



**Cape Peninsula  
University of Technology**

**THE BENEFITS OF ONLINE COMPANY REGISTRATION FOR  
CONGOLESE IMMIGRANTS**

**ALAIN MICHAEL MOMO**

**THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE DEGREE**

**MASTER OF TECHNOLOGY: BUSINESS ADMINISTRATION  
FACULTY OF BUSINESS  
CAPE PENINSULA UNIVERSITY OF TECHNOLOGY**

**SUPERVISOR: PROF. WILFRED I. UKPERE**

**CAPE TOWN  
MAY 2011**

## **DECLARATION**

I, Alain Michael Momo, declare that the contents of this thesis represent my own unaided work, and that the thesis has not previously been submitted for academic examination towards any qualification. Furthermore, it represents my own opinions and not necessarily those of the Cape Peninsula University of Technology.

---

Signed

---

Date

## ABSTRACT

Online company registration is a service, which has been claimed by Congo-Brazzaville immigrant entrepreneurs. It has taken centuries for scientists to develop computers that successfully enable businesses to grow in an effective erasure of national frontiers for business purposes. B2B e-commerce, which heralded the dawn of globalisation in the EU, USA, India, New Zealand and South Africa, is not yet applicable in Congo-Brazzaville. Presently, B2B e-commerce has made the global economy porous, which consequently activated online business registration. This porosity has enabled SMMEs to save supply chain management costs, create jobs, improve customer care and contribute to the country's GDP. However, owing to the characteristics of Congolese immigrants' SMMEs in Cape Town, online business registration has become imperative to enable them to expand in Congo and to save supply chain management costs and contribute to the country's economic reconstruction process. Recently, the Centre For Business and Administrative Procedures (CFBAP): *Centre des Formalités Administratives des Entreprises* (CFE) B2B e-commerce website has become in demand. Furthermore, at a national level, e-commerce website adoption at CFBAP will leverage the country's standards of conducting business and will boost the pride of CFBAP, as an organisation, as well as its partners in an aspect that is at the core of its values.

The main objective of this study is to analyse the benefits of online business registration for Congo-Brazzaville immigrant entrepreneurs in Cape Town. The study has established motivating factors to implement an e-commerce website at CFBAP in Brazzaville, but did not recommend any specific e-commerce technology for the institution. The research has also made an earnest attempt to illicit reasons why Congo-Brazzaville immigrant entrepreneurs invest in Brazzaville in spite of being well established in Cape Town. The research target population included Congo-Brazzaville immigrant entrepreneurs who were selected from their association and who live in Cape Town, where the study was conducted. The nature of the research dictated both quantitative and qualitative methodologies in order to gain a better understanding of the research problem that was identified.

Key words: E-commerce, *CFE*, Congo-Brazzaville, World Bank, SMMEs, immigrants, Centre for Business and Administrative Procedures (CFBAP).

## ACKNOWLEDGEMENTS

To my God, for Your protection, strength and guidance.

The journey would not have been possible without the following people who contributed to the completion of my thesis. I wish to thank:

- **Prof. Wilfred I. Ukpere**, my supervisor, for all his academic guidance, advice, support, and assistance. I sincerely appreciate it.
- **Prof. André D. Slabbert**, for starting the journey with me during evening classes. I appreciate your guidance.
- **Dr. Carley Steyn**, thank you for your support.
- **Ms. Corrie Uys**, thank you for your assistance with the SPSS and for assisting with the research methodology and data collection.
- **Mrs. Shamila Sulayman**, for her efficiency and efficacy in proofreading and editing this thesis.
- **Mr. Tuwamo Tutala**, my primary school principal at *EP LUSE* Kinshasa, **Mr. Sanduku Tarandwazo**, my high school principal at *Institut Bio-Chimie de Ndjili*, and **Mr. Malandala**, my high school principal at *Ecoles Malamba* Kinshasa, for laying solid foundations for me.
- The Congolese Association of Cape Town members for participating in the study.
- All my lecturers at Cape Peninsula University of Technology (CPUT) for their support during evening classes.
- **Dr. Nzita Stephen**, chancellor of the International Christian University in Kinshasa, and **Prof. Jean Kidinda Shandungo**, **Prof. Kawata Bwalum**, **Prof. Odilon Gamela**, **Prof. Kambayi Bwatsha**, **Prof. Isidore Ndayiwel** and **Prof. Dika** for their inspiration.
- My friend, **Vincent Olisakwe**, his **wife and children**, thank you for your moral support.
- My grand-fathers, **Opedi Katako “Chief of the Esuke people”**, **Momo –e-Ngiala Nkam’a Pami “Hundredmen Strength”**, **Stefan Owamba Omomobo Pene**

- Omelokoko and Lutula Norbert Pongo Osomba.** You have walked this noble path, which I have followed.
- My grand-mothers, **Grandma Tshatsha, Grandma Sombo, Grandma Dombo Matride, Grandma Ndete Onyohambo and Onyenga Pembe Pena Okako,** you are wonderful for starting it all as my primary (Grade 1) teachers.
  - My uncles, **Mathieu Kahodi Lomami, Bonni Lokata, Jean Momo Wombe, Mbapa Dihela, Lontanga Daniel, Jean-Pierre Ndjadi Djembe, Cadet Mbioloka Lohale, Mbapa Dihela Pablo Scobar, Norvés Omokoko, Damien Ekolokolo Ndjate, Pap'Omer, Jean Shosola, Ya Damas, Djonga Delphin, Michel Diyaka, Ongona Senga Pena She, Papa Katako, Felix Mbolo, Modeste Emungu** and others, who may be difficult to recollect at this moment, I remain humble to you all.
  - My aunts, **Honorine Djombo, Adele Mpala, Deko Yoto, Ndete Dawo, Mam'Ohowo, Fannie Dombo, Guylaine Okako, Esther Osako, Mama Katho, Tantine Bebette, Tete Eshiki,** and Nancy Lutula.
  - My cousins, **Nicola Mpowa, Simon, Nicolas, Mam'Ohemba, Tshokalomba, Tonton Tabu Lutula, Shako, Serge Lutula, Francy Djembe, Kevin, Hervés, Jersey, Christopher, Jonathan and Esuke,** I remain grateful to you all.
  - My she-cousins, **Sombo Kahodi, Nene Manga, Espérance Pembe, Sombo Lokata, Novicia, Hiete Sans Soussi Lokata, Monique Lokata and Kabibi.**
  - My in-laws, **Mbangou Anne, Dr. Edward Baresse Mapaka, Jude Matassa, Jean-Bantsimba Parfait, Lisianne Tellma Matassa, Ya Marie, Loussilao Georgine, Dr. Gamiissimi, Borrina Mapaka, Marien Mapaka, Baresse Mapaka, Chenellie Mapaka, Chantal Makapa, Lorsche, Barnis, Dutel and Papa Longueur.**
  - Last, but not least, my friends, **Yves Mubenga, Roger Nkumu, Walid Ras, Serge Tshibangou, Pastor Willy Mputu, Foudoumounov François and wife, Mr. Belo Adamo and wife, Mr. Christian Lohata and wife, Mr. Badila Bemba, Mr. Zico Balanga, Mr. Nsala George and Mr. Jean Robert Djamba,** thank you all for your support.

Finally, but by no means least, I give thanks and praises to the Almighty and Everlasting God, for having guided, provided and protected me throughout this study.

Merci! Melesi! Matondo! Lusaka! Umbeleni! Nkosi! Danke! And Thank you.

## DEDICATION

This thesis is dedicated to:

- My father, **César Longendjo Momo Pene Alombe** and my mother, **Mrs. Longendjo Momo Jeannette Née Ossako Munkanga**, for laying a solid foundation which has allowed me to successfully pursue my education.
- My lovely wife, **Mrs. Momo Née Dialiana Arline Mapaka**, for playing unconditional roles as my wife, sister and mother. Honey, I love you.
- My beloved sons, **Michael César Momo** and **Stefan Alain Momo**, for all their funny stories, which made me smile throughout my studies. Sons, this is the path to follow.

## TABLE OF CONTENTS

<b>Contents</b>	<b>Page</b>
Title.....	i
Declaration.....	i
Abstract.....	ii
Acknowledgements.....	iii
Dedication.....	iv
Table of Contents.....	vii
List of Tables.....	xi
List of Figures.....	xi
List of Appendices.....	xii
Glossary .....	xiii
List of Acronyms.....	xiv
<b>Chapter 1: Introduction.....</b>	<b>1</b>
1.1 Introduction and background to the research problem.....	1
1.2 Statement of the research problem.....	3
1.3 Research objectives.....	4
1.4 Delineation of the research.....	4
1.5 Significance of the research.....	5
1.6 Literature review.....	5
1.7 Sources of information.....	14
1.8 Research design and methodology.....	15
1.9 Summary.....	18
<b>Chapter 2: E-commerce revolution and successful business ventures...20</b>	
2.1 Introduction.....	20
2.2 Technological revolution.....	21
2.2.1 Mechanical devices .....	22
2.2.2 Computer age.....	23
2.2.3 Computer generations.....	24
2.2.3.1 First generation computers (1940-52).....	25



2.2.3.2	Second generation computers (1952-64).....	25
2.2.3.3	Third generation computers (1964-70).....	26
2.2.3.4	Fourth generation computers (1970- 1980s).....	27
2.2.3.5	Fifth generation computers (1980s to present).....	28
2.3	Benefits of computers to society.....	29
2.4	Internet and e-commerce revolution.....	32
2.4.1	Origin of the Internet.....	32
2.4.2	E-commerce and Internet utilisation.....	34
2.5	Utilisation of e-commerce by Congolese immigrant entrepreneurs in Cape Town.....	35
2.5.1	Role of e-commerce for Congolese immigrants' businesses in management and finance.....	37
2.5.2	Role of e-commerce for Congolese immigrants' businesses in marketing and logistics.....	39
2.5.3	Benefits of e-commerce for the economy of Congo-Brazzaville.....	41
2.6	Factors that constrain the use of e-commerce for Congolese immigrant entrepreneurs.....	43
2.6.1	Culture.....	43
2.6.2	IT infrastructure.....	43
2.6.3	Security and privacy.....	44
2.6.4	Illiteracy.....	45
2.6.5	Organisation.....	45
2.6.6	Fraud.....	46
2.6.7	Public policy.....	47
2.7	Congolese immigrants' successful venture through online business registration.....	47
2.8	Summary.....	49
	<b>Chapter 3: Research methodology and design.....</b>	<b>51</b>
3.1	Introduction.....	51
3.2	Research methodology.....	55
3.2.1	Qualitative methodology.....	55

3.2.1.1 Advantages and disadvantages of qualitative methodology.....	55
3.2.1.2 Research methods in qualitative methodology.....	56
3.2.2 Quantitative methodology.....	56
3.2.2.1 Advantages and disadvantages of quantitative methodology.....	57
3.2.2.2 Research methods in quantitative methodology.....	57
3.3 Research process.....	58
3.4 Data collection.....	59
3.4.1 Pilot study.....	59
3.4.2 Focus group.....	60
3.4.3 Observation.....	60
3.4.4 Questionnaire.....	61
3.5 Population and sample size.....	62
3.6 Ethical considerations.....	64
3.7 Data collection methods assessment.....	65
3.8 Summary.....	65
<b>Chapter 4: Data analysis .....</b>	<b>67</b>
4.1 Introduction.....	67
4.2 Quantitative research data processing.....	67
4.3 Research questions .....	68
4.4 Descriptive statistics.....	69
4.5 Frequency distribution.....	69
4.6 Statistical analysis.....	70
4.7 Research results of closed-ended questionnaire .....	72
4.7.1. Demographic data.....	72
4.7.1. 1 Respondents' gender.....	72
4.7.1.2 Respondents' education level.....	73
4.7.2 Content-based analysis.....	74
4.7.2.1 Respondents' business experience.....	74
4.7.2.2 Respondents' intention to expand business in Brazzaville.....	75
4.7.2.3 Respondents' attraction to CFBAP e-commerce website.....	76

4.7.2.5 Respondents’ opinions of online company registration and supply chain management.....	77
4.7.2.6 Respondents’ opinions of online company registration and business profits.....	78
4.7.2.7 Respondents’ opinions of Congo-Brazzaville e-commerce legislation.....	79
4.7.2.8 Respondents’ opinions of online company registration and e-commerce related risks.....	80
4.8 Correlation and causation.....	81
4.8.1 Correlation between potential CFBAP e-commerce website and business expansion in Brazzaville .....	84
4.8.2 Correlation between level of education and Internet skills.....	85
4.8.3 Correlation between online business expansion in Brazzaville and Congo-Brazzaville e-commerce legislation efficiency.....	86
4.9 Analysing focus group by using content analysis.....	87
4.10 Summary.....	92
<b>Chapter 5: Discussion of results.....</b>	<b>93</b>
5.1 Introduction.....	93
5.2 Congolese immigrant entrepreneurs’ demographic characteristics .....	93
5.3 Factors that constrain Congolese immigrant entrepreneurs’ online business expansion in Brazzaville.....	94
5.4 Linking online company registration and supply chain management.....	95
5.5 Linking online company registration and business profits.....	96
5.6 Attracting new investments through the potential CFBAP e-commerce website .....	97
5.7 Congolese immigrant entrepreneurs’ e-commerce challenges .....	98
5.8 Linking online company registration and e-commerce risks for Congolese immigrant entrepreneurs.....	99
5.9 Establishing weaknesses of e-commerce legislation in Congo-Brazzaville.....	99
5.10 Contributions of e-commerce in Congo-Brazzaville’s national economy.....	100
5.11 Summary.....	103

<b>Chapter 6: Recommendations and conclusions.....</b>	<b>105</b>
Chapter 6: Recommendations and conclusions.....	105
6.1 Introduction.....	105
6.2 Recommendations.....	107
6.3 Conclusions.....	112
<b>Bibliography.....</b>	<b>116</b>

## **LIST OF TABLES**

Table 4.1: Respondents' gender representation.....	72
Table 4.2: Respondents' education level.....	73
Table 4.3: Respondents' business experience.....	75
Table 4.4: Respondents' intention to expand business in Brazzaville.....	76
Table 4.5: Respondents' attraction to the potential CFBAP e-commerce website.....	77
Table 4.6: Respondents' opinions of online company registration and supply chain management.....	78
Table 4.7: Respondents' opinions of online company registration and business profits .....	79
Table 4.8: Respondents' opinions of Congo-Brazzaville e-commerce legislation.....	80
Table 4.9: Respondents' opinions of online company registration and e-commerce related risks.....	81
Table 4.10: Interpreting correlation coefficient (r).....	82
Table 4.11: Correlation between CFBAP's e-commerce website and business expansion .....	84
Table 4.12: Correlation between level of education and Internet skills .....	85
Table 4.13: Online business expansion in Brazzaville and Congo-Brazzaville e-commerce legislation reliability.....	86

## **LIST OF FIGURES**

Figure 2.1.: An overview of data processing using a payroll example.....	31
--	----

Figure 3.1 Research design logic.....	52
Figure 3.2: Research methodology process.....	54
Figure 3.3: Stratified sample layout.....	63
Figure 4.1: Online company registration theory building concept .....	71
Figure 4.2: Online company registration theory testing .....	83

## **LIST OF APPENDICES**

Appendix A: Questionnaire.....	140
Appendice B: <i>le questionnaire</i> .....	144
Appendix C: Focus group questions.....	148
Appendix D: French annoucement to association members .....	151
Appendix E: Letter of consent to the president of the Congolese Association of Cape Town.....	152

## GLOSSARY

A number of key terms, which are used throughout the research study, are clarified below.

- **Analysis:** refers to investigation of the component parts of a whole and their relations in making up the whole. It can also be defined as the examination and evaluation of relevant information to select the best course of action from among various alternatives.
- **Business:** is a legally recognised organization, which is designed to provide goods and services to consumers.
- **Company:** is an entity that engages in business such as a proprietorship, partnership, or corporation.
- **Congo-Brazzaville immigrant:** is a native of the Republic of Congo (RoC) who lives abroad. Congo-Brazzaville is also known as RoC with Brazzaville as its capital city. The country is named after the Congo River that shares its riverside border with the Democratic Republic of Congo (DRC), where Kinshasa is the capital city.
- **Congolese Association of Cape Town:** is a non-profit organisation that gathers Congo-Brazzaville immigrants who live in Cape Town. The association aims to address issues related to Congolese immigrants and constantly keeps its members up-to-date during via meetings with South African norms and business practices in Brazzaville.
- **Consumer:** is a broad term for any individual, household or organisation that uses goods and services, which are generated within the economy.
- **Supply chain:** is the distribution of goods, services and information flows between market participants within industries.
- **E-commerce:** refers to the process of buying and selling products and services via electronic systems such as the Internet and other computer networks.
- **Entrepreneur:** is a person who has possession of a new enterprise, venture or idea and assumes significant accountability for the inherent risks and outcome. Compared to a small business owner (SBO), the latter seeks business stability and

profits while the former intends to dominate the industry through innovations, followed by profits as rewards.

- **Global business environment:** refers to the environment in different sovereign countries, with exogenous factors, namely social, political, economic, regulatory-tax, cultural, legal and technological for the home environment of the organisation, which influence decision making regarding resource use and capabilities.
- **Online:** means being connected to the Internet. The connection can be via a phone line, using a dial-up, a cable line via a cable modem, or via a wireless connection.
- **Internet:** is a global system of interconnected computer networks that use the standard Internet protocol suite to serve billions of users worldwide.
- **Opportunity:** is a favourable and advantageous circumstance or combination of circumstances.
- **Organisation:** is a social arrangement, which pursues collective goals, controls its own performance, and has a boundary that separates it from its environment.
- **Product:** is defined as a “thing produced by labour or effort” or the result of an act or a process. It stems from the verb ‘produce’.
- **Registration:** is a document, which certifies an act of registering.
- **Strategy:** is a plan of action designed to achieve a particular goal.
- **Statistical Package for Social Sciences (SPSS):** refers to a computer readable software programme, which processes empirical data that has been collected.

## LIST OF ACRONYMS

ABC	Atanasoff-Berry Computer
ANC	African National Congress
ARPA	Advanced Research Project Agency
COBOL	Common Oriented Business Language
CDP	Certificate in Data Processing
CFBAP	Congolese Centre for Business and Administrative Procedures
<i>CFE</i>	<i>Centre des Formalités Administratives des Entreprises</i>
CNC	Computer Numerical Control
BASIC	Beginner's All-purpose Symbolic and Instructions Codes
DHA	Department of Home Affairs
DRC	Democratic Republic of the Congo
DTI	Department of Trade and Industry
DSS	Decision Support System
EDI	Electronic Data Interchange
EDVAC	Electronic Discrete Variable Automated Computer
ENIAC	Electronic Numerical Integrator And Calculator
EU	European Union
FORTRAN	Formula Translation
GE	General Electric
GDP	Gross Domestic Product
HTML	Hypertext Mark up Language
IC	Integrated Circuits
ICT	Information and Communication Technology
IBM	International Business Machine
IT	Information Technology
LSI	Large Scale Integration
MIS	Management Information Systems
MB	Megabytes
MDG	Millennium Development Goal
MTN	Mobile Telephone Network



OECD	Organisation of Economic Cooperation and Development
PC	Personal Computer
PPC	Pay Per Click
RoC	Republic of Congo
SADC	Southern African Development Community
SMMEs	Small Micro and Medium Enterprises
SAPS	South African Police Service
SBO	Small Business Owner
TV	Television
UNIVAC I	Universal Automatic Computer I
UNTWO	United Nations World Tourism Organisation
UNHCR	United Nations High Commissioner for Refugees
Wi-fi	Wireless fidelity
WWW	World Wide Web

# **Chapter 1**

## **Introduction**

### **1.1 Introduction and background to the research problem**

Online company registration is a service, which has been claimed by Congo-Brazzaville immigrant entrepreneurs. Therefore, the Congolese Centre for Business and Administrative Procedures (CFBAP) should emphasise adopting e-commerce within its company registration operations, since the Internet has dramatically changed the role of technology in the business world (Cassidy, 2002:1; Chen, 2005: 18-20). The Internet is a vehicle, which is vital in the process of buying and selling products and services via computer networks (Cassidy, 2002:3; Durie, 2001:10). Online business registration services at CFBAP will enable Congo-Brazzaville immigrant entrepreneurs to build global business processes, and stimulate the entrepreneurial mindset of Congo-Brazzaville business owners (Jackson & Eckersley, 2003:17), as well as organise business processes such as supply chain management, which describes the distribution of goods, services and information flows between market participants within industries (Jackson *et al.*, 2003).

Rapid changes in the business environment in Congo-Brazzaville can increase the risk of new business failure. Congo-Brazzaville immigrant entrepreneurs wish to anticipate the change by developing strategies, namely strategic supply chain planning that focuses on e-commerce. Strategic supply chain planning (Stock & Lambert, 2001: 684) is a unified, comprehensive, and integrated planning process, which achieves competitive advantage through increased value and customer service (where they want to be), by anticipating future supply chain demand (how they get there). Businesses in Brazzaville compete in mature industries with a desire to create customer loyalty; while Congo-Brazzaville immigrant entrepreneurs' knowledge of supply chain cost savings through e-commerce, can give them a competitive advantage. Without strategic supply chain planning, Congo-Brazzaville immigrant entrepreneurs will spend their business hours in Brazzaville as fire-fighters chase competitors' tail light (Ozzie, 2008: 174). E-commerce is (Cassidy,

2002:3) an electronic way of processing financial transactions, either between businesses and the public or business-to - business (Durie, 2001:10). It is an exchange of information across electronic networks at any stage in the supply chain, whether within an organisation, between businesses, between producers and consumers, or between the public and private sectors (Jackson *et al.*, 2003:17). For example, a Congo-Brazzaville computer dealer is at the centre of a variety of supply chains, including computer parts, computer books and services. In fact, CFBAP's Internet connectivity can enhance Congo-Brazzaville immigrant entrepreneurs' competitive advantage through online information, which is sent to all firms informing them of the existence of a new computer dealer in the country. However, e-commerce adoption does not guarantee business performance in Congo-Brazzaville (Francalani & Morato, 2008:303).

It is, therefore, in the interest of Congo-Brazzaville immigrant entrepreneurs to contend with information technology (IT) related challenges in order to gain a competitive advantage (Furnell, Tsagani & Phippen, 2008:239). According to David (2007:8), when a firm can do something that rival firms cannot do, or owns something that they desire, it implies that the firm has a competitive advantage. It is also the co-existence of the firm's both offense (strong position) and defense (effective protection from rivalry) positions (Walker, 2009:5). Congo-Brazzaville is a developing country, and developing countries are known for their gross domestic product (GDP) per capita of US\$900.00 or less, weak human resources and particularly low level of economic diversification (Aljifri, Pons and Collins, 2003:130).

The economy of Congo-Brazzaville focuses on crude oil exploration, forestry and minerals rather than create conditions that are capable of attracting, strengthening and sustaining small micro and medium-sized enterprises (SMMEs) (*Forum des Jeunes Entreprises du Congo*, 2010). Therefore, with 0.45 per cent of the population that has telephone mainlines, 13.6 per cent mobile telephone subscribers, 80 per cent mobile telephone national coverage, 1.9 per cent Internet users, 7 per cent of households with a television (TV) set and 0.5 per cent of the population that has a personal computer (PC), (World Bank, 2008), the country's economy should focus on diversification of

investment that creates conditions to attract more SMMEs in order to improve the living standards of ordinary citizens. Early stages of this study found that CFBAP Brazzaville should adopt e-commerce technology to attract, sustain businesses and help them to save on supply chain costs and secure long term profit. In South Africa, for example, the Department of Trade and Industry (DTI) has adopted e-commerce for online business registration processes whereby local entrepreneurs in Cape Town cut supply chain management costs (Harris, 2007:40). The success of DTI's e-commerce in South Africa is also related to Internet maturing applications, falling tariffs of Internet connections and growing network coverage. Vodacom and MTN South Africa have deployed high speed cellular data networks, which are based on 3G and HSDPA in the country (Harris 2007: 40). It is, therefore, in the interest of CFBAP to pay sufficient attention to their potential e-commerce website whilst considering MTN Brazzaville as a potential partner.

## **1.2 Statement of the research problem**

Congo-Brazzaville immigrant entrepreneurs in Cape Town and elsewhere who plan to start a new business in Brazzaville should first register their business at CFBAP in Brazzaville before operations. The only way to have a business registered is to travel to Brazzaville, confront bureaucratic procedures and wait until issued with a certificate of incorporation. In order to be successful in Brazzaville, businesses seek to minimize costs in order to maximize profits. E-commerce enables today's businesses to monitor transactions in order to achieve significant supply chain management cost savings. The problem is that if sufficient attention is not paid to the necessity of implementing an e-commerce website at CFBAP, Congo-Brazzaville immigrants' business will hardly secure long term profits. Therefore, increased supply chain management expenses will hinder Congolese immigrants' entrepreneurial ventures, and compromise the country's GDP.

### **1.2.1 Research questions**

The above statements led to the following research questions:

- What are the benefits of online business registration for Congo-Brazzaville immigrant entrepreneurs in Cape Town?

- What is the level of IT awareness among Congo-Brazzaville immigrant entrepreneurs in Cape Town?
- How do Congo-Brazzaville immigrant entrepreneurs in Cape Town perceive online business registration in Brazzaville?
- What challenges will relate to online business registration in Brazzaville for Congolese immigrant entrepreneurs?

### **1.3 Research objectives**

#### **1.3.1 Main objectives**

The main objective of the research is:

- To analyse benefits of online business registration for Congo-Brazzaville immigrant entrepreneurs in Cape Town.

#### **1.3.2 Subsidiary objectives**

Subsidiary objectives of the research are:

- To identify potential challenges that Congo-Brazzaville immigrant entrepreneurs face in business regarding business registration; and
- To identify how many Congo-Brazzaville immigrant entrepreneurs who want an e-commerce website at CFBAP.

### **1.4 Delineation of the research**

The study focuses on online business registration in Brazzaville and aims to analyse its benefits for Congo-Brazzaville immigrant entrepreneurs in Cape Town. The research also focuses on benefits of an e-commerce website at CFBAP for service users, and hence does not examine online business registration service providers' related benefits. This research will not recommend any specific e-commerce technology to CFBAP, but as an institution, CFBAP should reconcile findings of the study and future studies, evaluate the pros and cons of different e-commerce technologies, and then decide on the most appropriate technology for its potential e-commerce website, which should be managed at Brazzaville's head office. It is the first time that such a study has been conducted in Cape Town, which focuses on online business registration in Brazzaville and its benefits in order to ascertain its competitive advantages for Congolese immigrant entrepreneurs.

