the organization that are valuable, difficult to imitate, and difficult to substitute""*. The importance of the definition is derived from the need of awareness of the source of differentiation among firms. The way they function and they perform their activities in strive to increase their competitiveness.

Organizational competitiveness plays a key role of the firm performance. "Porter (1996: 61) connects operational effectiveness and strategy by arguing that they "*...are both essential to superior performance, which after all, is the primary goal to each enterprise""*. However, a distinction is made that they operate in different ways.

"According to Porter (1996: 62) a company can outperform its rivals in long run if it "*... delivers a greater value to customers or creates comparable value at a lower cost, or do both""*. In terms of profitability, the greater value offered to the market leads to the charging of higher unit prices. On the other hand, when greater efficiency is achieved lower unit based prices can be charged due to the lower costs incurred from operations.

In essence companies differ in costs and prices due to the various business activities they undertake. A company has two means to differentiate itself from the competitors. Either it performs the same activities (i.e. training employees, calling customers, billing, etc.) more efficiently or it chooses specific activities and the way they are executed. From cost based

perspective, the costs are incurred through performing activities. Therefore, the greater efficiency in particular activities lead to a lower average product unit price. Furthermore, the selection of the activities and the way they are performed serves as a foundation of differentiation. "Porter (1996: 62) argues that "…*Activities, then, are the basic units of competitive advantage".*

"Porter (1996: 62) refers to Operational Effectiveness (OE) "…as *performing better than the rivals do"".* Efficiency, the superior usage of inputs (i.e. decreased number of defects), is an important part of the OE. However it is not the limiting factor. "Porter (1996, 62) argues that some companies manage to achieve OE because they "*...eliminate wasted effort, employee more advanced technology, motivate the employees better or have greater insight into managing particular activities or sets of activities"".* OE has a direct positive impact over the costs incurred from operations. In that sense, the result is that the companies that outperform their rivals can charge less per unit base compared to the competitors. However, the reasonable question that emerges is whether or not OE is enough to maintain long term competitive advantage for the firm.

From practical standpoint OE is not sufficient for a company to maintain a competitive advantage in the long term. "According to Porter (1996: 63) "…*competitors can quickly imitate management techniques, new technologies, input improvements and superior ways of meeting customers' needs"".* After all OE is about achieving excellence in an individual activity. The common practice of usage of external consultants further accelerates the process and diminishes the gap between firms operations. Furthermore the benchmarking analysis of industry best practices leads to similarities in the activities' performance. Strategy appears to be the logical continuance of the OE concept that should lead to differentiation in activities' performance.

The general meaning of competitive strategy is related to the idea of being different. "Porter (1996: 62) refers to the essence of the strategy "…*is choosing to perform activities differently than the rivals do or to perform different activities than rivals"".* In comparison to OE, strategy focuses on combining a set of activities. In theory, there are three distinct sources of strategic positions that are not mutually exclusive. "Porter (1996: 66) introduces the concepts of "*…1) variety-based positioning, 2) need based positioning and 3) access-based positioning"".* *"*They represent an in-depth look and understanding of the three generic strategies "…*cost leadership, differentiation and focus*" introduced earlier by Porter (1985: 11)". The strategic

position plays a key role in the process of obtaining a competitive advantage. However, this choice serves as a foundation on which other factors should be considered.

In a similar manner to the OE, competitors expose the strategic position of a firm to imitation. In pursue to achieve sustainability in the strategic position trade-offs should be considered. "Porter (1996: 69) argues that trade-offs "…*create the need for choice and purposefully limit what a company offers""*. In other words, they occur when activities are incompatible and one activity requires something more on the expense of another. Therefore, the trade-off decision plays a key role of the successful performance of companies. "Porter (1996:68-69) explains that trade-offs arise for the following reasons "…*1)inconsistence of the image or reputation, 2) from different positions (with their tailored activities) and 3) limits of internal coordination and control""*.

Position choices define the activities and the way a firm performs them. It also deals with the interaction of the activities and the eventual trade-offs that will emerge. A strategic fit is inline in pursue to enhance the position uniqueness and to augment the trade-offs. A precondition of achieving a strategic fit is that instead of looking at the company as a whole, it should be seen as core competencies, critical resources and key success factors. "Porter (1996: 71-72) defines three levels of strategic fit of activities "…*1) simple consistency, 2) activities are reinforcing and 3) optimization of effort"". "*Porter (1996: 70) reasons that the strategic fit "…*locks out imitators by creating a chain that is as strong as its strongest link""*. The strategic fit requires that activities complement each other. As a result a greater economic value is created. The strategic fit is an important element in the strategy because it determines its successfulness in terms of competitive advantage and sustainability. "Porter (1996: 73) argues that "...*it's harder for a rival to match an array of interlocked activities than it is merely to imitate a particular sales approach, match a process technology""*.

Until now it has been discussed the outsourcing concept and the benefits derived from it. In pursue to find the strategic fit of outsourcing concept into the firm strategy implementation; the strategy concept has been developed. Further on a discussion over the outsourcing practice as a strategy is provided.

The common understanding of outsourcing concept includes the disaggregation of companies' value chains and the allocation of some of the activities into an external organization.

"Contractor et al. (2010: 1417) argue that "…*Offshoring and outsourcing are treated as strategies that need to be simultaneously analyzed, where just 'core' segments of the value chain are retained in-house, while others are optimally dispersed geographically, as well as dispersed over allies and contractors""*. Since outsourcing practice is treated as a strategy it is required to meet the criteria's for successful strategy including the consideration for the company's strategic positioning, the trade-offs, which are required to be made, and the strategic fit on operational level.

"Contractor et al. (2011: 6) define a trend that "…*most major companies are in the process of fragmenting themselves by examining each piece of their operations and asking how it may be deconstructed""*. Traditionally, the spectrum of activities in a firm has been seen as "core" and "non-core". However, it is possible to further slice down the "core" activities of a firm. "Quinn (1999:213) introduce the idea that "…*(1) core activities, those that the firm performs better than any other company (best-in-world capability); (2) essential activities, those that are needed for sustaining its profitable operations; and (3) non-core activities, those that can easily be outsourced""*. As mentioned earlier, the non-core activities can be outsourced. However, it appears that the essential activities should be treated as "non-core" activities. The general conclusion derived from the idea is that the essential activities can be relocated to an external provider.

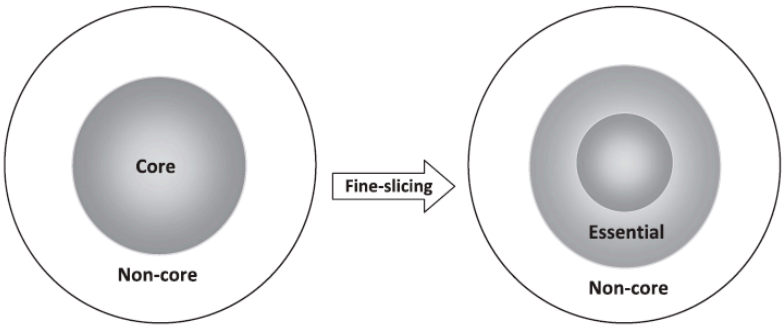

Figure 1 Relocation of High Value Functions. A finer distinction between core and non-core activities Source (Contractor F. J., Kumar, Kundu, & Pedersen, 2010)

2.5 Drivers of business internationalization

From historical standpoint international business can be traced back to the seafaring traders of Greece and Egypt through to the still adventurous endeavors of the trading companies of the 17th and 18th century. A century later, in the recently industrialized Europe the first steps of the initiative to invest in less-developed regions can be tailored to the vast empires of Britain, Holland, France and Germany. A more contemporary perception of the reasons for companies to accept the challenge of internationalization of their businesses is captured by Vernon (1966: 190-207) in the well-known product cycle theory.

According to the product cycle theory, the first stage the internationalization process for a company starts with an innovation in the home market. Typically, the company sets up a production facility in the home country. In that case the company remains close to its customers and maintain a connection between research and production. "Vernon (1966: 190-207) argues that the company can meet the demand of similar foreign markets (i.e. US company sets an export to Europe)".

The second stage captured by the product cycle theory, emerges when the product matures and the production process is standardized. The theory assumes that the foreign demand (similar to the domestic customers expectations for the product) increases and the initial marginal benefits have higher importance for the company. Therefore, the export practice cannot meet fully the opportunities in the foreign market. In attempt to diminish the threat of entrants of competitors in the foreign market, the innovating company sets up a production facility in the importing country. The basic goal is to serve the market more efficiently. At this stage companies become multinational enterprises.

In the third phase of product cycle theory, the innovation factor is reduced. The product becomes highly standardized and the competition level is intense. In that case the focus is the price factor which impose a consideration of cost. "According to Vernon, (1966: 190-207) the cost focus triggers the "…*resource-seeking motive* and the company moves its production to *low-waged countries and developing countries*"". In that stage, the developing country becomes the exporter and the developed on the importer.

Based on the product cycle theory, there are three motivation factors for following internationalization strategy. "Bartlett, Ghoshal and Beamish (2008: 4) summarize them as to

"…*secure key supplies, market seeking behaviours and access low-cost factors""*. However, as the complexity of international business trade has increased since 1960, the companies developed richer rationality regarding their international business operations.

The product cycle theory captures the phases, which a company undergoes in the process of internationalization. However, it is possible to further understand the general patterns of behavior of the firm and the process of foreign market entry as a learning process. "Johanson and Vahlne (1977: 23-32) developed the "*Uppsala Model""*. *"*According to Johanson and Vahlne (1977:24) the internationalization process follows in a similar manner as the product "…cycle theory *exporting via agent*, *later establish a sales subsidiary, and eventually, in some cases, begin production in the host country""*. It assumes that a company makes an initial market commitment under the form of allocation of some resources usually in the form of an investment. The goal is to gather data on customers' preferences, competitors' behavior and regulatory environment. Later on the firm can increase its investments into the foreign market in pursue to vertically integrate itself there (i.e. acquiring its distributor or setting up manufacturing facility). Following the process of increasing the investments in stages the company develops knowledge-based capabilities, which increase the firm competitiveness in relation to the local competition.

Uppsala Model captures the basic process of internationalization and the process of knowledge acquisition derived from the foreign market. Based on Uppsala Model, the establishment of a subsidiary is an important phase in the learning process for the firm. "Bartlett et al. (2008: 9) argue that there is another set of factors with equal importance "…*overall level of commitment to the foreign market in question, the required level of control over foreign operations and the timing of its entry""*. Therefore, the firms can shorten the learning process in terms of time by considering the factors of market commitment level and control level required.

Once the companies became Multinational Enterprises, their perception and strategic positions evolved. "According to Bartlett et al. (2008: 5) in addition to the traditional drivers for internationalization, factors such as "…*scale economy, ballooning R&D investments and shortening product life cycles"* emerged". Due to the industries restructuring from national to global structure, the factors have become a prerequisite for survival and prosper for the companies.

"Bartlett et al. (2008: 5) describe "…*the scanning and learning capability"* as another

benefit from internationalization strategy". The logic behind the statement is that a company, which has set up offshore operations, is more likely to be aware of low-cost alternatives in global perspective. On the other hand, foreign market driven companies are exposed to new technologies and market needs, which leads to potential innovations. In both cases, the companies can reinforce their competitive advantage through gathering additional information.

Competitive positioning is important part from the company strategy that supports the sustainability of the competitive advantage. "Bartlett et al. (2008: 6) associate the competitive positioning of Multinational companies with the cross-subsidization of the markets". In essence, the company can allocate some resources to recover certain losses on a specific market incurred from the competition there. "Lasserre (2003: 13) defines the motives as "…*arbitrage benefits""* that allows companies to compete directly with the competitors in certain countries in the so-called price war""**.** In a similar manner to the industrial globalization trend it can be pinpointed that the same process can be observed on market and competition levels.

From operational and management standpoint, the Globalization trend reflects companies on activity-based level. "Lasserre (2003: 13) refers to "…*Global integration and co-ordination"*, organizational structure and management processes which reflects the allocation of independent from each other, activates that are performed in different geographical areas. The arbitrage benefits allow the companies to increase their competitiveness through reduced operational costs and cross subsidization.

The globalization trend is a powerful driver for companies to consider internationalization strategy. However, it requires some degree of standardization which can poses a threat for the companies. The main factors that endanger the success of the companies are associated with external the external environmental factors. Lasserre (2003: 19) categorize them as *cultural, commercial, technical and legal.*

"According to Lasserre (2003:19) cultural implications involve*"...attitudes, tastes, behaviour and social codes"".* Global standardization is not efficient in terms of consumer preferences in regards to products and services characteristics. Customer attitude is associated with traditions, national or religious and they vary significantly from culture to culture.

"Lesserre (2003:19) refers to commercial factors as "*...distribution, customization and responsiveness"".* The distribution networks in some sectors vary from country to country. This

creates implication for global coordination in terms of network management, setting up prices and negotiations. On the other hand product or service customization and responsiveness is a necessity to meet the customer demand and reduce the effectiveness of the global strategy.

Form operational standpoint technical factors can poses a threat for the implementation of global strategy. "According Lesserre (2003:20) technical factors involve "... *standards, spatial presence, transportation and languages*"".

The variation of technical standards in certain industries reduces the effectiveness of the global strategy due to the need of product and service adaptation. In some cases the accommodation of the variation is met easily by introducing multi-functional products (i.e. TV sets that use PAL, SECAM and NTSC standards) while in other cases it is not as simple (i.e. pharmaceutical industry, where the application of particular ingredients vary from country to country).

Spatial factor appears in those sectors where physical presence is required (i.e. banking and retailing). However, the usage of global strategy can be used in operational activities where customer involvement is not required or technology enhancements provide alternative solutions. For example accounting or payroll systems can be standardized. In the case of banking or retail sectors online baking or online stores can reduce the need of physical market outlets though which a greater level of standardization can be implemented.

3. Methodology

3.1 Chosen methods

This study is conducted in a case study context. It relies on qualitative research supported by both primary and secondary data collection. However, due to the lack of existing researches on the topic, it utilizes peripheral to the topic academic works. As a result the research is considered as exploratory in its nature, where the fieldwork and the data collection are the main building elements in the theoretical prepositions. "Berg (2001; 230) considers the exploratory research as a prelude to the planning and the development of a larger and more comprehensive study".

3.2 Qualitative Research

The qualitative research is associated with a case study researches. However, it is hard to find a purely qualitative research because of the need to utilize empirical evidence to support certain hypothesis. Usually, qualitative study finds an application when there is a single case and the availability of data is not statistically significant. In comparison, in cross-case analysis the independent application of qualitative method is not functioning correctly. "According to Gerring (2006:10) "*...large-N cross-case analysis is always quantitative, since there are (by construction) too many cases to handle in a qualitative way"".* This research is based on a case study with a small number of cases since the feasibility to get access to companies is higher compared to reaching a greater number of companies.

"Porta and Keating (apud Shaughnessy and Zechmeister, 1990) advocates the application of a comparative method as "*...strategy focuses upon a relatively small number of cases, analysed with attention to each case as an interpretable whole"".* The comparative method requires a supplement of logical reasoning to compensate the lack of sufficient number of cases for statistical investigation. The key points highlighted in the comparative method are based on similarities and differences through intense narratives, with the consideration of a large number of characteristics. In the comparative method, the complexity of the unit is investigated through internal and external explanations. "According to Porta and Keating (2008:205) "…*External explanations present agents doing things because of some configuration of causal influence, while internal explanation identifies reasons for an action"".* The comparative analysis allows creating an in-dept knowledge in individual cases, which requires a large amount of information. .Gerring (2006:1) argues that "…*we gain better understanding of the whole by focusing on a key part".* To support the validity of the statement the author sets a premise that sometimes, an in-depth look at an individual example is more helpful then assessing a large number of examples. While a cross case-analysis relies on standard linear/additive model, the case study analysis allows the development of alternative approach through utilizing variegated techniques.

The goal of the research is to analyze in-depth a few companies instead of large number of cases. "Berg (apud Shaughnessy and Zechmeister, 1990) considers that "…*the scientific benefit of the case study method lies in its ability to open the way for discoveries"".* The examination of a small number of cases allows the research to focus on the details of IT enabled

outsourcing process. The approach leads to the generation of innovative hypotheses and their test supported by primary and secondary data collection.

The availability of existing researches on the topic of IT enabled services in South Africa is limited. This forces the research to become exploratory in its nature, where a link is established between certain cause and outcome. In that sense a new propositions are generated and examined instead of existing ones. "According to Gerring (2006:71) the exploratory research allows... *to generate new hypotheses* while existing preconceptions lead to "... *confirmatory / disconfirmatory; the purpose to test an existing hypothesis".* This research links the main drivers of the national competitiveness on global level of South Africa. The qualitative research investigates the research topic and allows formulating propositions.

3.3 Primary and Secondary Data

This research is based on both primary and secondary data collection methods. "Boslaugh (2007:1) provides a distinction in the definitions of primary and secondary data based on the relation between the person or the researcher who collects and analyzes the data". "Boslaugh (2007:1) argues that the research defines primary data as original data collected for a specific research goal. The secondary data is considered as nay data collected for a different purpose and applied for another research."

The approach toward primary data collection is based on in-depth interviews. In first place the preliminary search showed that the topic has not been fully covered by any other academic work. Therefore the scope and focus of the study is organized as qualitative study with exploratory nature. On the other hand the decision is carried out on the basis of a careful consideration of the budget and the resources available for data collection. As a result of the analysis the option of utilization of focus groups as a possible data collection technique is eliminated.

The secondary data collection serves a key role for the formulation and rationalization of theoretical propositions and justifications, which are developed in the research.

3.4 Primary Data Collection

This research relies on in-depth interviews as a source of primary data collection. There are chosen three IT companies based in South Africa, which possess the talent to offer IT related

services to foreign organizations. The main motivation for the usage of in-depth in is that the individual receives an undiluted focus. "According to Ritchie (2003:36)the in-depth interviews provide "*...an opportunity for detailed investigation of people's personal perspectives, for in-depth understanding of the personal context within which the research phenomena are located, and for very detailed subject coverage"".* The in-depth interviews are targeted at professionals on senior managerial level in strive to achieve understanding and response to: the complexity of the system, the respected processes and experiences associated to the IT enabled services.

The in-depth interviews can be conducted in various ways such as personal interviews, phone interviews and or other written forms such as web-based interviews. In academia, the form of the in-depth interviews is characterized by the type and flexibility of the questions, rather than the physical approach. Considering the physical constraints of the research, the in-depth interviews are based on semi-structured format. "Berg (2001, 70) describes the involvement "*... of a number of predetermined questions and/or special topics"".* Additionally Berg argues that the flexibility is achieved through the implementation of probe questions which exceed the predetermined questions. The research has selected web-based interviews where the interviewee types the answers of the questions in an email form. The flexibility is achieved through the usage of open and multiple-choice questions.

"According to Berg (2001: 74), the sequence, the content and the style of the questions have to be coherent with the focus and the scope of the research. The in-depth interviews are originally written in English". An academic expert in the management and the research fields, who is aware of the discussion topic, confirms their content validity for the study. Furthermore, IT specialists, located in different countries in Europe, verify the coherence of the terminology, which assures that the meaning of the questions, will be understood by all interviewees in the same manner. The aim is to maximize the communication effectiveness and the accurate exchange of ideas between the researcher and the respondents. The interviewees will have the chance to contact the researcher via direct communication channel (i.e. Skype, phone call or email) in strive to eliminate any unclear or doubtful questions.

Despite the effort to emphasize on the quality of the in-depth interview questions, there are several constraints that need to be recognized. The influence of the researcher as a facilitator in the interview process is minimized. As a result there is an optional threat to mismanage to

achieve sufficient scope in certain areas of interests. In fact, the question order is fixed, which means that the interviewee might anticipate the probing question and to supply information in previous questions. Furthermore, an anxiety or reticence to fully answer sensitive topics can be observed. The causes can vary from confidentiality issues to rambling or constantly repeating the same answers.

3.5 Secondary Data Collection

This study relies on secondary data collection through ""*...multiple data-gathering techniques to investigate certain phenomenon"* Berg (2001: 5)". The main sources of information are the official archives, ""*…which primary role is to collect, store and disseminating data for the purposes of secondary research"* Hox and Boeije (2005:596)".

In addition to the official archives, there are other sources of information such as publications in academic journals, literature, universities press and others. However, it is difficult to evaluate the quality of the information and its validity for analytical purposes. This research considers as a trustful data set any information accompanied with detailed methodology including in-depth information confirming the standards of good scientific practices.

The economy factor is one of the main drivers for the usage of secondary data. The researcher does not have to devote scarce resources (i.e. time, human and/or financial capital) because the data is already collected for the purposes of other researches. The secondary data allows focusing on the core research questions instead of deviating time to ensure the data collection process.

"Boslaugh (2007:3) considers that the breadth of data collection is a contributor to the usage of secondary data". In certain cases, there are few researchers possessing the resources to obtain statistically representative data (i.e. WTO, EUROSTAT). Furthermore the major research agencies ensure the quality of the information through utilization of expertise and professionalism which are rarely possible to be duplicated by individual or independent researchers.

On the other hand the usage of secondary data provides certain disadvantages. In comparison to primary data collection, the information obtained is not tailored to the need of the research it does not cover fully the research question. This leads to the need for access of

additional information. As a result the complexity for the analyst increases and he/she is forced to emphasize on the data analysis techniques to support the validity of his work.

3.6 Data Analysis

Further on, the multiple gathering techniques are applied to validate the data content and its relevance under the form of triangulation. The process of triangulation involves the application of three known objects or points that form the triangle of error. The best estimate of the true location of the point or object is located in the middle of the triangle. This is valid under the assumption that each points or objects are equal in error. "According to Berg (apud Berg & Berg 1993) "*…sightings could be done with two sighting lines intersecting at one point, the third line permits a more accurate estimate of the unknown point or object"".* In pursue to increase the reliability of the research is focused on the usage of three points or objects but in case the data level is insufficient the application of two objects and points is intact. The quantitative data used for the purposes in the DESTEP analysis is based on the tables and graphs provided and referenced in the Annex.