## **1.5 Significance of the research**

Research into the benefits of online business registration in Brazzaville is vital for competitive advantage that will enable Congo-Brazzaville immigrant entrepreneurs to build global business processes, and contribute to the country's GDP. Congo-Brazzaville is ranked 144<sup>th</sup> out of 177 countries (World Bank, 2008) in terms of conducting business and living standards. Implementing an e-commerce website at CFBAP Brazzaville will enable Congo-Brazzaville immigrants' businesses to monitor transactions and achieve significant supply chain cost savings. An e-commerce website will improve the country's ranking in terms of conducting business; and boost the CFBAP's profile and its partners in an aspect that is at the core of its values.

## **1.6 Literature review**

Due to political and economic challenges, the Congo-Brazzaville government created CFBAP in 1994 to commit to the promise of economic reform (*Forum des Jeunes Entreprises*, 2009). Four years later, the country celebrated its first Internet connection in 1998. This was the birth of a technological revolution whose impacts on business stimulated the entrepreneurial mindset of the Congolese. As a logical result, Congo-Brazzaville immigrant entrepreneurs want e-commerce adoption from CFBAP in order to monitor their operating costs through supply chain management. Various authors, including Chen (2005:5), Javalgi (2004:564) and Cassidy (2002:2), have researched the pace of possible e-commerce adoption. The Internet has been adopted in developed countries faster than any previous technology. It took merely four years for the Internet to reach 50 million users globally, compared with 16 years for the personal computer (PC), 13 years for television (TV) and 38 years for radio (Cassidy, 2002:2).

Examples of Malta and Estonia ranked respectively 2<sup>nd</sup> and 3<sup>rd</sup> in the European Union (EU), show that smaller countries can easily and rapidly implement e-commerce in public institutions when government measures are taken accordingly (Cape Gemini, 2006: 9). Despite being in Africa, Congo-Brazzaville's smallest size compared to the Democratic Republic of Congo (DRC), for example, can be used as a competitive advantage to implement an e-commerce website at CFBAP.

### **1.6.1 Necessity of an e-commerce website at CFBAP Brazzaville office**

E-commerce has a dramatic impact on both the personal and professional lives of Congo-Brazzaville immigrant entrepreneurs (Sumak, Polancic & Hericko, 2009:638-639). In Congo-Brazzaville, the Internet acts as a national and global economic engine (David, 2007: 93; Hongxiu, & Reima, 2007:1). The e-commerce website needs assessment at CFBAP should be a joint responsibility of all stakeholders. However, in the process of online business registration, only Congo-Brazzaville immigrant entrepreneurs are responsible for identifying the benefits of e-commerce. While e-commerce is becoming increasingly important (Blakemore, 2006:9), managers at CFBAP spend countless hours determining how to ease the business registration process in Brazzaville, however, Internet connectivity does not receive the same respect (David, 2007:93).

Of course not all sectors of the Congo-Brazzaville economy are affected equally by technological developments. Telecommunication, electronics, education, health, army, business, police and home affairs are much more affected than the textile, forestry and metal industries. For Congo-Brazzaville immigrant entrepreneurs who operate in sectors, which are affected by rapid technological changes, identifying and exploring the benefits of e-commerce represent the most important part of both internal and external audits of their potential success (David, 2007: 94). Being a developing country, Congo-Brazzaville has a low level of economic diversification. The country's economy focuses mainly on crude oil explorations, forestry and minerals, which are operated by State-owned enterprises and multinational corporations. This low level of economic diversification disconnects ordinary citizens who are not employed by these companies from national wealth creation processes. SMMEs employ 42 per cent of Congolese youth and contribute nine per cent to the country's GDP (*Forum des Jeunes Entreprises du Congo*, 2009). Early findings of this study revealed that improving conditions of doing business in Brazzaville by adopting an e-commerce website at CFBAP, will attract more SMMEs and improve national GDP. Shivute (2007:10) argues that the use of ICT has increased in past years in some developing countries, namely Senegal and Uganda, which obtained full Internet connectivity to promote business (Shivute, 2007: 10).

However, Vinaja (2003, cited in Lubbe *et al.*, 2003:23) states that e-commerce has the potential to tie Congo-Brazzaville into its immigrant entrepreneurs for 24 hours, 7 days a week and hence improve the GDP. Mutula (2008:468-469) states that Congo-Brazzaville and the rest of the world's governments are preoccupied with how to meet millennium development goals (MDGs) by the year 2015. E-commerce continues to grow rapidly (Sharma and Gupta, cited in Lubbe *et al.*, 2003:33), and as knowledge underlies the creation of value (Seetharaman, Low & Saravan, 2004:522), one of the key catalysts in poverty reduction in Congo-Brazzaville should be inclusive access to effective use of an e-commerce website by CFBAP to promote the country's businesses (Mutula, 2008:468-469), create more jobs, alleviate poverty among ordinary citizens, and improve the country's GDP (Seetharaman, *et al.*, 2004:522; Sharma, cited in Lubbe *et al.*, 2003:38).

### **1.6.2 Rational choice of Internet at CFBAP for communication**

As discussed by David (2007: 94), strategic needs assessment examines internal and external factors that affect performance within the company's strategy, and identifies shortcomings between present and desired situations. According to Afuah and Tucci (2001:31), CFBAP should add the Internet in the process of business registration because it provides different properties, namely mediating technology, universality, network externalities, distribution channel, time moderator, information asymmetry shrinker, infinite virtual capacity, low cost standard, creative destroyer and transaction-cost reducer. In fact, the Internet is a mediating technology that can interconnect CFBAP and Congo-Brazzaville immigrant entrepreneurs (Afuah *et al.*, 2001:27).

Universality of the Internet refers to its ability to both enlarge and shrink CFBAP and Congo-Brazzaville immigrant entrepreneurs' pace. The Internet exhibits network externalities because it appears to be more valuable to users as more Congo-Brazzaville immigrant entrepreneurs want to take advantage of it (Afuah *et al.*, 2001:28-29). The Internet acts as a distribution channel for products and services that are largely informational. Congo-Brazzaville immigrant entrepreneurs can access the latest conditions of business registration at CFBAP via the Internet. As time moderator, the Internet can alter time for Congo-Brazzaville immigrant entrepreneur business partners



who might not live in the same city, and have different work shifts, but who will find downloadable forms of the business for registration on the CFBAP website 24 hours a day, 7 days a week.

The Internet is an information asymmetry tool. Indeed, asymmetry exists when one business partner has information that another does not. Afuah *et al.* (2001:31) argue that such asymmetries are sources of income for business consultants in Brazzaville. Their increased commission rates when handling one's business registration in Brazzaville hinder business registration process at the CFBAP in Brazzaville for Congo-Brazzaville immigrant entrepreneurs.

The Internet has infinite virtual capacity storage. While outstanding technological advances have boosted processing the speed of data, similar advances have been made towards storage and Internet network technologies. By using e-commerce technologies, CFBAP will have infinite virtual capacity to contain online business registration demands. Low cost standards of the Internet refers to its availability and accessibility for a majority of Congo-Brazzaville immigrant entrepreneurs at lower costs than earlier means of electronic communication, namely Electronic Data Interchange (EDI). The Internet has creative destroyer property. In this context, CFBAP's gazette, for example, offers readers editorials, news, stock prices, weather forecasts, classified, advertising, and promotions. Offering this value to Congo-Brazzaville entrepreneurs requires an investment in printing press, distribution network, content, and brand name. This investment constitutes a threat for CFBAP to publish regularly, efficiently and effectively in order to update business managers in Brazzaville with current market trends. The Internet is a low cost standard printing press of sorts and a distribution network, which has unlimited capability that reaches more people than any newspaper could ever hope to reach. This tears down a large part of threats at CFBAP that exist in communicating and updating Congo-Brazzaville immigrant entrepreneurs (Afuah *et al.*, 2001:31). And, finally, the Internet is a transaction cost-reducer. Transaction costs include stakeholders' cost of searching, collecting information of products that are offered, negotiating, writing, monitoring, and enforcing contracts (Afuah *et al.*, 2001:31). Afuah *et al.* (2001) argue

that the Internet will reduce transactions costs for Congo-Brazzaville immigrant entrepreneurs, service users and CFBAP, the service provider.

### **1.6.3 Benefits of a CFBAP e-commerce website for businesses**

Congo-Brazzaville immigrant entrepreneurs' perceived online business registration benefits include registration of new business; increased speed in financial operations; quick process of VAT declaration; improved custom declaration; easy environmental permits application; reduced advertisement costs; increased corporate profits and the country's GDP; reduced operating costs; increased return on investment; facilitated procurement; enhanced entrepreneurs' life-long learning; and submission of data to the Congolese statistical office (Cap Gemini, 2006:4).

In fact, CFBAP's e-commerce website will increase businesses' ability to submit data to the Congo-Brazzaville government. In France, for example, VAT declaration forms will be completed by French tax authorities and after verification of data; managers will simply sign to confirm (*Impots*, 2006:1). In the Czech Republic, for example, the customs administration has created online services to facilitate trade and custom declarations (Cape Gemini, 2006:24). Custom declarations and environmental permit applications in Brazzaville can be automated to prevent businesses from supplying five times the same information for custom declarations. In Hungary, the act regarding business registration allows that business court procedures are conducted electronically. In this EU member country, business registration and related services are available online at the government portal and are monitored by the Ministry of Justice (Cape Gemini, 2006:33).

Online business registration's perceived usefulness is a perceptual indicator of the degree to which Congo-Brazzaville immigrant entrepreneurs believe that using CFBAP's e-commerce website will improve businesses' performance. An e-commerce website will be useful if it produces benefits, hence costs are much less than benefits (Seddon, 1997:246). Implementing an e-commerce website at CFBAP does not mean replication of hard-copy forms in an electronic version. However, if better marketed, a responsive e-commerce website will become an intelligent data-gathering service from different

interoperable back office and provide Congo-Brazzaville immigrant entrepreneurs with sound and excellent electronic services.

#### **1.6.4 Exporting services via the Internet**

CFBAP is a Congo-Brazzaville governmental agency whose principle goal is to ease the process of business registration in the country (Mavoungou, 2008:1-2). Adopting online business registration as one of the steps to improve the company registration process in Brazzaville will attract not only Congo-Brazzaville immigrant entrepreneurs, but also multinational corporations (MNCs).

Presently in Congo-Brazzaville, MNCs rely on interim IT service contractors, which are known as “body shopping”. Improved conditions of conducting business in terms of e-commerce adoption at CFBAP will shift MNCs from interim service contractors to locally well-established MNCs, and contribute positively to the country’s GDP (Bharati, *et al.*, 2005:5). The fact that MNCs want to remain globally competitive by relocating labour-intensive operations overseas to low-wage countries such as Congo-Brazzaville, is a potential motive to boost the economy by moving from the traditional corporate model of vertical integration to a more flexible model that links various networks within Congo-Brazzaville’s supply chain (Bharati, 2005:71), and promotes economic diversification in Congo-Brazzaville.

#### **1.6.5 Factors that attract Congo-Brazzaville immigrants to Cape Town**

Before 1990, South Africa was not a popular tourist destination (Khumalo, Vilakazi & Greenstein, 2007: 128). However, between 1994 and 2000, tourism increased at an average rate of 8 per cent per annum. In general, tourists were motivated by positive political changes, well-established infrastructure, a host of events such as Soccer World Cup 2010, and improved co-ordination with neighbouring countries. Relating to the above factors, Congo-Brazzaville immigrant entrepreneurs, in particular, visit Cape Town for holiday, study, work, business and shopping for scarce goods at home, visit, and medical care (Statistics South Africa, 2008:57-58).

### **1.6.6 Immigration policy in South Africa**

A report, which was released by the Paris-based International Federation for Human Rights, stated that South Africa's migration policy in 2008 was still like that of the previous government's in respect of harassment of so-called illegal immigrants (South African survey 2007/2008:57). The report criticized the policy, which criminalised migration and fuelled xenophobia. Government policy remained geared towards security concerns and population control. This approach was based on the premise that considerable numbers of economic migrants wish to enter South Africa illegally in large numbers (South African Survey, 2007/2008). Undocumented migrants numbered 500 000, including asylum-seekers, refugees, and those waiting for bureaucrats to resolve their paperwork. "This focus on population control is complemented by the enforcement role of the police and tendency to confuse undocumented migrants and criminals", the Federation noted (South African Survey, 2007/2008).

The report stated that another assumption of this approach was that South Africa's borders were impossible to monitor because of their length and geographical features. In terms of this logic, enforcement of migration law should have taken place at community level where migrants lived, worked, and studied. Hence, government migration policy focused on "rendering South Africa inhospitable for undocumented migrants through arrests, and restricting access to jobs, services, and temporary residence", according to the Federation's deputy president, Mr Tsunga. South Africa's migration policy ignored the fact that a large majority of migrants entered South Africa legally. Several were cross-boarder traders, seasonal, circular, or temporary migrants who did not wish to settle in South Africa (South Africa Survey, 2007/2008:57-58).

There were two main pieces of legislation that governed the entry of foreigners into South Africa in 2008: the Immigration Act of 2002 and the Refugee Act of 1998. The Immigration Act deals with people who had come to work, start a business, or study, while the Refugee Act dealt with people who had fled to South Africa because of political circumstances in their own countries (South Africa Survey, 2007/2008:59). Early findings of this research revealed that foreigners seeking a better life in South

Africa had difficulty obtaining legal status, even though one - third of them possessed education or skills that are much needed in South Africa. As a result, South Africa has a number of foreigners, particularly Congolese, who live from hand-to-mouth with little legal protection and access to resources. These Congolese bore the brunt of xenophobic attacks. The principle behind the Immigration Act of 2002 was that South Africans should take care of their own first, while the Refugee Act of 1998 focused more on human rights. The Immigration Act preferred skilled over unskilled migrants. For the sake of positive spin-off of economic migration, unskilled or semi-skilled migrants were fitted for specific projects such as mines or farms. Due to a lack of access to resources, many Congo-Brazzaville immigrants sought legal status through applications of asylum.

Asylum applications were provided in terms of the Refugee Act of 1998. An advantage of asylum was that people were permitted to work, access health care and study. However, when it comes to a Congo-Brazzaville immigrant having a decent job, even if qualified for the position, the Immigration Act of 2002 applies first. In order to embarrass the asylum or refugee applicant, recruiters often require them to produce a valid South African identity document. Therefore, even though the employers know that the asylum or refugee applicant is allowed to work, they will not select him or her in spite of evidence of skills and qualifications to do the job (South African Survey, 2007/2008:59).

### **1.6.7 Factors that motivate Congolese immigrant entrepreneurs to invest in Brazzaville**

Despite being attracted to South Africa, Congo-Brazzaville immigrant entrepreneurs have now realised the need to invest back home in Congo-Brazzaville owing to certain reasons, namely a high crime rate, xenophobia, lack of access to resources, political uncertainty in South Africa and relative political stability in Congo-Brazzaville. In a study released by Thorton, an accounting and advisory firm, crime was the most frequently cited reason for professional South African citizens immigrating. More than 80 per cent of those who were surveyed cited the high crime rate as a consideration to leave South Africa permanently (South Africa Survey, 2007/2008:57).

Xenophobic attacks, which took place in May and June in 2008 in which Congo-Brazzaville immigrants were among 10 000 victims, and the State's shortcomings owing to incompetence of the DHA, affected by corruption and under-funding, urged Congo-Brazzaville immigrants to return home for better business opportunities. Research showed that, contrary to the idea that unskilled immigrants took away jobs from South Africans, they usually end up being employers of about three South African citizens or more (South Africa Survey, 2007/2008:57-62).

This focus on population control is complemented by the endorsement role of South African Police Service (SAPS) officers who often confuse undocumented migrants and criminals (South Africa Survey, 2007/2008:57). Concerning the leadership of the country, the power crisis and the election of Mr Jacob Zuma as ANC president, caused a sharp increase in the number of affluent Congo-Brazzaville immigrant entrepreneurs looking to go back home for good, either before Soccer World Cup 2010 or soon after. The last 2009 presidential election in Congo-Brazzaville, which re-elected president Sassou to power, did not raise any concern, violence or opposition protest. This tendency attracted companies such as Warid Telecom, MTN South Africa and several others in Brazzaville (*Forum des Jeunes Entreprises du Congo*, 2010:2-3).

### **1.6.8 Challenges that face Congolese immigrant entrepreneurs regarding e-commerce**

Al-Gaith *et al.* (2010:14) have identified culture, security and privacy, education, trust, and public policy as main challenges that face Congo-Brazzaville immigrant entrepreneurs when using CFBAP's potential e-commerce website. In fact, Javalgi (2004:563) states that recently, researchers have attempted to examine Internet adoption by using Hofstede's five cultural dimensions, which include individualism, power distance, uncertainty avoidance, masculinity and long term orientation. Congo-Brazzaville immigrant entrepreneurs fit in some of the Hofstede's five cultural dimensions of the Internet. Congo-Brazzaville female entrepreneurs argue that Internet technology belongs to men; while their fellow men state that registering a business online in Brazzaville creates a feeling of uncertainty. The above shows that Congo-Brazzaville

immigrant entrepreneurs are more concerned with culture, security and further IT education.

Congo-Brazzaville immigrant entrepreneurs who have computer skills will turn this challenge into an opportunity of cutting costs in order to secure long term profits. The issue of low take-ups of online company registration is currently an important question. In fact, CFBAP in Brazzaville is aware that huge budgets will be required to implement a 100 per cent integrated e-commerce website that might be used by too few Congo-Brazzaville immigrant entrepreneurs, if they were not sufficiently equipped with the required IT skills.

International agreements between Congo-Brazzaville and South Africa are required (Javalgi, 2004:563) in areas of finance, law and market access. Customs, taxation and electronic payment systems are e-commerce financial issues, which should be addressed by these countries. An additional issue is the efficient administration of policies in these areas where services are delivered electronically across borders. Evidence suggests that there is an urgent need of a co-operation agreement between Congo-Brazzaville and South Africa to support Congo-Brazzaville entrepreneurs in Cape Town to easily register their business online in Brazzaville.

## **1.7 Sources of information**

An extensive study of related literature on the topic was undertaken. A multi-disciplinary approach was adopted whereby literature from areas of e-commerce, organisational behaviour, economics, computer science, strategic management and other related disciplines were reviewed. Since the research study dwells on Congo-Brazzaville immigrant entrepreneurs, which is an evolving topic, current sources of information were used. Other sources included textbooks, journals and online articles. Universities and public libraries were accessed for relevant literature, while experts in the field of e-commerce and management were contacted to gain additional information about special issues pertaining to the research.

## **1.8 Research design and methodology**

Research is a means through which researchers attempt to find answers to questions or provide solutions to a problem (Struwing & Stead, 2001:6; Leedy, 1989:5). Brynard and Hanekom (2006:3) suggest that research is a procedure by which an enquiry is made in order to obtain answers to questions and to solve problems in a systematic manner with the support of variable facts. The nature of research dictated quantitative and qualitative methodologies combined (Leedy, 1989:140) for a better understanding of the research problem that was identified. The two research methods are discussed in the following sub-sections.

### **1.8.1 Quantitative methodology**

Quantitative method is a systematic and objective process that investigates a particular problem by using numerical data. Quantitative research methods include face-to-face interviews, self-administered questionnaires and surveys (Babbie & Mouton, 2001: 130). A self-administered questionnaire was used and participants were given sufficient time to respond.

#### **(a) Population**

The target population includes Congo-Brazzaville immigrant entrepreneurs who live in Cape Town where the study was conducted. They were randomly selected from the general population of Congolese immigrant entrepreneurs amongst members of the Congolese Association of Cape Town.

#### **(b) Sampling**

A research population is any group that is the subject of research interest (Goddart & Melville, 2001:34). According to Struwing and Stead (2001:122), purposeful sampling is concerned with choosing participants that manifest certain characteristics that the researcher is interested in. Therefore, a sample size of  $N = 116$  Congo-Brazzaville immigrant entrepreneurs was used. A sampling survey has an advantage of enabling one to make inferences about the population, which is quick and economical.

#### **(c) Questionnaire design**

In order to avoid drawing conclusions from one transitory collection of data, this research used a questionnaire. An advantage of a questionnaire is to elicit information by requiring



respondents to answer objective questions (Brace, 2004:9). The designed questionnaire was divided into two sections, namely a demographic information section (1); and content-based questions in section (2). Demographic information comprised of variables such as gender, age, education and dependents whereas content-based questions focused on benefits of online business registration in Brazzaville for Congo-Brazzaville immigrant entrepreneurs.

The total response was calculated by using the formula below (S3amazonaws, 2010:1):

$$\text{Response rate} = \frac{\text{Number of completed survey}}{\text{Number of participants contacted}} * 100 = \frac{116}{116} * 100 = 100 \%$$

**(d) Ethical consideration**

A letter of consent was sent to the president of the Congolese Association of Cape Town and its members as assurance that the information given by all respondents remains anonymous and confidential. The purpose of the letter introduced respondents to the study objectives and also briefs them on the content of the questionnaire (Shivute, 2007: 34). Questions were translated from English into French and French into English for better understanding, as French is the respondents’ first language. For respondents’ convenience and owing to financial constraints, the researcher was involved in the distribution of questionnaires, while respondents were given a minimum of two weeks to complete the questionnaires before collection. Despite advantages provided by the questionnaire, this technique reveals two main disadvantages: a lack of interaction with respondents and the fact that a researcher can only obtain answers to a question that has been asked (Johnson & Harris, 2002:102; Brace, 2004:5). To counter-act the above disadvantages of a questionnaire, focus group was used in the qualitative research method (Yang, 2007:58).

**1.8.2 Qualitative methodology**

Qualitative research studies involve considering human actions from an “*emic*” perspective (Babbie & Mouton, 2001: 217). This method refers to a range of interpretive

techniques, which seek to describe, decode, and translate terms that occur in a social situation (Welman, Kruger & Mitchell, 2006). The main strength of the qualitative method is that it allows one to gain an in-depth understanding of the research problem (Babbie & Mouton, 2001: 309), while it interprets results easily and discovers new ideas. However, a disadvantage of qualitative research is that the research results are dependent on the interpretation of the researcher and thus makes it prone to biases, which make the results more subjective, and this makes it difficult for findings to be generalised (Babbie & Mouton, 2001: 309). This research used the following qualitative method techniques:

**(a) Focus group**

The focus group method was used in this study as Brace (2004:5) argues that respondents may have useful information that is not excised by the questions in a questionnaire. Selected according to their business' size from members of the Congolese Association of Cape Town, five Congolese immigrant entrepreneurs were invited for focus group discussions in order to gain a broader understanding of the research problem. Based on the information gathered through the focus group and past studies, a questionnaire draft was designed and distributed to the research population.

**(b) Direct observation**

This was done in the form of field research, which was conducted among five Congolese immigrant-owned businesses that were selected according to the size of their business assets, which enabled the researcher to record data.

**1.8.3 Data analysis**

Collected data was quantified into numbers via statistical analysis. The Statistical Package for the Social Sciences (SPSS) was employed to measure the statistic significance of facts and data.

## **1.9 Summary**

An e-commerce website can provide benefits for Congo-Brazzaville immigrant entrepreneurs who are engaged in the process of online business registration in their country. Due to political and economic reasons, Congo-Brazzaville entrepreneurs are motivated to invest back home and require an e-commerce website to be implemented at CFBAP, which falls under the jurisdiction of the Ministry of Small and Medium-Sized Enterprises and Crafts. In Brazzaville, today's businesses capitalise on Internet properties, namely low cost standards, time moderator and universality to minimise costs and secure long term profits. Congo-Brazzaville is ranked 144<sup>th</sup> out of 177 countries in terms of conducting business and living standards. An e-commerce website at CFBAP will enable Congo-Brazzaville immigrants' business to monitor transactions in order to achieve significant supply chain management cost savings. Furthermore, at a national level, an e-commerce website adoption will leverage the country's World Bank ranking in terms of standards of doing business and boost the pride of CFBAP, as an organisation, and its partners regarding an aspect that is at the core of its values.

Even though e-commerce enables business performance, Congo-Brazzaville immigrant entrepreneurs should contend with different IT-related challenges in order to gain a competitive advantage. In Brazzaville, well-established local SMMEs compete with a desire to create customer loyalty. Without appropriate strategic supply chain planning, Congo-Brazzaville immigrant entrepreneurs will spend their business hours in Brazzaville as fire-fighters chasing competitors' tail light. Where there is no strategic supply chain planning for cost savings; it is a forgone conclusion that better policies might not deliver desired results. Therefore, it is imperative to assess Congo-Brazzaville immigrant entrepreneur's IT challenges and related benefits. The study focused on Congo-Brazzaville immigrant entrepreneurs who are members of the Congolese Association of Cape Town, are registered with the DHA and who live in Cape Town. However, this study focused only on benefits that relate to potential CFBAP's e-commerce website users. Furthermore, the study will not recommend any specific e-commerce technology to CFBAP as an institution; hence, it excluded e-commerce providers' benefits. Nevertheless, CFBAP should reconcile findings of this study and

future studies, evaluate the pros and cons of different e-commerce technologies, and then decide on the most appropriate technology for its potential website that should be managed at Brazzaville's head office. The next chapter focuses on **E-commerce revolution and successful business ventures**, which are discussed with other relevant literature in greater detail.

## **Chapter 2**

### **E-commerce revolution and successful business ventures**

#### **2.1 Introduction**

It has taken centuries for scientists to develop computers that successfully enable businesses to grow in a reconfiguration of geography, so that social space is no longer wholly mapped in terms of territorial places, distances and borders (Ukpere, 2007:394). In this 21<sup>st</sup> century, scientists need no longer rely on dreams to unlock the mysteries of science as August Kekule who dreamt in 1865 that six snakes were chasing each other in a ring. In the morning, it was described as a chemical substance that has six carbon and hydrogen atoms called benzene (Chemistry Explained, 2011:1-3). Computers have indeed revolutionised the way things are done within contemporary societies.

By computer, the author means a computer system because a mere computer would be useless without other systems. Hence, a computer has the capability of performing all tasks that are expected of it, therefore, it would be totally redundant if it lacks other systems to receive, transmit and communicate information through required devices. In fact, these devices are to a computer, what eyes, ears, hands and mouth are to human beings (Ukpere, 2007:394). Presently, business to business (B2B) e-commerce has become a reliable way of conducting businesses in developed economies and is becoming increasingly popular in developing economies. However, B2B e-commerce should still be adopted at the Centre for Business and Administrative Procedures (CFBAP) in Congo-Brazzaville in order to stimulate Congolese entrepreneurial mindsets (Inder Singh, 1998:1). According to Ukpere (2007:392), this B2B e-commerce that is being proposed in Congo-Brazzaville is known as the technological revolution, which occurred towards the end of World War II. Slabbert (1996:42) argues that this technological revolution was unprecedented owing to the introduction of numerically-controlled machines and computers in the realm of businesses. In view of the important role that SMMEs play in the economic development of Congo-Brazzaville, Congolese immigrant entrepreneurs are demanding Internet technology adoption at CFBAP to enable them to enjoy the benefits

of B2B e-commerce in the areas of finance, management, marketing, and logistics and within the Congolese national economy. However, it should be remembered that the computer revolution did not suddenly appear, nor did B2B e-commerce. In this regard, Manohar (2011:2-5) argued that although it is always believed that technological wonders were created by modern scientists, however, the efforts of ancient craftsmen, inventors and scientists, which had laid the necessary foundation for modern computer development, should not be ignored.

The e-commerce revolution has been a period of huge achievements on the part of human interactions with computers. Telephones, cars, elevators and vending machines are now equipped with computerised voice response gadgets that allow them to interact with customers. Rosenberg (2004:55) argues that computers are applied to an incredibly wide variety of tasks, including many that were formerly the sole province of humans. This gradual encroachment on a private domain has undoubtedly indicated to Congolese immigrant entrepreneurs that it is only matter of time for the Congolese CFBAP to adopt B2B e-commerce technologies. According to Neal (2005:4), computers are used to reduce inventory costs, analyse the performance of salespeople, make sophisticated financial analyses, reduce the number of uncollected bills, determine production costs, process checks and credit card transactions that take place daily, design new products in manufacturing, place orders automatically and alert customers when there are possible stock-outs. Computerised robots are used to paint, weld, attach and assemble parts in factories. Computers are also used to locate products and check its prices in the store, schedule projects, forecast labour needs and register businesses online. At this stage, it is imperative to explore the concept of the technological revolution.

## **2.2 Technological revolution**

Daily business activities in Cape Town make it difficult for Congolese immigrant entrepreneurs to realise how rapidly the business world is changing. With the advent of electronics and the Internet, it has only taken decades for humans to make giant strides. It is surprisingly true that about half of IT research conducted in the USA has been done in the last 20 years. A computer is a machine, which helps to process data and perform

certain repetitive tasks at fast rates without blunders (Ukpere, 2007:393). However, Pieper (2011:1) reveals that five thousand years Before Christ (BC), mechanical devices were used to help humans process data, and over centuries, there have been many improvements in these tools.

Before exploring what Congolese immigrant entrepreneurs feel about future technology, it is necessary to first shed light on mechanical devices in the following section.

### **2.2.1 Mechanical devices**

The development of the first mechanical device could be attributed to the Chinese who designed a mechanical device called the *abacus* as early as 5 000 B.C., which was used for arithmetic operations (Fact Index, 2011:1). In the 1600s, John Napier constructed a device called *Napier's bones*, which allowed business people to perform quick and accurate multiplication and division of large numbers (Fact Index, 2011:2). In 1642, Blaise Pascal developed a workable calculating machine, which created a competitive advantage for businesses (Goold, 2011:3). In 1671, about 30 years after Pascal developed the calculating device, Gottfried Wilhelm Leibnitz developed a mechanical device called the *Leibnitz Calculating Machine*, which was the first of its kind to perform division and multiplication operations (Rosenberg, 2004:69). During the first decade of the 19<sup>th</sup> century, Jacquard invented an automated loom operated by a mechanism, which was controlled by punch cards (Idea Finder, 2006:3). According to Brandon and Tonhofer (2011:2), another device called the difference engine, was developed by Babbage and was used to calculate the values of polynomials by using the difference technique. Babbage also conceived another machine known as the analytical engine, which contained a memory unit that could store numbers and computations. Furthermore, the device had automatic printing, data input using punched cards, and the ability to follow a set of instructions with the contribution of Ada Lovelace (Brandon *et al*, 2011:2).

At this stage in the history of computers, the USA was still a young growing country. One of the great difficulties in the USA was that the Census Bureau could not keep track of all new immigrants from Europe. Only in 1887, Dr. Herman Hollerith developed a

punched card tabulating machine, which could sort over 200 cards per minute. Dr. Hollerith's invention was followed by others such as the *W.S. Burroughs Calculating Machine*, which was patented on August 21, 1888; the first cash register was developed by James Ritty in 1878 and he later sold his company to Jacob Eckert who formed the National Arithmometer Company in 1886. A significant milestone in the computer manufacturing industry was reached when Dr. Hollerith founded the Tabulating Machine Company, which later merged with other companies in 1896 to become International Business Machine (IBM). These mechanical devices had provisions for imputing data-storing information, performing arithmetic operations and printing results, and provided a base for the modern computer age.

### **2.2.2 Computer age**

One of the most significant developments since the work of Babbage was the automatic sequence controlled calculator, commonly called MARK I developed in 1937 by Howard Aiken with the support of a few engineers from IBM (Bellis, 2011:1). MARK I could multiply 10-digit numbers in less than 10 seconds. Its speed created an edge for businesses, but as it contained about 760,000 parts and about 500 miles of wire, the size threatened its use in businesses. From MARK I, Atanasoff and his assistant Clifford Berry developed the Atanasoff-Berry computer (ABC). One of the ideas of this electromechanical device was to link the computer's processor with the memory device (Pilgrim, 2010:1-3). Later, Atanasoff formed a research company, which was sold to Aero-jet General Corporation. Due to the fact that early electromechanical devices were large, constant research improvement led to development of Electronic Numerical Integrator And Calculator (ENIAC) by Dr. John W. Mauchy and J.P. Eckert in 1946, under a USA army contract. ENIAC contained vacuum tubes, switches and offered many advantages over previous devices. The emphasis was to make computing devices smaller, faster, and more powerful in order to create a competitive advantage for both personal and professional lives. Therefore, in 1952, Dr. John Von Neumann proposed the Electronic Discrete Variable Automated Computer (EDVAC), which could store programs and perform arithmetic activities without assistance from a human operator. EDVAC was smaller, faster and more powerful than other previous electromechanical



devices (Professors House, 2011). The new concept of stored programs made it unnecessary to rewire the computer for each new computer application. Therefore, in a matter of seconds a new program could be read and stored in the computer's memory.

As mentioned earlier, the computer did not arrive as a serious tool for numerical work until well after the Second World War with the invention of transistors and then the Integrated Circuits (IC) (News Center, 2009). Since this period, the impact of computers on businesses has overwhelmed human imagination. According to Frei (2010: 1-2), there were three stages of computer usage development. The first stage was the use of computers for big sciences such as Astronomy, Physics, Chemistry and Engineering. In these areas the computer has been able to solve problems, which were beyond human effort. Then, the management base came to rely on computers to generate management decisions that were used on calculated risks and invented terms such as Management Information Systems (MIS). All these developments demonstrated the power of the computer and its benefits to society. However, this positive impact was only felt by a limited group of highly selective people (Frei, 2010:1-2). Later the scope of computers was widened to include non-numerical data manipulation and an innumerable host of applications in almost every facet of life, which with no exaggeration to admit that human civilisation is now witnessing a revolution in data processing, storing and transmitting, was the third stage of computer usage development. This huge advancement forever changed how computer systems would function in future, and this speed of change brought about various computer generations.

### **2.2.3 Computer generations**

In the last decades, huge strides have been made in the design, construction and use of computer systems. It is interesting to notice that each breakthrough caused previous models to become technologically obsolete. Thus, this section briefly describes these significant stages in the development of the computer through different generations, which are elaborated on in the following sections.

### **2.2.3.1 First generation computers (1940-52)**

The first generation of computers began with the development of the Universal Automatic Computer I (UNIVAC I), which made EDVAC obsolete (Hub Pages, 2010). Eckert and Mauchly began to develop UNIVAC I at the University of Pennsylvania in 1946 and they completed and presented the computer to the Census Bureau on June 14, 1951 (Stair, 1986: 48). UNIVAC I was the first computer to be used for business in 1954 by General Electric (GE) in Louisville, Kentucky (Stair, 1986). In politics, UNIVAC I was the first computer, which was also used in 1952 for the first time to predict presidential election returns in the USA. With only 7 per cent of the votes counted, the computer predicted that Eisenhower would win, hence computers have been used ever since to predict election results (Ced Magic, 2010). The first generation of computers also marked the start of computer programs and computer programming. Many of the first generation computers had to be programmed in machine language, which consisted of a series of zeros and ones. Dr. Grace Hopper developed one of the first program translators in 1952 at the University of Pennsylvania. Through the process, Dr. Hopper saw a moth that could stop the operation of a computer. It was carefully copied and pasted into the log book. From then on, a computer programming mistake was called a bug. The following section explores second generation computers.

### **2.2.3.2 Second generation computers (1952-64)**

Second generation computers were smaller, faster, and more reliable. They produced less heat during operation and used transistors instead of tubes (Campus Udayton, 2010). Second generation computers used for the first time magnetic tape and disks for permanent storage, input and output devices, had memory extended and modular hardware devices to reduce maintenance problems. The second generation of computers marked the common use of high level computer programming languages. Formula Translation (FORTRAN), which was developed in 1957 was used for scientific purposes, Common Oriented Business Language (COBOL), developed in 1961, was used for business applications whereas Beginner's All-purpose Symbolic and Instructions Codes (BASIC) was developed in 1964 by John Kemeny and Tom Kurtz and was intended to make the computer easy to use for non-computer scientists (How, 2010).

The second generation of computers marked improvements in both application and system software. Operating systems were replacing many of the functions that were previously performed by human operators. Compilers were developed to translate language such as BASIC into machine language, while utility programs were developed to merge, sort, and transfer data files from one storage location to another. The second generation of computers also marked the real-time processing system where input and output devices could be used to obtain immediate responses from computer systems. Bethlehem Steel was one of first companies to use real-time system software to handle inventory and production control (Thomson, 2000:937). Thereafter, American Airlines in 1964 began to use real-time systems to make reservations and to handle flight scheduling on a second-by-second basis (World Iq, 2010).

During the period of second generation computers, business people witnessed a shift of emphasis from hardware to software and companies began to use computers to supply their managers with information that could help them to increase profits and run the company. This was the beginning of MIS. During this period many companies became concerned about the quality of data processing personnel. In 1962 the first Certificate in Data Processing (CDP) exam was written. Although the use of transistors revolutionised the capabilities of second generation computers, scientists and engineers were striving for new and constantly improved technology based on miniaturised circuits, which led to the third generation of computers, which is discussed in the next section.

### **2.2.3.3 Third generation computers (1964-70)**

The technology of placing more transistors in a single chip developed fast and by 1963, about 8 transistors were placed in a single chip. This new technology was called Integrated Circuit (IC) (Pbs, 2010). An IC built in IBM 360 computer was cheap and its speed could be expanded at later stage. Since 1965, computer development was rapid with improvements including increased speed and accuracy, hardware and software integration, simultaneous operations performance, data communication advances and improved performance-to-price ratios (Pbs, 2010).

Third generation computers also marked improvements in software and vendor support. A study revealed that IBM spent over 50 million USA dollars a year to get the IBM 360 system to function. Then on June 23, 1969, IBM made an announcement that software would be unbundled from then on (Computer Supports, 2009). This meant that customers will have to buy computer software and hardware separately. This policy followed by most software vendors, forever changed the computer industry and reinforced the notion that computer software was becoming much more important than computer hardware. Therefore, computer manufacturers have changed from only selling hardware to offering complete and ready-to-use computer systems with training, maintenance, management and consulting services. Indeed the advent of previous computer generations discussed in the previous sections and the introduction of the fourth computer generation, which is discussed in the next section, made it possible for humans to collate, integrate and disseminate information online with an efficiency and speed unparalleled in history.

#### **2.2.3.4 Fourth generation computers (1970-1980s)**

Two developments led to what is assumed as the era of the fourth generation of computers. First of all, a majority of IT firms including IBM began to use Large Scale Integration (LSI) and the second was the development and use of a PC. One of the first PCs was Altair, followed by Apple I, Apple II and IBM (Old Computers, 2010). During the period of fourth generation computers, there was a dramatic improvement in operating systems, compilers, assemblers and utility programs, data communication, MIS, B2B e-commerce and decision support systems (DSS), which required data processing personnel to have both managerial and human relations skills to interface with people who used the systems. Considering that fourth generation computers brought much faster, less expensive and greater capacity computers with input/output devices, optical readers, audio response terminals and graphic display terminals (IT History, 2010), and owing to constant improvement, computer users were introduced to '*Thinking Machines*' called fifth generation computers, which is discussed in the next section.

### **2.2.3.5 Fifth generation computers (1980s to present)**

Fifth generation computers are called 'Thinking Machines', as they have the capability of reasoning, learning and making informed judgements. Although distinctions among the first three generations of computers are clear, defining the next generation becomes complex. Some scientists believe that the fourth generation began in the 1970s and continues today, while others argue that this is the era of fifth or sixth generation computers (IT History, 2010). Without any doubt, what the future holds could be dramatic computer technology, which will affect people's daily personal and professional lives in a dramatic way. The fifth generation computer system was conceived as a knowledge information processing system based on innovative technologies. This new revolution has accelerated the pace of globalisation (Sholte, 2000:100), which is mainly conceived as a product of technological revolution (Cap Gemini, 2006:52). It is unfortunate to note during this age of globalisation and technological revolution, that the CFBAP in Brazzaville does not offer online company registration service.

However, presently, whether it is in the areas of agriculture, manufacturing or services, machines are quickly replacing human labour and promising an economy of near-automated in developed countries (Rifkin, 1995:21). Due to the fact that technological advancements will reshape how people conduct business in Congo-Brazzaville, it is worthy for CFBAP-Brazzaville to consider offering an online business registration service that is being demanded by Congolese immigrant entrepreneurs (Shah & Mehta, 1998:227). Previous sections have shown that computers can radically alter economic activities and the social environment. In developed countries computers affect such large sectors as communications, finance, retail trade, education, health and governments (OECD, 2010: 11). However, a combination of regulatory reform and technological innovation have enabled computers to evolve in business the way that it has. Although the precursor of the Internet appeared in the late 1960s, e-commerce took off with the arrival of the World Wide Web in the early 1990s, which followed liberalisation of the telecommunications sector and innovations that greatly expanded the volume and capacity of communications.

### **2.3 Benefits of computers to society**

The growing use of computers in modern society will force every nation to reconsider the role of human beings within the social process. The following sections explore the benefits of computers in areas such as office automation, science and engineering, health care, sports, at home, entertainment and leisure, education, artificial intelligence (AI) and military.

Computers are used in offices to streamline office operations, perform word processing, and electronically handle mail, electronic voice storage and forwarding (McClelland, 2010). In addition, word processing has enabled companies to store electronic key paragraphs, which can be called up on a screen, rearranged and printed. Some word processing programs have dictionaries, which automatically check spelling and grammar. A facsimile, also called a fax, can be configured in a computer Local Area Network (LAN) to transmit both graphic and alphanumeric data from one location to another. Computers are also utilised for teleconferencing, which allows the data to do the travelling instead of people (Writing, 2010). The benefits of computers in office automation provide an indication that the role of computers in modern society should be viewed from a broader perspective (Goldstein and Ford, 2002:329); therefore, computers could be utilised for complex calculations in science and engineering. Hence, one of the benefits of computers in engineering was the use of Computer Numerical Control machines (CNC) in the early 1970s (The Role of Computers in Manufacturing, 2010:1-2). CNC machines enable workers to automate activities by using a drill machine. Another role of computers in engineering is to design, test, simulate, calculate, and automate tasks and process image (How, 2010). However, even though growing global warming concerns have made computers useful in forecasting weather, controlling space shuttles and wild life, locating oil fields and depots, helping farmers to determine what to plant, and computers are also utilised in hospitals (Medical Tourism Corporation, 2010).

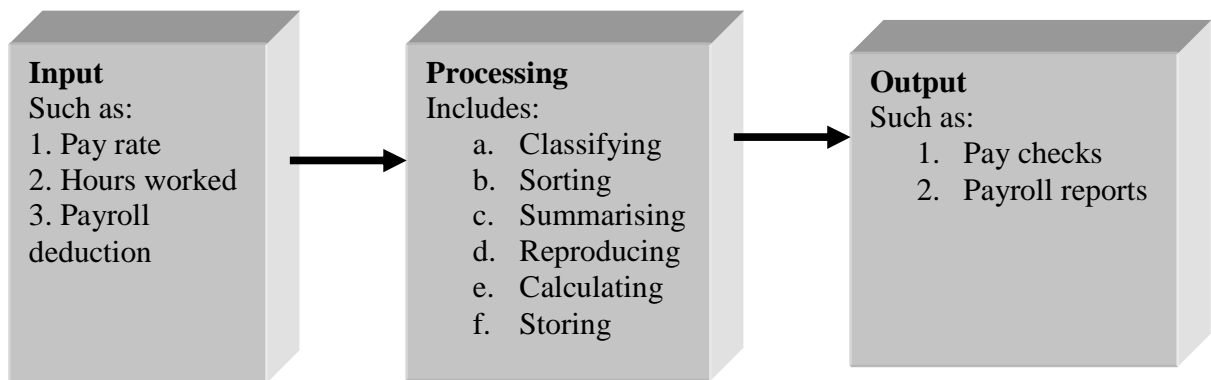
Additionally, computers are used in health care facilities by medical professionals to examine the internal organs of the human body, perform surgery, and store patients' data (Pillai, 2010:2). Furthermore, in medical sciences, computers are used to locate patients,

diagnose diseases, learn the cures, prescribe medicines, loose weight, and relieve stress (Oak, 2010:1). From the above, it is noted that computers have leapfrogged human society into another league. Computers are used in each and every aspect of human life. Therefore, from sports-related websites to computerised training devices, computers play a vital role in the sports industry. Recently, sports teams use computers to display scores on computerised scoreboards, maintain player records, create virtual playing fields and model new sports techniques. Sports equipment manufacturers use computers to design and test new sport equipment (Info web links, 2010:1). Sport officials also use computers to draw statistical data, take notes and communicate online while working at an event (PC Laptop Repair, 2010:2). Furthermore, during games computers allow sport fans to check out sports schedules, buy tickets via the Internet for sporting events, and communicate with other sports fans about the latest game or watch sport games live from home, on the road or at work.

In other words, a PC has become an important household item. It can be used at home for writing (Sandhyarani, 2010:2-3), telecommuting, communicating, research, entertainment and e- learning (Wilson, 2010:1). Some people who communicate via online computer systems, even end up getting married (Stair, 1986:55). Further, a PC can be programmed to detect fire in a house and alert the fire department automatically. Thus, having a PC at home, which is connected to the Internet, allows people to work from home, undertake research (Wilson, 2010:2) and take university or college courses through e-learning technologies (Sandhyarani, 2010:3). In fact, there are colleges and universities, which train and deliver online qualifications in different fields and have set up e-learning units that operate 24 hours 7 days a week to support both full and part-time students (Indian Child, 2010:2). With the advent of videotext, one can browse electronically through catalogues of products and services, then purchase selected products, analyse stock market, select a television program, or make an investment decision (Drago, 2010). Another wonder of computers in modern society is Internet banking technologies, which enable people to make financial transactions from home. Molina (2010:3) posits that “*for entertainment, computers are multi-media platforms converging multiple technologies e.g. TV, Video on demand, gaming, etc.*” and are perfectly important in the entertainment

and leisure industry (Barber, 2010:4). Computers enable restaurant managers to process various forms of payment at guest tables, which reduce queues at the counter and not only improves customer service, but the entire food service process (Barber, 2010:4). The above mentioned roles of computers generated a new way of connecting people to computers and created interests of computers in the field of information and data processing (Gupta, 2009:4; Best Price Computers, 2010:2), which includes speed, accuracy, storage capacity, cost reduction, space requirements reduction and diligence (Blurtit, 2010:3; Fielden, 1998:8).

**Figure 2.1.: An overview of data processing using a payroll example**



(Source: Documents for small business & professionals, 2010)

Blackmore and Blackwell (2003:25) note that the involvement of PCs in AI, strategic planning, execution and evaluation of activities have opened doors to a new range of careers in modern society. Hence, from Apple to Zenith, investigations that were separately conducted by Frei (2010:1-2) and Lina (2006:6) relating to the benefits of computers in society, discovered that computer firms generated various professions from computer programmers to computer firm lawyers (Computer Hope, 2010:2). Furthermore, these professions expanded the role of computers in the military and government to the extent that PCs are used to reconstruct accident scenarios, conduct investigations, design weapons and enhance democracy (Kash, 2009:7; Wise Geek, 2010:3).



Moreover, computers have developed human intellectual capacities in the next level of AI (Lina, 2006:1), which encompass a diverse number of computer applications, which use sets of rules and knowledge to make inferences (Armstrong, 1998:1; Neena, 1997:1-2). In addition, AI introduced the advent of robots, which are being utilised more frequently in the business world, and experts predict that in the near future they could replace humans in almost all manufacturing jobs. However, there will still be a need for individuals to design, build, and maintain robots. Thus, the social ramification of AI is of major concern to people today (Gruppe, Tony Von and Owrang, 1995:1-3). The use of AI allows the computer to act like a person by making intelligent decisions and judgements (Daniel, 1998:3). It is worthy to mention that AI has been identified as one of the most important technologies that organisations pursue. In many countries (particularly developed ones) barriers to engage in business have fallen progressively for both buyers and sellers owing to the Internet and e-commerce revolution.

## **2.4 Internet and e-commerce revolution**

The first steps of the Internet revolution, which eventually led to the Internet as it is used for business, began in the early 1960s at the height of the Cold War. The US Government was looking for a way to maintain communications in the event of a nuclear attack by the Soviet Union government (Botha, Bothma, Geldenhyus, Signh, Van der Merwe, Booysen, and Fourie, 2004:1). As no efficient networking capabilities that could be used with confidence existed at the time, further research in the area of computer global network has become necessary.

### **2.4.1 Origin of the Internet**

A team of engineers from the Advanced Research Project Agency (ARPA) teamed up with Rand Corporation to develop a network that could be used with confidence. Baran (cited in Botha *et al.*, 2004:2-3) asserts that a computer scientist at Rand Corporation conceived of a new way of connecting computers, an idea that he likened to a fishnet. In his approach, information could flow along any path instead of being from point to point. Information would split up into tiny packets and be sent via various routes, which would make eavesdropping extremely difficult (Botha *et al.*, 2004:4-5). Therefore, it was named

Packet Switched Network, which was expected to resist large scale disruption of the network such as an eventual Soviet Union government nuclear attack on American soil. In this context, if one route of information could be disabled, the packets would simply go via different routes in order to enable communication ability to stay intact. Although the military did not decide to use this approach, it provided the basis of a technology, which was introduced for the first time in 1982 namely the *Internet*, defined as a global network of computers, that was connected together by cables (Botha *et al.*, 2004:5-6).

The birth of the World Wide Web was another scientific innovation. The Internet was mainly the domain of computer scientists before the advent of the World Wide Web (WWW). In 1991, Tim Berners-Lee, researcher at the CERN, a European particle physics laboratory near Geneva, developed an application that could be used on Hypertext Mark Up Language (HTML), and in 1993, commercial traffic was allowed on the Internet (Botha *et al.*, 2004:2), which arrived in Brazzaville in 1998. Even though the technological revolution began in the 1980s and early 1990s when corporations spent more than a trillion dollars on computers, robots, telecommunication satellites and other automated equipments, it has only been in the past few years that these massive expenditures have begun to pay off in terms of increased productivity, reduced labour costs and profits for businesses' survival in an actual knowledge-based economy (Shah, Kamlesh & Mehta, 1998:6). According to Slabbert (2006:1-3), the knowledge-based economy (KBE) involves the introduction and rapid diffusion of information and communication (Slabbert, 2006:1-3). The World Wide Web, email, fibre optics, Wi-fi (wireless fidelity), telephones and satellites have changed the way businesses are conducted globally. In this context, CFBAP should adopt e-commerce technologies to enable Congolese immigrants' businesses to confront competitive and turbulent global business environments. The Internet and e-commerce utilisation in the business world have generated various benefits, which allow unlimited access to information of all kinds and enable online service users to improve supply chain management in a way that is no longer as daunting as it used to be (Stokvis, 2001:3; Gomory and Baumol, 2004:5).

### **2.4.2 Internet and e-commerce utilisation**

A web-based survey on the role of the Internet in the European public sector revealed that European Union (EU) country members are concerned about utilising the Internet to make public servants available and accessible for both businesses and citizens on a 24-hour and 7-day basis (Cap Gemini, 2006:5-14). EU countries have enabled online application for business environmental permits, online tax declaration, online business registration, online customs declaration, higher education online registration, online birth registration, online business court proceedings, online crime reporting, online bursary application and online employment application for citizens within EU country members (Cap Gemini, 2006: 5-55). In addition, EU countries have underscored the role of the Internet in the process of citizen identification (ID) credentials and digital signature application under a service called electronic authentication (e-authentication). European e-authentication portals enable EU citizens who are in possession in of credentials to enrol for e-government services, apply for a biometry-based electronic identification card (eID), which allows a simplification of statistical process for EU population. However, EU countries placed security over the Internet as a priority in order to utilise the benefits of online services without hindrances. Thus, EU policymakers set guidelines, which progressively closed the gaps between SMMEs and e-commerce (Cap Gemini, 2006: 49).

Furthermore, a study undertaken by Bharati and Chaudhury (2006:88-89) about the current status of e-commerce adoption amongst SMMEs in the USA, where 655 Boston-based firms were surveyed, revealed that e-commerce plays an important role in enhancing the competitiveness of SMMEs. Accordingly, the intent of the above mentioned authors' works was to examine the drivers of e-commerce adoption across the entire SMMEs' value chain, including primary activities, namely manufacturing and support activities such as administration, human resource management and design (Bharati and Chaudhury, 2006:88). Respondent SMMEs belonged to various sectors including manufacturing and health care. Authors revealed that e-commerce has permeated SMMEs' value chain, transformed their performance, and improved the functional relationship between inbound and outbound logistics and increased sales and marketing activities of Boston based firms, where the study was conducted.