4. Analyses

4.1 DESTEP analysis

4.1.1 Demographic Analysis

South Africa is divided into nine distinct administrative regions (Eastern Cape, Free State Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North West, Western Cape), called provinces and its accumulated population is approximately 50 586 757 in 2011. The African population group is the largest one and it accounts for 79.5%from the whole population. The colored and white population groups account for 9% each from the whole population. The smallest group consists of Asians and Indians and accounts for 2.5%. The information listed above has importance for the upcoming analysis such as national policies and legislation.

Gauteng and KwaZulu-Natal are the two provinces with largest population size accounting for 22.39% and respectively 21.39%. On average net migration in the period 2006-2011 in Gauteng is 367 076 people. On the other hand the net migration in KwaZulu-Natal in

the same period is 1 422 people. The other provinces, Western Caper, have a negative net migration patter. Therefore, Gauteng appears to be the most attractive province to relocate to for the South African population followed by KwaZulu-Natal.

Eastern Cape (13.5%), Western Cape (10.45%) and Limpopo (10.98%) have comparable sizes of population. However there is an important difference in the net migration pattern in the period 2006-2011. Western Cape has a positive migration pattern while Eastern Cape and Limpopo have negative. Western Cape has the second largest migration growth in the country measured by 95 556 net immigrants. On the other hand Eastern Cape and Limpopo have the largest negative migration rates -214 815 and respectively 142 815 emigrants.

Free State, North West, Mpumalanga and Northern Cape are the smallest provinces in South Africa in terms of population. Northern Cape is the smallest one with 2.7% of the overall population. Free State has 5.46%, North West has 6.43% and Mpumalanga has 7.23% of the population on national base. All of them share the characteristic of negative migration rate.

The urbanization level, meaning the population living in the cities in South Africa is approximately 62% in 2010 and the average growth rate for the period 1990-2010 is 2.4%. In the period 1970-1990 the average urban population growth was 2.9%. In 2009 the largest city was Johannesburg with population 3.6 million citizens followed by Cape Town with 3.353 million citizens, Ekurhuleni (East Rand) 3,144 million citizens, Durban 2.837 million citizens and Pretoria 1.404 million citizens.

4.1.2 Economic Analysis

The total GDP of Republic of South Africa reached a level of 363.703 Billions US Dollars in 2010 (The World Bank Group, 2012). In the period 2005-2007, the GDP growth rate had an almost flat, positive course in the spectrum between 5.28% and 5.6%. In the next two years the there was an economic slow-down in terms of GDP growth rate. The average growth rate in 2008 accounted for 3.58% and in the next year a contraction to -1.68%. The Global Economic and Financial Crises explain

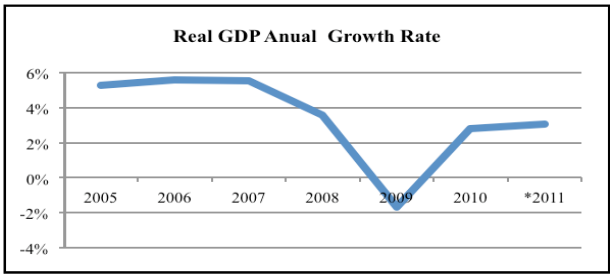

Figure 2 *Real GDP Annual Growth Rate of South Afric* 2005-2010 Source: (The World Bank Group, 2012) Year 2011 is based on (Statistics South Africa, 2011)

the negative trend and the lowest point in the economy growth rate

As a result of the crisis, there was a sharp decline on the international commodity market prices. This is especially valid for the last quarter of 2008 and the first quarter of 2009. In instance the average price of crude petroleum, average of UK Brent (light), in 2009 decreased with 38% compared to the prior year. In a similar manner the average price of silver (99.9%, Handy & Harman, New York) decreased with 2%. For the same period, the average gold (99.5% fine, afternoon fixing London) price has slowed. As a difference of the previous two examples it has increased its overall value by 12% in 2009. There is a gap in the growth rate in comparison to the prior and the next two consecutive years. In 2008 the gold price increased its value by 25% and in the past two years respectively with 26% in 2010 and 28% in 2011. The influence of the commodity prices shapes the annual GDP of South Africa because in 2011 the primary sector of the economy has 7.3% from which 5.1% are mining and quarrying.

Following the commodity market price increase in the second half of 2009 the South African GDP got in the recovery path. In 2010 it accounted a positive annual growth rate of 2.84%. In the 2011 it has reached a level of 3.1%. However, the country growth rate, prior the Global Financial Crisis is still unreachable in the upcoming few years due to the small incline in the GDP accounted in the post-crisis period in the aftermath of the economic slowdown and considering the flat annual growth trend prior 2007.

The GNI of South Africa in 2010 is equal to 356.475 billion USD (The World Bank Group, 2012). The GNI growth trend follows a similar pattern as the GDP with minor differences. The GDP of South Africa has a greater value than the GNI 7.228 billion USD.

GDP, GNI and GNI (PPP) per capita growth rates indicators have a similar trend behavior in the period 2005-2010. The GNI per capita annual growth rate in 2007 accounted for a higher increase compared to the previous two years and reached a level of 5.92% while the GDP per capita growth rate maintained a similar rate as the prior two years. Afterwards, both indicators show a slowdown but maintain a positive growth to above 2%. In 2009 there is a contraction and they have negative growth rate, which is better observed in the GNI per capita annual growth rate indicator which is -3.65%, while the GDP one accounted -2.73%. In 2010, following the GDP and GNI growth trends both indicators showed an increase to a level of 1.26% GNI per capita and 1.47% GDP per capita, which is still smaller prior the appearance of

the Global Financial Crisis.

Through a comparison of GNI per capita and GNI (PPP) per capita in absolute values in US currency, it appears that the GNI per capita in 2010 has a value of 6090 USD and in the case when PPP indicator is applied the level increases to 10360 USD. The gap between the two indicators shows that the USD Dollar has higher purchasing power in South Africa compared to the US.

The South African economy experienced continues growth in terms of inflation measured by GDP deflator and CPI indicators in the period 2003-2010. As a result the CPI indicator reached a level of 139.6 in 2010. However there is a difference in the temp growth rate in the period due to the global economic slowdown. In 2004 the CPI has slowed it growth rate to 1.4% compared to the previous year while the GDP deflator remained almost unchanged. In the next 3 years, the CPI growth rate was higher than the GDP deflator growth rate, meaning that the consumer prices for goods and services were increasing their price faster than the price of goods and services produced in the country. Evidently the CPI in 2010 shows a lower temp of growth in the consumer prices while the inflation rate was growing faster. A key point is that the GDP growth rate in the year of question accounted an increase of 2.84%.

A major disturbing factor in the South African economy is the high level of unemployment. In the period 2002-2007 it has a positive trend and it felt from 35% to its lowest level of 23% for the past 10 years and afterwards it has a flat trend and it accounted an increase of 23.9% in 2011.

The high level of unemployment indicates the need to assess further the topic by focusing on the age structure of the unemployment and the education of the unemployed labor force. In the period2002-2007 the largest component of the unemployment structure is observed among the population with primary education. In 2002 it accounts for 51.9% from the whole unemployed population. In the period in question a decline in the trend could be observed. In particular, 2007 is interesting because the biggest decline in size as portion can be found. The population having a primary education reaches a level of 36.2%, which represents a 12.9% decrease compared to the previous year.

The second in size component in the structure of unemployment consists of the population with secondary education. It follows the adverse trend to the group with primary

education. In the period 2002-2006 there is an increase in term of unemployed in the group. The same pattern as 2007 appears and a level of 57.3% is estimated and represents an increase of 13.8% compared to 2006.

The population with higher education represents the smallest part of the whole unemployment in South Africa. It follows considerably flat pattern. In 2002 it represented 5% of the total unemployment and in 2007 it stands for 4.5%. However from 2008 till 2011 the unemployment rate of the group accounts steady increase and in 2011 it represents 6.3% of the total unemployment in South Africa.

The most recent national report on unemployment showed that in the last quarter in 2011 the largest group of the unemployed labor force (47.5%) is among the population who has primary education, followed by some with secondary school experience but without completion. The second largest group is the people who managed to obtain secondary school degree (32.3%). The tertiary and less then primary education has comparable sizes of 6.3% and 6.8%.

In attempt to understand better the unemployment structure, the labor force can be analyzed on age basis. In the period 2008-2011 there was a steady trend among all age groups with small fluctuations. Therefore a snapshot of quarter Oct-Dec 2011 can be considered as representative for the general trend. It appears that 25-34 years old people represent the largest portion of the total unemployment. The next size in the group is the group aged between 15-24. Another important trend is that the unemployment rate by age decreases with the increase of age.

Evidently there are issues within the education system which does not meet the needs of the economy, a fact which can be considered a structural cause for the unemployment. The major problems involve the ability of the population to obtain secondary education and to proceed with further education and training.

The primary sector in 2011 contributed with 7.3% to the overall GDP in 2010. The secondary sector added value of 20% and the tertiary sector contributed with 62%. There are 10.3% left and they are categorized as taxes less subsidiaries.

The three sectors of the economy accounted a decrease in the period 2007-2009 and the sharpest one in the trend was in 2009. The global economic events in 2009 affected at most the secondary sector where a decrease of 7.1% is seen. The secondary sector accounted a contraction of 3.9%. In the same time the tertiary sector experienced a slow down but kept a positive growth

of 0.7%. In 2010 the primary and secondary grew faster than the tertiary sector. The pattern can be explained with the higher international commodity prices and the increased level of export in 2010. It appears that the primary and secondary sectors are less flexible to changes in the global economic environment compared to the tertiary sector and this fact has to be linked with the export of South Africa.

The South African economy is a net importer of goods and services. In 2010 it imported both goods and services in the amount of 96 billion USD while the export was 112 billion USD. It appears that the negative effect over the export and import of services follows a similar pattern. On the other hand, the export of services is affected less than the exports of goods in 2009. In the next year the export of services grew slower than the import of services and both the export and the import of goods. Therefore the degree of volatility in the development was less than of the others due to the lower interdependence with the International Commodity price level in the last quarter of 2008 and the first quarter.

The FDI in Stock, both inward and outward, accounts for a gradual growth pattern since 2002. The only year which is an exception is 2008. The outward FDI in stock is higher than the inward FDI.

4.1.3 Socio-Culture Analysis

South Africa has 11 official languages, English is the official business language and it accounted for 8.2% national wide use in 2001. It is widely used in the provinces of KwaZulu-Natal, Gauteng and Western Cape. This is understandable because some of the major cities such as Johannesburg, Cape Town and Pretoria, are located there. In the same time, these provinces are the most economically active in South Africa in the secondary and tertiary sector of the economy.

In the economic analysis it became evident that the educational system does not meet the demand of the economy. However, when the literacy rate of the population is considered, the basic skills in writing and reading, it becomes evident that 90% of the population above age of 15 is considered as literate. There is a positive growth trend with an increase of 15% in the period 1980-2007. The participation in the primary education is above 80%, but there is a

massive fall in the secondary level of education where it is approximately 44%. This means that the majority of the population can read and write but more than half of them do not further develop their skills. This decreases the overall competencies of a large portion of the labor force.

The education system in South Africa is divided into 3 stages: General, Further and Higher. The General and the Further education cover the primary and secondary education. At the end of the educational process the pupils are awarded with a diploma. Up to the moment it is evident that there is a misbalance of the students who are initially enrolled in the education system and those who graduate and continue their further education. This poses a threat for the opportunity of the concept for outsourcing of IT services in South Africa due to the lack of highly skilled labor force.

The higher education system is divided into two major streams depending on the education type provided. The basic types can be summarized as vocational, professional, and general / formative. Both types of further education and training programs can be supportive for the concept of IT outsourcing in South Africa if the local government manages them correctly.

In the period 2005-2007 there is a decline in the number of students who participate in FET colleges. The FET colleges provide the vocational education. This was the reason the management of the system was taken out from the Department of Basic Education in South Africa and it was integrated with the Department of Higher Education and Training.

Following the reform in the Education system the interest in FET colleges and the programs provided improved. On year basis in 2010, 34.7% of the students in higher education system were granted the right to proceed with a Bachelor degree program, while 65.3% were granted a permission to enroll in a FET college program. This indicates that the FET colleges serve the function to stimulate the graduates from secondary degree program to continue their education.

Apart of the social problem associated with the education level, another important factor is the safety in the country. South Africa crime rate accounts a decrease in the overall cases per year. The largest component of the crime structure is contact crime with 30.8% or 131 860 cases in the financial year 2010-2011. Property related crimes accounted for 25.8%. This indicated that more than half of the crimes that take places are targeted at the personality and its property. The construction site/office as a target at businesses accounts for 1.3% of all business targets. From

statistical standpoint it appears that there are small risks in the office of company but outside it the risks increase significantly.

4.1.4 Technological Analysis

The Internet penetration in South Africa per 100 people in 2011 is relatively low and accounts for 12.3% in 2010. It has experienced a boom since 2002 and it has almost doubled it size from 6.8%. The sharpest increase is observed after 2008. "According to the annual report of Vodafone in 2011 the usage of mobile Internet represented 90% of the total bandwidth (Vodafone Group Plc, 2011: 20)". "According to Cisco research… In South Africa, mobile data traffic was 2,090 Terabytes (2 Petabytes) per month in 2011, the equivalent of 1 million DVDs each month or 6 million text messages each second".

The mobile cellular subscription experienced a rapid growth since 2002. The have increased 5 times and in 2010 they reached a level of 100.8%. This means that there were more mobile subscriptions than the people. The introduction of mobile devices such as smart phones, laptops and tablets are among the main contributors to the growth of increase of Internet penetration rate in South Africa.

"According to the Communication Department …the ICT industry account for almost 7% of the GDP (Department of Communication, 2012:11)".The ICT import of goods level has experienced a growth and it has doubled its size since 2002. "The ICT import of goods reached a level of 7.5 Billion USD (United Nations Conference on Trade and Development, 2011)". "South Africa ranks on 98th place according to the ICT Development Index (IDI) (International Telecommunication Union, 2011:13)". The index measures the development of ICT in terms of Readiness (infrastructure, access), ICT Use (intensity) and ICT Capability (skills).

On the other hand the export level of ICT goods has been decreasing since 2006. "The peak level was in 2006 and it accounts for a value of 846 millions USD (United Nations Conference on Trade and Development, 2011)". "In 2010 the ICT export of goods has contracted to a level of 695 million USD (United Nations Conference on Trade and Development, 2011)".

The low penetration of Internet in South Africa is a result from the relatively high ICT price basket. "In terms of the indicator, South Africa ranks 99 in the world (International

Telecommunication Union, 2011:65)". The main contributor is the high price of Internet access compared to the average one on global level.

"Pricing continues to be a major challenge despite the recent interconnection rates that prevent South Africa to improve its ranking in term of ICT price basket Department of Communication (2012:12)". The lower level of infrastructure development and the high interconnection rates shaped the price formulation in the previous years. "According to the Department of Communication (2012:12) there is a decrease in the interconnection rates imposed by the national regulation agency however they are still too high and will uphold the market price for the final consumers".

The second factor that shapes the price level is the low infrastructure development in the past, in terms of connectivity broadband size derived from the capabilities of the existing fiber optic submarine data pipes. However there is development in the area. "According to Business Software Alliance (BSA) , 2011:1) *"Africa is currently served by two submarine cables: SAT-2 and the SAT-2 and the SAT-3/WASC/SAFE system""*. The SAT-2 cable went in service in 1993 and connected South Africa, Portugal and Spain (Information Gatekeepers Group Inc, 1998:76)". "The second fiber optic cable system fully operative in the first quarter in 2012 and links UK, Europe (Portugal and Spain), South Africa, India and Asia (Broadband Infraco (Pty) Limited, 2010)". The majority of WASC system is constructed and operated by South African telecommunication companies in partnership with international companies.

There is another fiber optic systems, which will increase the overall bandwidth connectivity of South Africa, which are announced become operative soon. "Africa Coast to Europe is estimated to be available in 2012 (France Télécom, 2012)." This project will connect South Africa with France and Portugal. An important point is that there is no South African participation in the joint venturte.

Apart from the plans for improvement of the IT infrastructure, an assessment of the research capabilities and the national innovation need to be considered. In terms internationally granted patents in 2010 South Africa is ranked 28th (The World Intellectual Property Organization (WIPO), 2011:68)". In the period 2004-2009 there was a balance between the patents registered by residents and non-residents. However, in 2010 there was a change and the patents granted to resident accounted represented 15% of all new patents. The cause of the

change is the sharp increase in the number of patents registered by non-residents, while the residents' applications maintained a similar level compared to the previous years.

The individual applications for international patents are the major type of applicants in 2010 in the amount of 44.3%. Compared to the previous two years there is a small decrease, while the university applications increase. The business application remains on a constant level and were 38.8% in 2010. The government research applications lost some share and they show a negative growth trend. The Research and Development activities were concentrated mainly in Gauteng province, with 57.9%, in the province in the financial year 2008-2009. There was a huge gap between the leading province and the following three. Western Cape provinces housed 15.5%, while Free State and KwaZulu-Natal contributed with approximately 10% each.

The largest portion of R&D Personnel involved in the researches in the financial year 2008-2009 were part of the Higher education institution in the amount of 53%. The second largest contributor was provided by the business enterprises. The non-profit organizations and the science council provided approximately 9% of the researchers in the country. The smallest group of researchers was working for the government.

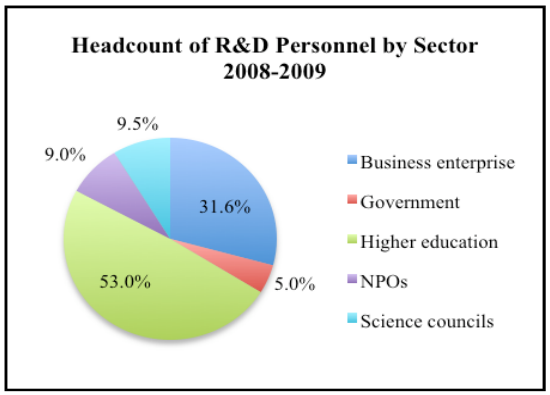

Figure 3 *Headcount of R&D Personnel by Sector 2008-2009* Source: (Human Sciences Research Council, 2011)

In terms of capital expenditure of in-house research and development, most of the resources were dedicated to business enterprises and it accounts for 58.6% in the financial year 2008-2009. The capital expenditure in Higher education ranks second with 19.9%. The Science Council capital expenditure corresponds to 14.9%. The Government one represents 5.4% from the overall expenditure.

The main focus of the research and development expenditure provided by the business enterprises was focus in the fields of physical sciences, chemical sciences, information, computer and communication, applied sciences and technologies and engineering sciences.

The government expenditure in research and development was focused in the fields of Earth sciences biological sciences, agricultural sciences. The higher education expenditure has more balanced distribution among the different fields of researches. Most of the resources were

focused in the areas of mathematical sciences, medical and health sciences and humanities.

4.1.5 Ecological Analysis

"South Africa is the third most biologically diverse country in the world (Burger, 2011). The climate change and the global warming are demanding topics which need to be regarded by all global citizens. The biodiversity in South Africa is at risk because of the change of the local natural habitat due to air pollution from human activities.

In fact, the negative impact of ICT sector over the climate change is considered relatively low. The statement is proven by the Corporate Sustainability Reports provided on annual basis by the majority of companies in the sector. However electricity consumption remains as a key issue for the sector.

The South African electricity mix relies mainly on coal as primary energy source for producing electricity and it corresponds to 86% of the overall use. With a huge difference in size, primary energy source converted to electricity is the gas fuel. The nuclear power station is responsible for only 4% of the overall electricity production. The renewable energy sources for electricity production provided by wind farms are less than 0.01%.

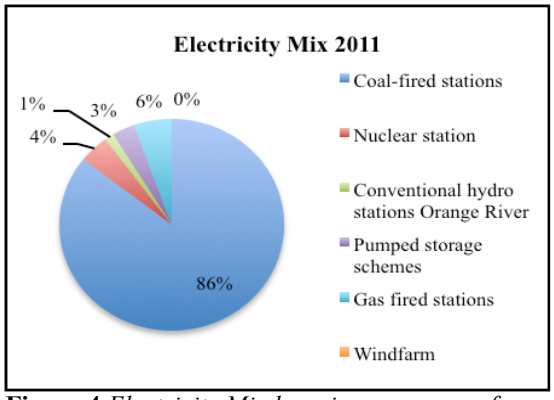

Figure 4 *Electricity Mix by primary source of energy in 2011* Source: (Eskom Holdings SOC Limited, 2012)

As part of the strategy for development, in the energy sector in South Africa till 2030 the dependence on coals, as primary energy source transformed to electricity should be reduced from 86% to 48.5%. The overall annual capacity should be doubled and to reach a level of 89 532 MV. The renewable energy used for electricity should account for approximately 20% of the overall energy resources used for electricity. The development of Nuclear powers is planned to reach a level of 12.7%.

4.1.6 Political-Legal Analysis

In pursue of sustainable long-term economic growth the government of South Africa introduced the Broad-based black economic empowerment act in 2003. The act aims to tackle the national unemployment rate. "The Department of Trade and Industry (2003:15) refers that the purpose of the BEE is *…to define BEE too narrowly limits it to a set of transactions transferring corporate assets from white to black ownership*"". "The BEE process will therefore include elements of human resource development, employment equity, enterprise development, preferential procurement, as well as investment, ownership and control of enterprises, and economic assets "(Department of Trade and Industry, 2003:15)". To promote the implementation of the act, the government applies tools such as: legislation and regulation, preferential procurement, institutional support, Financial and other incentive schemes.

The focus of the act is placed both to public and privet business entities. The government recognizes that it is difficult to implement the same legislation to all economic sectors. Therefore, it has created the broad-based black economic balance scorecard. The act by itself is not mandatory for the private owned business entities. However if the minimum score is not met, those organizations are not allowed apply for licenses nor to acquire state-owned assets nor to enter into public-private partnerships.