According to Bharati (2005:71), India's e-commerce has emerged as an important business sector in the country's economy. Bharati further notes that e-commerce became a leading factor of business diversification amongst Indian - American SMMEs. From the above, the author revealed that General Electric (GE) uses a 70-70-70 business strategy, which mandates the outsourcing of 70 per cent of its IT service requirements, of which 70 per cent is given to Indian strategic suppliers, who in turn execute 70 per cent of the work in India, and deliver finished products to GE via the Internet (Bharati, 2005:71-75). However, it is argued that the main factor underlying the growing utilisation of e-commerce in India is a need of Multinational Corporations (MNCs) to remain globally competitive by relocating labour-intensive operations from high-wage developed countries to low -wage developing countries. Furthermore, other research undertaken by Al-Qirim and Bathula (2002:537-540) about the role of e-commerce in SMMEs in New Zealand, revealed that e-commerce plays a significant role amongst New Zealand's SMMEs owing to the country's geographical remoteness from the rest of the world. However, regardless of various constraints related to resources that SMMEs face in New Zealand, e-commerce adoption has enabled SMMEs to contribute up to 35 per cent of the country's GDP. The preceding section explored the Internet and e-commerce utilisation in modern society, in general, and provided a preliminary analytical foundation for the benefits of e-commerce for Congolese immigrants' businesses. The proceeding section musters as much information as possible about the role of e-commerce for Congolese immigrant entrepreneurs and provides a quantitative picture, albeit blurry, of the current state and likely future direction of e-commerce in Brazzaville (OECD, 2010: 11).

## **2.5 Utilisation of e-commerce by Congolese immigrant entrepreneurs in Cape Town**

In developed countries dynamic arguments for the existence of SMMEs have been stressed in terms of their innovative capacities and potentially they merge to create larger firms. In contrast, Congolese immigrant entrepreneurs' SMMEs, which operate in Cape Town's retail sector, can potentially take the role of primary vehicles for the creation of employment and income generation through self-employment, and utilised by the Congolese government as a tool to fight poverty. However, owing to their characteristics,

which include the size of capital investment, the number of employees, the turnover, the management style, market share and various hindrances owing to their location in Cape Town, Congolese immigrant entrepreneurs agree that business expansion through e-commerce, which creates domestic linkages with other SMMEs in Brazzaville in terms of diversification strategies, has become imperative for business survival (United Nations Conference on Trade and Development, 2001:97-100). Therefore, the rapidly accelerating rate of technological innovations has forced Congolese immigrant entrepreneurs to demand a business-to-business (B2B) e-commerce website at CFBAP in order to allow them to register businesses online. B2B e-commerce, which is fully automated in South Africa, is still not applicable in Congo-Brazzaville.

In South Africa businesses rely on computer technology in almost every area of the corporate life cycle (Pillai, 2010:3). Computers are utilised in grocery stores, fast food restaurants, big businesses and small offices to process data, store information, work out complex mathematical problems, track inventory, and even control temperature and lighting in office buildings. Reliance on high-speed digital computers is so complete that South African commerce would reach a sudden halt if computers were removed (Importance of computers from 1946 to date, 2010:2). As a result, technologies were introduced at the South African Department of Trade and Industry (DTI), which enable business people to register businesses online. According to Vogt *et al.* (2003:260), e-commerce can reduce transaction-level costs, improve time-scale and reduce errors. The authors further argue that e-commerce will redesign CFBAP's interface and its partners. Sources of delay in the offline business registration process at CFBAP will be corrected, while redundancy and unnecessary delays will be improved (Vogt *et al.*, 2003: 261).

Congolese immigrant entrepreneurs' perceived online business registration benefits in the area of finance, management, marketing, and logistics and in the Congo-Brazzaville economy are discussed in the following sections.

### **2.5.1 Role of e-commerce for Congolese immigrant entrepreneurs in management and finance**

Finance has been identified as the most important factor, which determines the survival, growth and expansion of Congolese immigrants' businesses established in Cape Town. The first role of e-commerce Congolese immigrant entrepreneurs in finance will be to increase the speed of financial operations between Congo-Brazzaville and South Africa. This will enable Congolese immigrant entrepreneurs to expand their business activities in Congo-Brazzaville, which will contribute to job creation, poverty alleviation and the country's economic growth (United Nations Conference on Trade and Development, 2001:97; Lipsky, 2007:5). Online VAT declaration is another benefit of e-commerce for Congolese immigrant entrepreneurs. As with the paper version, the electronic VAT declaration form will be completed by the CFBAP Corporate Tax Division before being sent out. Therefore, the VAT due will be automatically calculated and taxpayers will be notified by CFBAP through email at any time that their VAT is due in order to avoid penalties owing to late VAT declarations (Clear Books, 2010:2).

In addition, Congolese immigrant entrepreneurs' businesses will increase profits through a potential CFBAP e-commerce website by using various technologies, namely website page landing, Google Pay Per Click (PPC) and banners. A Website page landing can be any Congolese immigrant entrepreneur's website page specifically sent to online traffic to the potential CFBAP's e-commerce with the aim of increasing sales (E-commerce Juice, 2010:1-2). PPC is like an auction, which targets specific keywords and key phrases, hence Congolese immigrants' businesses will receive immediate global exposure (E-commerce Juice, 2010:1-2). According to Ahmed (2010:1-5), online banner ads will yield two benefits for Congolese immigrant entrepreneurs' businesses. First, they will entice users to click on the banner and go to the advertiser's site. Secondly, online ad banners will enable Congolese immigrant entrepreneurs' businesses to build brand recognition (Ahmed, 2010:5; Maksimovic, 2010:21). Due to the fact that a majority of Congolese immigrant entrepreneurs' SMMEs face challenges related to poor resources at different levels including finance and management, to overcome these managerial

challenges with the aid of Internet and its use for commercial purpose, the Congolese CFBAP e-commerce website is required.

Managerial benefits of online business registration at the CFBAP potential website will include strengthening business relationships in Congo-Brazzaville SMMEs. Considering that individual SMMEs in Congo-Brazzaville generate relatively small revenues, strengthening business relationships through e-commerce among Congo-Brazzaville SMMEs will enable them to submit online data to the Congolese Statistical office in order to keep management fees low (United Nations Conference on Trade and Development, 2001: 99). In addition, SMMEs in Congo-Brazzaville suffer from management constraints that lower their resilience to risk and prevent them from growing and attaining economies of scale. E-commerce adoption at CFBAP will enable Congolese immigrant entrepreneurs to overcome management constraints related to customs declarations at the Ports of Brazzaville and Pointe-Noire for imported items, and a heavy bureaucratic process of business environmental related business permits application. Moreover, financial and accounting records amongst some Congolese SMMEs are rarely in place, and where they are available, their accuracy is usually doubted. In instances where bank loans are provided, it is in most cases granted to the most organised and profitable SMMEs. Considering that in Congo-Brazzaville, SMMEs' bank loans are of a short duration, owing to the inflation rate and SMMEs' earlier mentioned characteristics, it may be difficult for borrowers to secure collaterals and realise high returns to finance repayments. Therefore, an integrated e-commerce system adoption will enable Congolese SMMEs to organise accounting systems, qualify for bank loans, make profits and retain brain.

Furthermore, some SMMEs in Congo-Brazzaville employ less than five people, mostly family members, who are not legally registered with the *Onemo*: the Congo-Brazzaville Labour Department. Not surprisingly, such SMMEs in Congo-Brazzaville apply simple and relatively backward technology in production and, therefore, the quality of their products are likely to be poor. Such SMMEs suffer from limited market access and fierce competition from many local producers. In addition, there is a general lack of

professionalism and proper training among workers within this category of SMMEs. Thus, B2B e-commerce adoption at CFBAP will empower Congolese entrepreneurs' mindsets through e-commerce Life Long Learning (LLL); provide them with strategic thinking skills; DSS; business planning; and management skills, in general (United Nations Conference on Trade and Development, 2001: 100-101).

Although shipping costs can increase the cost of many products that Congolese immigrant entrepreneurs may purchase via e-commerce and add substantially to the final price, distribution costs will be significantly reduced for some of the Congolese immigrant entrepreneurs' products and services, namely financial services, business registration, software, and travel, which are important segments of brick-and-mortar commerce in Congo-Brazzaville (OECD, 1999: 65). Congolese immigrant entrepreneurs' marketing efforts should integrate the ideas of having the right product, at the right price, combined with the right promotion, and the availability of that product in the right place in order to satisfy customers. These are the four Ps of the marketing mix, which should be combined with e-commerce to create place and form utilities for different market segments in Congo-Brazzaville, which Congolese immigrant entrepreneurs' businesses intend to supply with products and services based on e-marketing and e-logistics strategies, which are elaborated on in the next section.

### **2.5.2 Role of e-commerce for Congolese immigrant entrepreneurs in marketing and logistics**

B2B e-commerce will play various roles in marketing for Congolese immigrant entrepreneurs. Indeed, e-commerce will reduce the internal costs of many transactions for the Congolese immigrant entrepreneurs, and change the cost structure that dictates Congolese immigrants' businesses relationships with other businesses (Seddon, 1997:246; OECD, 1999: 65). Another benefit of e-commerce in marketing for Congolese immigrant entrepreneurs is disintermediation. According to Seddon (1997:247), intermediaries who help producers sell to consumers are of two types: distributors such as wholesalers and retailers that are collectively referred to as margins, which are located between the producer of tangible goods and the Congolese consumer; and services, which



act as intermediaries for other services (OECD, 1999: 65). From the above, the author implies that B2B e-commerce adoption in Congo-Brazzaville will directly link producers and consumers, therefore, eliminate intermediaries' costs and improve customer care service.

However, customer care improvement will be another benefit of B2B e-commerce adoption for Congolese immigrant entrepreneurs' businesses in Congo-Brazzaville. In today's KBE, which is dominated by sophisticated products and services, after-sales service is a major cost for many Congolese SMMEs. Traditionally, Congolese SMMEs place service personnel in the field to visit clients and obtain feedback about product and service performance. Through e-commerce, Congolese immigrant entrepreneurs' businesses will be able to move much of their customer care online. This shift will significantly cut customer care costs and improve the quality of products that are offered by Congolese immigrant entrepreneurs' SMMEs (OECD, 1999: 61). However, besides this, e-commerce is effective at reducing the costs of attracting new customers; advertising is typically cheaper, and targeted more than any other form of media. Therefore, Congolese immigrant entrepreneurs' businesses will enhance their visibility and global exposure to different market segments that they intend to supply. Logistics plays a critical role, particularly in support of getting the product to the right place in order to create place, time and possession utilities (Stock, *et al.*, 2001:10) in order to satisfy customers.

From the above, the authors imply that B2B e-commerce adoption in Congo-Brazzaville will enable Congolese SMMEs to save on inventory costs. According to McDaniel and Terblanche (2004:181), to save on inventory costs, Congolese immigrant entrepreneurs' SMMEs should maintain that the faster an item can be ordered and delivered, the less the need for a large inventory of that particular item. In addition, the more market segments Congolese immigrant entrepreneurs' businesses try to serve, the higher the inventory costs are likely to be. Therefore, B2B e-commerce utilisation in Congo-Brazzaville will significantly improve functional relationships between inbound and outbound logistics and enable Congo-Brazzaville SMMEs to save on supply chain management costs

(OECD, 1999: 63). Furthermore, a survey conducted by Šumak, Polančič and Heričko (2009:3-8) concerning the role of e-commerce in the economy of various countries, indicates that compared to “traditional” commerce, e-commerce raises some expectations at a national level, including increased productivity, reduced costs for producers and consumers and increased accessibility.

Preceding sections stated that a lot of research has already been conducted on the role of e-commerce in national economies, which demonstrated causal dependencies between e-commerce adoption factors and various countries’ macro-economics aggregates. Proceeding sections elaborate on the fact that in spite of the existing research, there are still open issues regarding the role of e-commerce adoption and the economy of Congo-Brazzaville.

### **2.5.3 Benefits of e-commerce for the economy of Congo-Brazzaville**

Until recently, to register a new business in Congo-Brazzaville, applicants use DSS such as word-of-mouth, calculators, spreadsheets, post office facilities and the Yellow Pages. Lack of an e-commerce website at CFBAP creates large gaps between Congolese immigrant entrepreneurs and CFBAP Brazzaville (Bharati *et al.*, 2006:2). According to Šumak *et al.* (2009:8), e-commerce adoption in Congo-Brazzaville will have various positive impacts for the economy, which include marketplace transformation and increased economic interactivity. Furthermore, e-commerce adoption in Congo-Brazzaville will enable ICT to play a catalytic role, create openness of technology and alter time importance in the country’s economy for sustainable development (OECD, 1999: 11). Research conducted by OECD (1999:11) about the economic and social impacts of e-commerce in Europe revealed that e-commerce will change the way businesses are conducted in the world, including Brazzaville and Pointe-Noire, which represent Congo-Brazzaville’s major business cities. Traditionally, 80 per cent of businesses in Congo-Brazzaville is established in these two cities, which are closed and located in the south of the country (*Forum des Jeunes Entreprises*, 2010). However, the adoption of e-commerce will replace traditional distribution channels, which will create

new products and market development in order to connect Congo-Brazzaville cities and the rest of the world.

In addition, e-commerce adoption in Congo-Brazzaville will play a catalytic role in accelerating few changes that are on the way such as the establishment of electronic links between Congo-Brazzaville SMMEs, globalisation of the Congo-Brazzaville economy, and brain retain for higher-skilled workers. Therefore, e-commerce adoption in Congo-Brazzaville will increase interactivity in the economy (OECD, 1999: 11). From the above, it is clear that people in Congo-Brazzaville will increasingly have the ability to communicate and register their business anywhere, anytime. This will have a profound impact, not the least of which will be the erosion of economic and geographic boundaries. Moreover, the economic power that will stem from joining a large e-commerce network will help to ensure that new business standards remain open in Congo-Brazzaville. More importantly, openness will emerge as a business strategy, with many of the most successful e-commerce ventures granting business partners and consumers in Congo-Brazzaville unparalleled access to their inner workings, databases, and personnel. This will lead to a shift in the role of Congo-Brazzaville consumers, who will be increasingly implicated as partners in product design and creation. Therefore, e-commerce will minimize the effects of time factor as a constraint in production, accelerate production cycles, allowing Congo-Brazzaville firms to operate in close co-ordination, and enabling Congo-Brazzaville consumers to conduct transactions around the clock.

Considering that e-commerce will mitigate the role of business hours in Congo-Brazzaville, so will the structure of business and social activities, causing potentially large impacts in the economy of the country. However, Machiavelli (cited by Stair, 1986: 360-361) foresaw challenges related to e-commerce adoption in Congo-Brazzaville owing to its newness and stated that *“there is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new system.”* From the above and owing to the country’ MDG policy, it has been noted that Congo-Brazzaville policymakers would not invest in e-commerce systems, as it would be utilised by too few people. Therefore, Congolese immigrant entrepreneurs will have to

contain e-commerce related challenges, which are discussed in great detail in the next sections in order to secure online business registration in Congo-Brazzaville through e-commerce infrastructures that are being claimed.

## **2.6 Factors that constrain the use of e-commerce by Congolese immigrant entrepreneurs**

Congolese immigrant entrepreneurs have identified culture, IT infrastructure, security and privacy, illiteracy, organisation, fraud and public policy as Congolese immigrants' challenges to use CFBAP's e-commerce website (Al-Gaith *et al.*, 2010:5). These challenges are discussed in detail in the sections below.

### **2.6.1 Culture**

Language helps people to vehicle cultures. Javalgi (2004:560-573) observes that countries where a majority of people speak English have the highest Internet diffusion. Therefore, e-commerce diffusion is related to cultural differences. Congolese's national French culture is a set of beliefs and behaviours, which is common to a group of people, or "the collective" programming of the mind, which distinguishes members of one group from another. Internet is a social medium through which Congolese immigrants can interact with CFBAP through its potential e-commerce website. It is recognised that national culture can cause differences in e-commerce behaviour as it is closely related to trust. Trust and trust beliefs are key players in e-commerce adoption at CFBAP. Congolese immigrant entrepreneurs are aware of the country's inconsistency in terms of patent, trademark protection, copyright, and product safety. This liability law creates a psychological barrier to them in trusting the potential CFBAP e-commerce website. Given that IT infrastructures are significantly important and that B2B e-commerce represents a much larger portion of this study's interest, IT infrastructure, perceived as a challenge for Congolese immigrant entrepreneurs, is discussed below.

### **2.6.2 IT infrastructure**

The usage process of CFBAP's e-commerce by Congolese immigrant entrepreneurs is somewhat analogous with the situation of motoring, where drivers are required to have a

vehicle that is insured and certified as roadworthy before it can be used on a public highway (i.e. before it is placed in a position where it could pose a danger to other road users). The drivers themselves are required to pass a test in order to demonstrate their competence in handling the vehicle (Furnell, Tsagani & Phippen, 2008:235). Before thinking of using potential CFBAP's e-commerce website, Congolese immigrant entrepreneurs should gather necessary data communication, hardware and software to be used to collect, manipulate, store and retrieve data in order to provide feedback to top management and enable businesses to achieve goals. Therefore, these IT infrastructures should be protected from threats posed by hackers, viruses, fraud and denial-of-service (Cap Gemini, 2006:6). In addition, pre-qualifying Congolese immigrant entrepreneurs' SMMEs for B2B e-commerce benefits will have to provide a linkage between IT equipment in their possession and their capacities to protect against e-commerce threats. The next section explores e-commerce security and privacy for Congolese immigrant entrepreneurs' businesses.

### **2.6.3 Security and privacy**

Congolese immigrant entrepreneurs who want an e-commerce website from CFBAP for their online business registration should be aware that e-commerce is not a risk-free external environment (Liebermann & Stashevsky, 2002:291). According to Cap Gemini (2006:11), it has been established that changes to business processes, employee capability, financial resources, and integration with existing systems, relationships with partners, data security and privacy, are potential problems for businesses adopting e-commerce. Congolese immigrant entrepreneurs conducting business online in Brazzaville expose valuable information, namely credit card numbers, company's banking details and passwords that are threatened by e-commerce's external environment. Furnell *et al.* (2008:239) reveal that e-commerce end-users are recognised as being at an increased risk while conducting online transactions because they face a range of threats that seek to specifically target them and exploit their system. Congolese immigrant entrepreneurs in particular are likely to face difficulties in this context as their unfamiliarity with the technology can limit their ability to recognise the threats and understand the required protection (Furnell *et al.*, 2008: 239). However, advanced technologies can mitigate this

challenge (Sutton & Hampton, 2003:38) but will impact on the business strategies and can lead to increased operational costs (Liebermann *et al.*, 2002:2-6). Education plays a crucial role in turning B2B e-commerce threats into opportunities for Congolese immigrants' businesses and makes the attainment of equitable and sustainable growth and development possible. Thus, the following section elaborates on education, which is perceived as a challenge by Congolese immigrant entrepreneurs.

#### **2.6.4 Illiteracy**

Education is an internal potential challenge of Congo-Brazzaville immigrant entrepreneurs to access CFBAP's e-commerce. Unless they employ an IT specialist, only immigrant entrepreneurs who have computer skills will turn this challenge into an opportunity of cutting costs in order to secure long term profits. The issue of low take-ups of online company registration is currently an important question. CFBAP in Brazzaville is aware that huge budgets will be required to implement a 100 per cent integrated e-commerce website that could be used by too few Congolese immigrant entrepreneurs, if they were not sufficiently equipped with the required IT skills. However, Congolese SMMEs established in Brazzaville and Pointe-Noire face many constraints including organisation's leadership. To overcome some of the constraints and secure profits through CFBAP's B2B e-commerce website, Congolese immigrant entrepreneurs should establish organisational guidelines in terms of *who* does *what*, *when* and *how* in their businesses. The following section examines organisation, which is perceived as a challenge for Congolese immigrant entrepreneurs.

#### **2.6.5 Organisation**

Information systems within Congolese immigrant entrepreneurs' businesses consist of people, data communication, hardware and procedures that they use to collect, manipulate, store and retrieve data and also provide feedback to top management in order to enable businesses to achieve goals (Bester, 2006: 26). Congolese immigrant entrepreneurs should be able to ethically handle e-commerce-related transactions, with processing and resource planning, MIS and specialised business information if they are meant to benefit from the potential CFBAP's e-commerce website (Bester, 2006, 27).

According to Remenyi and Sherwood-Smith (1999:7), 50 per cent of all business investments are directed at the organisational role of IS in business organisations and is driven by the business environment in which the organisation operates. Globalisation of the business environment will force Congolese immigrant entrepreneurs' businesses to operate in different cultural settings. It is conclusively agreed that Congolese immigrant entrepreneurs' businesses should have organisational structure that is respected to handle the benefits of IS in a way that will enable SMMEs to scan both Cape Town and Brazzaville environments and process data for informed decisions. However, best methods and best procedures will not always deliver best results. Therefore, CFBAP's B2B e-commerce might generate fraud issues, which are reviewed in the section below.

### **2.6.6 Fraud**

While the Internet can empower Congolese immigrant entrepreneurs' access to CFBAP's e-commerce website, it also leaves the unwary exposed to variations of fraud and abuse (Cap Gemini, 2006:17-21). According to Byers, Rubin and Kormann (2004: 239), anyone in the privacy of their own home can make a solicitation for fraud over the Internet. Pathak (2004:560) argues that possible fraudulent activities include unauthorised movement of money, located in jurisdiction where recovery of money is difficult, misrepresentation of company tenders and corruption of electronic ordering or invoicing systems. Therefore, Congolese immigrant entrepreneurs should be aware that a recent survey in America revealed that American SMMEs registered over \$200 million losses in 2005, 8 per cent more than in 2004, and representing 1.2 per cent of revenue from 1.1 per cent in the previous year owing to fraud via the Internet (Kuchinskas, 2005:18).

Generally, in Congo-Brazzaville, the smaller the enterprise, the less likely its management will understand the need of B2B e-commerce. In addition, the smaller the enterprise, the farther away from the city centre the enterprise is, the less aware the firm will be of CFBAP's e-commerce website's availability. This factor will make SMMEs in this category vulnerable to costs, and they will be unlikely to expand business activities beyond the rate of investment supported by retained profits. In this context, Congolese immigrant entrepreneurs' SMMEs will require international agreements between South

Africa and Congo-Brazzaville to secure supply chain management cost savings. The following section explores public policy, which is perceived as a challenge by the Congolese immigrant entrepreneurs.

### **2.6.7 Public policy**

International agreements are required in finance, law and market access (Javalgi, 2004:560-573). Customs, taxation and electronic payment systems are financial issues, which involve e-commerce in Brazzaville. An additional issue is the efficient administration of policies in these areas where services should be delivered electronically across Congolese and South African borders. Evidence suggests that there is an urgent need for a co-operation agreement in the banking sector between Congo-Brazzaville and South Africa before Congolese immigrant entrepreneurs in Cape Town conduct with ease online businesses in Brazzaville while being in South Africa. Preceding literature noted that first of all, e-commerce challenges should be overcome by Congolese immigrant entrepreneurs. This will play a key role in determining the future of CFBAP's potential e-commerce. The following section focuses on the business success model in Congo-Brazzaville through online registration.

### **2.7 Congolese immigrants' successful venture through online business registration**

Entrepreneurs are individuals who recognise opportunities where others see chaos (Kuratko & Hodgetts, 2009:4). In this context of risk taking, Congolese immigrant entrepreneurs in Cape Town start businesses for different reasons, which are mainly based on their needs. Several authors have postulated theories about successful business ventures through B2B e-commerce adoption. Inder Singh (1998:3), Rosenberg (2004:69), Slabbert (1996:42), Giddens (1995:493), Pieper (2010), Manohar (2011), Reade (2008) and Ukpere (2007:394) all focused on the essence of PCs and the invaluable role of e-commerce within the context of today's globalisation. Whilst acknowledging their valuable contributions to the body of knowledge through their theories, preceding authors were completed by other scholars such as Vogt *et al.* (2003: 261), Lipsky (2007:5), Ahmed (2010:1-5), Maksimovic (2010:21), Pillai (2010:3) and some



organisations such as the United Nations Conference on Trade and Development (2001:97-100), the South African Department of Trade and Industry (DTI) (2010), Clear Books (2010), Fact Index (2011), Idea Finder (2006) and E-commerce Juice (2010:1-2), which focused on the significant role of online business registration for Congolese immigrant entrepreneurs in the area of management and finance. Furthermore, proceeding authors, namely Seddon (1997:246), McDaniel and Terblanche (2004:181), and Šumak *et al.* (2009:3-8) postulate on the benefits for online business registration to Congolese immigrant entrepreneurs in the area of marketing and logistics. However, other organisations including OECD (2010:11) confirmed that whatever may be the benefits of online business registration for Congolese immigrant entrepreneurs, there is considerable emphasis of e-commerce benefits to the economy for Congo-Brazzaville nationwide. Recently, the role of B2B e-commerce in providing benefits to Congolese immigrant entrepreneurs has attracted public concern to potential users of a CFBAP e-commerce website. From the above mentioned public concern, other scholars, namely Al-Gaith *et al.* (2010:5), Javalgi (2004:560-573) and Furnell *et al.* (2008:235), as well as organisations such as Cap Gemini (2006:6) has focused their work on the following factors that constrain the use of e-commerce for Congolese immigrant entrepreneurs:

- Culture;
- IT infrastructure;
- Security and privacy;
- Illiteracy;
- Organisation;
- Fraud; and
- Public policy.

From the above, the author here notes that without successful B2B CFBAP e-commerce website implementation, which should enable Congolese immigrant entrepreneurs to register online businesses, hindrances in terms of increased supply chain management costs, will threaten Congolese immigrants' business profits. The extent to whether Congolese immigrant entrepreneurs should overcome the above-mentioned e-commerce challenge is another concern, which deserves further scrutiny.

## 2.8 Summary

Research that has been conducted by various scholars reveal that computers have indeed revolutionised the ways businesses are conducted within contemporary societies. From mechanical devices, namely the *abacus*, *Napier's bones*, Pascal's *calculating machine*, *Leibnitz Calculating Machine* and Babbage's difference engine to Dr. Hollerith's Tabulating Machine Company, which later merged with others in 1896 to become International Business Machine (IBM), has demonstrated that these mechanical devices laid the foundation for the modern computer age. The first computer generation, which was introduced by the advent of UNIVAC I made previous mechanical devices such as MARK I, ABC, ENIAC and EDVAC obsolete. The second generation of computers marked common use of FORTRAN, COBOL, and BASIC, the real-time processing system, MIS and software improvements.

The literature review revealed that Integrated Circuit (IC), improvement in software and vendor support introduced the third computer generation, whereas the fourth computer generation is characterised by the use of Large Scale Integration (LSI) and the introduction PCs. These were followed by dramatic IT improvements, which introduced the fifth generation of thinking machines. In addition, preceding IT improvements forced every nation, including Congo-Brazzaville, to reconsider the provision of services to both citizens and businesses in the context of globalisation. Progressively, computers play invaluable roles in all sectors of modern life from office automation to military organisations. By computer, the author means a computer system because a mere computer would be useless without other systems.

The advent of the World Wide Web and e-commerce changed business registration procedures in the USA, EU, India, Australia and South Africa, whereas online business registration at CFBAP in Congo-Brazzaville is not yet applicable. Based on the literature review, it is noted that online business registration would create a competitive advantage for Congolese immigrant entrepreneurs' businesses in the areas of finance, management, marketing, and logistics, as well as for Congo-Brazzaville's national economy. However, considering the country's MDG policy, literature review revealed that CFBAP

policymakers would not invest in e-commerce systems, which would be utilised by too few people, unless Congolese immigrant entrepreneurs contain e-commerce related challenges. At this juncture focus shifts towards **research methodology and design**, which is discussed in the following chapter.

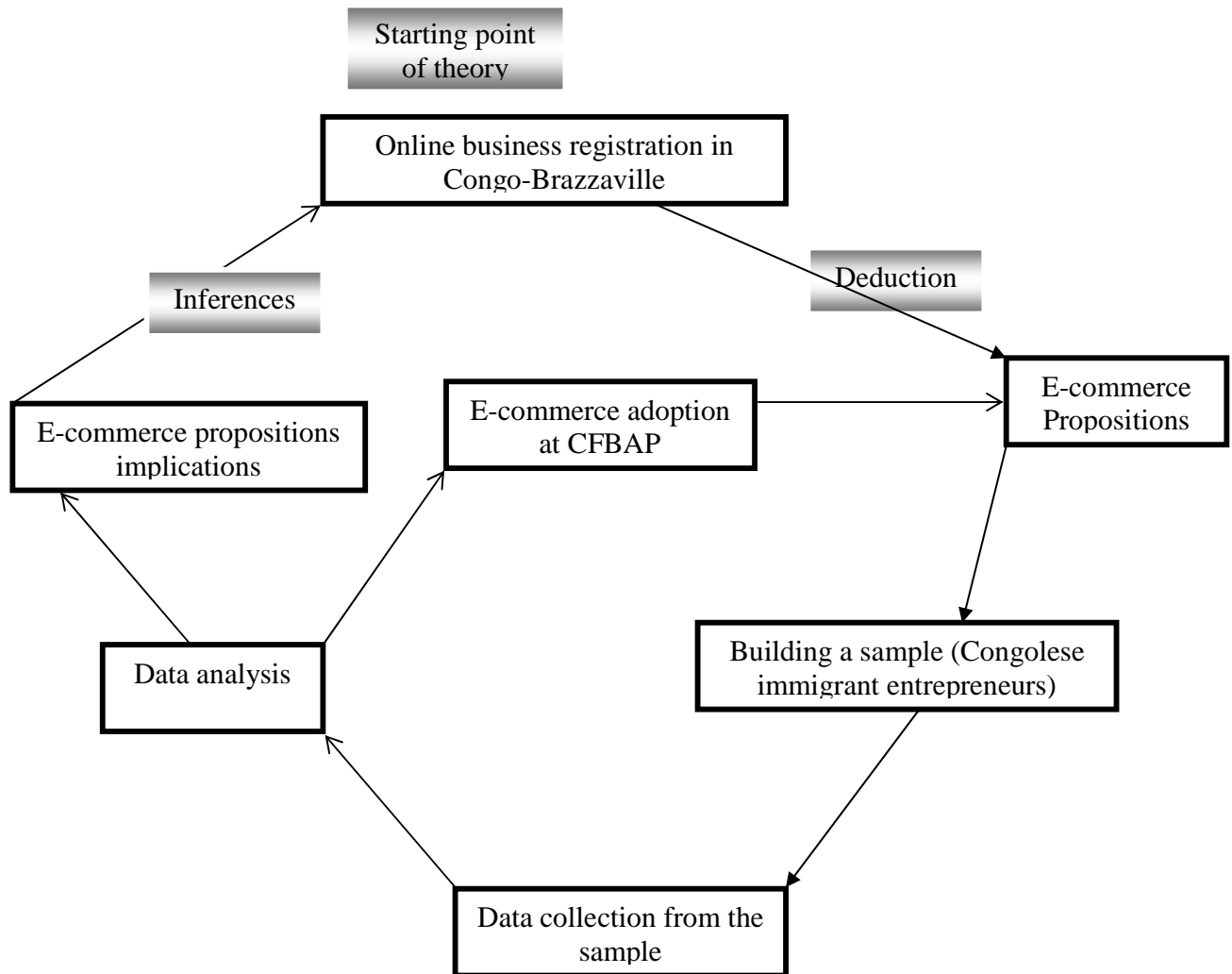
## **Chapter 3**

### **Research methodology and design**

#### **3.1 Introduction**

This chapter provides a theoretical background of research methodologies that were used for the research study and further states reasons why these were selected to gather data for the research questions. Finally targeted population, sampling size, research ethics and techniques that were employed for data analysis are also discussed. This descriptive research, which intends to describe factors, which affect Congolese immigrant entrepreneurs' online company registration, involved two different dimensions, namely research design and research methodology. Research design is a plan of how the researcher intends to conduct the research, while research methodology consists of the systematic, methodological, and accurate execution of that plan (Babbie and Mouton, 2009: 74-75). Research design logic, which guided the researcher to define methodology and collect data from respondents, is illustrated below.

**Figure 3.1 Research design logic**

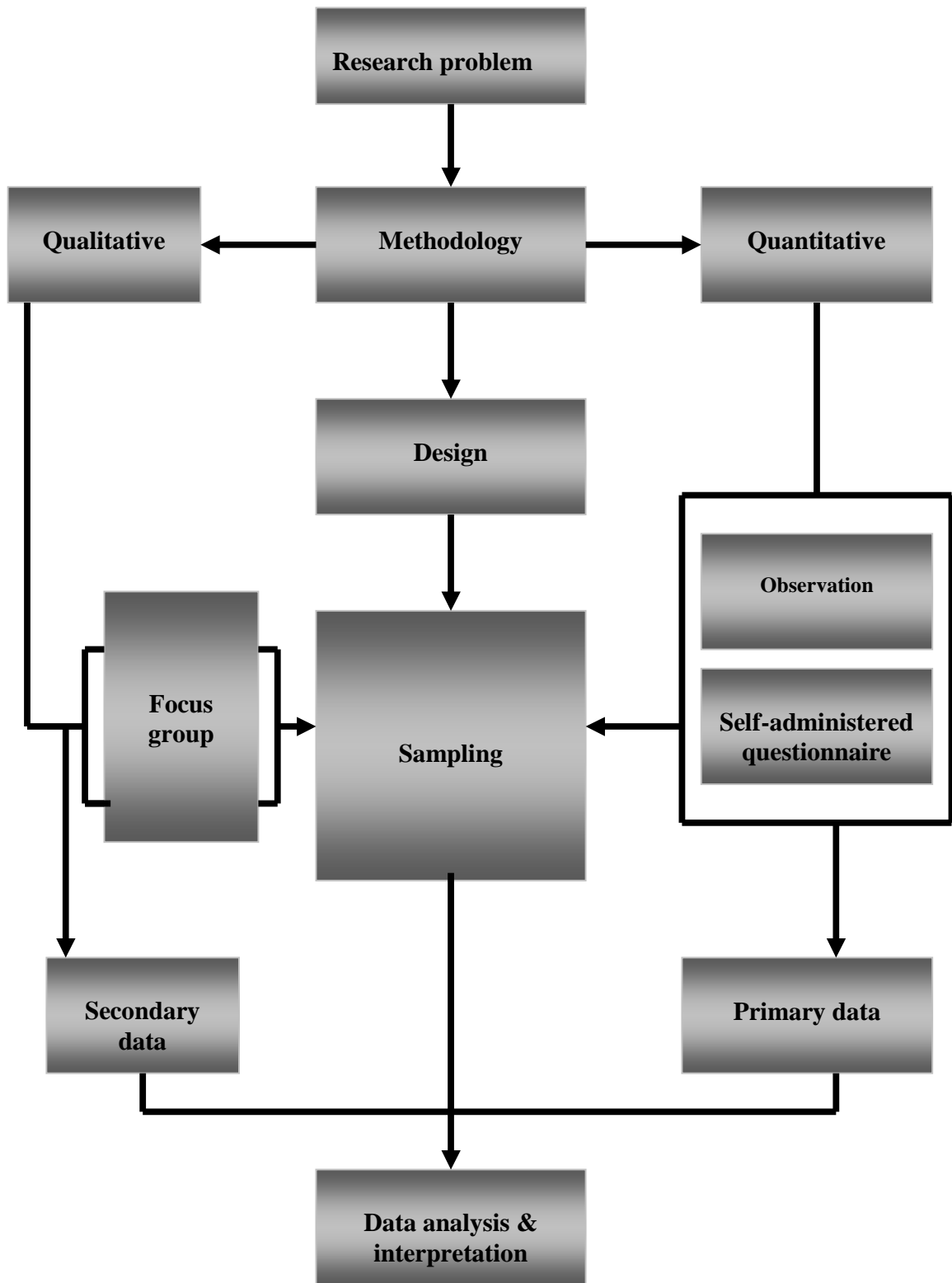


(Source: New York Education, 2010)

From the results of underlying differences between research design and research methodology, the need to clarify the research methodology process arose. However, for the purpose of this study, another imperative task was to distinguish primary and secondary data, which were combined within the research methodology. According to Thomas (2010), investigations in which the researcher collected first-hand data through experiments, surveys, questionnaires, focus groups, interviews and taking measurements, are referred to as primary data; whereas for those in which the researcher used existing documents and graphics to collect data, are referred to as secondary data.

Yin (2003:21) indicates that research design can be viewed as a “*logical process*”. In addition, once the research logical process is explained, the next step will be to illustrate the research methodology, which should link the research questions to the data collection before interpreting the findings. Therefore, based on the nature of the research problem that was identified and questions, which were formulated, the researcher employed the following research methodology process to collect data.

Figure 3.2: Research methodology process



(Source: Survey, 2010)

## **3.2 Research methodology**

Babbie and Mouton (2001:74) define research methodology as “*the systematic, methodical, and accurate execution of the design*”. Brynard and Hanekom (2006:35) distinguish between two basic research methodologies, namely quantitative and qualitative methods, which use specific techniques to collect data. However, qualitative methodology contains various research techniques, which are explained in the following section.

### **3.2.1 Qualitative methodology**

Qualitative methods refer to research that produces descriptive data, which does not involve measurement or statistics (George, 2005). Qualitative methods use various techniques, namely case studies, clinical methods, introspection, naturalistic observation, participant observation, interviews and focus groups to collect data. Qualitative methods have been in use in philosophy, sociology, and history for centuries, and provide both advantages and disadvantages, which are discussed in detail in the section below.

#### **3.2.1.1 Advantages and disadvantages of qualitative methodology**

Various factors were identified as advantages of qualitative research. The first advantage is its natural setting, which underlies visiting respondents in their duty stations in order to obtain in-depth interviews regarding e-commerce issues, stimulate their individual experience and avoid pre-judgements. The second advantage is the “*emic*” aspect of qualitative methods, which is based on the actor’s view. The research was driven by an interest of aligning a set of social actions within the specific context related to the benefits of online business registration rather than attempting to generalise theories to the research population. The third advantage of qualitative methodology is its inductive process, which makes it a “main instrument” within social research. However, various researchers voiced the fact that qualitative methods are time-consuming and highly subjective (Learn Higher, 2011). In addition, cultural differences among respondents were noted as a barrier, which required the researcher to use effective interpersonal skills. Therefore, this qualitative methodology necessitated a further discussion on the rationale of research techniques, which were utilised, and these are discussed in the next section.



### **3.2.1.2 Research methods in qualitative methodology**

Most used techniques of gathering data in qualitative methodology include in-depth interviews, participant observation and focus groups (Family Health International, 2011: 2). Each technique is applicable within a specific context. It has been noted that participant observation technique is appropriate for collecting data on naturally occurring behaviours in their usual contexts. However, in-depth interviews are optimal for collecting data on individuals' personal histories, perspectives, and experiences, particularly when sensitive topics are explored. Furthermore, focus groups are effective in eliciting data on the cultural norms of a group and in generating broad overviews of issues of concern to the cultural groups or subgroups that are represented (Family Health International, 2011:2-3). For purposes of this study, the focus group research technique was utilised to gain a broader understanding of the research problem that was identified. The rationales of the focus group was that it enabled the group to find information that the researcher would not be able to access, which was useful because it allowed a space in which informants gathered and created a meaning for themselves, rather than individually.

The preceding section focused on qualitative methods, which enabled great depth and breadth of data collection about the benefits of online business registration for Congolese immigrant entrepreneurs. However, the proceeding section shifts to quantitative methods, which provide a high level of measurement precision and statistical inferences of the phenomenon that is studied.

### **3.2.2 Quantitative methodology**

Quantitative methodology is associated with analytical research, and its purpose is to arrive at a universal statement (Schaub, 2008:11). Furthermore, Bless, Higson and Kagee (2006: 44) argue that quantitative research methodology relies on measurement and uses various scales. Quantitative method uses a coding system by which different variables may be compared. It enables one to use statistical inferences to process data and then generalise findings according to the targeted population (Grant, 2005:7-12). Although

various researchers have voiced the use of quantitative methods; the next section explains its relevant advantages and disadvantages (Learn High, 2011).

### **3.2.2.1 Advantages and disadvantages of quantitative methodology**

Quantitative method has two primary strengths, namely the findings are easily generalised and the data is objective (Terre Blanche, Durrheim and Painter, 2009: 132). However, the extent to which results can be generalised depends on the way in which the sample was selected. Furthermore, Terre Blanche *et al.* (2009:132) argue that the extent to which results are objective is functional by the way in which the problem that is studied has been conceptualised and measured. In addition, Gray (2009:165) states that since quantitative methodology enables the researcher to reach a large number of participants, it can involve little contact with them. Schuster (2011:1-2) argues that the quantitative method gives respondents enough time to think about the answers to the questionnaire. However, several factors have been identified as weaknesses of the quantitative method. Indeed, one of the disadvantages is that not only can a questionnaire be costly when dealing with large numbers of respondents, but it also limits them to only answer questions, which were asked.

This section discussed advantages and disadvantages of quantitative research methods. However, the next section focuses on the rationale of quantitative techniques which are utilised to collect data in conjunction with qualitative research techniques.

### **3.2.2.2 Research methods in quantitative methodology**

Research techniques that are employed to obtain data in quantitative methods include surveys, laboratory experiments, formal methods (for example, econometrics) and numerical methods such as mathematical modelling (Jenkins, 2009). Surveys, which are widely used in social research, include techniques such as observation, preliminary investigations, quantitative analysis and questionnaires. Babbie and Mouton (2001:259) argue that a questionnaire is “*a formal list of questions designed to gather responses from respondents on a particular topic under study*”. However, commonly used methods of collecting survey data are questionnaires and interviews. For purposes of this study, the

researcher designed a questionnaire based on observation, which was combined with focus group outcomes related to the role that e-commerce plays in the process of online company registration in Congo-Brazzaville for Congolese immigrant entrepreneurs as means to answer the research questions. This section highlighted quantitative method techniques, which were used to collect relevant data in order to answer the research questions. The next section briefly explains the research process, which was based on determining correlation and causation of both online company registration inductive reasoning and deductive reasoning.

### **3.3 Research process**

The research purpose was to analyse the benefits of online business registration for Congo-Brazzaville immigrant entrepreneurs in Cape Town. Therefore, to understand *what is going on*, the study focused on the junction of two strands, namely online company registration inductive reasoning and deductive reasoning. Lith (2011:1-2) states that inductive reasoning goes from the specific to the general, whereas deductive reasoning goes from the general to the specific. A careful scrutiny of inductive reasoning, which included various empirical factors such as respondents' gender, education level, business experience, business expansion, potential attraction to a CFBAP e-commerce website, profits, risks and e-commerce legislation in Congo-Brazzaville, enabled the researcher to explain *what is going on*. Furthermore, deductive reasoning, which included e-commerce and business expansion, Congolese immigrant entrepreneurs' education level and e-commerce adoption and business expansion and e-commerce legislation in Congo-Brazzaville, equipped the researcher to address the *how* of the study.

Lith (2011:2) furthermore explains that inductive and deductive reasoning methods are best utilised when the researcher tries to describe an empirical problem based on "*what*" questions and "*how*" the solution to the problem will be implemented. In addition, the benefits of online company registration for Congolese immigrant entrepreneurs, which is an empirical problem, was described according to "*what*", and resolved according to *how*. From an interpretive point-of-view, the above reasoning enabled the researcher to make

sense of statistics inferences based on relevant data, which was collected (New York Education, 2011:2-3).

### **3.4 Data collection**

Data collection is a process of gathering and measuring information on variables of interest in an established systematic way that enabled the researcher to answer the research questions (Dhhs, 2011:1). However, one of the research successful factors was the availability of respondents in supplying the researcher with relevant data to address the research problem that was identified. Data was collected from Congolese immigrant entrepreneurs by using research techniques, namely focus groups, questionnaires and observation. In addition, relevant literatures were reviewed for consistency and validity of information. It is arguably true that improper data collection leads the researcher to pursue fruitless avenues of investigation. However, it was necessary in this research to conduct a pilot study. Recently, Teijlingen and Hundley (2002:33-36) argue that even though conducting a pilot study does not guarantee success in the main study, it does increase the likelihood of research success. Therefore, the pilot study, which is discussed in the next section, fulfilled a range of important functions and provided the researcher with valuable insight.

#### **3.4.1 Pilot study**

Researchers argue that no matter how carefully a data collection instrument such as a questionnaire is designed, there is always a possibility of errors (Babbie, 2010: 256). To ensure that there was no question that respondents could not answer, pre-testing of questions took place. Questionnaires were distributed to five Congolese immigrants, namely two workers and three businesspersons in Cape Town. Babbie (2010:256-260) argues that it was not essential for the five pre-tested subjects to comprise a representative sample, although the researcher used people to whom the questionnaire was at least relevant. The pilot study revealed that participants recommended that business names should be removed from the questionnaires for privacy. After due consideration, the said recommendation was attended to. As mentioned earlier, qualified respondents were invited to a meeting where questions related to individual perceptions,

opinions, beliefs, and attitudes towards the benefits of online business registration for Congolese immigrant entrepreneurs were debated and outcomes were recorded.

### **3.4.2 Focus group**

Focus group meetings, which were translated from English to French were conducted with top five Congolese immigrant entrepreneurs in Cape Town. The rationale for the translations was that the respondents' first language is French. The purpose of the focus group was to obtain participants' opinions about the potential benefits of online business registration in Brazzaville. The outcomes were translated back into English by the researcher (Babbie & Mouton, 2009: 239) and semantic errors were corrected by a Sworn Translator. The focus group meeting, which was held in the office of the Congolese Association of Cape Town, took approximately sixty minutes with a break of a served cocktail after the first thirty minutes. Open questions were discussed in a group-discussion led by the researcher. Informants who participated included the president of the Congolese Association of Cape Town and four other representatives of Congolese immigrant entrepreneurs in Cape Town. It is of ethical consideration that participants and their business names were kept anonymous in this final report for their privacy. However, this focus group discussion gave an opportunity to observe a large number of interactions on a topic in a limited period of time based on the researcher's ability to assemble and direct discussions. In addition, group discussions provided direct evidence regarding similarities and differences among participants' opinions and experiences, as opposed to reaching conclusions from post ad-hoc analyses of separate statements from each participant (Babbie *et al*, 2009: 292). Furthermore, the author noted that the focus group technique required great attention to the role of moderator and provided less depth and breadth about the opinions and experiences of each participant. From the above, the author used the observation method, which is discussed in the next section and created an opportunity for further constructive debate.

### **3.4.3 Observation**

The observation method is a research technique in which the behaviour of research subjects is watched and recorded without any direct contact (Ngo, 2011:1-2). The

observation technique, which was simple to use, enabled the researcher to obtain data from first-hand and constituted a way for the researcher to verify data that was collected from other sources. However, qualitative research has, in general, two types of observation, namely simple observation and participant observation (Faruque, 2010:1-2). In addition, with simple observation, the researcher remains an outside observer whereas in participant observation, the researcher is simultaneously a member of the group that is observed. For purposes of this research, participant observation was used. Furthermore, the targeted population was observed under different situations, and early findings of this investigation revealed that the 2008 xenophobic attacks have bequeathed to its victims a lax entrepreneurial mindset. Due to the fact that South Africa currently does not have an appropriate policy, which encourages a free flow of people, some Congolese immigrant entrepreneurs waiting for bureaucrats to resolve their paperwork became victims of the police tendency to confuse undocumented migrants and criminals. In addition, other Congolese immigrant entrepreneurs have to queue at the Department of Home Affairs (DHA) for 2 or 3 days merely to renew a paper. Furthermore, the author's observation covered Congolese immigrant entrepreneurs' business facilities, their IT equipment and management teams. However, this participant observation enabled the researcher to observe events historically, while it did not enable the researcher to observe everything. In addition, generally the biggest disadvantage of the observation technique is based on the fact that the target group, which is observed may feel invaded by the observer and may become uncomfortable. Thus, results from the observation technique would not present a true picture of real-life behaviour (Brynard *et al.*, 2006: 46). After due consideration of the above, the proceeding section briefly discusses semiological analysis of a questionnaire as a research technique.

#### **3.4.4 Questionnaire**

The author employed the “keep it short and simple” (KISS) approach to develop a series of questions, which were asked to participants to obtain statistically useful data about the benefits of online business registration for Congolese immigrant entrepreneurs (Student Enterprise Awards, 2011:3-6). However, considering that respondents' first language is French, the research questions were translated from English into French. Moreover, the

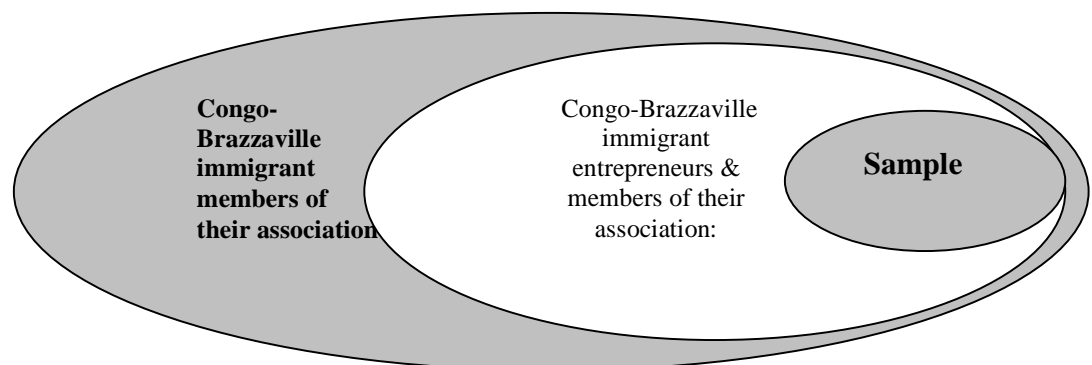
researcher hired services of a Sworn Translator, which was expensive and time-consuming. However, the rationale for using this technique was that questionnaires are easy to analyse, cost-effective while most statistical analysis software can easily process them. In addition, questionnaires are familiar to Congolese immigrant entrepreneurs, which imply that the questionnaire reduced focus group bias because of question's uniformity (Walonick, 1993:1-2). Even though various authors voiced their low response rate, which was not the case in this research, because for the informants, their participation had a connotation of national pride, which aimed to increase the number of Congo-Brazzaville post-graduates in South Africa. However, failure to identify the research target population would hamper research progress and lead to ill-advised data collection. Therefore, the next section highlights the longstanding debate concerning target research population and sampling technique (American Sociological Association, 2003: 3).

### **3.5 Population and sample size**

In the terminology of research design, the large group of data that is of interest to a researcher is called the research population, and the small portion of individuals who participate in the study is called the sample (Gravetter & Forzano, 2009: 128). However, for purposes of this study, the targeted research population comprised Congolese immigrant entrepreneurs who live in Cape Town, including males and females. Furthermore, targeting Congolese immigrant entrepreneurs who live in Cape Town, where the research was conducted, tactically saved time and correspondence costs compared to a target population that would be scattered in different cities. For purposes of cost reduction, speed and research greater scope (Columbia education, 2010:6), this study stratified Congo-Brazzaville immigrant entrepreneurs, members of the Congolese Association of Cape Town, from the rest of the Congolese immigrant population who live in Cape Town. The rationale was that the Congolese Association of Cape Town is the major social organisation that gathers Congo-Brazzaville immigrants in the city of Cape Town. From that stratum of Congolese immigrants, members of their association, a sample was drawn to improve the reliability of the research results (Brynard *et al.*, 2006:56). Moreover, the association comprises 301 Congo-Brazzaville immigrant

members, which enabled the researcher to approximate a sample size of 116 Congo-Brazzaville immigrant entrepreneurs (Universal Accreditation Board, 2003:1). Various reasons motivated the researcher to focus on Congo-Brazzaville immigrant entrepreneurs. Firstly, the researcher experienced IT challenges that SMMEs face in Brazzaville and Pointe-Noire, which necessitated a scientific awareness to support Congo-Brazzaville entrepreneurial mindsets. Secondly, the topic under study is of interest to Congolese immigrant entrepreneurs who plan to expand their business activities in Brazzaville. Thirdly, South Africa and Congo-Brazzaville are still at an early stage of socio-economic development co-operation, which lacks major agreements in the area of business and IT. Recently, the research attempted to create awareness for both South African and Congo-Brazzaville policymakers.

**Figure 3.3: Stratified sample layout**



(Source: Survey, 2010)

The preceding section focused on the extent to which research findings and conclusions, which are drawn from a representative sample could be generalised (Welman, Kruger and Mitchell, 2006:180). In addition, it also illustrated the sampling technique, which was used to select a small group of respondents with the characteristics of a large group. However, the section considered the fact that all Congolese immigrant entrepreneurs had the same chance of being selected for the sample. Furthermore, this section explains how the sample was made to prevent bias. Recently, from the official list of the Association's members, the researcher entered the stratum's maximum size (301) and the sample's approximate recommended size (116) to an online free Stat Trek (2010) Web Service,



where the *avoid duplicate* option was set to false, and after pressing enter, a random sample table was automatically generated with numbers, which the researcher assigned to respondents' names. Finally, the first 116 selected numbers, which represented the first 116 Congo-Brazzaville immigrant entrepreneurs, were considered as the research sample. However, considering that ethical norms promote the aims of research and values that are essential to this collaborative work (David & Resnik, 2010:1), the proceeding section focuses on research ethical considerations.