The past year has been characterized by structural reforms in the education system of South Africa. "The Further education and training type of education was moved from the umbrella of basic education and training department under the supervision of the Council of Higher education (The Department of Basic Education, 2010)". The strategic goal is to promote higher education quality, which can meet better the demand of the various economic sectors. The main policies are focused on students who do not continue their education after the acquisition of their secondary education level. The second group on focus consists of people who have obtained their secondary education years ago but did not receive the opportunity to pursue further education and training. "Both groups of potential candidates will have the chance to develop skills in the areas of "*…engineering, information technology and computer science, finance, economics and accounting, construction, electronics* (The Presidency , 2012)"".

The national government of South Africa has recognized the need to support the development of the ICT sector in the country and has prioritized the objective. It provides

various ICT related programs that foster the relation between the public and privet sectors. "According to the (Presidential National Commission on Information Society & Development, 2011) the main focus is targeted at …*1) those that facilitate the entry of SMMEs in the ICT sector and, ii) those that aim to accelerate the uptake of ICTs by the general SMME sector*"". Other programs strive to promote technology development through innovation of competitive products/processes. The government emphasized on the e-skills on the citizens and finances their development. There are other funds that are focused at promoting the use ICT goods and services in the SMMEs.

"The World Bank (2012) developed the report Doing Business which"*...sheds light on how easy or difficult it is for a local entrepreneur to open and run a small to medium-size business when complying with relevant regulations*". The comparison is based on cross-economic analysis on global base. The elements of the framework are shown in Figure 8. "The World Bank(2012:7) refers to*The ease of doing business tells only part of the story, so do changes in that ranking"*. Some indications of change can be derived from the yearly ranking. However, a change in the ranking is dependable on the development of other economies. To avoid to a larger extend misleading interpretations an anchor point to the world leader in performance is made under the form of benchmark.

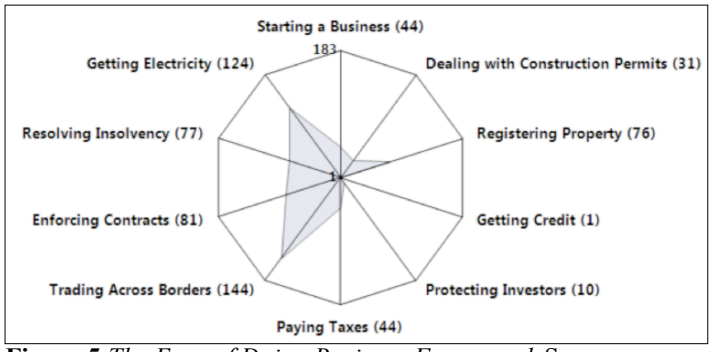

Figure 5 *The Ease of Doing Business Framework* Source: (The World Bank, 2012)

"According to The World Bank (2012: 10) South Africa improved its ranking position in regards to starting a business and reached a 44th place". The result is achieved by reducing the required procedure to start a business by one. In 2012 there are 5 procedures required. The gap to the world leader in performance Canada is 4 procedures. The time required to start a business is reduced by 3 days and in 2012 is 19 days. The distance to the world leader New Zealand is 18 days. The cost of income per Capita is reduced by 5.7% and in 2012 is 0.3%. The best performer is Denmark with 0.0%. Evidently the South African government strives to facilitate and encourage the establishment new business entities through improving its legislative system.

"South Africa remains on 31 position in the field of Dealing with Construction Permits The World Bank (2012: 10)". The 13 procedures, required in 2011, remain unchanged and the distance to the world leader in performance Denmark is 8. The time required to complete the procedures is 127 days and there is no change from the prior year. The world leader is Singapore with 16 days. However, there is a change in cost (% of income per capita). The cost decreased from 23.1% to 21.2%. Qatar is the world leader in performance with 1.1%. The government did not change the existing legislative system in pursue to facilitate the overall process.

"South Africa lost two positions in the world ranking in the field Getting Electricity and was ranked 124th (The World Bank 2012: 10)". The procedures number required remains 4 and the distance to the frontier country (Germany) is 1 procedure. However, the time required acquiring electricity access increase from 214 to 226 days. Germany, the world leader in performance, requires 17 days. It is evident that the local government did not address the issue with the time to grant access to the national electrical system.

"In terms of registering property South Africa ranks 76th and it accounts a progress of 14 positions (The World Bank 2012: 11)". In terms of number of procedures, the amount maintains the same - 6 as the previous year while a decrease of 1 day is observed and the total amount of days is 23. In comparison, the world leader with one day is Portugal. The overall cost as percentage of the property value decreases from 8.8% to 5.6%. The world leader in ranking is the Slovak Republic with 0.0%. It appears that the national government undertook an initiative to lower the burden of property tax registration.

"In terms of protecting investors South Africa ranks 10th (The World Bank 2012: 11)". Extent of disclosure index remains the same and it is valued as 8 points out of 10. The world leader is France with 10 points. The extent of director liability is unchanged and is valued by 8 points out of 10 possible. The world leader is Singapore with 9 points. 8 points value the ease of shareholder suits index while 10 points value the world best performer - New Zealand. The strength of investor, protection index remains unchanged with a value of 8 point, while the world leader New Zealand is valued by 9.7 points. It becomes evident that the government undertook measure to improve the investment climate in the previous years and the country scores close results to the world leaders.

In terms of paying taxes South Africa ranks 44th. The number of payments (9) per year

remains the same, while Norway is the world leader with 4 times. In terms of time (hours per year) spent to pay taxes the situation does not have a change and it takes 200 hours. The world leader is Luxemburg with 59 hours.

According to the existing tax legislation in 2012 the corporate tax rate is 28%. However, in pursue to stimulate the development of SMMEs an increase in the tax-free threshold of such firms from R59 750 (7 190 USD) to R63 556 to (7 648 USD). There is an increase in the taxable income with a rate at 10% from 300 000(36 100 USD) to R350 000 (42 117 USD)and the applicable rate is reduced to 7%. For further taxable income above, the normal corporate tax rate applies

"The World Bank (2012: 73) reports how in practice the tax legislation is applied to an average medium enterprise. The tax rate based on profit has been decreasing since 2006 when it was 38.1%. There is a sharp decline in 2009 and 2010. "The World Bank (2012:72) refers that in 2009 "*…The government reduced the tax burden by eliminating the regional establishment levy and regional services levy*). "In regards to the decline in 2010 The World Bank (2012:72) refers that "*…the tax burden was eased on businesses by abolishing the stamp duty*"". In 2010 the total tax rate was 30.1% and maintained similar level in the following year.

In 2012 the main contributor to the total tax rate as percentage of the profit is 24.4. "According to The World Bank (2012: 73) in the OECD high income nations, the average is 15.4%". The Labor tax and contributions account for 4.1%. "The World Bank (2012: 73) refers that in the OECD high income nations, the average is 24%". The other sources of taxes in South Africa as percentage of the profit account for 4.1%, while in OECD high-income nations it is 3.2%. Evidently, there is a big gap between the OECD and South Africa labor taxes and contributions which compensate the higher profit tax in South Africa. As a result the tax rate in South Africa is 33.1%, while in OECD high income nations it is 42.7%.

"In terms of trading across borders, South Africa ranks 144 and improved it ranking by 2 places in the ranking compared to the prior year according to The World Bank (2012: 10). However, the statistics is built on the export and the import of goods. Therefore, the relevance to the export of ICT services is significant.

"In terms of enforcing contracts South Africa accounts an improvement of its positions in the ranking and climbed from 85th to 81st position. There is no change in the process in regards to

the number of procedures, which are in total 29. The world leader in performance is Ireland with 21 procedures. The number of days did not change and remained 600 days, while in the world leader in performance (Singapore) it is 150 days. The cost as percentage of change remained the same in the amount 33.2%. The world leader in performance is Bhutan with 0.1%.

"The World Bank (2012:13) ranks South Africa, in terms of resolving insolvency measurement (deals with bankruptcy system) on 77th place with an improvement of 2 places compared to the prior year. In terms of time the process requires two years and it cost 18% of the estate cost. In regards to time, Ireland is the world leader with 0.4 years. In regards to the costs Singapore is a leader with 1%.

4.1.7 Key Findings

In the past decade the South African economy experienced unprecedented growth. The constant development rate, in terms of real GDP growth, is interrupted only in 2009 and in the following years the country returned to the positive growth path.

Gauteng, KwaZulu-Natal, Western Cape are the three largest in population size provinces in South Africa and account for more than half of the population in the country. All of them have a positive migration pattern. The three provinces are the most active in terms of economical activities. The English language is widely spread within the boundaries of the three provinces and it is considered as the official business language. The major cities - Pretoria, Johannesburg and Cape Town are located there. They are also the most developed provinces in terms of ICT infrastructure. More than half of the research and development resources of the country are concentrated in Pretoria followed by Western Cape.

In terms of international patents South Africa ranks 28th where the business sector is responsible for 38% of them. Foreigners submit the majority of the patent applications. Currently the most capital expenditure in R&D is provided by the business sector which shows a trend that moves South Africa closer to the high-income nations, where more than 80% of the research activities are carried by the business sector.

The main focus of the business research is targeted at the development of the information, computer, and communication fields. Considering the increasing FDI level in the country and the origin of patents it becomes evident that the innovation skills in the country are strongly related

with the foreign business organizations. Translated in the ICT sector it is possible to assume that the level of development of the sector is advanced and competitive on international level.

While the economy was experiencing a boom the unemployment rate was decreasing. Despite the positive trend the unemployment rate remained relatively high in the amount of 23.9% in 2011. The largest group of the unemployed labor force are the people with secondary education, followed by the group who have obtained some secondary education. Overall, the two groups represented 79.8% of the total unemployment in the country. The people with higher education accounted for 6.3% of the unemployment structure. The 15- 34 age group accounted for 70.8% from the total unemployed labor force. The statistics delineate an opportunity for the country - the young population to continue their training.

In the current situation the demand for highly skilled personnel is high while the supply of talent experiences a shortage. This increases the costs for the ICT sector relevant to salaries and benefits which should be provided in pursue to attract the right personnel. At this point this appears as a threat that can damage the competitiveness of South Africa as an outsourcing destination for ICT services.

To address the issue with the high unemployment rate among the young population and the lack of skilled labor force the South African government undertook series of actions to reform the educational system. In instance, the supervision of FET colleges was moved from the Basic Education Department to the Council on Higher Education. The idea behind the strategic action is to reduce the structural unemployment by improving the vocational education system in terms of meeting the existing and the future demand exercised by the various economic sectors. The FET colleges should become attractive place for the young people and they should provide an opportunity for the secondary education level graduates to expand their education.

While the research universities remain important for the sustainable economic growth the emphasis of FET colleges increases. Through investments in the form of subsidies, the national government attempts to stimulate the citizens to pursue higher education and to improve the overall national technical skill level. As a result the high demand for university degree graduates will not impact the ICT sector by providing more highly skilled labor force trained in FET colleges which will decrease the costs of the ICT sector associated with the acquisition of talent.

. The economic boom in the past decade led to a general increase in the consumer prices.

This indicates that the costs for the ICT sector also increase. Therefore the country loses some of its competitiveness in terms of costs on the international market. However, when the GNI per capita and GNI (PPP) per capita in 2010 are compared it becomes evident that the purchasing power of the US Dollars is higher compared to the one in US. This leads to the idea that South Africa is significantly cheaper country compared to the high-income nations.

One of the existing barriers, which decrease the competitiveness of South Africa as an outsourcing destination for ICT serviced is the high cost of the ICT basket. The main reason for the high prices is the level of development of the national and international technological infrastructures. The government addresses the issue in a partnership with the private sector including the foreign investors. The connectivity of the country is increased by the development of several fiber optic cable systems that connected South Africa with Europe and Asia.

Furthermore, the government developed strategic plans to decrease the interconnection rates which shape the final market price of the Internet access. The developments in the sector increase the competiveness of the ICT sector by lowering the relevant costs by an improvement the quality of the services.

In pursue to stimulate the national economic development in the various sectors including the ICT sector, the national government provides different programs and initiatives focused on the incubation and the development of SMMEs. The government provides a tax discount opportunity for those companies and facilitated access to the credit system. The lower tax rate provides a serious competitive advantage for the firms. As a result of the BBBE act, the World Bank has estimated that the total tax levy imposed over a medium sized company is 33.1%, where in high-income nations it is 42.7%. Evidently the government assures a very competitive tax environment for the SMMEs.

In order to be eligible for the preferential conditions the firms should meet certain legislative requirements. The BBBE act requires the involvement of black, colored, and disabled part of the population in all levels of the companies. A balanced scorecard was enforced in attempt to measure the performance of the firms. This is a key element which has to be considered when a company is created because it can ensure a preferential treatment by the government.

While the national government strives to provide a competitive business environment and

stimulates the establishment and the development of SMMEs it disregards some issues with the red tape. The World Bank has estimated that the time to get access to the national electrical network has increased and on average it takes 226 days.

Electricity access remains a key issue for the ICT sector and the other economic sectors. In the years of economical expansion the electricity mix remained strongly dependable on coals as primary source energy while the total producing powers remained unchanged. The higher consumption led to a shortage of electricity and the demand was increasing with the GDP growth. As a result the prices increase but still remained low in relation to the international prices due the cheap source of coals in the country.

The reliance on coals as primary energy source may assure low electricity prices but it also brings ecological issues such as CO_2 emissions. The government developed a strategy to double the amount of electricity powers by developing green technologies and nuclear powers. The investments will further increase the electricity prices but will bring the electricity mix of the country to a more sustainable approach. The government also plans to undertake programs and initiative that will improve the efficiency of the electricity usage.

The DESTEP analysis contributes to the aims of the project by providing evidences for the macro-economic environment which surrounds the ICT sector. The information allows estimating the most attractive regions in the country in terms of current development level and the prospects for further develop of ICT sector. The evidences are connected to the international competitiveness of the sector. Despite the relatively high ICT costs in South Africa, the country remains a significantly cheaper destination compared to the high-income nations, but it loses its competitive edge in relation to the traditional outsourcing destinations. However, the costs issue is manageable and the focus should be targeted at the innovation level in the products and services quality. The ICT sector can achieve innovations through meeting the domestic demand through an intensive R&D process that will be translated into the international market.

The analysis provides examples that are intended to counterbalance the existing disadvantages such as reforms in the educational system and increased supply level of talents that will meet the ICT sector needs. Examples such as enhancement in the technological infrastructure through a public-privet partnership and governmental readiness to support certain types of firms additionally support the positive prospects for the international competitive level

of the ICT sector. As overall results, the operational costs of the ICT sector should account a decrease while the quality and reliability of the products services should increase. Through increasing the competitiveness of the ICT sector, the attractiveness of South Africa as a favorable outsourcing destination for ICT services also increases.

4.2 In-depth interview results

4.2.1 Observations prior the in-depth interviews

The critical success factor in the process of primary data collection is to ensure companies involvement in the study. Initially, 6 IT companies located in South Africa were selected. Official requests to the general email accounts of the companies listed in the contact details part on their official websites were sent. As a result, no direct confirmation by email for an exact time for an in-depth interview was received. An assumption that the emails were not addressed to the correct person or he/she was not willing to further engage himself/herself to forward the email to a person in power to ensure the company participation.

As a result a decision to contact the companies by phone was taken. Considering the limited resources available to conduct the study a special attention to manage the costs regarding the phone calls was paid. The first act was to check the price rate of international calls provided by Mtel, the Bulgarian largest telecommunication provider that is part of Austrian Telecom. It turned out that the price rate was 5 times higher compared to other alternatives. Given the expected overall duration of arranging the in-depth interviews and their actual conduction, an alternative method to make the phone calls was needed. As part of the solution Skype calls were made instead of using the traditional telecoms services.

The first impression when a direct contact by phone with the companies was established was that the English language is incorporated in the firms' culture. The initial respond of the employees was in English and the level of language usage was fluent. As a result of the phone contact, two of the companies directly express the idea that they do not want to participate in the in-depth interviews due to the lack of available time and reluctance to share internal information. The third company that denied the appeal to participate in the research promised to forward the

questioner and the synopsis to a contact person who can reply. As a final result no official response was sent back.

The three firms that decided to support the research were very open and understood the need to conduct the interviews within a short notice despite the fact that the respondents have busy schedules. The interviews were scheduled in five days after the initial contact was made. There was an agreement to receive the questioner a couple of days prior the actual interviews took place.

4.2.2 Observations during the in-depth interviews

The first interview was conducted with Ivo Vassilev who represented Vilivo CC. Despite the fact he has Bulgarian origin, the interview was conducted in English. The interview was conducted in Skype and it took 1 hour and 15 minutes. The interview was interrupted twice for approximately 10 minutes because the interviewee received a couple of phone calls and he had to respond to them. Apart of this, the during the process several questions from the protocol were combined due to the fact the responds were interrelated. The interviewee was giving examples and he was comparing them to familiar for the interviewer facts. At the end of the interview Ivo Vassilev pointed out some general information about his perception about the broadband access and the political issues in South Africa.

The second in-depth interview was with Cantaloupe CC represented by Melaina Gross. The in-depth interview was conducted by Skype call to a cell phone and the quality of the connection was not good due to some distortion in the sound. As a second interview, the questions order was slightly changed and some of the questions were taken out. Initially, the interviewer had to explain again about the purpose of the study and to share some information about ISCTE Business School and what generated the interest for the research topic.

The third in-depth interview was conducted with Rustum Tavaria from Deta IT Business CC. The interview continued 45 minutes via a Skype call. The English level was fluent but the interviewer has noticed a strong and non-familiar accent, which did not influence the interview quality at all. When the first set of questions regarding the analysis of the company was posed, the interviewee used several technical terms such as Rhino Content Management System (Rhino CMS), PHP and MySql. As result he explained it in a non-professional usage manner that

RCMS is based on PHP and MySql and the Rhino system is developed in a partnership with both national and international IT development companies. During the interview, Mr. Tavaria informed that he had to check a newly developed web application for a few minutes so the interview was interrupted. Afterwards the interview continued. Interviewee inspiration was very noticeable when he was explaining about how and why BEE Act plays a key role in the firm strategy. At the end the interviewee expressed his satisfaction that he could support the research.

4.2.3 Outcomes from in-depth interviews

The first set of questions in the in-debth interviews was focused on collecting general information about the companies. It appears that the three companies are based in the province Gauteng. Two of the companies are located strictly in Johannesburg and Cantaloupe CC is based in a nearly located city called Randburg. On the other hand Vilivo CC is also based in Toronto, Canada. The three companies provide IT services, however they differ significantly in the area and the degree of specialization.

Cantaloupe CC is the smallest company in size and has 10 employees and provides limited number of offerings among which are development and optimization Web Design, Search Engine Marketing and Email Marketing Systems. Deta IT Business CC has 43 employees and offers additional Rhino Content Management System (CMS) and Web Application Development. Vilivo CC has 42 employees based in South Africa and overall 112 based in different parts of the world (18 different time zones such as UK, US and Ireland). Vilivo CC provides services such as various web design, CF5 data SQL design database building and virtualization social networking.

In terms of market orientation Cantaloupe CC is focused on small to medium sized clients, while Deta IT Business CC and Vilivo CC have large multinational companies as customers. Cantaloupe CC and Vilivo CC have pure international orientation and does not serve directly the local market, while Deta IT Business CC has local customers among which are the governmental institutions. The international orientation of the companies is derived from the fact that the local market is still too small.

The second set of questions in the in-depth interview is attempting to assess the effectiveness of governmental programs/initiatives addressed to the business development. The

management of the three companies showed awareness for the available governmental programs and initiatives that are available. However, only Deta IT Business CC is taking an advantage of them. The reason is that they comply with Broad-Based Black Economic Empowerment Act (BBBEE Act). According to Deta IT Business CC, the BBBEE has a positive impact because it strives to promote the development of skills and formalize the internal development of skills.

On the other hand, Cantaloupe CC and Vilivo CC does not integrate the BBBEE legislation within their firms. Both of the companies share a similar attitude that the international market is growing faster than the local one. To comply with the legislation, part of the ownership has to be shared with black people and the hiring process will become problematic. The companies strive to remain the control over their business development and they show readiness to disregard the potential benefits from the governmental support. It appears companies are eligible for governmental support only if they meet the criteria of BBBEE act.

The third set of questions address the economical situation. The three companies emphasized on the fact that their businesses grow rapidly. Vilivo CC express the attitude that the "online clients" are responsible for the business growth and there is no connection to the local economical environment, but it is the global industry trend that moves the clients to the lower cost locations such as South Africa.

According to Cantaloupe, the operating costs are increasing but not as fast as the profit growth rate generated from the international industry. This makes sense because Vilivo CC express the idea the costs of setting up an IT Business are the barriers to enter into the industry, afterwards the costs from operating are incremental in the formation of the profit margin.

According to Deta IT Business CC there is an increase in sales volume to the public sector as well as to the local companies. Their operational costs are incremental in sense that they maintain an office space for 10 people and the others are working from their homes. The office serves the function to manage the work process and to communicate with the customers, while the employees are monitored online. Furthermore, they are subsidized to enhance their technological infrastructure and they receive additional support to train their employees.

The fourth set of questions addresses the issues about the technical skills of the labor force and the role of the educational system. Again there is a divergence in the opinion among the companies opinion. According to Vilivo CC, the FET colleges provide more specialized

skills, which are up to date with the latest technological innovations. On the other side, the research universities provide broader in scope competencies, which are not up to date because the technology changes on average on 3 years. The difference comes from the fact that it takes 3 years to graduate a FET college and 5 years for a university. As a summary, there are available skills in the country but they need to be further developed.

Vilivo CC also express concerns with the decreasing level of education due to the facilitated access to universities where the BBBEE Act applies universities but not for the FET colleges. The interviewee emphasizes on the fact that the BBBEE Act allows the international companies to acquire white people as employees. The companies that comply with the existing BBBEE legislation are obliged to hire first if available black woman, than black man, than colored woman, than colored man and so on and at the end they can hire white man.