### **3.6 Ethical considerations**

It is almost impossible for people to live in this world without coming into contact with micro organism (Leedy, 1989:167). Recently, in the research environment, the researcher cannot avoid having data contaminated by bias of one sort or another. However, what is inexcusable is for the researcher to fail to acknowledge the likelihood of biased data or fail to recognise the possibility of bias in the study. Hence, to minimize bias effects, research questions were translated from English into French owing to the fact that respondents' first language is French. Furthermore, the author noticed that when an initiative is supported by Congo-Brazzaville immigrant entrepreneurs from the north of the country, it might not be supported by Congo-Brazzaville immigrant entrepreneurs from the south owing to longstanding ethnical conflicts since the country's independence in 1960. For purposes of this research, regardless of participants' geographic origin (north or south of Congo-Brazzaville), Congolese immigrant entrepreneurs in Cape Town were asked to be indifferent. Moreover, a letter of consent was drafted and signed by the researcher, which gave assurance that respondents' opinions and details would remain anonymous and confidential. The president of the Congolese Association of Cape Town reminded association members that their participation in the research should be regarded as a matter of national pride, and a way to increase numbers of post-graduates from Congo-Brazzaville who are trained in South Africa. However, the researcher did not force the facts to support data. The facts were as much as possible, immune to influence of any kind and should speak for themselves. Nevertheless, if they were tainted with bias of any kind, the researcher acknowledges that this is an inevitable condition in most survey studies (Leedy, 1989: 167).

### **3.7 Data collection methods assessment**

Accuracy, precision and reliability provide a springboard for data validity. Furthermore, Joppe (2000:1) argues that the extent to which results are consistent over time is referred to as reliability, and if the study can yield the same results under a similar methodology, then the research instrument is considered to be reliable. However, when judged by the standards of reliability, qualitative research is often criticized both for lacking structure and system, and for an inability of the researcher that uses this approach to generalise beyond a small number of cases (Henn, Weinstein & Foard, 2009: 209). Furthermore, Golafshani (2003:597-599) argues that validity determines whether the research truly measures that, which it was intended to measure or how truthful the research results are. In other words, does the research instrument enable the researcher to hit "the bull's eye" of the research object"? From the above discourse, the author underscored that the definitions of reliability and validity in quantitative research reveal two strands: firstly, with regard to reliability, whether the result from the study is replicable, and secondly, with regard to validity, whether the means of measurement are accurate and whether they are actually measuring what they are intended to measure. Hence, to maintain reliability, accuracy and to ensure validity of data, the same set of questions was asked and discussed in a focus group meeting, which was held at the headquarters of the Congolese Association of Cape Town. In order to obtain accurate information, the Congolese immigrant entrepreneurs received questionnaires and attended the focus group meeting, from which outcomes were summarised and recorded. Therefore, the correct sampling techniques and procedures were used to ensure that valid data was collected in order to achieve valid results.

### **3.8 Summary**

This chapter provided a theoretical background of research methodologies that were used and further stated reasons why they were selected to gather data that was required to answer research questions. This research involved two different dimensions, namely research design and research methodology. Furthermore, Figure 3.1 maps out research design logic and Figure 3.2 showed research methodologies that the researcher used to

collect data in order to solve the research problem that was identified. In addition, a combination of qualitative and quantitative methods was utilised, which enabled the researcher to identify that, which the study intended to measure. More than this, the research process, which aimed to understand *what is going on*, focused on the junction of two strands, namely online company registration inductive reasoning and deductive reasoning. Inductive reasoning, which included various empirical factors such as respondents' gender, education level, business experience, business expansion, potential attraction to a CFBAP e-commerce website, profits, risks and e-commerce legislation in Congo-Brazzaville, enabled the researcher to explain *what is going on*. Furthermore, deductive reasoning, which included e-commerce and business expansion, Congolese immigrant entrepreneurs' education level and e-commerce adoption and business expansion and e-commerce legislation in Congo-Brazzaville, equipped the researcher to address the *how* of the study. In addition, the benefits of online company registration for Congolese immigrant entrepreneurs, which is an empirical problem, was described according to "*what*" based on inductive reasoning and resolved according to "*how*" based on deductive reasoning.

From an interpretive point-of-view, the above reasoning enabled the researcher to make sense of statistics inferences based on relevant data, which was collected. Furthermore, the chapter outlined the research population, rationale for selecting and use of data collection techniques, namely observation, self-administered questionnaire and focus group. Figure 3.3 illustrates sampling techniques, which were used to ensure an accurate sample size of 116 respondents and sample representative from a stratum of 301. Furthermore, a pilot study was conducted and the five pre-tested subjects' recommendations improved the standards of the research questionnaire. Finally, this chapter scrutinised ethical norms, which promote the aims of research and values that are essential to any collaborative scientific work. At this stage, focus shifts to **data analysis**, which is discussed in the following chapter.

## **Chapter 4**

### **Data analysis**

#### **4.1 Introduction**

The Internet has created a ‘borderless’ virtual business platform on which suppliers, customers, competitors and network partners can freely interact without going through pre-defined channels on the value chain. Members of the same business network or of different networks can by-pass the traditional interaction patterns and form virtual value chains in most developed and some developing countries (Graham, 2011:3). Although traditional business registration in Congo-Brazzaville has been widely touted as a key element for Congolese SMMEs support, grass-roots evidence suggests that both Congolese entrepreneurial mindsets and poverty alleviation have a functional relationship with online business registration. Hence, this chapter analyses and interprets collected data, which was computerised by using SPSS 19 to analyse questionnaires that respondents completed, while content analysis was utilised for the focus group.

#### **4.2 Quantitative research data processing**

Following after collection, questionnaires were processed by coding, which consisted of assigning each variable a value and a label in an SPSS 19 database, which was created by the author. Hence it was necessary to identify factors that influence the adoption of e-commerce service at CFBAP before analysis; each variable category was given a numerical code, which represents answers given to each question. However, the questions, which used *yes* and *no* answers were assigned numbers (1-yes and 2-no); whereas statement questions, which used a four-point Likert scale were assigned numbers of (1-strongly agree, 2-agree, 3-disagree, 4-strongly disagree) to collect data on research variables that were processed in SPSS 19.

The use of SPSS 19 has been affected by a number of considerations. Firstly, SPSS software is distributed for free from the IBM website (SPSS, 2010). Moreover, it is arguably the most widely-used statistical software in scientific research (IS City, 2010).

Further, SPSS has a long development history and runs on Microsoft Windows Operating System, which the researcher is familiar with. Furthermore, the researcher attended SPSS training sessions at CPUT post-graduates' research support unit, which enabled a much closer and more detailed understanding of the software.

### **4.3 Research questions**

As mentioned earlier, the research questions were:

1. What are the benefits of online business registration for Congo-Brazzaville immigrant entrepreneurs in Cape Town?
2. What is the level of IT awareness among Congo-Brazzaville immigrant entrepreneurs in Cape Town?
3. How do Congo-Brazzaville immigrant entrepreneurs in Cape Town perceive online business registration in Brazzaville?
4. What challenges will relate to online business registration in Brazzaville for Congolese immigrant entrepreneurs?

All of the above stated questions formed a basis for the questionnaire and the focus group discussions. The questionnaire was divided into two sections: section one (1) demographic data; and section two (2) benefits of online company registration in Brazzaville for Congolese immigrant entrepreneurs. Section 1 questions ranged from 1 to 10. The data that was collected in section 1 was used for respondents' profiling purposes only. Section 2 questions ranged from 11 to 42. The data that was collected in this section was analysed to answer the research questions. Conclusively, the drafted questionnaire had a total of 42 questions in both sections. Additionally, focus group questions ranged from 1.1 to 1.9, which were discussed by top 5 Congolese immigrant entrepreneurs under the author's moderation. Furthermore, descriptive statistics, which involved correlation techniques to establish a causal relationship between research variables, were utilised. However, correlation between CFBAP's potential e-commerce website and Congo-Brazzaville immigrants' business expansion could be necessary, but was not a sufficient condition to make causal inferences with reasonable confidence. To ensure such causal inferences, the current author methodically gathered relevant data while controlling

extraneous variables, which might confound the research results. In addition, data, which was computerised with SPSS 19 established that experimentally-manipulated variables were correlated with the dependent variables, and confounds were eliminated, which is when the current author opined that correlation between CFBAP's potential e-commerce website and Congo-Brazzaville immigrants' business expansion does imply causation. The following section explains how data from the questionnaires was analysed by using correlation and causation techniques, frequency distribution and descriptive statistics.

#### **4.4 Descriptive statistics**

The term descriptive statistics refers to statistics that are used to describe relevant research data, which was collected (Cherry, 2011:1). The rationale for descriptive statistics in this study was to summarise the data collected in a clear and understandable manner (David, 2011). The study described single as well as associated variables. Single variables were associated with a theory building concept and was analysed under the frequency section whereas associated variables were associated with the theory testing concept, which was analysed under the correlation section. However, the study surveyed 116 people, asking each of them 42 questions. Furthermore, to avoid staggering with 4 872 answers, the researcher used SPSS data analysis involving the reproduction of data from unmanageable details to manageable summaries in order to reach meaningful conclusions (Babbie & Mouton, 2009: 459). For purposes of this study, the author focused on determining the number of times that a variable occurred during data analysis, which is elaborated on in detail in the next section.

#### **4.5 Frequency distribution**

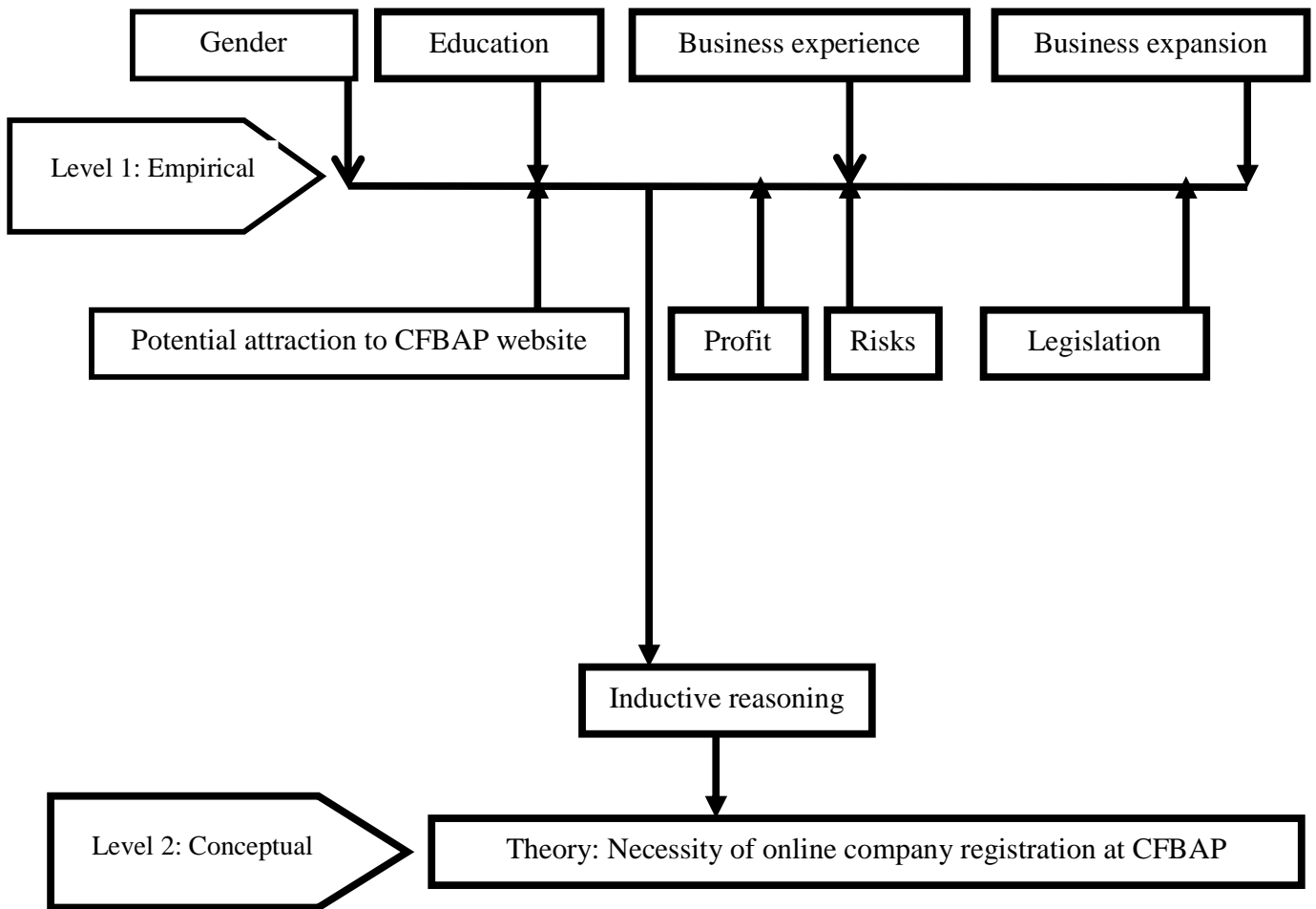
Frequency distribution is known as an arrangement of statistical data that exhibits the frequency of a variable (Merriam, 2011: 1). Singleton and Traits (2005: 458) argue that frequency distribution draws a list of all the answers given by respondents in a category. Thereafter, these categorised answers were calculated to give a total score in that particular variable, which was presented in a table format, called a frequency table. Finally, the total scores were computed to give a percentage of respondents' responses. Johnson (2011:1) notes that an analysis, which uses frequency distribution of responses

to closed-ended questions and statements, shows a valuable indicator of attitudinal preferences of responses on issues mentioned in the questionnaire. The next section focuses on statistical analysis based on the theory building concept, which shed light on the author's inductive reasoning.

#### **4.6 Statistical analysis**

For a sample size  $N = 116$ , the researcher printed 116 questionnaires, which were distributed to respondents at a Congolese Association of Cape Town's monthly meeting, which was held at the Maitland City Hall, Cape Town. As mentioned earlier, the response rate was 100 % because for the respondents, participating in this study represented national pride, which aimed to increase the number of Congo-Brazzaville post-graduates. Therefore, the first part of the statistical analysis was based on the following theory-building concept.

**Figure 4.1 Online company registration theory-building concept**



(Source: New York Education, 2010)

Based on the above online company registration theory-building concept, various authors including Thamarai, Arasu and Sivagnanasundaram (2011:2-3) postulated that the increased deployment of e-commerce technology is modifying the crux of service encounters that formerly had a personal touch both in developed and developing economies. Hence, Congolese immigrant entrepreneurs harness the technological platform known as online company registration, which is being claimed at CFBAP to the maximum extent to gain competitive advantage. In response to the claiming, the researcher analysed and interpreted both demographic and content-based data, which are reviewed under the research results section.



## 4.7 Research results of closed-ended questionnaire

For purposes of the research, closed-ended questions were utilised because they were more easily analysed. Moreover, closed-ended questions are also known to be more specific, thus more likely to communicate similar meanings compared to open-ended questions, which enable respondents to use their own words, thus making it difficult to compare meanings of the responses (Writing, 2011:1). Finally, closed-ended questions were efficient as they took less time from respondents to answer. However, to answer the research questions, closed-ended questions related to respondents' gender and education level were analysed and discussed under the demographic data section.

### 4.7.1 Demographic data

Demographic data represents characteristics of study populations, which include information such as age, gender, education level, marital status, number of dependents and respondents' business experience. For purposes of this study, only respondents' data related to gender, education level and business experience were analysed and interpreted as follows.

#### 4.7.1.1 Respondents' gender representation

The rationale for this information was to evaluate Congolese immigrant entrepreneurs' mindsets by gender gap.

**Table 4.1: Respondents' gender representation**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	67	67.0	67.0	66.9
Female	49	49.0	49.0	49.1
Total	116	100.0	100.0	

(N=116)

The results in Table 4.1 reveal that among 116 respondents, 67 % were male and 49 % female. This shows that male respondents were dominant in this sample. Careful scrutiny

of the above variable leads to a conclusion that intention to use online company registration service is largely based on Congo-Brazzaville male immigrant entrepreneurs' attitudes towards e-commerce. In addition, this attitude is in return influenced by a belief in tandem with the Theory of Planned Behavior (Thamarai, *et al.* 2011:3). The researcher interpreted that the belief has two components: belief about e-commerce technology and belief in the self. In addition, belief in e-commerce meant trusting that online company registration in Brazzaville will enable Congolese immigrant entrepreneurs' businesses to gain a competitive advantage. Furthermore, belief in the self refers to Congolese male immigrant entrepreneurs' capacity to manoeuvre CFBAP's potential e-commerce website, which will enable online company registration in Brazzaville whilst in Cape Town. The author's above interpretations have well-established the linkage between Congolese immigrant entrepreneurs' gender gap in terms of online company registration in Brazzaville. The next section focuses on respondents' level of education.

#### 4.7.1.2 Respondents' education level

The rationale for this data was to determine the relationship between education level and Congolese immigrant's entrepreneurial engagement.

**Table 4.2: Respondents' education level**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Primary school	1	.9	.9	.9
High school	6	5.2	5.2	6.0
College	54	46.6	46.6	52.6
University	55	47.4	47.4	100.0
Total	116	100.0	100.0	

(N = 116)

Table 4.2 above reflects that 0.9% of respondents have primary school as their highest education level, while 5.2 % completed high school. However, 46.6 % completed college and 47.4 % completed university, which totals 94 % of respondents (46.6 plus 47.4) who

have higher education qualifications. Even though it is asserted that “*college works on a factory model, and it is not in many ways suited to training entrepreneurs...*” (Fake, 2011:1), the author intended to examine the role of education for Congolese immigrant entrepreneurs from the standpoint of Knowledge Based Economy (KBE). Hence, it was proposed that education is positively related to the Congo-Brazzaville immigrant entrepreneurs’ inclination to use e-commerce. However, an increased number of Congo-Brazzaville male immigrants undertake entrepreneurship activities and want to enhance the overall importance of e-commerce in the process of online company registration in Brazzaville. In a much similar way, evidence suggests that the importance attributed to e-commerce has a functional relationship with Congolese immigrant entrepreneurs’ level of education. It is believed that business experience, which is discussed under the content-based analysis section, combined with the above mentioned components, represents an integral part of online company registration in Congo-Brazzaville.

#### **4.7.2 Content-based analysis**

Content-based analysis is a quantitative method that analyses written words, which enables a more objective evaluation of variables in the research (List, 2005:1). In addition, various components, namely business experience, respondents’ intention to expand businesses in Brazzaville, potential attraction to CFBAP e-commerce website, profits, supply chain management, e-commerce legislation in Congo-Brazzaville and respondents’ Internet related risks, were further analysed.

##### **4.7.2.1 Respondents’ business experience**

The rationale for this data was to determine how long Congo-Brazzaville immigrant entrepreneurs have been operating businesses in Cape Town.

**Table 4.3: Respondents' business experience**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-2	16	13.8	13.8	13.8
	3-5 years	53	45.7	45.7	59.5
	6-8 years	41	35.3	35.3	94.8
	12 or more	6	5.2	5.2	100.0
	Total	116	100.0	100.0	

(N=116)

Table 4.3 above shows that 13.8 % of respondents have been operating their business in less than 2 years and 45.7% have operated their business between 3 and 5 years. However, 35.3 % of respondents spent between 6 and 8 years in business and, finally, 5.2% of respondents have been in business for 12 years or more. With regard to business experience that affects business expansion in Brazzaville, the author believes that there is clear evidence in the context of online business registration, which provides an edge for Congolese immigrant entrepreneurs. Additionally, experienced entrepreneurs can wax lyrical for business challenges, express words of wisdom and sound knowledge for their businesses compared to less experienced entrepreneurs. The above interpretation leads to a conclusion that there exists a functional relationship between Congolese immigrant entrepreneurs' business experience and business expansion in Brazzaville, which is discussed in the next section.

#### **4.7.2.2 Respondents' intention to expand business in Brazzaville**

The rationale for this data was to determine the proportions of Congolese immigrant entrepreneurs who have now realised the need to expand their business activities in Congo-Brazzaville.

**Table 4.4: Respondents' intention to expand business in Brazzaville**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	110	94.8	94.8	94.8
No	6	5.2	5.2	100.0
Total	116	100.0	100.0	

(N = 116)

Table 4.4 shows that 94.8 % of respondents answered *yes* to expand their business in Brazzaville against 5.2 % who said *no*. This shows that there is a potential market that CFBAP should explore. However, experienced Congolese immigrant entrepreneurs are aware that a lack of innovation can hamper business expansion in Brazzaville unless steps are taken at the right time to shore up the underlying technology, which is online business registration (Sidhu, 2011:1). Furthermore, this interpretation leads to the formulation of the following hypotheses: overall attitude towards business expansion in Brazzaville is positively influenced by Congolese immigrant entrepreneurs' attitude towards the potential CFBAP e-commerce website, which should offer online business registration. The next section focuses on respondents' trust in technology, namely how the potential Congolese CFBAP e-commerce website will attract Congolese immigrant entrepreneurs.

#### **4.7.2.3 Respondents' attraction to potential CFBAP e-commerce website**

The rationale for this data was to determine proportions of Congolese immigrant entrepreneurs who believe that the potential CFBAP e-commerce website will attract them to expand business activities in Brazzaville.

**Table 4.5: Respondents' attraction to the potential CFBAP e-commerce website**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	36	31.0	31.0	31.0
Agree	63	54.3	54.3	85.3
Disagree	16	13.8	13.8	99.1
Strongly disagree	1	.9	.9	100.0
Total	116	100.0	100.0	

(N = 116)

Table 4.5 reflects that 31.0% of respondents strongly agreed; and 54.3% agreed; which totals 85.3% (31.0% plus 54.3%) who believe that the potential CFBAP e-commerce website will attract them to expand business activities in Brazzaville. However, 13.8% disagreed and 0.9% strongly disagreed. Furthermore, the author believes that Congolese immigrant entrepreneurs' trust that the CFBAP e-commerce website is an expectation of competent and reliable online service. Therefore, trust in technology results from a primarily cognitive evaluation of performance beliefs, which are acquired from e-commerce experience. Hence it is proposed that as soon as CFBAP launches its e-commerce website with online company registration service, Congolese immigrant entrepreneurs will be attracted to use that online service. Hence, in accordance with earlier predictions, e-commerce redefined how consumers learn about, select, purchase, and use products and services in both developed and developing countries and changed the nature of supply chain management, which is analysed in the next section.

#### **4.7.2.5 Respondents' opinions of online company registration and supply chain management**

The rationale for this data was to determine the proportion of respondents who believe that online company registration in Brazzaville can improve businesses' supply chain management.

**Table 4.6: Respondents’ opinions of online company registration and supply chain management**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	30	25.9	25.9	25.9
Agree	68	58.6	58.6	84.5
Disagree	17	14.7	14.7	99.1
Strongly disagree	1	.9	.9	100.0
Total	116	100.0	100.0	

(N = 116)

Table 4.6 reflects that 25.9% of respondents strongly agreed; and 58.6% agreed; which totals 84.5% (25.9% plus 58.6%) who believe that online business registration in Congo-Brazzaville will enable Congolese immigrant entrepreneurs’ businesses to improve supply chain management. However, 14.7% disagreed and 0.9% strongly disagreed, which totals 15.6% (14.7% plus 0.9%) who do not believe this. The business connotation of the above assertions imply that the CFBAP e-commerce website will enable Congolese immigrant entrepreneurs to attract new customers, select suppliers, reduce operating costs, and declare both VAT and customs electronically. These interpretations have shown a strong positive relationship between online company registration and Congolese immigrant entrepreneurs’ businesses supply chain management, which in turn is positively related to businesses’ profit. Both online company registration and supply chain management will enhance Congolese immigrant entrepreneurs’ profit margin, which is analysed and interpreted in the following section.

**4.7.2.6 Respondents’ opinions of online company registration and business profits**

The rationale for this data was to determine the proportion of Congolese immigrant entrepreneurs who think that online company registration will enable their businesses to make profits.

**Table 4.7: Respondents' opinions of online company registration and business profits**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	32	27.6	27.6	27.6
	Agree	64	55.2	55.2	82.8
	Disagree	19	16.4	16.4	99.1
	Strongly disagree	1	.9	.9	100.0
	Total	116	100.0	100.0	

(N = 116)

Table 4.7 shows that 27.6% of respondents strongly agreed; and 55.2% agreed; which totals 82.8% (27.2% plus 55.2%) who believe that online company registration will increase businesses' profits. However, 16.4% disagreed and 0.9% strongly disagreed, which totals 17.3% (16.4% plus 0.9%) who do not believe this. Considering that the linkage between supply chain management and online company registration in Brazzaville which has been established, and based on the literature, it is hypothesised that online company registration in Brazzaville, can improve Congolese immigrant entrepreneurs' profits. However, Congolese immigrant entrepreneurs require legal insurance for electronic transactions, which are conducted on the CFBAP e-commerce website are safe, whilst collective data is kept private. The next section focuses on respondents' opinion about e-commerce legislation in Congo-Brazzaville.

#### **4.7.2.7 Respondents' opinions of Congo-Brazzaville e-commerce legislation**

The rationale for this data was to determine the proportion of Congolese immigrant entrepreneurs who believe that Congo-Brazzaville policymakers should settle e-commerce legislation, which will create trust and traffic on the potential CFBAP e-commerce website.



**Table 4.8: Respondents' opinions of Congo-Brazzaville' adoption of e-commerce legislation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	59	50.9	50.9	50.9
	Agree	48	41.4	41.4	92.2
	Disagree	8	6.9	6.9	99.1
	Strongly disagree	1	.9	.9	100.0
	Total	116	100.0	100.0	

(N = 116)

Table 4.8 above shows that 50.9% of respondents strongly agreed; and 41.4% agreed; which totals 92% (50.9% plus 41.4%) who believe that Internet legislation should be adopted in Congo-Brazzaville in order to build trust among potential users and guarantee online traffic on the potential CFBAP e-commerce website. Hence, most computer specialists, either for fun or profit have a best simple option left for them in the face of nothing namely Internet crime. However, even though e-commerce legislation could be adopted in Congo-Brazzaville, Congolese immigrant entrepreneurs should contain e-commerce related risks, which are analysed in the next section, before a great harvest of online company registration yield fruits.

#### **4.7.2.8 Respondents' opinions of online company registration and e-commerce related risks**

The rationale for this data was to determine the proportion of Congolese immigrant entrepreneurs who believe that the Internet is a risky environment for business.

**Table 4.9: Respondents’ opinions of online company registration and e-commerce related risks**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	10.3	10.3	10.3
	Agree	99	85.3	85.3	95.7
	Disagree	2	1.7	1.7	97.4
	Strongly disagree	2	1.7	1.7	99.1
Total		116	100.0	100.0	

(N = 116)

Table 4.9 reflects that 10.3% strongly agreed; 85.3% agreed; which totals 95.6 % ( 10.3% plus 85.3%) who believe that the Internet is a risky environment for business. However, 1.7% disagreed and 0.9% strongly disagreed, which totals 2.6% (1.7% plus 0.9%) of respondents who do not believe this. Preceding sections focused on perceived Internet related risks, research variable frequency distribution based on the theory-building concept and asserted that it is not possible for Congolese immigrant entrepreneurs to simply log on to the potential CFBAP e-commerce website, push a few buttons and expect millions to start rolling in. There are Internet marketing principles that should be learned and skills that should be developed (Internet Marketing For Newbies, 2011:1). Nevertheless, the author believes that online company registration will benefit Congolese immigrant entrepreneurs. The proceeding sections will elaborate on the correlation and causation of research variables based on the theory testing approach.