According to Cantaloupe CC there are skilled workers in South Africa but they need some training. However, the company prefers to work with its partners who have already developed the skills instead of creating them internally or hiring new people. In terms of education quality, Cantaloupe CC express doubts about how good it is and reflects the need to differentiate the actual skills level and the certificate acquired by the employees. The company express the attitude that there are a lot of people who have obtained a specific type of education (i.e. graphic designers) and there is a shortage of other skills (i.e. IT enabled developers).

Deta IT Business differentiates in its opinion in the matter from the other two companies. The so called "black company" a term related to the local culture and not widely accepted in the Western World express doubts about the results from the BBBEE Act that reflects the education system and the overall skill level of the labor force. Deta IT Business doe not see any problem from the fact that additional training is required due to the fact that that have access to subsidies to do that. The only issue is the time required to do so. Also the company needs graduates from both types of high education institutions. The reason is that they cooperate with local educational and research institutes. As a matter of fact they do not have any other alternative option due to the business model they have developed. The company also states that they expect an improvement in the quality of the educational system but not in a short term.

The in-depth interviews provide the viewpoint of three different types of companies in terms of business strategies. By comparing them, it is evident that there are two main streams for

development of an IT company in South Africa. The two options are either to form the so-called "Black Company" or "White Company". A company is considered as black when it meets the criteria of BBBEE Act while a white company does not do that.

The advantages of pursuing a "Black Company" model are the access to preferential treatment by the government, access to the local market comprising the private and public sectors and financial support to increase the available resources. Given the preferential business environment the core competencies will generate a competitive advantage of the firm on international.

This is particularly helpful when establishing a new company. From the interviews it became evident that the barrier to enter the IT industry is to initially set up the business. While there is domestic demand for the products, it can be innovated and then it will become competitive on the international market. As it has been seen the "online clients" are responsible for the major source of income for the IT companies in South Africa.

The "White Company" model is a second possible option for developing an IT company in South Africa. In that case the target market is the international one instead of the local one. The advantage is that the management of the company maintains the control over the hiring process and can select the best skills available. It allows hiring a white person who is willing to work for smaller salary because it is too difficult for him to find a workplace in "Black Company" or a public company. The result is that an international competitive advantage is created based on a combination of costs and quality of the products and services. Additionally, the English language is native for those people.

The disadvantage of the "White Company" model is derived from the fact that it is not using the available governmental support. The limitation is overcome by the increased international demand for cheaper and reliable products and services. The two "White Companies" are at different stage of development. While Vilivo CC has an international network and gains additional skills from employees in different regions such as US, UK and Ireland, Cantaloupe is partnering with local companies. Those are two different ways to add value to the products and it appears that South Africa is the location, which enables the companies to provide lower cost products and services encompassed with good quality.

The skill level of the labor force is considered relatively good given the costs of acquiring

them. It becomes evident that the management of the companies is aware for the reforms of in the educational system. The "White Companies" appreciate more the FET colleges' graduates while the "Black Company" emphasizes on the need for university graduates too. The importance of the FET colleges for the IT companies shows that the reforms will ensure the availability of higher number of IT Specialist. In short term the quality is expected to decrease but in future a turnover is expected.

4.3 Key Findings from the Analyses

The business environment in South Africa provides various benefits for the local ICT Sector such as preferential tax rates and subsidies. The financial resources provided by the government are available from the growing economy and the available natural resources in the country. This preferential treatment is available for certain types of companies that comply with the local legislation. However, while some companies enjoy the benefits from the preferential treatment, an opportunity for others appear to attract high skilled workers on low price. As a result local IT companies generate a competitive advantage by doing things differently.

South Africa is experiencing issues with the high unemployment rate. This is a major opportunity for the country, because approximately 70% of the unemployed people are aged less than 35 years old and they have obtained at least some secondary education. The educational system is reforming and the goal is to improve the quality of FET colleges system. The graduates from the FET colleges are the prime target group for the local IT companies. In short-term perspective, the education quality is expected to remain unchanged while the quantity of people with diplomas will increase. At present, the quality of the educational system in South Africa is not among the leading ones and that enforces the need for further training of the graduates from both FET colleges and universities.

The technological infrastructure in South Africa is still under the process of development. Currently, the ICT prices are among the highest around world. The government attempts to resolve the issues but direct results are expected to be observed in long-term perspective. From the in-depth interviews, it became evident that the major cost for the IT companies are associated to the initial investment in the process to set up the business. Afterwards, the costs plays insignificant role because the international demand for IT services rises and it requires quality

and reasonably priced services. The interviewed companies showed readiness to work with small profit margins while the demand is high.

5. General Recommendations

The final recommendations assess the attractiveness of South Africa as an emerging outsourcing location for IT services. The recommendations are based on the findings from the literature review regarding the outsourcing concept and the internationalization strategy, the macro-economic screening of South Africa and the results from the in-depth interviews with IT companies based in the country.

According to the Internationalization Strategy (Vernon, 1966), the innovation in products and services is derived from the sophistication of the local customers. In that sense South Africa has a disadvantage due to the low level of Internet penetration among population. Additionally the ICT costs are still higher than most of the other countries which prevents the increase of the penetration among the population. However, from the in-depth interviews it appeared that the existence of the so-called "online client" diminishes the geographical distance as a factor and the companies are dependable on the international IT sector.

Previously the outsourcing decision is defined as the act of transferring some of a company's recurring internal activities and decision rights to outside providers, as set forth in a contract (Greaver, 1999). The main driver for outsourcing of business processes is the cost benefit. Furthermore, the companies are capable to focus on their core competencies and they have more resources available for investment in areas that sustain their competitive advantage. The outsourcing companies enjoy the benefits from the scope of economy and the specialization level of the external service providers.

Given the turbulent economic environment, the companies are stimulated to take advantage of the outsourcing of IT services because the technology is changing on average every three years and salaries in the IT industry in the high income nations are significantly higher than those in the traditional outsourcing locations. . The IT activities within the firms are rarely the source of their competitive advantage. Any business activity that does not lead to best-in-world capability can be outsourced (Quinn, 1999).T his leads to the idea that the international demand

for IT services will continue to grow. The companies are faced to lose their competitiveness if they do not move there IT operations in the low-income nations

The global ICT sector is restructuring and low-income nations such as India and Taiwan are becoming the largest suppliers of ICT services. Nowadays, countries like India are competing with smaller low-income nations such as Bangalore and Kenya. The global completion among the low-income nations will lead to a price ceiling which will be approximately 40% cheaper than in US wages in IT sector. The certification and quality are major concerns, which contribute to the selection of outsourcing location due to different national standards and procedures (Contractor et al., 2011). When the international prices are the same, the quality of the service and the innovations will gain higher importance for the competitiveness of IT services.

In peruse to stimulate the incubation and the development of internationally competitive IT companies, the South African government provides preferential treatment for the SMMEs. The treatment is only available to companies that comply with the BBBEE Act. The companies that incorporate the act have the advantage to use various forms of subsidies. The financial support is available to enhance the technological structure of the company, to increase the number and the skills level of the employees and to invest in R&D. Apart of this the companies gain access to the market formed by the public sector. Furthermore, the companies enjoy lower taxes rates. As a result, the companies can provide cheaper IT services without impacting on the quality of the service. Due to the position of more resources the companies provide more innovative services.

The BBBEE Act shapes the environment for another type of companies to emerge. The companies that do not comply with the act enjoy the benefit to select the best talent available on the labor market. In most of the cases those are white people with descent technical skills who cannot be hired in other companies due to the preferential treatment of black people. This increases the readiness of the white people to work for a lower remuneration. As a result the companies' competitiveness on international level increases by providing high quality services on lower price.

The companies that do not comply with the BBBEE Act are solely focused on the international IT market. They are limited in size because they rely only on their profit to evolve. In pursue to provide more sophisticated services they rely on partnerships with similar

companies who are specialized in different areas. This is already a form of outsourcing practice targeted at both local and international suppliers. They enjoy the benefits from the outsourcing practice such as reduced costs, greater flexibility, and increased scope economies (Ellram, Tate and Billington, 2008). As a result they increase their overall international competitiveness by providing broader range of specialized services. These companies maintain low prices of the final services by reducing their profit margins. They also rely on higher volumes of sales for their development.

The performance of the IT companies depends on technological structure available in the country. South Africa is not among the world leaders in the area. On international level, the South African broadband connectivity rate has increased and the country is already connected to Europe, UK, India and Asia. Through the recently completed projects and there are upcoming ones in the next few years South Africa will be connected to every continent. This opens the opportunity for the ICT sector to provide reliable high quality ICT services to every point of the world.

The overall perception of the technological development in the country does not reflect fully the actual situation because South Africa consists of 9 different provinces. There is a big gap in terms of technological readiness among the different provinces. The technological analysis showed that infrastructure is rapidly developing in the provinces of Gauteng and Western Cape. This explains why the ICT sector is located there. To be exact the highest concentration is observed in Pretoria, Johannesburg and Cape Town. The current processes in technological development leads to the idea that the country poses the latest generation of technologies, which reflects the current ICT prices.

The government attempts to control the high ICT prices by participating through state owned companies in the technological projects. The government condemned initiatives to decrease the interconnection rates, which will lead to lower market prices for broadband access. Despite the global financial and economic crises, the government can allow its participation in such projects due to the fact the country poses various types of natural resources, which are very competitive on the international market. Additionally, the international price level of such resources have recovered in the second half of 2009 and accounted a constant increase. As the country is a major exporter, it generates higher income, which can be reinvested in programs and

initiatives that stimulate the ICT sector development.

Currently, the biggest advantage of South Africa is the English language, which is native for more than 8% of the population. The English language is already the official one for the IT companies. Another important advantage especially valid for the European market is that the two regions are in similar time zones. This is valid for services that require immediate innervation in case of emergency.

From the macro-economic analysis of the country it became evident that the country has an unemployment rate of approximately 24%. Approximately 70% of the unemployed people are under 35 years and have secondary education. This group of people delineates a major opportunity for the country because they can increase their qualification. From the in-depth inter views it became evident the local population is motivated to work but it does have the right skills which explains the structural unemployment rate.

The South African government undertook an initiative and reformed the educational system because in the last quarter of 2011 only 6% of the total unemployment rate has obtained some form of a tertiary education. This facts shows that there is an existing demand for highly trained people.

Currently, the FET colleges strive to accommodate a greater number of people. Initially the number of skilled labor will increase. The interviewed companies expressed a concern regarding the quality of the education in short-term perspective. However, it appeared that the FET colleges' training meets the need of the IT companies. In fact, newly graduate need additional training to be competitive on the international market and often the IT companies assure it. It is important to remark that this is a common issue and the giant IT companies such as Oracle and TATA Consultancy Service have established their own universities in pursue to increase the skill level of their employees. The changes in the

The innovation skills based within the boundaries of a nation will play a key role in attracting the attention of the international customers in the battle between the low-income nations. In that sense South Africa is already among the top 30 countries in the field measured by annually granted patents by WIPO. The country application patents level showed that it is moving upward in the ranking by increasing the involvement of business sector in the R&D process. The increasing share of business involvement in the R&D sector shows that the South

Africa is adopting the research model of the most innovative countries. It is also noticeable that foreigners made the majority of applications, which shows the international interest in the country.

The R&D personnel provided by the business sector accounts for 31.6% and the higher education is responsible for another 53%. The local R&D sector is following a trend to stimulate the cooperation between the higher education and the business sector. The R&D capital expenditure provided by the business enterprises is mainly focused in the fields of physical sciences, chemical sciences, information, computer and communication, applied sciences and technologies and engineering sciences. It is evident that the R&D expenditures are targeted to improve the innovation capabilities in the IT sector.

Apart of the high education institutions and the R&D sector, the Energy sector plays a key role for the development of the ICT sector. Currently, South African electricity mix relies mainly on coals as primary source of energy and that is why the electricity prices among the lowest in the world. The government has established plans to double the electricity production until 2030. The plan was slowed down due to the economic and financial crises but nevertheless it has to be accomplished because the country experienced a shortage of electricity a few years ago.

The country emphasizes on developing renewable source of energy and nuclear powers. Some of the projects will be carried out in partnership between state owned Eskom Holding and foreign investors while others will result from foreign FDI. This will enlarge in size and sophistication the domestic market for IT services related to the sector.

Following the results from the previous analyzes it appears that South Africa has the potential to emerge as an attractive location for outsourcing of IT services. Despite the fact the country is considered as upper middle-income nation it is evident that the country provides a business environment that shapes the international competitiveness level of the ICT sector. The restructuring process that takes place within the global ICT industry compensates the small domestic market. By enhancing the technological level within the country it is possible to expect a development in the domestic market size and its sophistication. The country already has established a reputation for its innovations skills and has attracted the attention of the foreign investors.

There are various constraints that have to be resolved in pursue the ICT sector in South Africa. At present the government is attempting to improve the national skill level and there are enough suitable human resources available. However, the quality of the education system needs to be improved. Achieving that, the ICT sector will benefit from the scope economy. It will increase its innovation skills as well as its reputation for a provider of reliable and competitively price based IT services. Further on, the government needs to tackle the red tape in regards to procedures and time required to start-up a new business as well as the relatively high ICT costs. Another important issue needed to be resolved is the high crime level, which affects the overall image of South Africa. There are evidences that there is an improvement in the field and it can be expected further progress when the unemployment rate decreases. A critical factor for the competitiveness of the ICT sector is the assurance of electricity supply and the prices at which it will be produced.

6. Conclusion

This research assesses the attractiveness of South Africa as an outsourcing location for IT services. It is exploratory in its nature and relies both on primary and secondary data. The first stage of the research was to analyze the outsourcing concept and the motivation of companies to pursue an internationalization strategy. Then a macro-economical analysis was conducted and the outcomes served as foundation for the preparation of in-depth interviews. Three senior managers of South African based IT companies responded to the questions. Finally, a general positive recommendation is prepared based on the findings from all analyzes. The outcome aims to attract the attention of both academia and business practitioners.

7. Project Limitations

This study is developed as part of a post-graduate program in Business Administration and is conducted by the author under the supervision of a PhD Professor. The main constrain is the lack of existing information because there are no previous studies on the topic. The lack of data led to the need to apply primary data collection method. As a result another limitation arose: the reluctance of local IT companies to participate in the in-depth interviews. The majority of IT companies did not see any benefits from their involvement in the research. The reluctance also

came from the fact that the in-depth last long and the senior managers did not have the time-required to respond due to their intense schedules.

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9. Annex

9.1 DESTEP Analysis

9.1.1 Demographic Factors

Population division by gender and race						
	Male		Female		Total	
Population group	Number	% of male population	Number	% of female population	Number	% of total population
African	19 472 038	79,4	20 734 237	79,5	40 206 275	79,5
Coloured	2 188 782	8,9	2 351 008	9,0	4 539 790	9,0
Indian/Asian	626 690	2,6	648 177	2,5	1 274 867	2,5
White	2 227 526	9,1	2 338 299	9,0	4 565 825	9,0
Total	**24 515 036**	**100,0**	**26 071 721**	**100,0**	**50 586 757**	**100,0**

Table 2 *Mid-year population estimates for South Africa by population group and sex, 2011* Source: (Statistics South Africa, 2011)

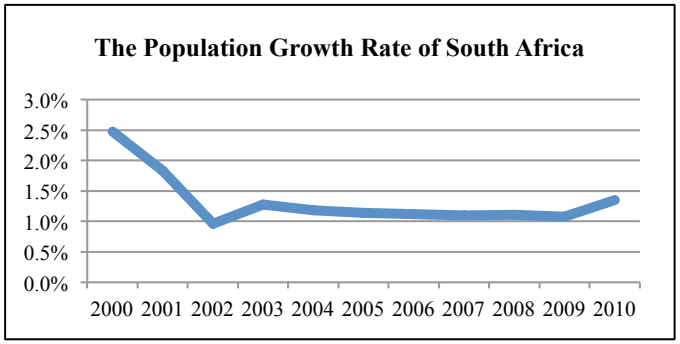


Figure 6,*Population Growth Rate 2010* Adapted by the author
Source: (The World Bank Group, 2012)

Urbanization Statistic	
% of population urbanized, 2010	62
Average annual growth rate of urban population (%), 1970-1990	2.9
Average annual growth rate of urban population (%), 1990-2010	2.4

Table 3 *Urbanization Facts* Source:(unicef, 2011)

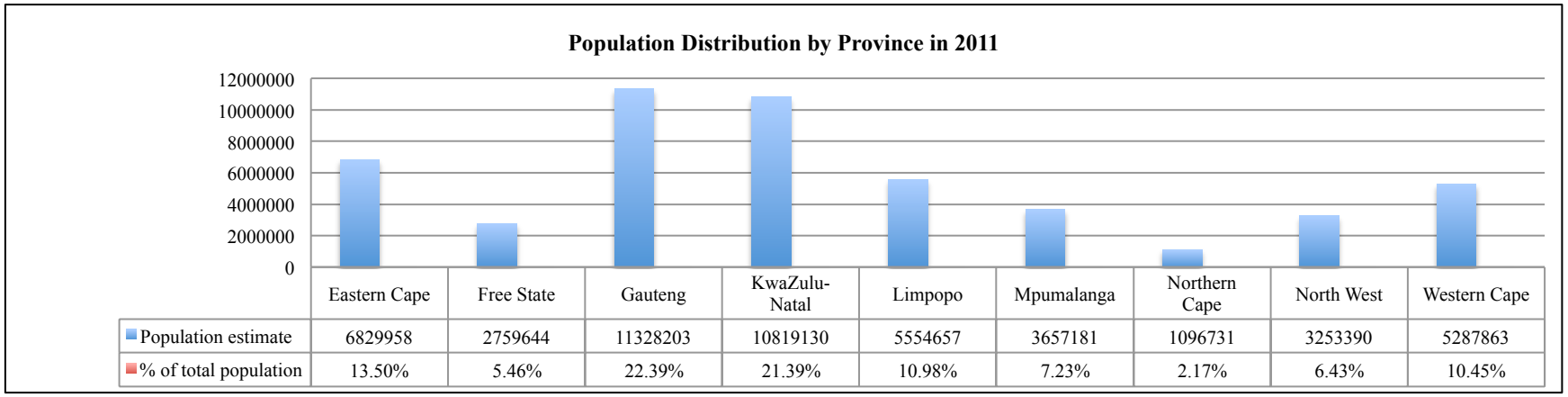


Figure 7 *Mid-year population estimates by province, 2011* Source: (Statistics South Africa, 2011)

Province	Province in 2011								
In 2006	**EC**	**FS**	**GP**	**KZN**	**LP**	**MP**	**NC**	**NW**	**WC**
EC	-	14 178	83 012	76 056	9 221	11 535	3 358	28 139	104 215
FS	7 178	-	54 098	5 574	9 230	6 021	4 900	22 541	9 098
GP	32 925	32 325	-	58 943	34 742	42 729	7 904	49 544	48 951
KZN	18 791	8 678	118 568	-	6 364	17 340	1 835	7 941	17 416
LP	3 462	5 295	166 621	5 512	-	26 462	821	25 596	4 776
MP	6 433	3 931	99 764	15 327	16 938	-	5 214	11 521	5 777
NC	11 375	6 795	11 549	1 917	2 826	2 479	-	10 703	12 941
NW	4 836	15 623	101 430	21 830	12 306	10 716	9 402	-	3 319
WC	29 899	5 923	40 097	13 196	4 490	3 464	9 559	4 309	-

Table 4 *Estimated provincial migration streams, 2006–2011* Source: (Statistics South Africa, 2011)