#### **4.8 Correlation and causation**

Correlation is a statistical measurement of the relationship between two variables (Cherry, 2010:1). For this research, the rationale for correlation was to determine and interpret possible relationships, which exist between two or more variables, which may be useful for Congo-Brazzaville policymakers to make informed predictions (Willemse, 2009:114). However, the difference between correlation and causation should be marked.

In this regard, the author postulates that simply because one variable follows another, or two variables co-vary, does not mean that one causes the other. Recently, the link between two variables may be coincidental rather than causal (New York Education, 2011:3). Furthermore, Cherry (2010:1-2) asserts that possible correlations range from +1 to -1 and a zero correlation indicates that there is no relationship between the variables. However, a correlation of -1 indicates a perfect negative correlation, which means that as one variable goes up, the other goes down whereas a correlation of +1 indicates a perfect positive correlation, hence both variables move in the same direction together. In addition, rather than one variable causing another, two variables with a perfect correlation of +1 might be because of a third variable.

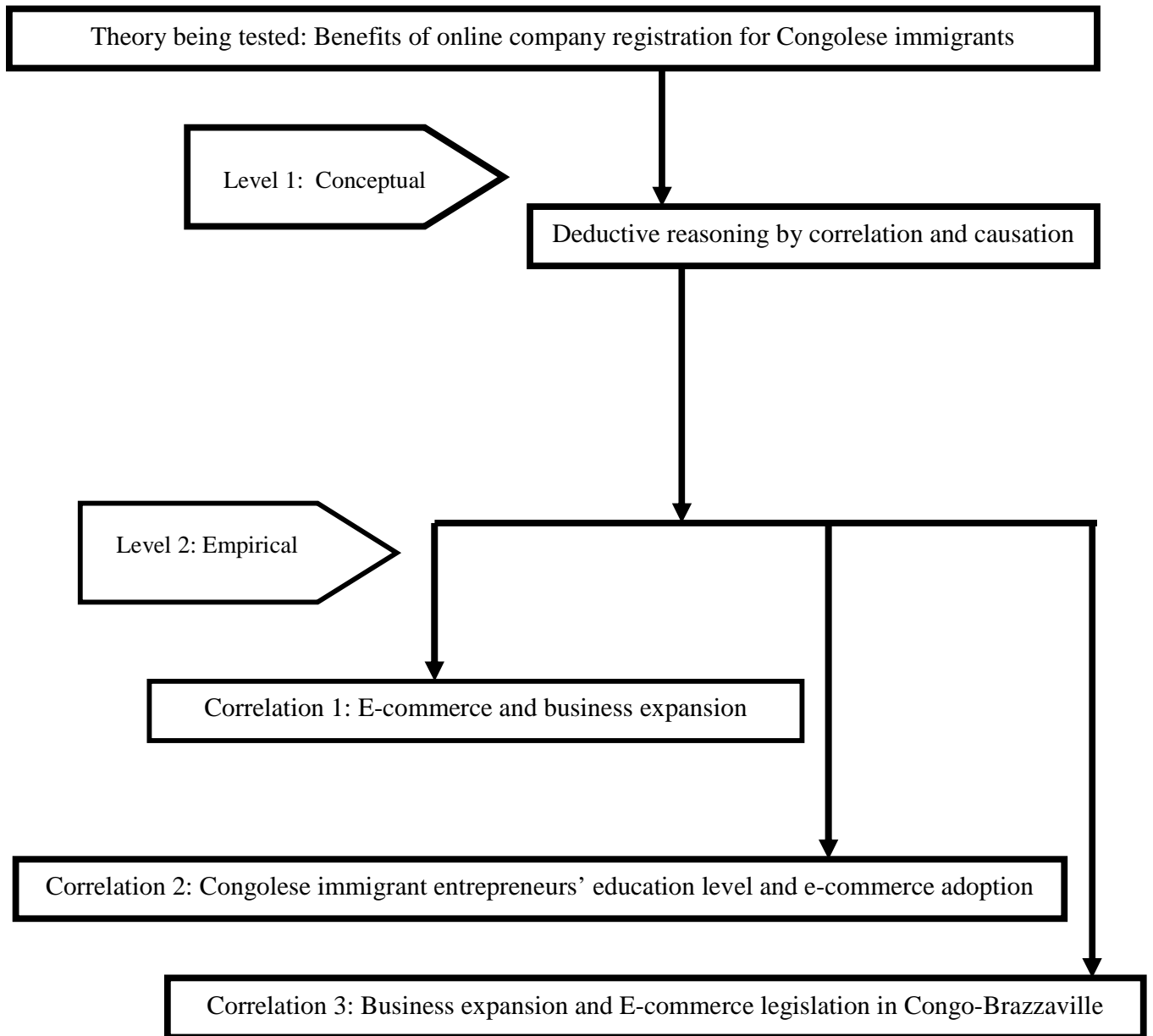
**Table 4.10: Interpreting correlation coefficient (r)**

<b>Size of r</b>	<b>General interpretation</b>
+ or - (0.9 to 1.0)	Very strong correlation
+ or - (0.8 to 0.9)	Strong relationship
+ or - (0.6 to 0.8)	Moderate relationship
+ or - (0.2 to 0.6)	Weak relationship
+ or - (0.0 to 0.2)	Very weak or no correlation

(Source: Willemse, 2009: 119)

However, the following deductive reasoning focused on observed correlations and inferences based on causation. Furthermore, the fundamental purpose of this section is to avoid invalid inferences from causation.

**Figure 4.2: Online company registration theory testing**



(Source: New York Education, 2010)

#### 4.8.1 Correlation between potential CFBAP e-commerce website and business expansion in Brazzaville

The rationale for this data was to determine the relationship between the potential CFBAP e-commerce website and Congolese immigrant entrepreneurs' business expansion in Brazzaville, which represents a business incentive for CFBAP policymakers who are in the process of e-commerce adoption.

**Table 4: 11: Correlation between CFBAP's e-commerce website and business expansion**

		Business expansion in Brazzaville	CFBAP e-commerce website attraction
Business expansion in Brazzaville	Pearson Correlation	+1	.226**
	Sig. (1-tailed)		.007
	N	116	116
CFBAP e-commerce website attraction	Pearson Correlation	.226**	+1
	Sig. (1-tailed)	.007	
	N	116	116

\*\* . Correlation is significant at the 0.01 level (1-tailed).

(N = 116)

Table 4.11 above reflects that there is a correlation of +1 between the potential CFBAP e-commerce website and Congolese immigrant entrepreneurs' business expansion. In addition, the above-mentioned positive and perfect correlation meant that both variables move in the same direction together. Hence, the author postulates that the potential CFBAP e-commerce website is positively related to Congolese immigrant entrepreneurs' business expansion in Brazzaville. The next section is devoted to determining a relationship between Congolese immigrant entrepreneurs' education level and their Internet skills.

#### 4.8.2 Correlation between level of education and Internet skills

The rationale for this data was to determine the relationship between Congolese immigrant entrepreneurs' level of education and their Internet skills, which will enable them to use the potential CFBAP's e-commerce website.

**Table 4.12: Correlation between level of education and Internet skills**

		Education range of respondents	Have Internet skills to use CFBAP e-com website
Congolese immigrant entrepreneurs' education level	Pearson Correlation	+1	.279**
	Sig. (1-tailed)		.001
	N	116	116
Congolese immigrant entrepreneurs' Internet skills to use potential CFBAP e- com website	Pearson Correlation	.279**	+1
	Sig. (1-tailed)	.001	
	N	116	116

\*\* . Correlation is significant at the 0.01 level (1-tailed).

(N = 116)

Table 4.12 above shows that there is a correlation of +1 between Congolese immigrant entrepreneurs' education level and their Internet skills, which indicates a perfect positive correlation. In addition, the above-mentioned positive correlation meant that both variables move in the same direction. However, Congolese immigrant entrepreneurs who have become accustomed to South African digital media are assumed to be savvier with e-commerce technologies. Furthermore, this analysis leads to conclude that even when controlling for Internet access and experiences, Congolese immigrant entrepreneurs differ in their online abilities and activities. Additionally, the author's interpretations suggest that Internet know-how is not randomly distributed among Congolese immigrant entrepreneurs. Rather, higher levels of education, being male and risk-takers, are associated with higher levels of web-use skills. Furthermore, these Congolese immigrant entrepreneurs' characteristics are also related to the extent to which they engage in e-

commerce activities in South Africa (Hargittai, 2010:1). The preceding section suggested that even when controlling for basic Internet access, among Congolese immigrant entrepreneurs, socioeconomic status is an important predictor of how they incorporate the Web into daily business activities and use it in more informed ways for a larger number of e-commerce transactions. However, the proceeding section focuses on determining a correlation between Congolese immigrant entrepreneurs' business expansion in Brazzaville and Congo-Brazzaville e-commerce legislation efficiency.

#### 4.8.3 Correlation between online business expansion in Brazzaville and Congo-Brazzaville e-commerce legislation efficiency

The rationale for this data was to determine the relationship between Congolese online business expansion and Congo-Brazzaville e-commerce legislation reliability.

**Table 4.13: Online business expansion in Brazzaville and Congo-Brazzaville e-commerce legislation reliability**

		Business expansion in Brazzaville	Congo-Brazzaville e-commerce legal system reliability
Online Business expansion in Brazzaville	Pearson Correlation	+1	.150
	Sig. (1-tailed)		.054
	N	116	116
Congo-Brazzaville e-commerce legislation reliability	Pearson Correlation	.150	-1
	Sig. (1-tailed)	.054	
	N	116	116

(N = 116)

Table 4.13 above reflects that there are opposite correlations of +1 and -1 between Congolese immigrant entrepreneurs' online business expansion in Brazzaville and Congo-Brazzaville e-commerce legislation reliability. In addition, the above-mentioned opposite correlations indicate imperfect causation, which means that both variables do

not move in the same direction. In order to project CFBAP as a tech savvy governmental agency and to enable a point of parity, the Congo-Brazzaville Ministry of Communication should promulgate e-commerce application standard directories in which data integration, information access and data specification in the State agency should be regulated. Furthermore, the Congo-Brazzaville Ministry of Finance and *Banque des Etats de l'Afrique Centrale (BEAC)*: Bank of Central African States should promulgate legal e-commerce texts which guide businesses to unanimously use IT standards that are applicable to the sectors of card payment, and inter-bank international transfer including e-customs declarations. Finally, the Congo-Brazzaville Ministry of Industry and Trade should establish and promulgate the national technical regulation on EDI for issuing a certificate of origin, which will apply to all national agencies and enable them to issue an electronic certificate of origin (eCoSys) when all e-commerce transactions will be conducted (Nguyen, 2008:2).

Previous sections analysed and interpreted correlation and causation, based on the theory testing concept. In response to the mounting necessity of online business registration in Congo-Brazzaville, the next section analyses respondents' focus group meeting outcomes.

#### **4.9 Analysing focus group by using content analysis**

For purposes of this research, the author utilised content analysis to remove much of the subjectivity from summaries and to simplify the detection of trends, which answered research questions (List, 2005:1). As stated earlier, the top 5 Congolese immigrant entrepreneurs who were selected according to their business asset size, were invited for focus group discussions, which paved a vista for further academic discourse.

- **What is the Internet?**

When discussing this question, the top five (5) Congolese immigrant entrepreneurs agreed that the Internet is a global system that interconnects computer networks. In addition, participants also asserted that computer networks use standard protocols called



Transfer Control Protocol/ Internet Protocol (TCP/IP). However, the aim of this question was to ascertain participants' basic understanding of the Internet before further scrutiny.

- **Did you learn about the Internet at school?**

During the focus group discussion, all five participants agreed that they learned about the Internet at school. However, the aim of this question was to ascertain respondents' education level and their IT awareness. Furthermore, all of them declared that Google is their favourite Internet search engine. Discussing the use of the Internet for business became imperative.

- **Do you use the Internet for business?**

All five participants affirmed that they use the Internet to operate their businesses, which are established in Cape Town. The increased deployments of e-commerce technology in Cape Town, including respondents' education level, were identified as major factors, which enabled them to use the Internet for business. In addition, the rationale for this question was to ensure the corollary of Internet use for business by Congolese immigrant entrepreneurs, which paved the way for Internet benefits, which is presented in the next question.

- **What benefits do you gain from using the Internet in business?**

During discussions around this questions, respondents mentioned various benefits that they have gained from the use of the Internet in business in Cape Town. However, respondents postulated that the first benefit of using the Internet in business is to reach people worldwide in a way that even an expensive advertising media would not. Furthermore, respondents mentioned that the Internet enables them to access directly customers and present the information about products or services, which are offered. Recently, a respondent and owner of a security company based in Cape Town reported that *“due to high levels of crime in Cape Town, some customers prefer to learn about the*

*capacities of a security company on their own before signing up*". This information search cost shift enabled one of the respondents' company to gain more customers (Skipec, 2010). Furthermore, participants mentioned that when customers want to enquire about any given stakeholder, the Internet efficiently provides a list of contacts and phone numbers that enable them to send e-mails directly to a customer service representative, requesting that the said stakeholder should be contacted. Pursuing discussions, participants revealed again that it is easy and inexpensive to define one's business image on the Internet, whether it is a one-person-company or a large corporation. Furthermore, the Internet enables them to constantly update business details as companies often relocate owing to constant building renovations in Cape Town (Skipec, 2010). Hence, participants stated that the Internet enables them to process electronic banking and VAT declaration in Cape Town, which eliminate the impact of intermediaries. Furthermore, online services are an even brighter option for respondents who operate in the clothing sector. They communicate via email with parents, guardians and schools to enquire, which school children will need new school uniforms for the next school year. The Internet also enables them to handle transactions, automate billing and inventory control in a way, which is unparalleled the past. During this question, participants have well-established the linkage between Internet benefits and business success, which seal the study's early findings based on theory building and theory testing. Based on the above statements, the author noticed that Congolese immigrant entrepreneurs who have previously used the Internet for business in Cape Town, are likely to become good users of the potential CFBAP e-commerce website, which is discussed in the following question.

- **Will the CFBAP e-commerce website enable your business expansion in Brazzaville?**

When discussing this question, respondents shared the same favourable opinion, which stated that online company expansion in Brazzaville will be possible as soon as the CFBAP Brazzaville office offers such a service. Furthermore, participants argued that the adoption of an e-commerce website at CFBAP should be considered as Congo-

Brazzaville government's Integrated Small-Enterprise Development Strategy (ISED) as means to support SMMEs (Dti South Africa, 2010). Moreover, while the evidence is not definitive, several studies of the benefits of the Internet for business have suggested that the demography of the Internet reflects a trend, which reveals that a high concentration of Internet users is in English-speaking countries. However, even though English-speaking countries lead in terms of Internet demography, the current author believes that the Congo-Brazzaville government can still implement ISED, which will include e-commerce as a support tool for SMMEs in Brazzaville and cultural dimension, which are discussed in the next question, and should not be ignored.

- **Does your French culture affect your Internet skills?**

When discussing this question, participants presented different views. Three (3) participants admitted that countries where a majority of people speak English, have the highest Internet diffusion. If they did not establish themselves and their businesses in Cape Town, they would not be as skilled as they are in terms of using the Internet. However, the other two (2) participants believed that French culture is a set of beliefs and behaviours, which are common to a group of people, or "the collective" programming of the mind, which distinguishes members of one group from another. Therefore, they did not agree that their French background was positively related to their Internet skills. However, considering that the time has come and ISED is undoubtedly the most effective way to support SMMEs in Brazzaville, respondents further discussed the possibility of recommending the e-commerce website at CFBAP.

- **Would you recommend CFBAP to enable online company registration?**

All five participants in the discussions agreed that CFBAP should enable online company registration. Furthermore, one participant strongly stated that until recently, the only way to register a company is to travel to Congo-Brazzaville and follow heavy administrative procedures, which hinder business and personal schedules. In addition, two participants explained that the use of a intermediaries to process one's company registration in a

traditinal way still constitutes a barrier between Congolese immigrant entrepreneurs and the CFBAP. Furthermore, another participant added that “*in Brazzaville, middlemen often over- charge for their services especially when the company represented is based overseas*”. Furthermore, two (2) other participants noted that “*there have been drastic disruptions in communication when trying to register a company through a family member, who finally failed to register the company at CFBAP regardless of financial incentives*”. Participants further argued that traditional business registration, which is presently applied in Congo-Brazzaville, is less effective for Congolese immigrant entrepreneurs. However, online company registrations raise challenges, which have been discussed in the next question.

- **Would you contain related challenges to online business registration at CFBAP?**

All five participants strongly agreed that based on their background, their IT readiness enables them to ascertain that they can contain any known IT-related challenge, which may arise when interacting online with CFBAP agents. This assumption will have a positive impact on the attitude towards the potential CFBAP e-commerce website. Hence participants concluded that Congolese immigrant entrepreneurs will utilise the potential CFBAP e-commerce website.

- **Will you be able to use the potential CFBAP e-commerce website?**

All five (5) participants conclusively agreed that they have skills and resources that will enable them to use the potential CFBAP e-commerce website. One participant stated that there is Internet training, which will be offered at his company to empower workers. Finally, another participant reported that this research has improved his understanding of the Internet.

#### **4.10 Summary**

This chapter analysed data that was collected by establishing a positive relationship between the Internet and online business registration. Furthermore, based on the research questions, data processing methods, which necessitated the use of SPSS 19, were reviewed in great detail. However, descriptive statistics and frequency distribution were the two master piece components for the research statistics analysis, which was firstly based on the online company registration theory-building concept. Furthermore, the research results of the closed ended questionnaire related to the theory building concept, which was based on various variables, namely gender, education level, business experience, business expansion in Brazzaville, potential CFBAP e-commerce website attraction, supply chain management, profits, Congo-Brazzaville e-commerce legislation efficiency and e-commerce related risks were explored. Furthermore, correlation and causation analysis based on research variables were interpreted. However, after careful scrutiny of analysis and interpretations, it was revealed that not all the research variables proved to have a correlation of +1, which indicated that there were perfect and imperfect causations, which means that not all variables moved in the same direction together. Hence, the author's theory, which tested outcomes, appeared convincing, while the, Congo-Brazzaville Ministries of Communication, Finance and Industry and Trade should innovate. In addition, these innovations should include promulgations of e-commerce application standards directories, legal texts guiding business use of IT standards, which are applicable to the banking sector and National Technical Regulation on EDI for issuing an electronic certificate of origin at all times for online transactions, are conducted at CFBAP.

Furthermore, the focus group meeting outcomes were analysed, which aimed to remove much of the subjectivity from summaries and to simplify the detection of trends, which answered the research questions. All five participants of the focus group strongly agreed that based on their background, their IT readiness enabled them to ascertain that they can contain any known IT related challenges, which may arise when interacting with CFBAP agents online. At this point, focus shifts to the following chapter, entitled **Discussion of results**.

## Chapter 5

### Discussion of results

#### 5.1 Introduction

The aim of this chapter is to discuss the data, which was analysed in the previous chapter according to the study objectives to clarify the research problem that was identified. As mentioned earlier, relevant data was collected through participant observation, a self-administered questionnaire and focus group meetings. The next section discusses respondents' demographic characteristics.

#### 5.2 Congolese immigrant entrepreneurs' demographic characteristics

For purposes of this study, only respondents' data related to gender, education level and business experience were interpreted and discussed. Results, which are illustrated in Table 4.1, indicate that 67 % of respondents were male and 49% female. It is not a surprise that the gender gap is wide when it comes to education and entrepreneurial mindset in developing countries, including Congo-Brazzaville. In addition, a majority of female respondents are *digital immigrants*, who have learned and adapted to Cape Town's business environment and retained some degree, of "*digital accent*", that is, respondents' foot in the previous Congo-Brazzaville business environment. In accordance with research subsidiary objectives, lower proportions of females' web skills is positively related to respondents' "*digital immigrant accent*", namely turning to the Internet for business information secondly rather than firstly, justify female respondents' inferior web skills (Prensky, 2001:1-3). However, Congolese "*digital immigrants*" who have established businesses and adapted to Cape Town's business environment, bridged the digital divide. Even though education is positively related to entrepreneurial mindsets, further intellectual discourse postulates that innovation, risk taking and business growth are also relevant characteristics of an entrepreneur. Furthermore, Table 4.2 reflects that 0.9% of respondents completed primary school, while 5.2 % completed high school and 94 % completed either college or university. Hence, the Internet use rate among respondents remains directly connected with the education levels of respondents, as the

higher the education level, the higher Internet usage rate. Therefore, 99.2 % of respondents (5.2 % plus 94 %) who completed high school, college and university utilise the Internet and e-commerce. Furthermore, Table 4.3 shows that 13.8 % of respondents have less than 2 years of business experience; 45.7 % of them have between 3 and 5 years of experience; 35.3 % have between 6 and 8 years; and finally 5.2% have 12 years or more of business experience. Moreover, online company registration is also recognised as a means of economic development in developing countries, which are under-served by traditional company registration systems, including Congo-Brazzaville. This has raised the necessity of linking e-commerce adoption and business experience regardless of e-commerce constraints. Emanating from data, which was analysed in Table 4.3, 81 % (45.7 % plus 35.3 %) of respondents with 3 and 8 years of business experience are well positioned to expand online business activities on a significant scale.

### **5.3 Factors that constrain Congolese immigrant entrepreneurs' online business expansion in Brazzaville**

Findings from the literature revealed that in spite of being established in South Africa, Congo-Brazzaville immigrant entrepreneurs have now realised the need to invest back home in Congo-Brazzaville owing to certain reasons, namely South Africa's high crime rate, xenophobic attacks, a lack of access to resources, political uncertainty in South Africa and relative political stability in Congo-Brazzaville. Based on the above, the present author argues that it is not myopic reasoning for Congolese immigrant entrepreneurs who propose that CFBAP should add the Internet in the process of business registration because it provides different properties, namely mediating technology, universality, network externalities, distribution channel, time moderator, information asymmetry shrinker, infinite virtual capacity, low cost standards, creative destroyer and transaction-cost reducer. Hence, findings from the Table 4.11, which reflected a correlation of +1 between the potential CFBAP potential e-commerce website and Congolese immigrant entrepreneurs' online business expansion intention, created an opportunity for further discussions. Recently, European Union (EU) country members made available and accessible public services for both businesses and citizens on a 24-hour and 7-day basis via the Internet. Furthermore, the current status of e-commerce

adoption amongst SMMEs in the USA revealed that e-commerce plays an important role in enhancing the competitiveness of SMMEs, which includes SMMEs' value chain, primary activities, namely manufacturing and support activities such as administration, human resource management and design. Moreover, India's e-commerce has emerged as an important business sector in the country's economy, which became a leading factor of business diversification between Indian and American SMMEs. Furthermore, e-commerce plays a significant role amongst New Zealand's SMMEs owing to the country's geographical remoteness from the rest of the world, and enabled SMMEs to contribute up to 35 per cent of the country's GDP. Hence, e-commerce, in practice, will bridge the gulf between the wealthy and the poor in Congo-Brazzaville if introduced as SMMEs' support programmes. Findings from the focus group that was conducted with the top 5 Congolese immigrant entrepreneurs revealed that they use the Internet to operate their businesses, which are established in Cape Town. Nevertheless, if CFBAP deploys e-commerce technology in Brazzaville, the technology will be used on a 24-hour and 7-day basis by Congolese immigrant entrepreneurs, which will improve Congolese SMMEs' supply chain management and strengthen business diversification between Congo-Brazzaville and South African SMMEs, thereby improving the country's GDP.

#### **5.4 Linking online company registration and supply chain management**

Emanating from the focus group meeting which was held at the Congolese Association of Cape Town's headquarters, the top 5 Congolese immigrant entrepreneurs who participated confirmed that there are perceived online company registration benefits in the area of finance, management, marketing, and strategic logistics management. In concordance, Table 4.6 reflects that 84.5% (25.9% plus 58.6%) of respondents believe that online business registration in Congo-Brazzaville will enable Congolese immigrant entrepreneurs' businesses to improve supply chain management. Participants noted that using the Internet for business in Cape Town enable their businesses to reach people worldwide in a way that even an expensive advertising media would not, which enable them to present the information about products or services that are offered. Furthermore, participants revealed again that it is easy and inexpensive to define one's business image on the Internet, whether it is a one-person-company or a large corporation, which enable



them to declare VAT and constantly update business details in case of relocation. This shows that there is no contradiction between what happens in practise in Cape Town and what Congolese immigrant entrepreneurs revealed. However, literature that was reviewed states that the role of e-commerce for Congolese immigrant entrepreneurs in Congo-Brazzaville will include increased financial speed between Congo-Brazzaville and South Africa, electronic VAT declaration; increased advertisement through Website page landing; Google Pay Per Click (PPC) and banner; strengthen business relationships; organise an accounting system; bank loan opportunities; and empowerment of Congolese entrepreneurs' mindsets through e-commerce Life Long Learning (LLL), which is not in contradiction with Table 4.12, which shows that there is a correlation of +1 between Congolese immigrant entrepreneurs' education level and their Internet skills. Moreover, e-commerce will reduce the internal costs of many transactions in Brazzaville, eliminate intermediaries and improve customer care, which will be operated online. Improved supply chain management will result in the achievement of a company's objectives, which include profits.

### **5.5 Linking online company registration and business profits**

When questionnaires were collected, most respondents indicated that online company registration is positively related to Congolese immigrant entrepreneurs' business profits. Therefore, Table 4.7 shows that 82.8% (27.2% plus 55.2%) of respondents believe that online company registration will increase businesses' profits. Additionally, focus group meeting outcomes suggest that Internet know-how among Congo-Brazzaville immigrant entrepreneurs is not randomly distributed. Rather, higher levels of education and masculinity are associated with higher levels of Web-use skills. Further findings were not against this background because none of the first 5 top Congolese immigrants' businesses belonged to a female entrepreneur. Another important assumption, which prevails about either Congolese immigrant entrepreneurs (male or female) is that they have not been exposed to the Internet throughout their lives. This perspective has led to a whole cohort of Congolese immigrant entrepreneurs who are not labelled "*digital natives*", but "*digital immigrants*". Furthermore, Prensky (2001:1-3) suggests that a Congolese immigrant entrepreneur "*digital native*" is an immigrant entrepreneur who was born

during or after the general introduction of digital technology, whereas a “*digital immigrant*” is a Congolese immigrant entrepreneur who was born before the existence of digital technology, but adopted it for business purposes. However, critics have warned that “*digital immigrants*” require much more support to use the Internet for business. Recently, during the focus group meeting, which was held at the Congolese Association of Cape Town’s headquarter, it was recommended that the CFBAP should implement an e-commerce website, which offers online company registration service to enable Congolese immigrant entrepreneurs who are also “*digital immigrants*” to contribute to the country’s economic reconstruction. However, online investment attraction, which is discussed in the next section, requires up-front investment from CFBAP, which will enable Congolese immigrant entrepreneurs to secure long term profits.