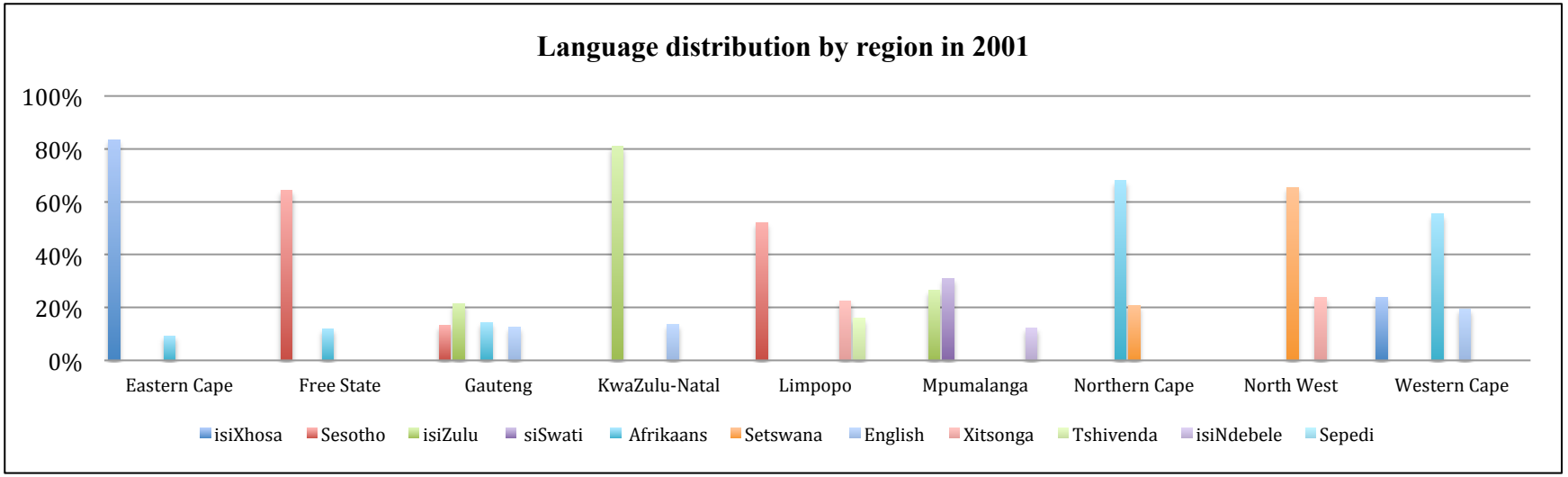
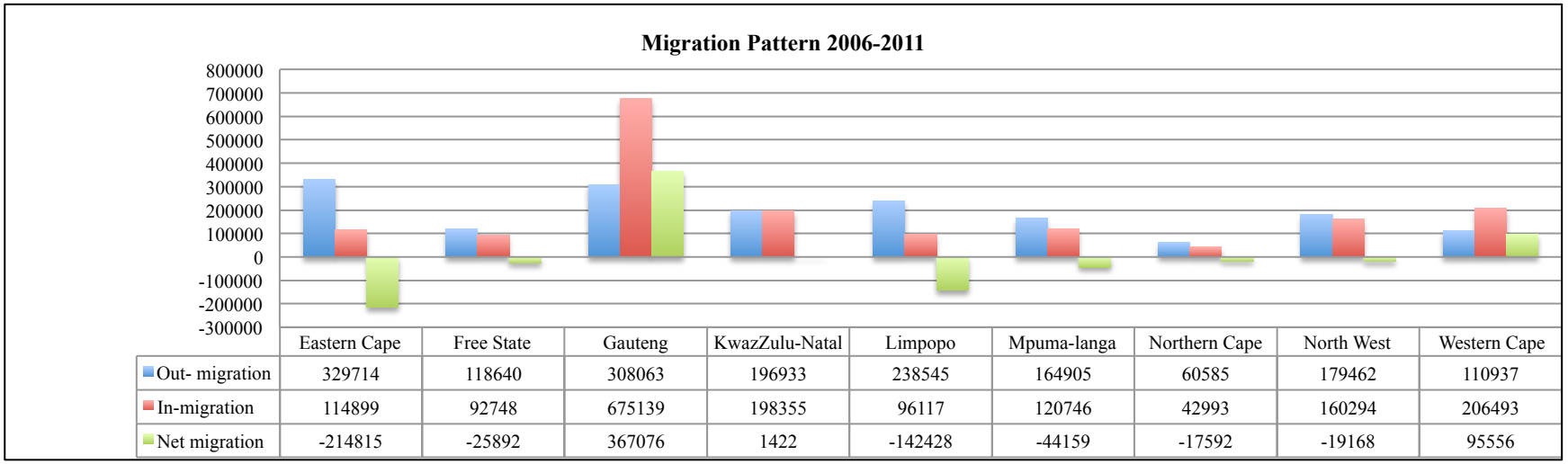


Figure 8 *Estimated provincial migration streams, 2006–2011* Source: (Statistics South Africa, 2011)



	Eastern Cape	Free State	Gauteng	KwazZulu-Natal	Limpopo	Mpuma-langa	Northern Cape	North West	Western Cape
Out- migration	329714	118640	308063	196933	238545	164905	60585	179462	110937
In-migration	114899	92748	675139	198355	96117	120746	42993	160294	206493
Net migration	-214815	-25892	367076	1422	-142428	-44159	-17592	-19168	95556

Figure 9 *Official Languages distribution by region* Source Africa, Statistics South Africa. Spedi is excluded due to lack of information Source: (Statistics South Africa, 2011)

9.1.2 Economic Factors

The GDP of South Africa in 2010 is equal to 363,703,902,727 US Dollars (The World Bank Group, 2012)

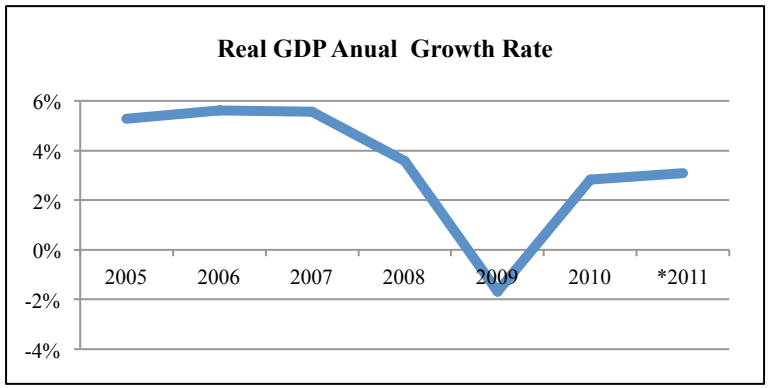


Figure 10 *GDP and GNI per capita growth rate 2005-2010* Source: (The World Bank Group, 2012)

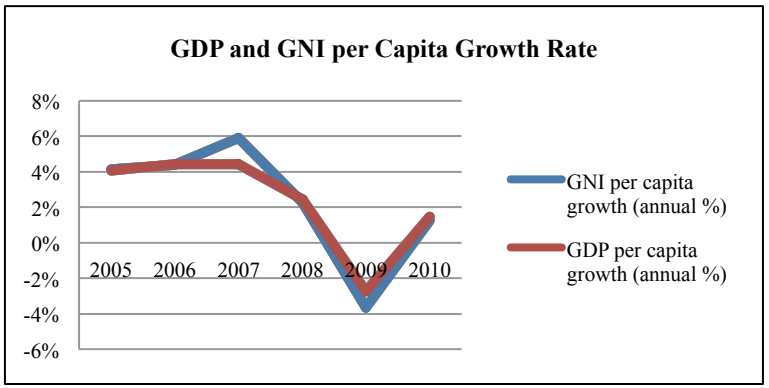


Figure 11 *GDP Annual Growth Rate of South Africa in US Dollars for the period* 2005-2010 Source: (The World Bank Group, 2012) Year 2011 is based on (Statistics South Africa, 2011)

The GNI of South Africa in 2010 is equal to 356,475,191,415 US Dollars (The World Bank Group, 2012)

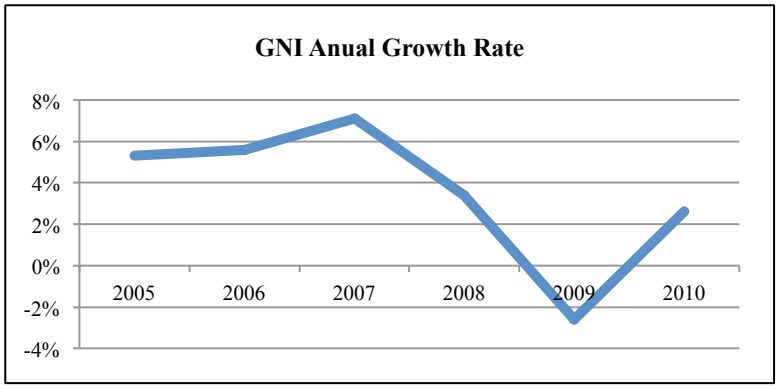


Figure 12 *GNI Annual Growth Rate of South Africa in US Dollars for the period* 2005-2010 Source: (The World Bank Group, 2012)

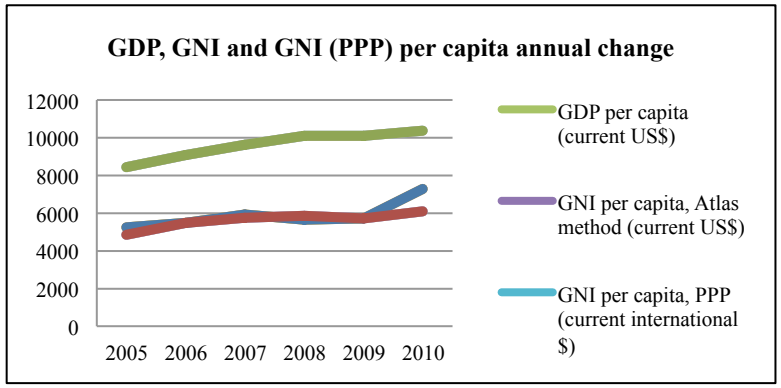


Figure 13 *GDP, GNI and GNI (PPP) per capita annual change 2005-2010* Source: (The World Bank Group, 2012)

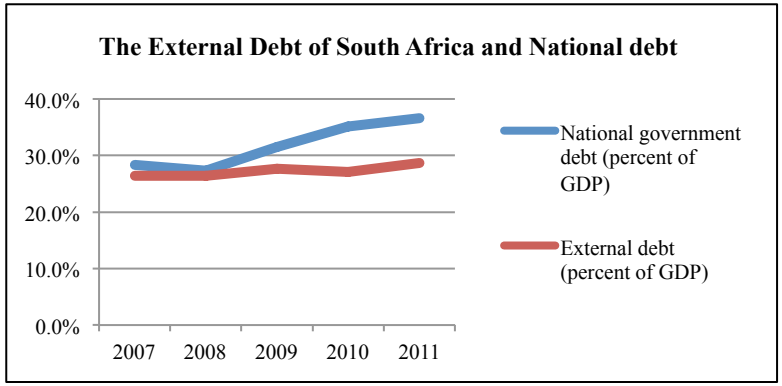


Figure 14 *The External Debt of South Africa and National debt as % of annual GDP* Source: (International Monetary Fund, 2011)

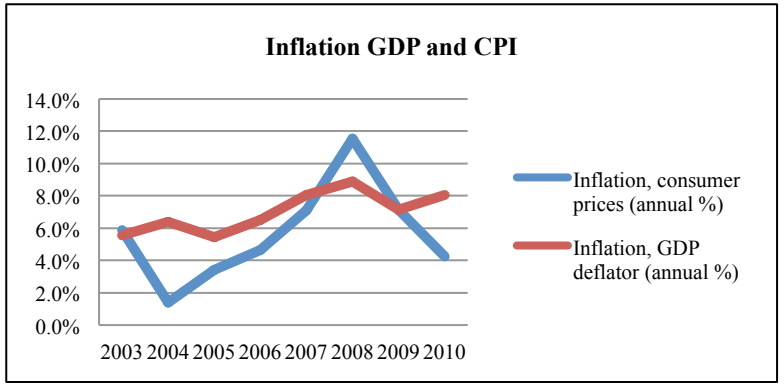


Figure 15 *Inflation, GDP deflator and inflation, consumer price index* Source: *(*World Bank Group, 2012)

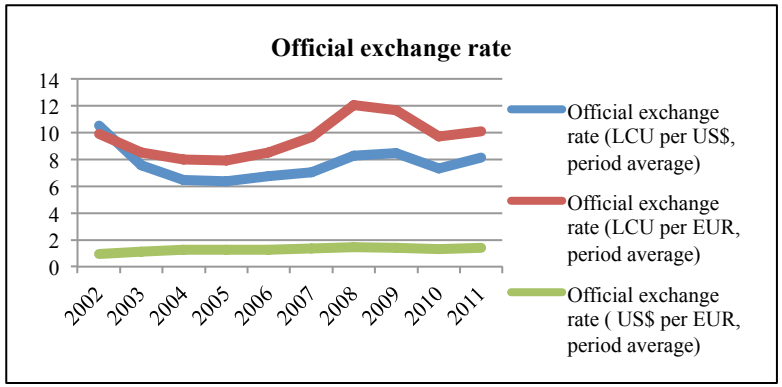


Figure 16 *official exchange rates of the South African rand* Source: **(**World Bank Group, 2012); (European Central Bank, 2012)

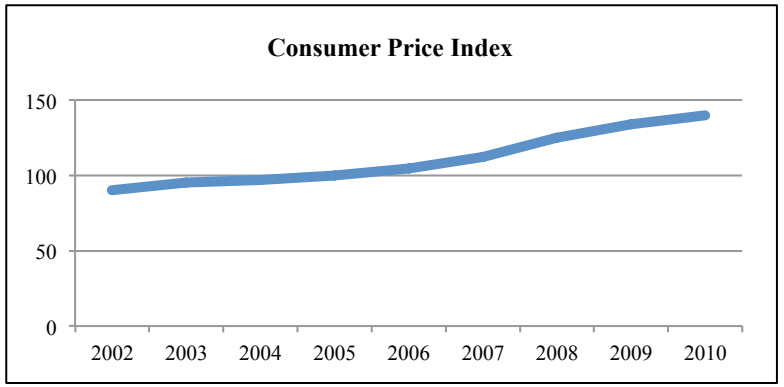


Figure 17 *Consumer Price Index* Source: (World Bank Group, 2012)

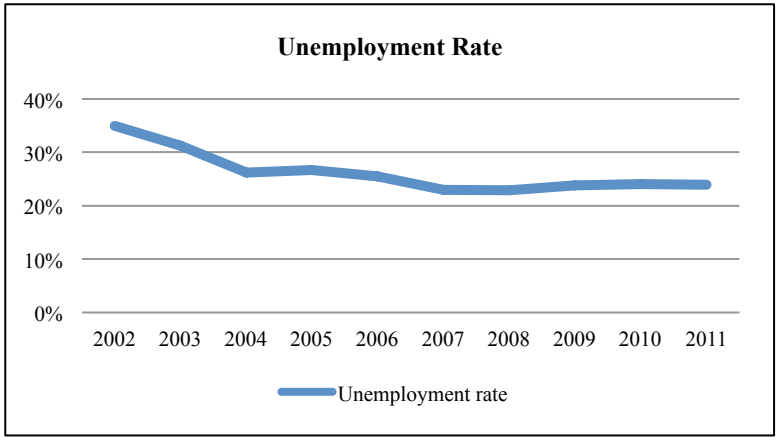


Figure 18 *Unemployment rate (% of total labor force)* Sources: (The World Bank, 2011) and (Statistics South Africa, 2012)

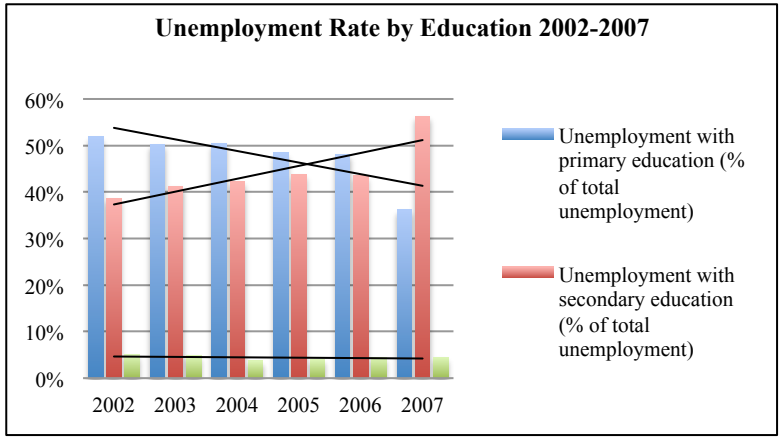


Figure 19 *Unemployment rate by education 2002-2007* (Source: The World Bank Group, 2012)

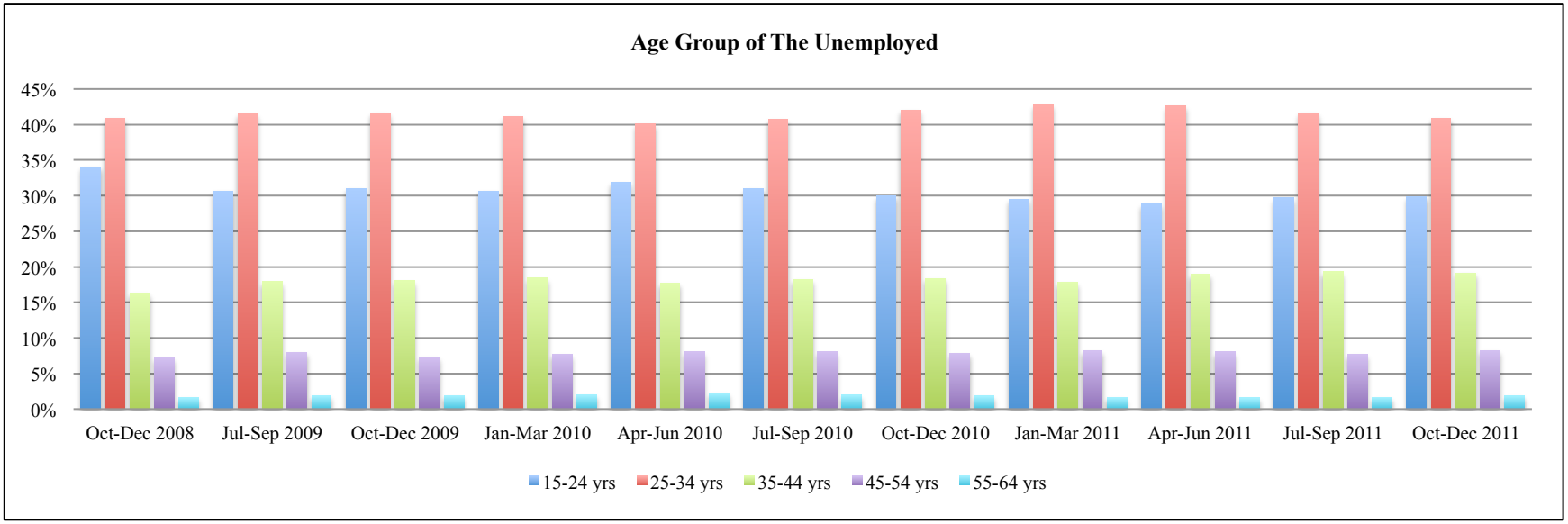


Figure 20 *Age Group of The Unemployed* Source: (Statistics South Africa, 2009 Statistics South Africa, 2010; Statistics South Africa, 2011)

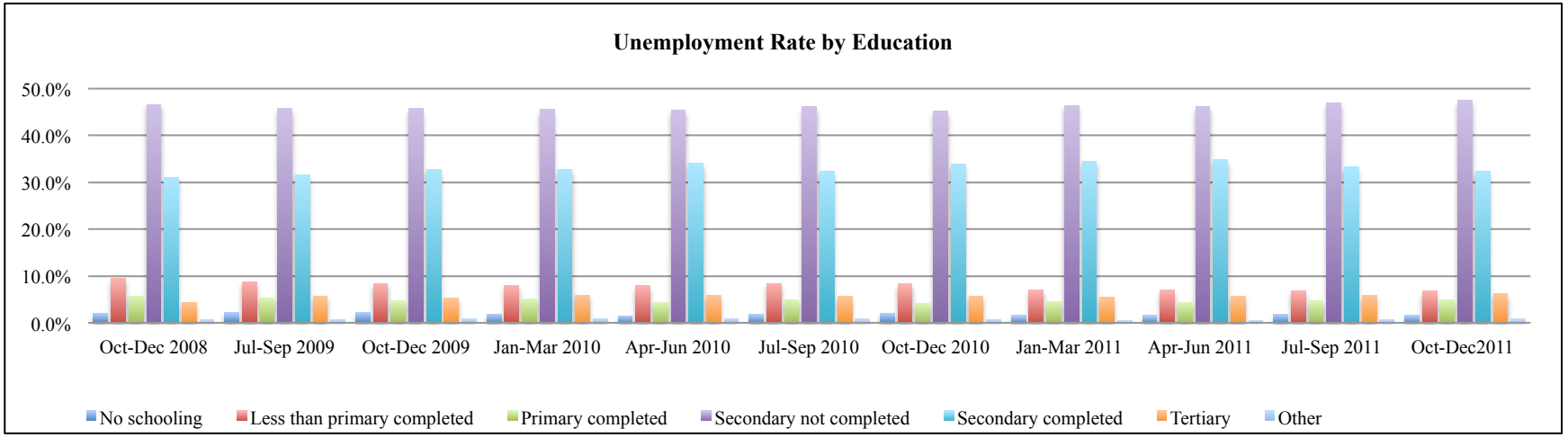


Figure 21 *Unemployment rate by education* Source: (Statistics South Africa, 2009 Statistics South Africa, 2010; Statistics South Africa, 2011)

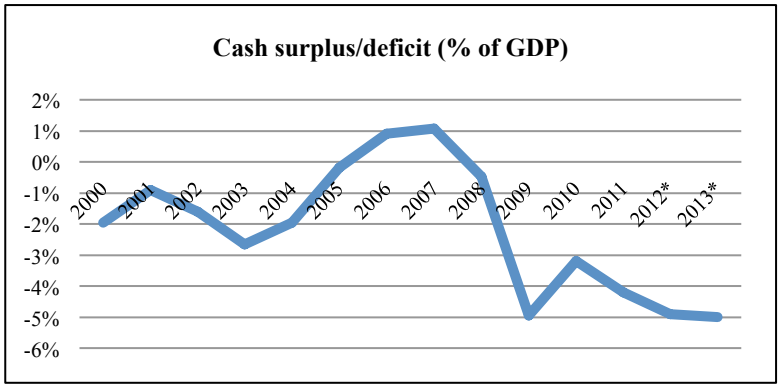


Figure 22 *Cash surplus/deficit (% of GDP)* 2012 and 2013 are values estimated by the National Treasury of South Africa. Source: (The World Bank, 2011; National Treasury , 2011)

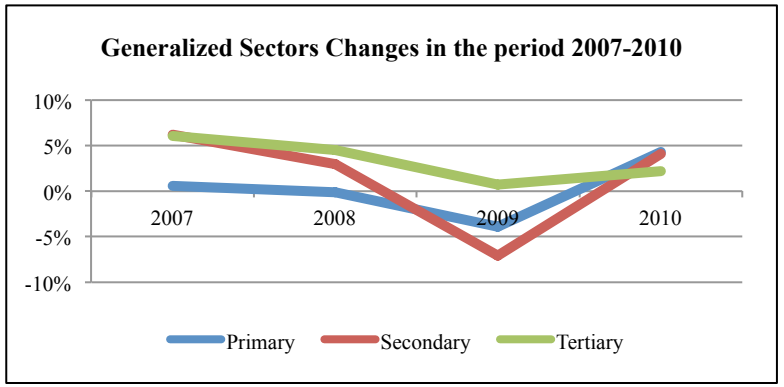


Figure 23 *Generalized Sectors Changes in the period 2007-2010* Source: (The World Bank, 2011)

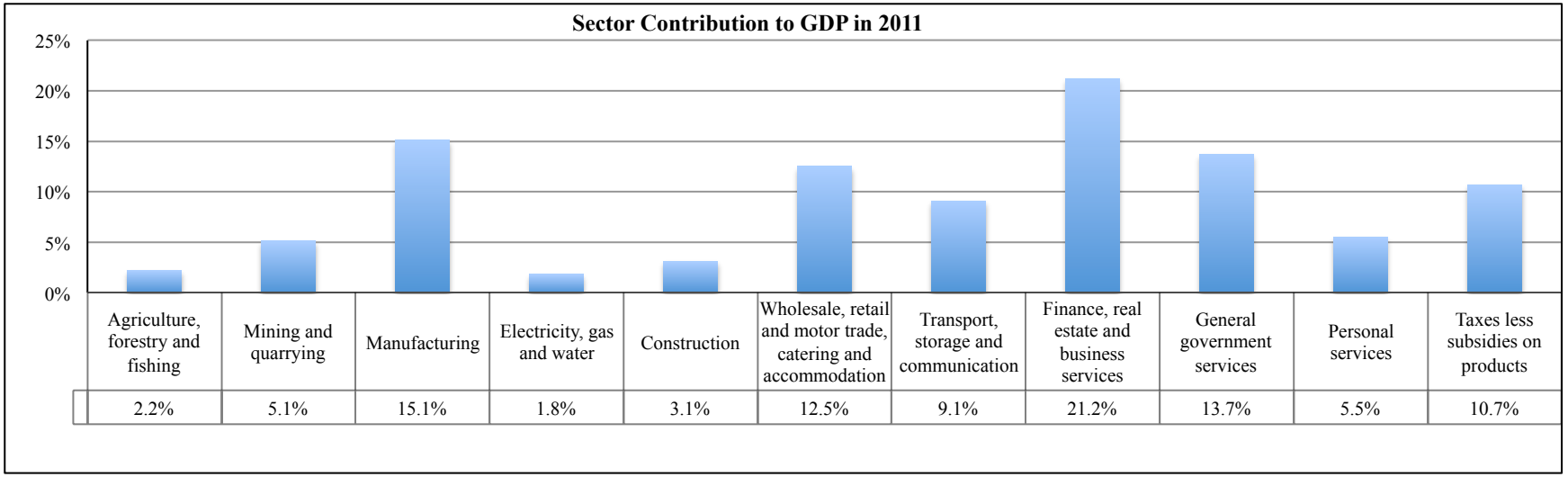
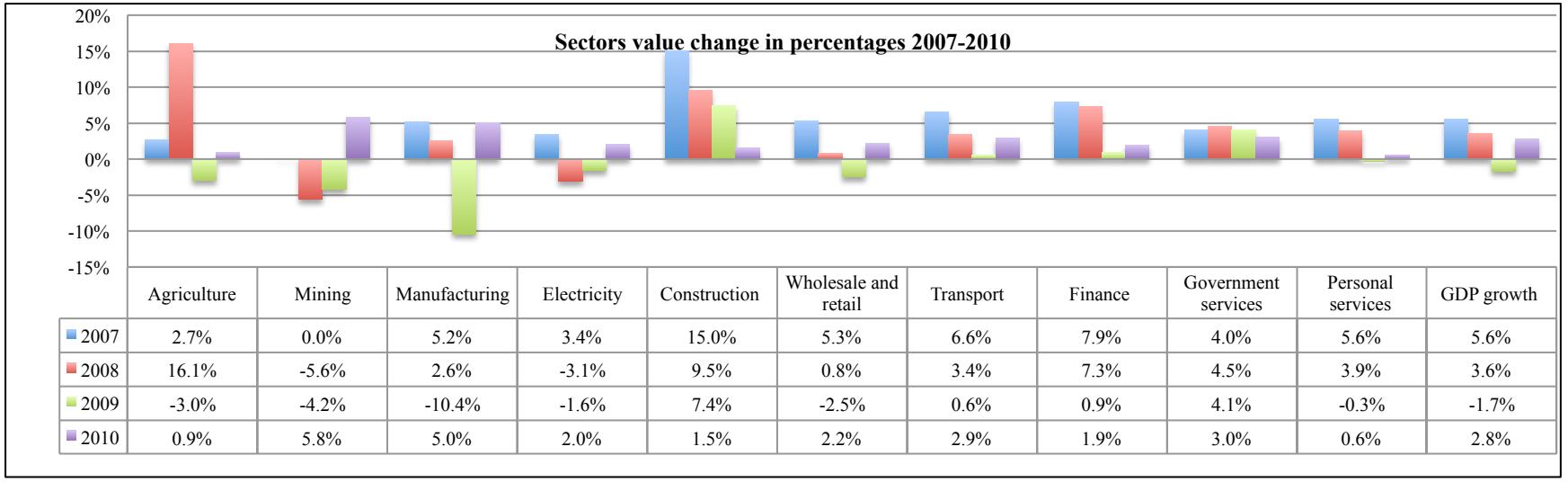


Figure 25 *Sectors in percentage contribution to GDP-2011* Source: (Statistics South Africa, 2012)



	Agriculture	Mining	Manufacturing	Electricity	Construction	Wholesale and retail	Transport	Finance	Government services	Personal services	GDP growth
2007	2.7%	0.0%	5.2%	3.4%	15.0%	5.3%	6.6%	7.9%	4.0%	5.6%	5.6%
2008	16.1%	-5.6%	2.6%	-3.1%	9.5%	0.8%	3.4%	7.3%	4.5%	3.9%	3.6%
2009	-3.0%	-4.2%	-10.4%	-1.6%	7.4%	-2.5%	0.6%	0.9%	4.1%	-0.3%	-1.7%
2010	0.9%	5.8%	5.0%	2.0%	1.5%	2.2%	2.9%	1.9%	3.0%	0.6%	2.8%

Figure 24 *Contribution of the sectors to the GDP in 2011* Source: (Statistics South Africa, 2012)

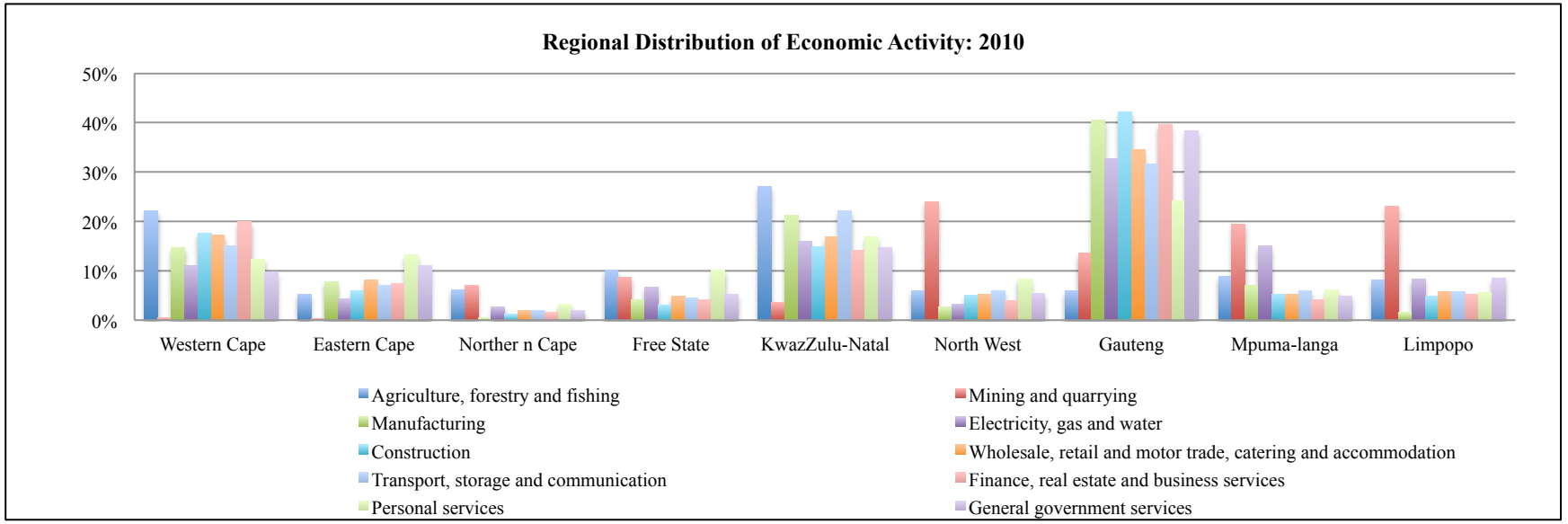


Figure 26 *Regional distribution of economic activities in 2010* Source Statistics South Africa, 2011

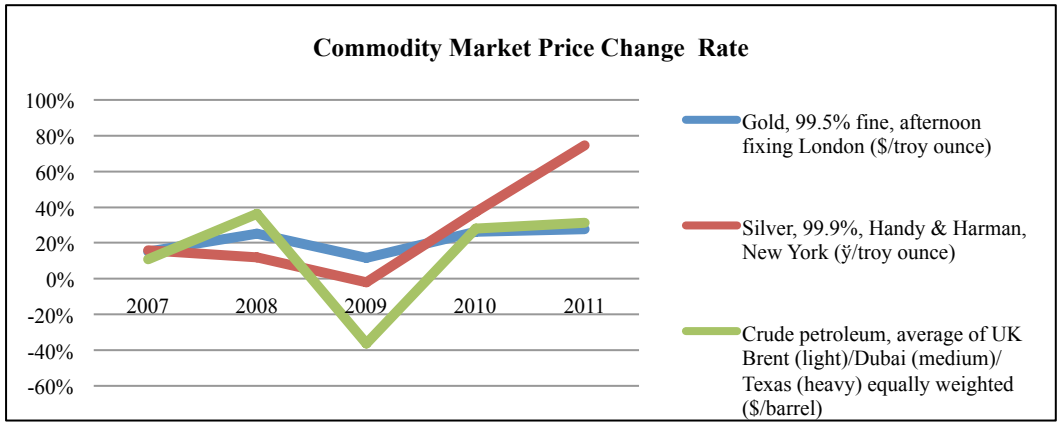


Figure 27 *Commodity Market Price Change Rate* Source: (United Nations Conference on Trade and Development , 2011)

World merchandise trade by region and selected economies, 2010 (Billion dollars and percentage)									
Export					Import				
Value	Annual percentage change				Value	Annual percentage change			
2010	2005-10	2008	2009	2010	2010	2005-10	2008	2009	2010
82	10%	16%	-24%	33%	94	9%	14%	-27%	29%

Table 5 *South African Export and Import Values for merchandise trade in 2010 and annual percentage change.* Source: (World Trade Organization, 2011)

World exports of commercial services by region and selected country, 2010 (Billion dollars and percentage)									
Value	Annual percentage change				Value	Annual percentage change			
2010	2005-10	2008	2009	2010	2010	2005-10	2008	2009	2010
14	0.05	-8%	-6%	21%	18	9%	2%	-13%	25%

Table 6 *South African Export and Import Values for commercial services in 2010 and annual percentage change.* Source: (World Trade Organization, 2011)

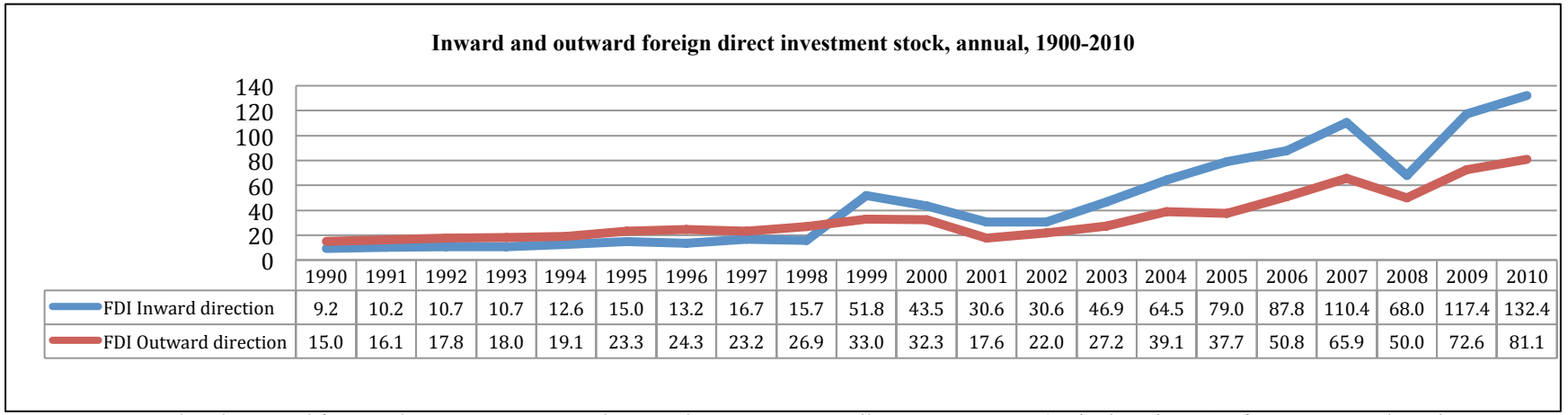


Figure 28 *Inward and outward foreign direct investment stock, annual, 1900-2010 in Billions USD* Source (United Nations Conference on Trade and Development , 2011)

9.1.3 Socio-Cultural factors

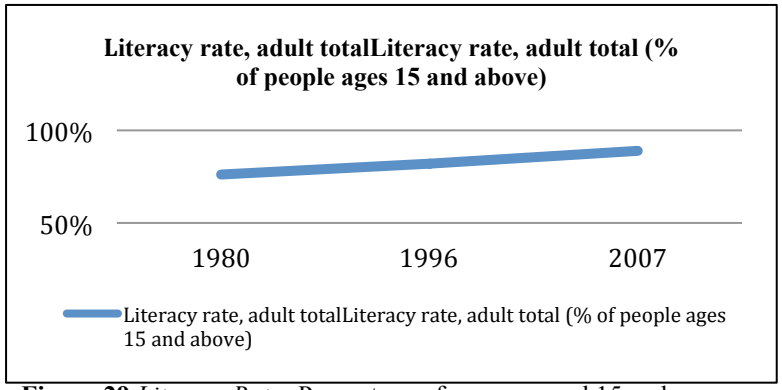


Figure 29 *Literacy Rates* Percentage of persons aged 15 and over who can read and write. Source: (The World Bank, 2011)

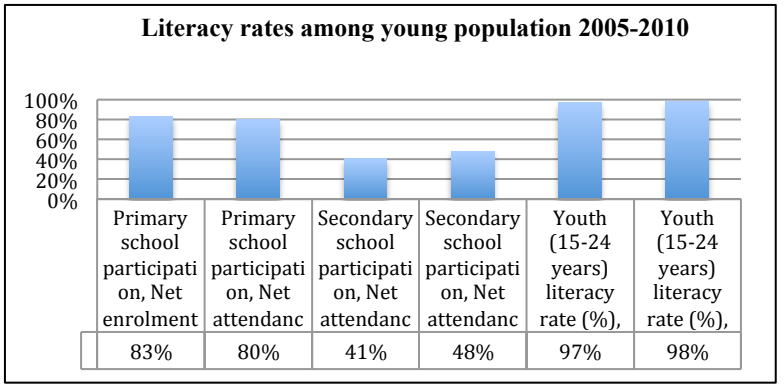
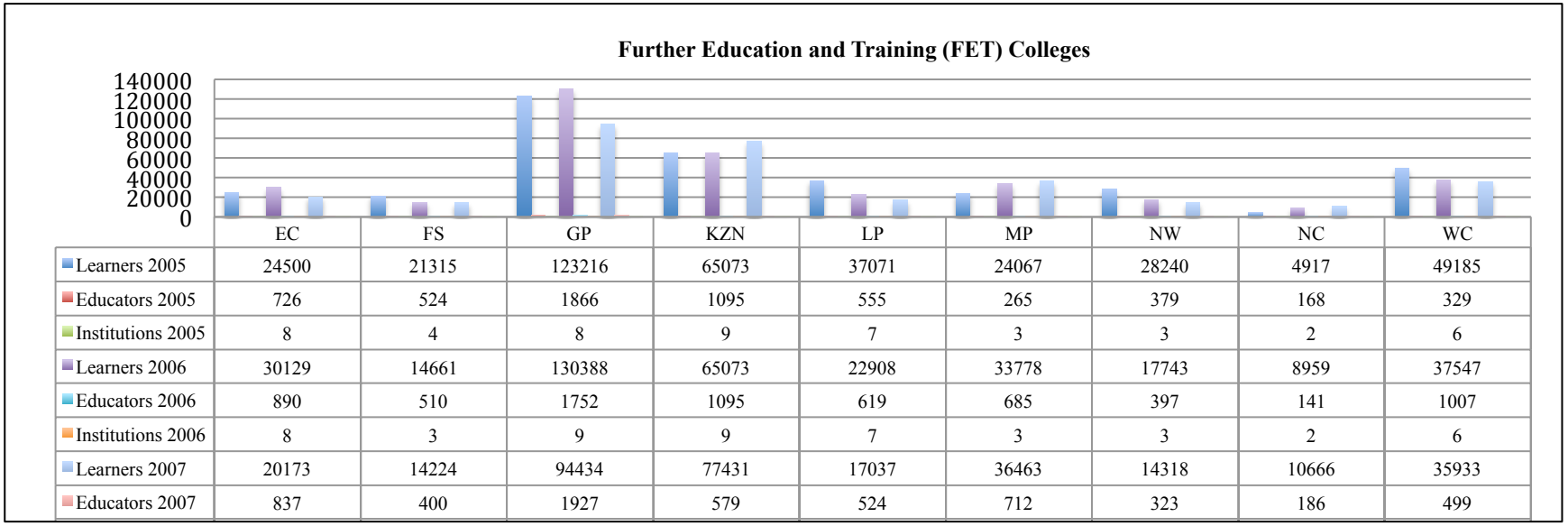


Figure 30 *Literacy rates among young population 2005-2010* Source: **(**unicef, 2011**)**



	EC	FS	GP	KZN	LP	MP	NW	NC	WC
Learners 2005	24500	21315	123216	65073	37071	24067	28240	4917	49185
Educators 2005	726	524	1866	1095	555	265	379	168	329
Institutions 2005	8	4	8	9	7	3	3	2	6
Learners 2006	30129	14661	130388	65073	22908	33778	17743	8959	37547
Educators 2006	890	510	1752	1095	619	685	397	141	1007
Institutions 2006	8	3	9	9	7	3	3	2	6
Learners 2007	20173	14224	94434	77431	17037	36463	14318	10666	35933
Educators 2007	837	400	1927	579	524	712	323	186	499

Figure 31 *Further Education and Training (FET) excluding Higher Education statistics* Source: (Department of Basic Education, 2010)

BAND	SCHOOL GRADES	NQF LEVEL	QUALIFICATIONS
HIGHER		8	Doctor's degree
		7	Master's degree
			Honours degree
			Postgraduate diploma
		6	General first degree
			Professional first degree postgraduate
			Bachelor's degree
		5	First diploma
			Higher certificate
			Certificate
FURTHER	12	4	Diplomas
	11	3	Certificates
	10	2	
GENERAL	9	1	Grade 9 / Adult Basic Education and Training level 4
	8		
	7		
	6		
	5		
	4		
	3		
	2		
	1		
	R		

Table 8 Qualification types and variants Source: (The Council on Higher Education (CHE) , 2011)

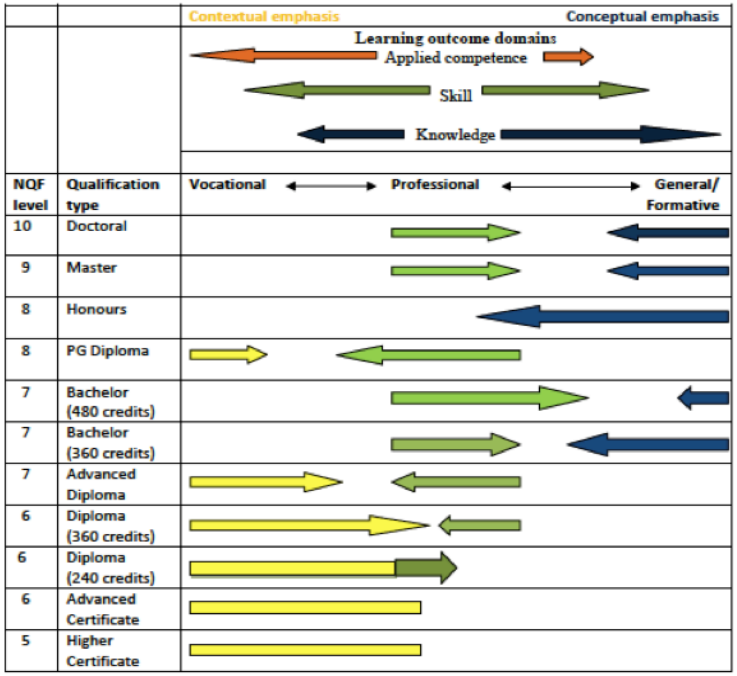
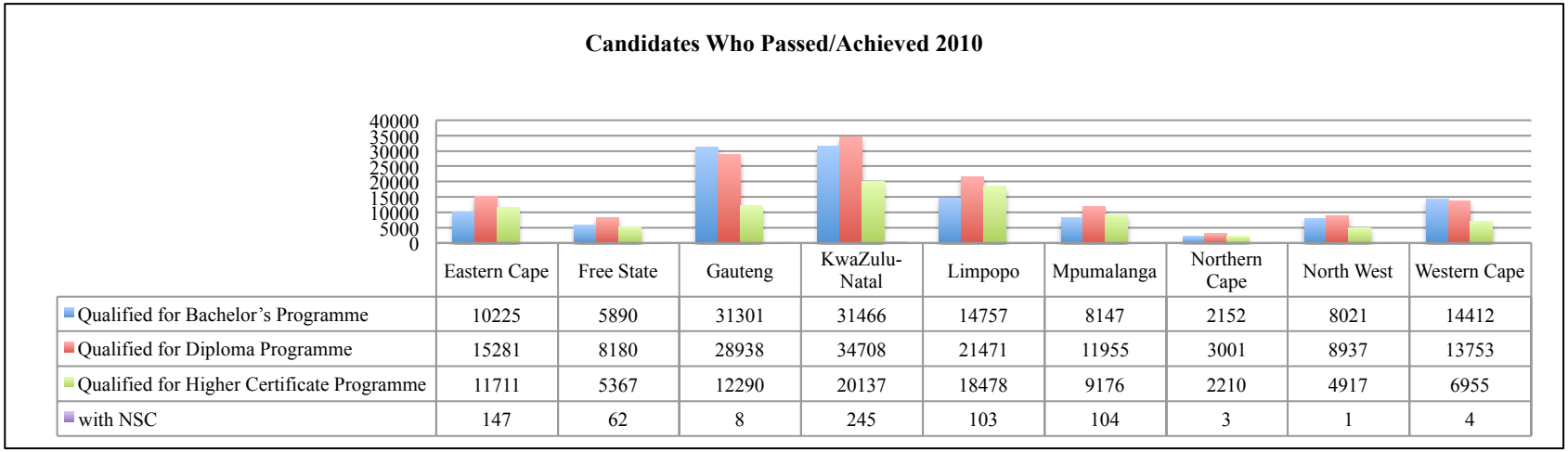


Table 7 *Qualifications by level and orientation* Source: (The Council on Higher Education (CHE) , 2011)

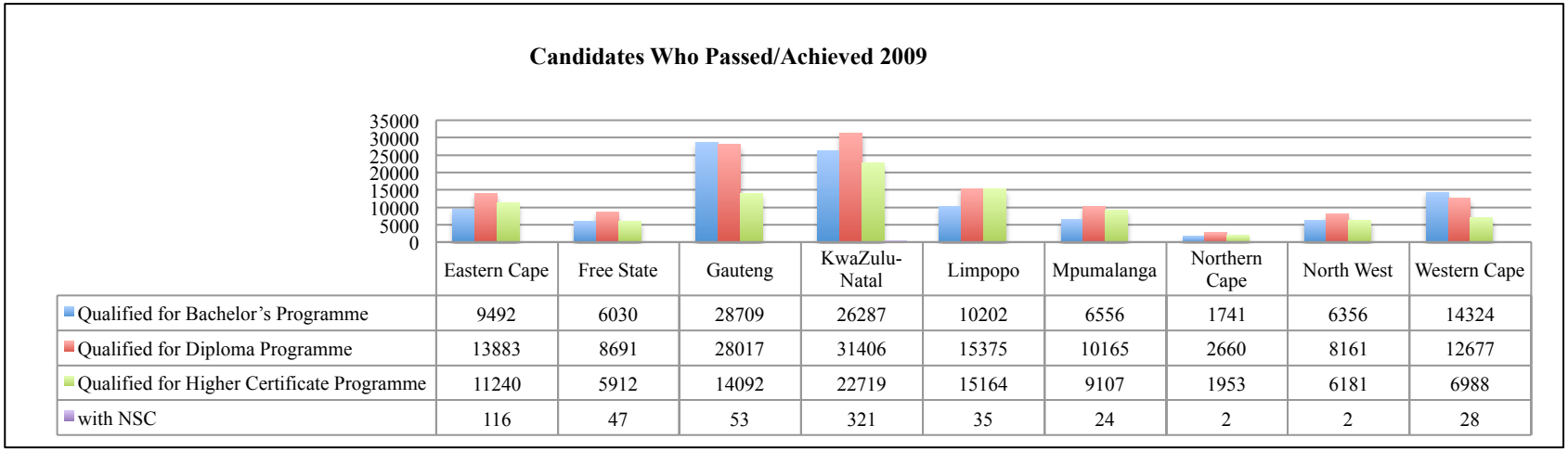
NQF level	Vocational	Professional	General
10		Doctoral degree	Doctoral degree
9		Master's degree	Master's degree
8	Postgraduate Diploma	Postgraduate Diploma Bachelor's degree	Honours degree Bachelor's degree
7	Advanced Diploma	Bachelor's degree Advanced Diploma	Bachelor's degree
6	Diploma (240cr)	Diploma (360cr) (Possible) Diploma (240cr)	
6	Advanced Certificate (120cr)		
5	Higher Certificate (120cr)		

Table 9 *The National Qualification Framework* 2008 Source: (UNESCO, 2010)



	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape
Qualified for Bachelor's Programme	10225	5890	31301	31466	14757	8147	2152	8021	14412
Qualified for Diploma Programme	15281	8180	28938	34708	21471	11955	3001	8937	13753
Qualified for Higher Certificate Programme	11711	5367	12290	20137	18478	9176	2210	4917	6955
with NSC	147	62	8	245	103	104	3	1	4

Figure 32 *Candidates Who Passed/Achieved 2010* Source: The Department of Basic Education, 2012



	Eastern Cape	Free State	Gauteng	KwaZulu-Natal	Limpopo	Mpumalanga	Northern Cape	North West	Western Cape
Qualified for Bachelor's Programme	9492	6030	28709	26287	10202	6556	1741	6356	14324
Qualified for Diploma Programme	13883	8691	28017	31406	15375	10165	2660	8161	12677
Qualified for Higher Certificate Programme	11240	5912	14092	22719	15164	9107	1953	6181	6988
with NSC	116	47	53	321	35	24	2	2	28

Figure 33 *Candidates Who Passed/Achieved 2009* Source: (The Department of Basic Education, 2010)

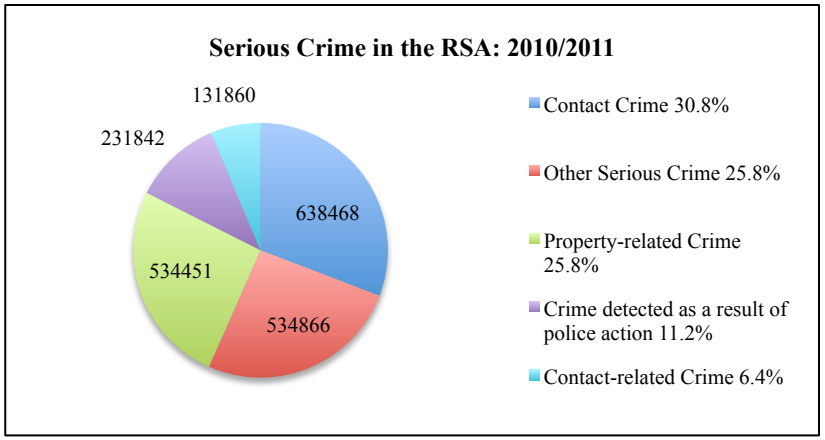


Figure 35 *Serious Crime in the RSA: 2010/2011* Source: (South Africa Police Service 2012)

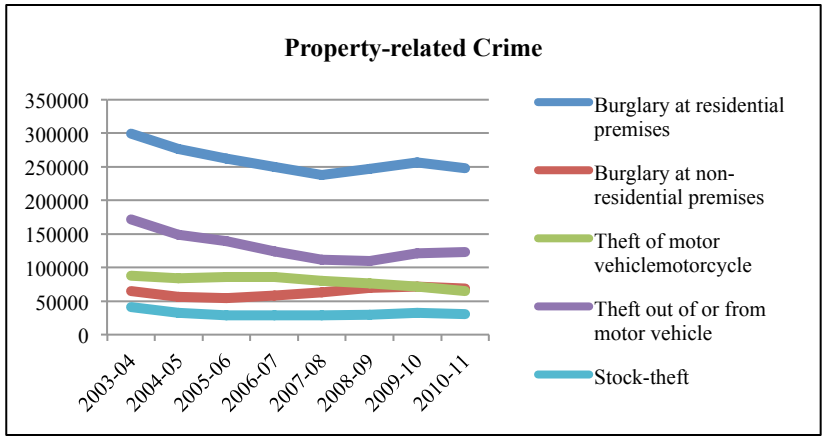


Figure 34 *Property-related Crime* Source: (South Africa Police Service, 2012)

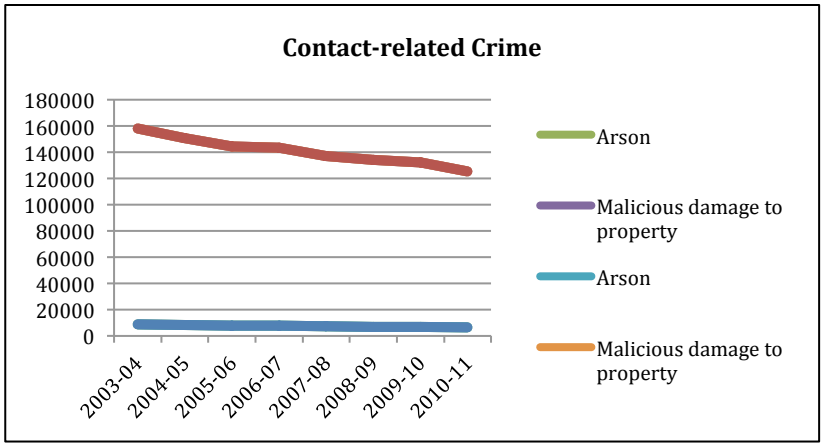


Figure 36 *Contact-related Crimes* Source: (South Africa Police Service, 2012)

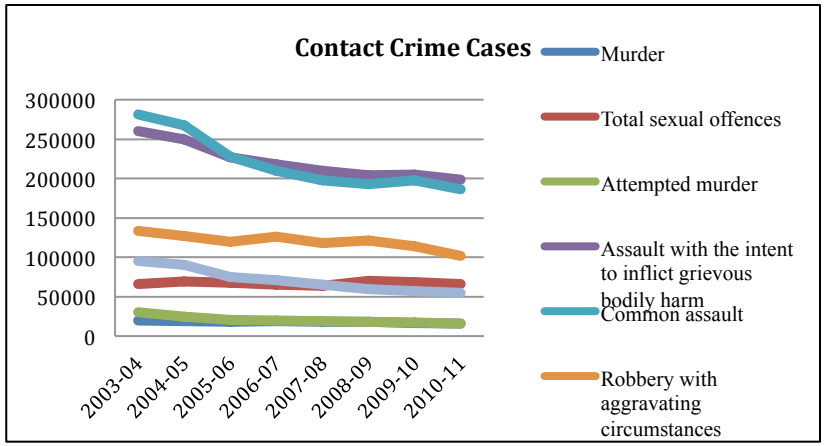


Figure 37 *Contact Crime Cases* Source: *South Africa Police Service, 2012)

Types of businesses targeted			
Spaza/tuck shop	22,7%	Construction site/office	1,3%
Supermarket (all types)	13,1%	Motor vehicle dealer/car rental company	1,3%
General dealer	8,7%	Bar/pub	1,2%
Tavern	5,5%	Workshop/panel beaters	1,2%
Garage/petrol station	5,0%	Hotel/motel/guesthouse	1,2%
Clothing store	3,8%	Scrap metal dealer	1,1%
Fast food outlet	3,7%	Furniture shop	1,1%
Café	3,1%	Hairdresser/salon/cosmetics shop	1,1%
Liquor store	2,7%	Educational premises	1,0%
Cellular telephone shop/container	2,3%	Government institution	0,9%
Restaurant/coffee shop	1,7%	Warehouse/storage facility	0,9%
Butchery/dairy	1,7%	Plumbing/electrical services	0,8%
Medical institution (surgery, pharmacy, hospital)	1,5%	Hardware shop	0,8%
Factory	1,5%	Other (32 types)	7,7%
Office/office park	1,4%		

Table 10 *Types of business targeted in Financial Year 2010-2011* Source: (South Africa Police Service, 2012)

9.1.4 Technological Analysis

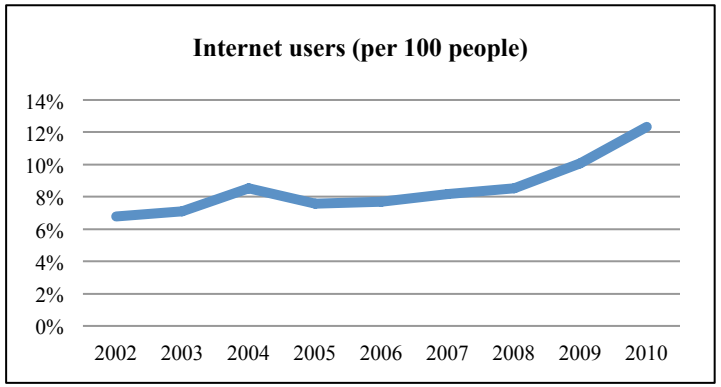


Figure 38 *Internet users per 100 people* Source: *(*The World Bank, 2011)

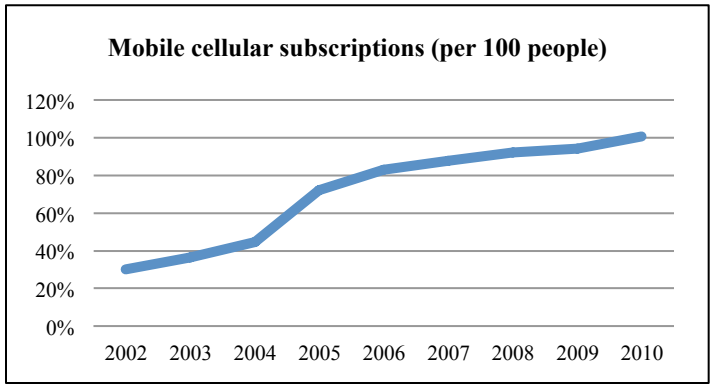


Figure 39 *Mobile cellular subscriptions per 100 people* Source: (The World Bank, 2011 **)**

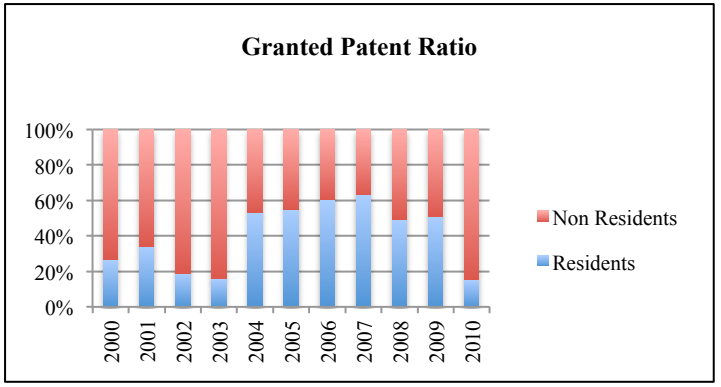


Figure 40 *Number Patents Granted by Residents and Non Residents* Source: **(**The World Intellectual Property Organization (WIPO) , 2011)

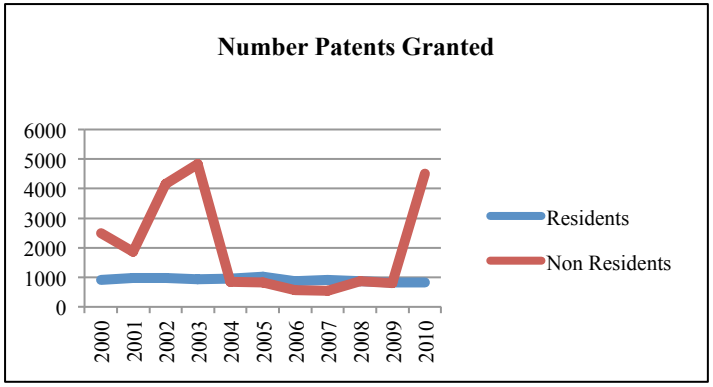


Figure 41 *Patent granted Ration by Residents and Non residents* Source: *(*The World Intellectual Property Organization (WIPO) , 2011)

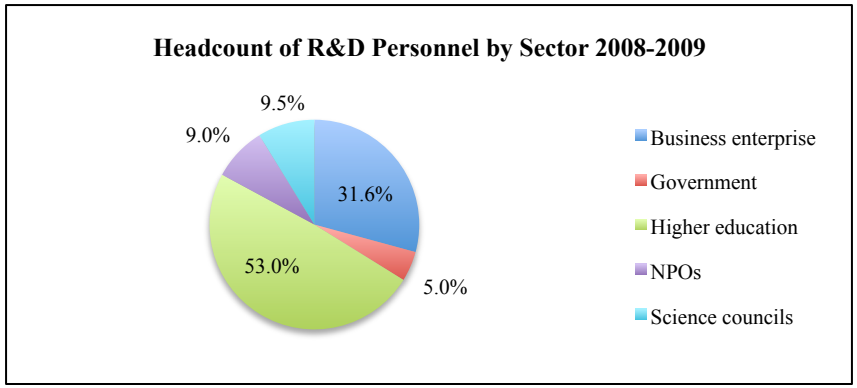


Figure 42 *Headcount of R&D Personnel by Sector 2008-2009* Source: (Human Sciences Research Council, 2011)

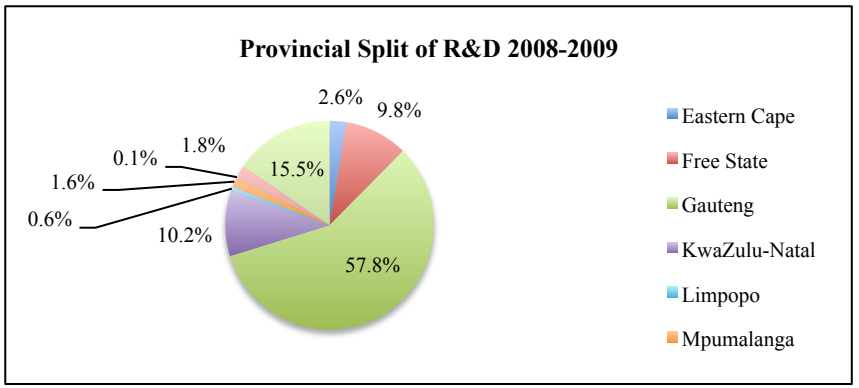


Figure 43 *Provincial Split of R&D 2008-2009 2009* Source: (Human Sciences Research Council, 2011)

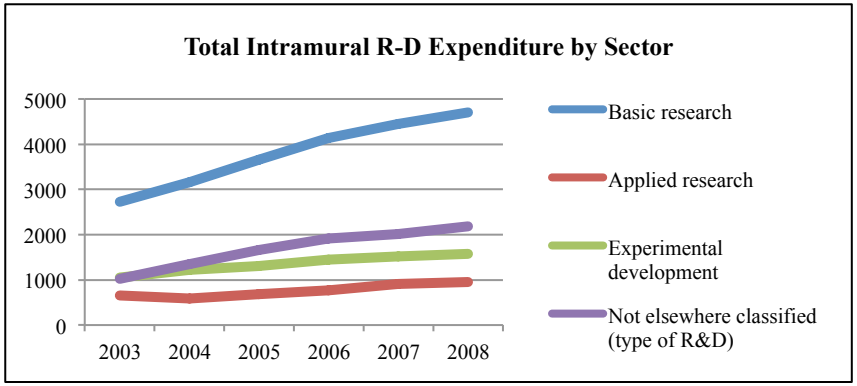


Figure 44 *Total Intramural R-D Expenditure by Sector* Source: (Organisation for Economic Co-operation and Development (OECD), 2012)

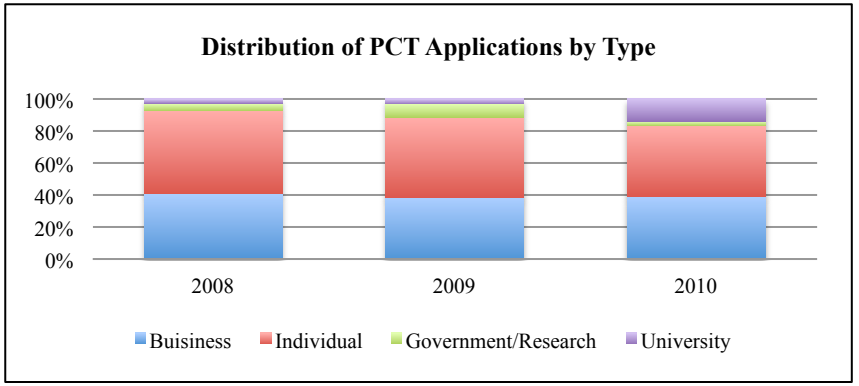


Figure 45 *Distributions of PCT Applications* by Type Source: (The World Intellectual Property Organization (WIPO) , 2011)

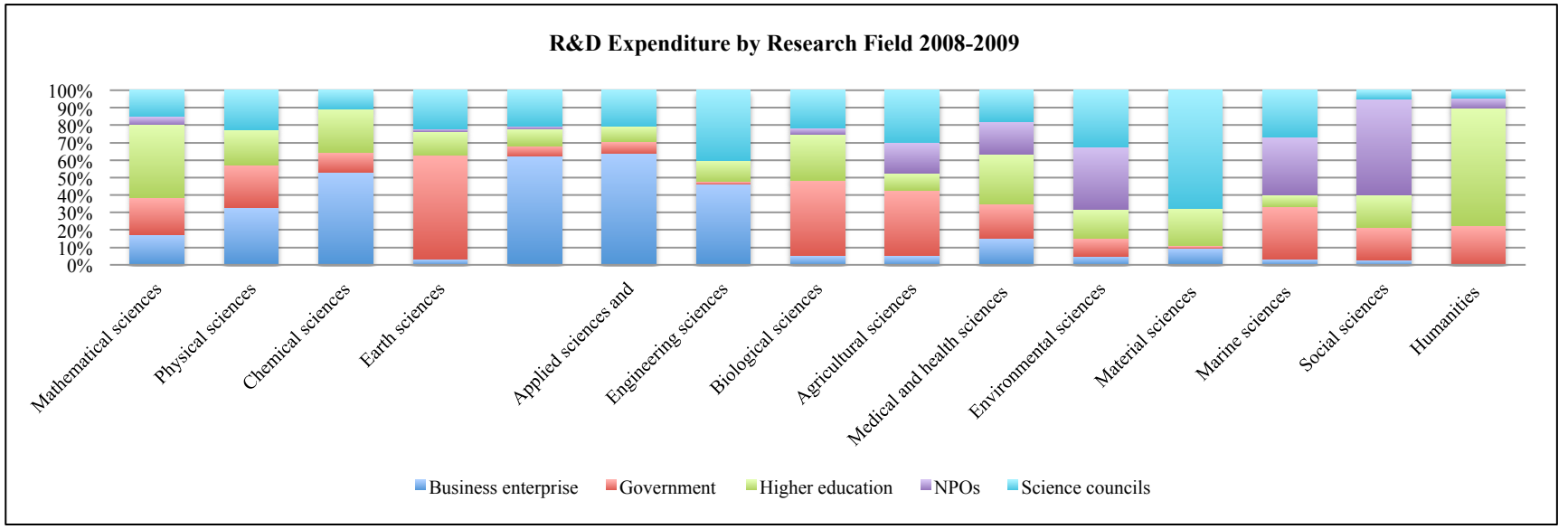


Figure 46 *R&D Expenditure by Research Field 2008-2009* Source: (Human Sciences Research Council, 2011)

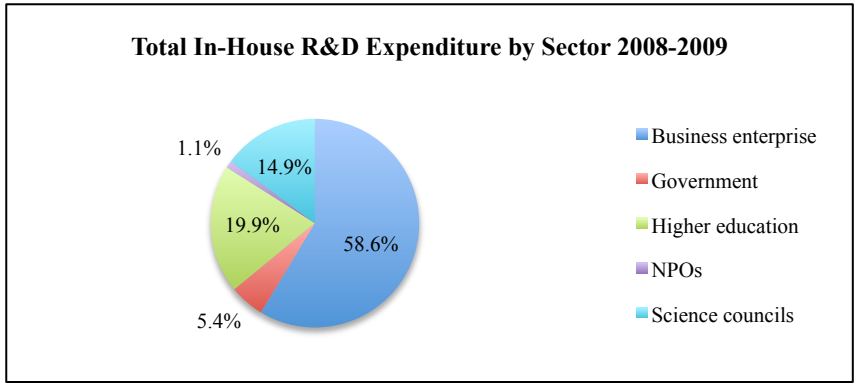


Figure 47 *Total In-House R&D Expenditure by Sector* Source ☹ Human Sciences Research Council, 2011)

WACS Consortium	
SA Partners	International Partners
Broadband Infraco	Angola Telecom
Telkom SA	Cable & Wireless
Neotel/Tata Communications	Telecom Namibia
Vodacom	Portugal Telecom
MTN	Sotelco
	Togo Telecom

Table 11 *West Africa Cable System (WACS) Consortium* Source: (Tata Group, 2009)

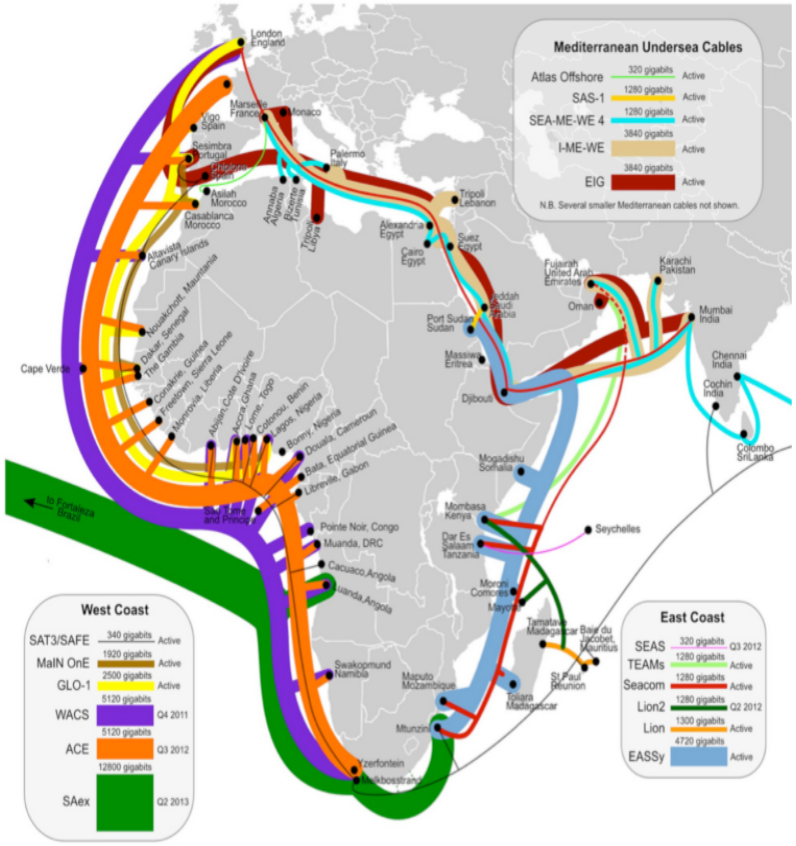


Figure 49 *Speculative Map of Sumbarine fiber opic cable system around Africa* Source: (Song, 2011)

9.1.6 Political-Legal Analysis

ACE Consortium	
Cable Consortium of Liberia Inc	Orange Mali
Côte d'Ivoire Telecom	Orange Niger S.A.
Expresso Telecom Group Ltd	PT Comunicações SA
France Telecom S.A.	Republic of Equatorial Guinea
Gambia Submarine Cable Company Ltd	Republic of Gabon
Guinéenne de la Large Bande SA	Sierra Leone Cable Company
International Mauritania Telecom	Sonatel

Table 12 *African Coast to Europe project* Source: (France Télécom, 2012)

9.1.5 Environmental Analysis

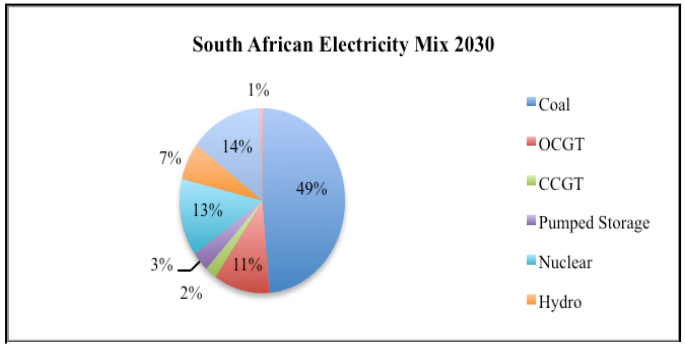


Figure 48 *South African Electricity Mix* Source: (South African Government , 2011)

9.2 In-depth Interview Protocols

List of ICT related governmental programs/initiatives	
Incubation programmes	Incubator programmes have so far played a vital role in development ICT SMMEs in the country. These programmes ensure that government's objective of promoting or facilitating further entry of SMME within the ICT sector becomes a reality. The Department of Trade and Industry and Innovation Hub are the two government institutions that have taken the lead in the development of ICT SMMEs through the incubation model:
Support programme for Industrial Innovation (SPII)	SPII is designed to promote technology development in manufacturing industries in South Africa through support for innovation of competitive products and/or processes. The SPII is designed to promote and assist technology development in South African industry through the provision of financial assistance for projects that develop innovative products and/or processes. The programmes also give special focus to small-micro and medium enterprises (SMMEs). It is a programme that promotes the diffusion or usage of ICT the manufacturing sector. The SPII consists of three schemes: the Product Process Development, Matching and Partnership Schemes. The SPII Programme is funded by the Department of Trade and Industry and administered by the Industrial Development Corporation.
ISETT-SETA	The lack of ICT related skill has been blamed for minimal uptake and entry of SMMEs within the ICT sector. The ISETT SETA seeks to develop South Africa into an ICT knowledge based society by encouraging more people to develop skills in the sector as a means of contributing to economic growth. For more information Under-serviced-Area Licensees (USALs) Through the Under-serviced Area Licences programme, the Universal Service Agency has facilitated the entry of new SMMEs within the ICT sector.
Khula-Enablis Loan Fund	The Enablis-Khula Loan Fund is a programme tailor made to address the financial needs of ICT SMMEs. The fund seeks to promote the use of ICT by promoting entrepreneurs that are promoting the use and access to ICT.
Technology and Human Resources for Industry Programme (THRIP)	THRIP aims to improve the competitiveness of South African industry by supporting science research, technology development and diffusion. The programme is designed to foster collaboration within industry, higher education institutions and the government's science, engineering and Technology institutions (SETIs).
South African Technology Vanguard (SAVANT)	SAVANT is a Public-Private Partnership between government and industry. It is the vanguard of the South African Information and Communication Technology and Electronics sector (ICTE). The SAVANT marketing and awareness programme aims to strengthen the South African ICTE industry in order to add dimension to its global competitiveness.
Small Enterprise Development Programme (SMEDP)	This programme is managed by The Enterprise Organisation Unit within the Dti. The unit's main objective is to facilitate and stimulate the development of sustainable competitive enterprises. The programme is targeted at a number of sectors, including SMEs operating within the Information Communication and Technology sector. The objectives of SMEDP are that of developing entrepreneurship and promote empowerment within the sector.

9.2.1 In-depth interview transcript Vilivo CC
Name of Interviewee: Ivo Vasilev
Date: 17.04.2012
Duration: 1h:15 minutes
Contact: Skype: velissavnavi

Question Group 1

This part is dedicated to establishment of a description of your firm and the position you take within its structure.

Question 1 What is the name of your company?

Vilivo CC

Question 2 Where is it located ?

Johansepburg and Toronto

Question 2 What is your position within the firm structure?

Owner and executive editor

Question 3 What is the core business of the firm?

Offering IT to different website

Question 4 What type of products/services does the firm provide?

Various Webdesign CF5 data SQL design database building and virtualization social networking

Question 5 What is the size of the firm in terms of employee turnover in the past year?

In South Africa 42 and overall 112 in countries such as UK, Canada and US. Overall in 18 different time zones,

Question 6 What kind of customers do you have in terms of number of employees or annual sales volumes?

All types of companies from small fitness companies, tourism companies (i.e. bansko.net) to intenational companies such asGeneral Motors, Ford VW, Mercedes

Question Group 2

The following questions strive to estimate the effectiveness of governmental programs/initiatives addressed to the business development

Question 9 Are you aware of the existence of any governmental programs/initiatives that strive to promote the business development in South Africa?

There are many. Every little industry can get support. It depends on the credentials/how do you qualify.

Question 10 Are there any programs/initiatives that directly impact your firm?

There are but we are not using them.

Question 12 To what extend the programs affect the firm performance?

DCIS, but not using I should but I can't.

Question 13 Are you aware of the existence of BBBEE Act?

Yes, since 1994.

Question 14 Does the firm meet the requirements of BBBEE Act?

If you work in SA Internationally doesn't make a difference.

Question 15 What is your perception about the results of BBBE Act?

Made skills secondary. How good you are is no longer the most important thing. They did not fix the problem, they changed the color.

Question Group 3

The following questions address the effects of the economic development of South Africa

Question 16 What is your perception about the effect of the economic growth over the firm performance?

World economic outlook makes it far better through getting online clients. The business is growing with 50 %

Question 18 Is there a change in the costs of doing business in South Africa?

Just a bit inflation. The costs increase slower than the profit. It balances itself. Costs are minimal when you setup the system. The initial investment is the barrier, if you can do it than you can go further.

Question 22 Does the overall changes of operational cost affect the firm competitiveness on international market?

The company is in the TOP 2% in the world in terms of demand. It is a white company and has no market in SA. Toyota International provide our products and services to Toyota SA, but it does not get directly there.

Question Group 3

The focus of the following questions is targeted at the talent pool provided by the labor market and the education system.

Question 23 What is your perception about the skill level of your personnel? *Sometime it is questionable, but that is why I am the editor. Most of them are really good.*

Question 24 Do you experience a need for additional skills and expertise?

Always, More extra skills, more business you can get. You can offer more to a client. Always welcome more business opportunity. New revenue streams.

Question 25 If yes, does the labor market provides the required skills and expertise?

There are

Question 26 In case the demand for such skills and expertise is higher compared to the supply of them, what is your policy?

First develop the company internationally and the costs won't be an issue. Then look inside the company for skills. Save the money before looking elsewhere. But be careful not to empower your employees and never allow them to communicate directly with the customers because they will takeover your business.

Question 29 Do you have access to governmental programs that can finance the training process?

I do not need them when the business is internationally oriented.

Question 30 What is your perception of the technical skills of the newly graduates from research universities?

There are skills but still need additional training.

Question 31 What is your perception of the technical skills of the newly graduates of FET colleges?

THE quality is going down. Computer experts do not know why the sound card does not work. It is a matter of a setting, not a hardware issue. Computer industry is a good thing. Every three years everything about computers changes in 3 years. It makes no sense to study 5 years. They are practically oriented and specialized in specific areas and not filled with outdated knowledge.

Question 32 Comparing the preparation of both types of graduates, which group meets better the firm needs and why?

College graduates is a better choice because there are less issues such as color preferences. While universities do so.

Question 33 What is the difference between the costs of hiring an employee with FET college degree and research university degree?

Hire for how good you are but not for what you graduated. The salary depends on what the customer is willing to pay for a project.

Question 37 How will your hiring cost change?

It will lower the costs

Conclusion

Would you like to share any additional thoughts or believes, which you find relevant?

The big difference CAN you Do it and you know it. Specially BEE is not relevant to outsourcing. Top white labor is cheaper for international market, because BEE requires if job is available to hire if available a black female candidate, then Black male, female of any color, man of any other color.

Thank you for the dedicated time and the support. Have a nice day!

8.2.2 In-depth interview transcript Cantaloupe CC

Name: Melaina Gross
Date: 17.04.2012
Contacts: 27823780768
Duration: 35 Minutes

Question Group 1

This part is dedicated to establishment of a description of your firm and the position you take within its structure.

Question 1 What is the name of your company?

Cantaloupe

Question 2 Where is it located ?

Randburg, Gauteng

Question 3 What is your position within the firm structure?

Founder and Owner

Question 4 What is the core business of the firm?

Sales of digital services

Question 5 What type of products/services does the firm provide?

We provide development and optimization of Web Design, Search Engine Marketing and email marketing systems

Question 6 What is the size of the firm in terms of employee turnover in the past year?

We are a team of 10 people. However, we are project-based company and we have various partners that supply additional expertise that is demanded by our customers

Question 7 What kind of customers do you have in terms of number of employees or annual sales volumes?

We specialize in the development of web-based tools for small and medium companies

Question 8 Does the firm has customers from abroad?

Yes, as an IT company we rely on the global market and the partnership with local companies. As you know probably know the market in South Africa is too small.

Question 8 If yes, can you provide the nationality of the foreign customers.

Companies from EU, US, Russia and Canada

Question Group 2

The following questions strive to estimate the effectiveness of governmental programs/initiatives addressed to the business development

Question 9 Are you aware of the existence of any governmental programs/initiatives that strive to promote the business development in South Africa?

Yes we are but we are not taking an advantage from them because we are mainly focused on the international market. We have started in 2006 and our team increased to 10 members.

Question 13 Are you aware of the existence of BBBEE Act?

Yes the first act was introduced after the elections in 1994

Question 14 Does the firm meet the requirements of BBBEE Act?

No, we have disregarded BEE act in our strategy. We do not comply with it. As a matter of fact, we are not dependable on it. Again we are focused on the international market. However, we have social responsibility program and last year we have supported the non-profit organization called Philile.

Question 15 What is your perception about the results of BBBE Act?

It is important for companies that are interested in the local market. It limits our options for development and it does not really bring any benefits for us.

Question Group 3

The following questions address the effects of the economic development of South Africa

Question 16 What is your perception about the effect of the economic growth over the firm performance?

We are not impacted from it. It increases our costs, but we benefit from the growth in the international industry.

Question 17 Is there a change in the demand for products and service that you supply on the domestic and foreign markets?

Last year our business grew with 40% compared to 2010.

Question 18 Is there a change in the costs of doing business in South Africa?

We are not so much focused on costs. We have prioritized the quality of our products. The biggest issue remains the price of the fixed Internet access while the speed is still less than 15 Mbits and we have to pay abou 150 Eur for that.

Question 22 Does the overall changes of operational cost affect the firm competitiveness on international market?

South Africa is still cheaper than the majority of US and EU countries. An advantage is the English level, which is native for a lot of people here. Dutch language is also spread.

Question Group 3

The focus of the following questions is targeted at the talent pool provided by the labor market and the education system.

Question 23 What is your perception about the skill level of your personnel?

We have a small but specialized team that follows the global technological innovations. Our ultimate goal is to provide highest available level of quality

Question 24 Do you experience a need for additional skills and expertise?

We constantly need additional skills and we acquire them from our partners in the form of projects.

Question 25 If yes, does the labor market provides the required skills and expertise?

Partially yes, but still some level of training is required due to the line of work.

Question 30 What is your perception of the technical skills of the newly graduates from research universities?

They have very broad level of competencies, but they need further specialization.

Question 31 What is your perception of the technical skills of the newly graduates of FET colleges?

The education is specialized and up to date to the current technological trends.

Question 32 Comparing the preparation of both types of graduates, which group meets better the firm needs and why?

We prefer the graduates from FET colleges

Question 33 What is the difference between the costs of hiring an employee with FET college degree and research university degree?

There is no difference because we need highly skilled people and their certificate might not reflect their actual skill level.

Question 34 Are you aware of the reforms in the higher education system in South Africa?

Yes we are but we do not anticipate any improvement in quality.

Question 35 If yes, do you believe there will be a positive impact on the development of more sophisticated labor force market?

In South Africa, people are willing to work but they are not trained well. For example in the past year there were more people who became graphic designers than the actual demand for such skills. In instance there is a shortage in the number of programmers.

Question 36 How will the firm hiring policy be impacted?

We will keep our policy to rely on our partners.

Conclusion

Would you like to share any additional thoughts or believes, which you find relevant?

Thank you for the dedicated time and the support. Have a nice day!

8.2.3 In-depth interview transcript Deta IT Business CC

Name: Rustum Tavaria
Contact: +27 82 332 8799
Date: 19.04.2012
Duration: 45Minutes

Introduction

Question Group 1

This part is dedicated to establishment of a description of your firm and the position you take within its structure.

Question 1 What is the name of your company?

Deta IT Business cc

Question 2 Where is it located ?

Johannesburg

Question 2 What is your position within the firm structure?

50% shareholder and Web Application Development

Question 3 What is the core business of the firm?

Web design and internet development services

Question 4 What type of products/services does the firm provide?

Website Design and Development, Rhino CMS - Content Management System and Web Application Development

Question 5 What is the size of the firm in terms of employee turnover in the past year?

Overall there are 43 employees.

Question 6 What kind of customers do you have in terms of number of employees or annual sales volumes?

We have different types of clients both from South Africa and international companies such as Clover, Bandag and Calibre.

Question Group 2

The following questions strive to estimate the effectiveness of governmental programs/initiatives addressed to the business development

Question 9 Are you aware of the existence of any governmental programs/initiatives that strive to promote the business development in South Africa?

Yes I am.

Question 10 Are there any programs/initiatives that directly impact your firm?

BEE legislation allows us to gain access to public held projects and various grants and technological cooperation programs.

Question 11 If yes, please mention which…

The company has approved projects by the Development Co-operation Information System entity as part of the National Treasury. The projects support the development of the company technological infrastructure and training of the workers.

Question 12 To what extend the programs affect the firm performance?

It is very important for the company to increase our capabilities.

Question 13 Are you aware of the existence of BBBEE Act?

Yes indeed.

Question 14 Does the firm meet the requirements of BBBEE Act?

We meet all the required criteria. One of the core believes of Deta IT Business is the committed to a policy of equal opportunity, empowering people, building relationship and trust to develop a climate of respect and improving lives amongst all our staff.

Question 15 What is your perception about the results of BBBE Act?

It stimulates the integration of all social groups. It makes companies more responsible. But, it would take time to improve the overall skill level. The financial support from the government can be very beneficial for the future of the country.

Question Group 3

The following questions address the effects of the economic development of South Africa

Question 17 Is there a change in the demand for products and service that you supply on the domestic and foreign markets?

I can say we develop more products and services for the public sector and local companies. Still the international companies are responsible for the majority of the income.

Question 18 Is there a change in the costs of doing business in South Africa?

Well, there are small changes such as office space rental prices. But the sales and the profit are increasing much faster than the expenses.

Question 22 Does the overall changes of operational cost affect the firm competitiveness on international market?

No. The quality of offerings and their price are way more important than the costs.

Question Group 4

The focus of the following questions is targeted at the talent pool provided by the labor market and the education system.

Question 23 What is your perception about the skill level of your personnel?

It is very high.

Question 24 Do you experience a need for additional skills and expertise?

Yes, because there is always something, which can help. Recently, I had a case when we had to translate an application interface to Mandarin language.

Question 25 If yes, does the labor market provides the required skills and expertise?

Yes, the labor market provides the required skills, but still there is space for additional development.

Question 26 In case the demand for such skills and expertise is higher compared to the supply of them, what is your policy?

I prefer to develop it internally. As I told you earlier we can access grants from the government.

Question 30 What is your perception of the technical skills of the newly graduates from research universities?

They are very helpful for managing projects and researches.

Question 31 What is your perception of the technical skills of the newly graduates of FET colleges?

The colleges provide good skills but still they not cover all of our needs.

Question 32 Comparing the preparation of both types of graduates, which group meets better the firm needs and why?

Both of them are important for the company.

Question 33 What is the difference between the costs of hiring an employee with FET college degree and research university degree?

Depends on many factors among which is the overall skill level and motivation.

Question 34 Are you aware of the reforms in the higher education system in South Africa?

Yes but the results won't be seen in the next few years.

Conclusion

Would you like to share any additional thoughts or believes, which you find relevant?

Thank you for the dedicated time and the support. Have a nice day!