## **5.6 Attracting new investments through the potential CFBAP e-commerce website**

When questionnaires were hand-collected, 85.3% (31.0% plus 54.3%) of respondents indicated in Table 4.5 that the potential CFBAP e-commerce website will attract business expansion in Brazzaville. Indeed, CFBAP should assume a leadership role in e-commerce to revitalize Congo-Brazzaville’s economy. As such, to remain globally competitive, the potential CFBAP’s e-commerce website site should bring financial and cultural changes, which will include a strategic plan to expand workers’ skills, improve working conditions, and lower costs to make the site’s operations globally competitive to attract Congolese immigrant entrepreneurs’ businesses. Indeed, the literature review revealed that great business successes that have been achieved in the USA, EU, India and New Zealand have profitably used e-commerce, which gave powerful credence to the notion that online company registration was the best option to adopt by both developed and developing nations that seek economic growth. In this vein, focus group respondents opined: “*CFBAP should adopt online company registration to attract new investment and improve the country’s GDP*”. Congolese immigrant entrepreneurs face difficult challenges of maintaining an ability to reduce supply chain management costs, both in traditional channels and through emerging e-commerce channels. While finding a way to

differentiate themselves from competition in South Africa and Congo-Brazzaville. The next section discusses these e-commerce related challenges.

### **5.7 Congolese immigrant entrepreneurs' e-commerce challenges**

Table 4.12 indicates that there is a correlation of +1 between Congolese immigrant entrepreneurs' education level and Internet skills. Furthermore, this positive correlation assumes that Congolese immigrant entrepreneurs would reach heights of e-commerce challenges. In addition, the literature review revealed that culture, IT infrastructure, security and privacy, illiteracy, organisation, fraud and public policy are major e-commerce challenges. Recently, an interesting comment was made in the focus group meeting, which stated that Congolese immigrant entrepreneurs would reach the height of any known IT-related challenge, which may arise when interacting online with CFBAP agents. However, at the time that the study was conducted, this CFBAP e-commerce website had not yet been implemented.

From participant observation, it was learned that Congolese immigrant entrepreneurs' IT infrastructure, security and privacy, organisation and fraud were contained. This is positively related to the background reflected in Table 4.9, where 95.6 % (10.3% plus 85.3%) of respondents believe that the Internet is a risky environment for business from which necessary measures, namely special IT equipment were taken. However, in accordance with Congolese immigrant entrepreneurs' e-commerce challenges, public policy is positively related to the country's e-commerce legislation efficiency. Hence, results in Table 4.8 indicated that 92% (50.9% plus 41.4%) of respondents believe that Internet legislation, which reinforces online security, should be adopted in Congo-Brazzaville; thereby increasing Internet traffic on the CFBAP e-commerce website. However, the 2000 breaks-in, which occurred at Microsoft Corporation, Yahoo Inc, e-Bay Inc, and Amazon.com Inc revealed one of the boldest industrial spy capers of the computer age (Yu, Zhang, Southern, & Joiner, 2001: 2), which marked the necessity of establishing a functional relationship between online company registration and e-commerce related risks, which is discussed in the next section.

## **5.8 Linking online company registration and e-commerce risks for Congolese immigrant entrepreneurs**

Table 4.9 reflects that there are 95.6 % ( 10.3% plus 85.3%) of respondents who believe that the Internet is a risky environment for business and necessary measures, namely updated software and hardware equipment should be acquired. In addition, to compile Table 4.9, statement questions focusing on various e-commerce risks for Congolese immigrant entrepreneurs were utilised. However, physical threats, which can cause physical damage of IT infrastructure, namely fire, flood and robbery were marked from data threats, which can cause software failure. Emanating from the focus group meeting, it was evident that human errors can cause hoaxing (warning about non-existing virus), server crashing, credit card payment fraud and malicious e-attacks from inside or outside the organisation. However, there were two measurable variables, namely education and Internet awareness of respondents, which had positive correlations, as reflected in Table 4.12. Furthermore, it was clear from the focus group meeting that, based on their background and their IT readiness, Congolese immigrant entrepreneurs ascertained to contain any known IT related challenge. However, even though the author's participant observation, which covered Congolese immigrant entrepreneurs' business facilities, IT equipment and management teams are predicted to contain e-commerce challenges, the present author argues that e-commerce legislation, which is discussed in the next section, should be assessed to avoid fraud and thieves on e-commerce profits.

## **5.9 Establishing weaknesses of e-commerce legislation in Congo-Brazzaville**

While assessing Congo-Brazzaville e-commerce legislation, Table 4.8 revealed that 92% (50.9% plus 41.4%) of respondents believe that Internet legislation should be adopted in Congo-Brazzaville. Hence, in countries which have high e-commerce pace, most information is stored and communicated electronically so that it can be expected that electronic evidence will constitute much, if not most, of the evidence used in future motions practice or at trials. Furthermore, considering that the boom of e-commerce will also reach under-developed countries including Congo-Brazzaville, Congo-Brazzaville

legislators are required to start considering how e-commerce can fit into the multilateral trade framework, and what rules or regulations should apply. Hence, almost in concordance with earlier predictions, Table 4.13 reflects that there are opposite correlations of +1 and -1 between Congolese immigrant entrepreneurs' online business expansion in Brazzaville and Congo-Brazzaville e-commerce legislation reliability. However, considering literature reviews and owing to these opposite correlations, Congo-Brazzaville policymakers harmonise with the statement that the country requires the flexibility of regulating e-commerce in order to nurture Congolese industries. Early e-commerce adoption in Congo-Brazzaville would give an unfair advantage to e-commerce industries in Brazzaville owing to a chronicle lack of ICT resources. The present author does not agree with the above hypothesised statement. Indeed, Congo-Brazzaville can boost the e-commerce sector in favour of e-commerce adoption based on the General Agreement on Trade in Services (GATS) principles so that the country can begin to trade with industries that have a comparative advantage. Therefore, the social connotations of the above assertions imply that Congo-Brazzaville policymakers are left with no other alternative, but to protect Congolese consumers who are the only important group whose views are often not heard in Congo-Brazzaville.

Developing countries, including Congo-Brazzaville, cannot continue to be passive onlookers of economic mismanagement and entrepreneurial cacophony because high degrees of public administration centralization and large driven bureaucracies will not enable CFBAP to meet challenges of the new information era. Hence, new kinds of proactive digital public institutions are, therefore, required, which are more flexible and more customer-and-results-oriented, and able to utilise the benefits of e-commerce in the national economy.

### **5.10 Contributions of e-commerce in Congo-Brazzaville's national economy**

From the data analysis, it was interesting to note that results shown in Table 4.5 indicate that 85.3% (31.0% plus 54.3%) of respondents believe that the potential CFBAP e-commerce website will attract business expansion in Brazzaville. Based on this,

conclusions drawn from the literature review indicated that e-commerce adoption in Congo-Brazzaville will have various positive impacts on the economy, which include marketplace transformation, increased economic interactivity, openness of technology and alter time importance in the country's economy for sustainable development. Furthermore, Table 4.8 shows that 92% (50.9% plus 41.4%) of respondents believe that Internet legislation should be adopted in Congo-Brazzaville, which is positively related to conclusions that were drawn from Table 4.13, which reflects that there are opposite correlations of +1 and -1 between Congolese immigrant entrepreneurs' online business expansion in Brazzaville and Congo-Brazzaville e-commerce legislation reliability.

Hence it is proposed that instead of status quo maintenance of offline administration; with the adoption of e-commerce technology, which promotes entrepreneurial mindsets while taking cognizance of the country's MDGs strategies stated in literature review, the author argues that e-commerce adoption will yield desired results and drastically improve service delivery at the required pace in Congo-Brazzaville. Furthermore, e-commerce adoption will introduce a new era of leadership not only at CFBAP, but in the whole Congo-Brazzaville public sector. Hence, Congo-Brazzaville's Ministry of Science and Technology, whose theoretical mission is to manage technologies in State agencies, should adopt practical approaches which will formulate, promulgate and popularize sets of standards that are related to the Congolese e-commerce sector, including standards related to trade data interchange, electronic data interchange for administration, commerce, transport and Electronic Business Extensible Markup Language (eXML). As mentioned earlier, the Congo-Brazzaville Ministry of Communication should promulgate e-commerce application standard directories in which data integration, information access and data specification in the State agency should be regulated. Furthermore, the Congo-Brazzaville Ministry of Finance and *Banque des Etats de l'Afrique Centrale (BEAC)*: Bank of Central African States should set Congolese e-commerce GATS that are applicable to the sectors of card payment, and inter-bank international transfers, including e-customs declarations.

The above potential amendments should also be aimed at shortening the time for customs clearance, reduce paper work, public procurement and electronic tax declaration. Finally, the Congo-Brazzaville Ministry of Industry and Trade should establish and promulgate the National technical regulation on EDI for issuing certificates of origin, which will apply to all National agencies and enable them to issue an electronic certificate of origin (eCoSys) for all e-commerce transactions that will be conducted. Therefore, any Congo-Brazzaville business entrepreneurs in need of a preferential Certificate of Origin for exports can apply electronically to the Congo-Brazzaville Ministry of Industry and Trade.

However, inherent e-commerce challenges within the Congo-Brazzaville national economy should not be understated. Moreover, the development of IT training in the country is sporadic and lacks support from relevant state regulatory agencies. Furthermore, it is not common in Congo-Brazzaville that an educational institution establishes close links with local companies in the need of recruiting students who will soon graduate. Neither local company has taken initiatives in specifying their requirements of e-commerce skills, which potential workers should be equipped with, so that Congo-Brazzaville educational institutions can develop their teaching plan accordingly. As mentioned earlier, a reliable legal system on e-commerce, in general, and on e-commerce technology standards, in particular should be comprehensive in Congo-Brazzaville, there should also be sub-legal documents, which will guide their implementation. In addition, conclusions drawn from the focus group conducted with the top 5 Congolese immigrant entrepreneurs diverged from participants' interpretive point-of-view. Although 3 participants maintained that countries where a majority of people speak English have the highest Internet diffusion, establishing themselves in Cape Town enabled e-commerce abilities. However, the other 2 focus group participants did not harmonise that a French background was negatively related to Internet skills. However, this leads the present author to postulate that the CFBAP e-commerce website will enable people in Congo-Brazzaville to shift their consumer behaviour from traditional shopping to online shopping, if e-commerce legislation is adopted.

Finally, Congo-Brazzaville policymakers should no longer be ethnocentric, introspective, focused on the past and defensive. Rather, they should be forward-looking, globally-oriented, innovative, adaptable, and ready to take advantage of e-commerce opportunities to serve Congo-Brazzaville SMMEs more effectively. Also, the unique country's university, *Marien Ngouabi University* and business communities should establish organic relationships between supply and demand for e-commerce human resources. Congo-Brazzaville should strengthen its participation in multilateral co-operations, including South Africa, to acquire international e-commerce technology standards and apply them to trading activities and promote paperless trading.

### **5.11 Summary**

This chapter discussed the research findings emanating from the self-administered questionnaire, participant observation and the focus group, which were combined to address the same issues. However, from Congolese immigrant entrepreneurs' demographic characteristics, the gender gap is wide when it comes to education and entrepreneurial mindsets among Congo-Brazzaville immigrant entrepreneurs. In addition, considering that Congolese immigrant entrepreneurs are digital immigrants, establishing themselves in Cape Town has enabled them to bridge the digital divide. Even though education is positively related to entrepreneurial mindsets, further intellectual discourse postulates that innovation, risk taking and business growth are also relevant characteristics of Congolese immigrant entrepreneurs. Hence, the Internet usage rate among respondents is still directly connected with education levels of respondents, as the higher the education level, the higher the Internet usage rate. Moreover, online company registration is also recognised as a means of economic development in developing countries, which are under-served by traditional company registration systems, including Congo-Brazzaville. This has raised the necessity of linking e-commerce adoption and business experience regardless of e-commerce constraints. However, in spite of being established in South Africa, Congo-Brazzaville immigrant entrepreneurs have now realised the need to invest back home in Congo-Brazzaville owing to certain reasons, namely South Africa's high crime rate, xenophobic attacks, lack of access to resources,



political uncertainty in South Africa and the relative political stability in Congo-Brazzaville.

Based on the above, the present author argues that it is not myopic reasoning for Congolese immigrant entrepreneurs who propose that CFBAP should add the Internet in the process of business registration because it provides different and important properties. Nevertheless, if CFBAP deploys e-commerce technology in Brazzaville, the technology will be utilised on a 24-hour and 7-day basis by Congolese immigrant entrepreneurs, which will improve Congolese SMMEs' supply chain management. Furthermore, respondents confirmed that there are perceived online company registration benefits in the area of finance, management, marketing, strategic logistics management and the Congolese national economy, which are positively related to Congolese immigrant entrepreneurs' business profits. In addition, this has raised the necessity that CFBAP should take a leadership role in e-commerce to revitalize Congo-Brazzaville's economy. Indeed, great business successes that have been achieved in the USA, EU, India and New Zealand have profitably utilised e-commerce, which gave powerful credence to the notion that online company registration was the best option to adopt by both developed and developing nations that seek economic growth. Congolese immigrant entrepreneurs' education level and Internet skills enable them to contain e-commerce challenges, which may arise when using the potential CFBAP e-commerce website. Furthermore, considering that the boom of e-commerce based on the Doha principles in under-developed countries will include Congo-Brazzaville, Congo-Brazzaville legislators are required to start considering how e-commerce can fit into the multilateral trade framework, and what rules or regulations should apply. At this point, focus shifts to the following and final chapter, entitled: **recommendations and conclusions**.

## **Chapter 6**

### **Recommendations and conclusions**

#### **6.1 Introduction**

Even though Congo-Brazzaville immigrant entrepreneurs are well established in Cape Town, owing to certain reasons such as the high crime rate, xenophobic attacks, lack of access to resources, political uncertainty in South Africa and relative political stability in Congo-Brazzaville, the need to expand business activities back home has arisen. To enable them to register companies online at CFBAP and gain a competitive advantage regarding e-commerce, plausible arguments should be established, which constitute business incentives for CFBAP policymakers to adopt such technology in Congo-Brazzaville. However, laborious efforts have been made in the preceding chapters to conceptualise and analyse the benefits of online company registration for Congolese immigrants, which constitute convincing arguments for CFBAP policymakers to adopt e-commerce technologies. Furthermore, the study has established that e-commerce adoption at CFBAP is positively related to improved supply chain management, marketing, finance, and management for both Congolese immigrants' businesses and Congo-Brazzaville national economy.

Moreover, Congo-Brazzaville is ranked 144<sup>th</sup> out of 177 countries in terms of conducting business and living standards. Therefore, implementing an e-commerce website at CFBAP Brazzaville will enable Congo-Brazzaville immigrant entrepreneurs to contribute to the country's economic reconstruction, which will improve the country's ranking and boost CFBAP's profile and its partners in an aspect that is at the core of its values. Another important issue raised by the study is e-commerce related challenges. Here, the research findings reveal that Congolese immigrant entrepreneurs are able to reach the heights of e-commerce challenges, which include cultural background, IT infrastructure, security and privacy, illiteracy, organisation, fraud and public policy. Nevertheless, respondents ascertained that potentially they can contain any known IT related challenge, which may arise when interacting with CFBAP agents online if the service was offered.

However, as mentioned earlier as part of the research problem, if sufficient attention is not paid to the necessity of implementing an e-commerce website at CFBAP, Congo-Brazzaville immigrants' businesses will hardly secure long term profits. Therefore, increased supply chain management expenses will hinder Congolese immigrants' entrepreneurial ventures, and compromise the country's GDP. Indeed, the findings of the research collaborate with the above mentioned research problem. In fact, CFBAP, which falls under the jurisdiction of the Ministry of Small and Medium-Sized Enterprises and Crafts in Brazzaville should capitalise on Internet properties, namely low cost standards, time moderator and universality to enable Congolese immigrant entrepreneurs to minimise supply chain management costs and to secure long term profits. As shown in Chapters 4 and 5, in order to answer the research questions, the responses obtained from respondents show that the focal point of online company registration was to promote the use of e-commerce and convergent technologies, which will enable a more convenient distribution of CFBAP services than ever before.

Inductive reasoning, which went from Congolese immigrant entrepreneurs' specific e-commerce requirements to general issues of online company registration at CFBAP, and deductive reasoning, which went from CFBAP's lack e-commerce website analysis to Congolese immigrant entrepreneurs' e-commerce demand, were employed to summarise the research data. The purpose was to determine the relationship between research variables, and if there was a relationship, what action should follow. Furthermore, correlation and causation analysis were utilised. The rationale of correlation was used to determine and interpret possible relationships, which exist between two or more variables, which may be useful for Congo-Brazzaville policymakers to make informed predictions.

However, to link Congolese immigrant entrepreneurs' necessity of online company registration and CFBAP's e-commerce website adoption, the current author differentiated correlation from causation. In this regard, even though Congolese immigrant entrepreneurs' online company registration is positively related to the potential CFBAP's e-commerce website, data analysis revealed that CFBAP's potential e-commerce website

will cause online company registration in Congo-Brazzaville. The author meant that where research variables are correlated (for example online company registration is correlated to CFBAP's potential e-commerce website) and have a causal relationship (for example potential CFBAP's e-commerce website will cause online company registration), one variable will enable both e-commerce users and providers to differentiate from another variable. Recently, the author's deductive reasoning outcomes appeared convincing. Indeed, e-commerce has increased the pace of product and service distribution globally, which will enable Decision Support Systems (DSS) that aid users to generate service without direct involvement from the service company employee in Congo-Brazzaville.

If Congolese immigrant entrepreneurs avail CFBAP services through e-commerce technologies they will receive more benefits in terms of time, cost and energy. Likewise, CFBAP will reduce personnel costs and gain closer access to customers. Based on this concern, the present author has outlined some tangible, but not exclusive, recommendations concerning online company registration for Congolese immigrants. These recommendations are chartered below.

## **6.2 Recommendations**

### **1. Common commitment towards businesses expansion in Congo- Brazzaville**

There is an urgent need for common commitment towards online business expansion in Congo-Brazzaville for Congolese immigrant entrepreneurs. Online business expansion will focus on reducing supply chain management costs and securing Congolese immigrant entrepreneurs' business profits. Furthermore, supported online business expansion will point to the fact that like SMMEs, e-commerce will improve the country's GDP and its world ranking, and finally boost CFBAP's profile and that of its partners in an aspect that is at the core of its values. Online business expansion constitutes an opportunity for Congolese immigrant entrepreneurs who daily face xenophobic attacks and a lack of access to resources, to secure a path of relocation through business growth in a safer and "*ubuntu*" environment in order to reach self-actualisation instead of being constantly called "*kwere-Kwere*" which means "foreigner". Therefore, there should be a

need to implement an e-commerce website, which will offer an online company registration service in Congo-Brazzaville, which has innate inclination towards dignified global business growth, stimulates Congolese entrepreneurial mindsets and will psychologically enable Congo-Brazzaville immigrant entrepreneurs to prepare to return home.

## **2. Successful business venture through CFBAP e-commerce website**

In respect of online business expansion in Congo-Brazzaville, the potential CFBAP e-commerce website, which will impact positively on Congo-Brazzaville demographics, should first be implemented. A majority of Congo-Brazzaville immigrant entrepreneurs cannot profess a successful business venture through the CFBAP e-commerce website when traditional business registration rules the business world in Congo-Brazzaville. E-commerce, which refers to conducting business via the Internet, should extend to every nook and cranny of CFBAP's administration. Hence, those who carry public responsibility as top managers at CFBAP will set the tone within CFBAP's administration, set the style of vigour, imagination and efficiency within CFBAP's potential e-commerce website, from which online company registration service will receive expected respect. In fact, Congo-Brazzaville immigrant entrepreneurs who profess successful business ventures through the CFBAP e-commerce website will finally be heard and seen. Finally, the overarching set of beliefs and ICT assumptions that are unquestioned will enable Congolese policymakers to build a mental picture, which promotes understanding of e-commerce within Congo-Brazzaville's cultural context.

## **3. CFBAP should comply with General Agreement on Trade in Services (GATS) standards**

In addition to a successful business venture through CFBAP's e-commerce website, there is a need for Congolese CFBAP to comply with General Agreement on Trade in Services (GATS) standards, which includes online company registration and e-commerce liberalization in Congo-Brazzaville, which will enable the country to begin online trading with industries that have a comparative advantage. There should be e-commerce liberalization in Congo-Brazzaville, which is economically and culturally justified on the

grounds that ICT is negatively related to Congolese-French culture. This does not suggest that countries where a majority of people speak English do not have highest Internet diffusion compared to French speaking countries. However, e-commerce liberalization in Congo-Brazzaville will bridge the 2 digital divides gaps, namely between Congo-Brazzaville and the rest of the world, and between Congo-Brazzaville male and female entrepreneurs. Hence, research findings will appear convincing as it has been revealed that Congo-Brazzaville immigrant entrepreneurs fit into some of the Hofstede's five cultural dimensions regarding effective use of the Internet.

#### **4. An effective Internet awareness to use CFBAP e-commerce website**

Attuned with commitment to adhere to some important Doha GATS standards, there should a national agenda to improve ICT skills for all. However, the study has shown that education will not be a challenge for Congolese immigrant entrepreneurs who will use CFBAP's potential e-commerce website. Furthermore, Congolese immigrants urgently addressed a need to improve workers' Internet skills in Cape Town. There are also signs that Internet skills should be improved in Congo-Brazzaville, as there is a tendency to sacrifice the digital age for bureaucracy. Hence, in order to address this issue, the need for CFBAP, SMMEs and *Marien Ngouabi University* to monitor ICT theoretical and practical aspects for business and personal extent is, indeed, necessary. In addition, the degree to which present Congolese immigrant entrepreneurs lead business, hence the extent to which Internet skills earned outside the business world affects online business expansion; and the extent to which Congolese immigrant entrepreneurs contribute to the country's economic reconstruction will be positively linked to CFBAP's e-commerce website's reliability.

#### **5. Potential CFBAP e-commerce website should be reliable**

In agreement with effective Internet awareness to utilise the potential CFBAP e-commerce website, there is a requirement for that potential CFBAP e-commerce website to publish reliable information. This measure is in full recognition of the fact that Congolese immigrant entrepreneurs who will use CFBAP's potential e-commerce website will face security, privacy and trust issues. Therefore, the social connotations of

the above assertions imply that CFBAP policymakers are left with no other alternative but to consider protecting Congolese immigrant entrepreneurs, should the plan to implement CFBAP's e-commerce website be executed. There is a need for CFBAP managers to consider effective communication not only with the Ministry of Small and Medium-Sized Enterprises and Crafts whose jurisdiction it falls under, but with other institutions, namely the Ministry of Science and Technology, Ministry of Communication, Ministry of Finance and the Bank of Central African States. Moreover, Congo-Brazzaville policymakers at each institution should try as far as possible to be concerned, friendly, and attentive towards the benefits of online company registration for Congolese immigrant entrepreneurs. This attitude will positively affect SMMEs' productivity and boost further investment in Brazzaville, which will improve the country's GDP. However, the degree to which CFBAP's e-commerce website is reliable is positively related to the country's legal system's reliability.

#### **6. Congo-Brazzaville's legal system reliability as e-commerce motivation**

In respect of CFBAP's e-commerce website information reliability, the Congo-Brazzaville legislator should endeavor to give room to e-commerce legislation. Indeed, e-commerce can only thrive in the presence of effective e-commerce legislation, which will tackle e-consumer protection issues. Moreover, crafting new legislation in the area of e-commerce will require an addition to the public budget, which will be adjusted by the government. The rationale is that Congolese Internet legislation will enable Congo-Brazzaville immigrant entrepreneurs to trust the CFBAP e-commerce website and utilise its online company registration service with peace of mind and the assurance of being protected in the host country in case of any disruption. In addition, the end-game of this measure will be accumulation of SMMEs' various e-commerce benefits, namely increased profits, expanded investments in the whole country and a reduction in the level of unemployment.

## **7. Perceived benefits of online business registration for Congolese immigrant entrepreneurs and Congo-Brazzaville**

In addition to other suggestions, there are perceived benefits of online company registration for Congolese immigrant entrepreneurs. These benefits include registration of new business; increased speed in financial operations; a quick process of VAT declaration; improved customs declaration; easy environmental permits application; reduced advertisement costs; increased corporate profits and the country's GDP; reduced operating costs; increased return on investment; facilitated procurement; enhanced entrepreneurs' life-long learning; and submission of data to the Congolese statistical office. In addition, the potential CFBAP's e-commerce website should be linked to the corporate mission statement, which aims to "*ease company registration process*". There should also be comprehensive e-commerce SMME support programmes that would have clear objectives because e-commerce is merely a technology. Therefore, any policy that is contrary to this objective should be discouraged or curtailed. At a national level, the Congo-Brazzaville Ministry of Science and Technology, Ministry of Communication, Ministry of Finance and *Banque des Etats de l'Afrique Centrale (BEAC)*: Bank of Central African States, should improve their functioning structures if an e-commerce website is implemented at CFBAP.

The implication of this is that those bureaucratic company registration practices should be properly documented, monitored and, as far as possible, be minimized. The goal of the Congo-Brazzaville government, as well as private companies should be focused on expansion of e-commerce practices, which create employment opportunities. Instead of resisting e-commerce adoption, the government should enter into a joint venture with SMMEs through e-commerce. This will ensure that more jobs are created in Congo-Brazzaville; and that more people are involved in the country's economic reconstruction. However, job creation based on SMME support programs and ICT liberalization in Congo-Brazzaville will be effective if Congolese immigrant entrepreneur e-commerce users have proven that they are able to overcome e-commerce challenges, and thereby add value to CFBAP's potential paperless administration.



## **8. CFBAP should develop an electronic administration strategy**

In line with perceived benefits of online business registration for Congolese immigrant entrepreneurs and the Congo-Brazzaville national economy, CFBAP should develop an electronic administration strategy. The rationale for this would be to serve Congolese SMMEs. However, the regulation of online company registration in Congo-Brazzaville and a commitment to creation of jobs through SMME support programs would be futile in the absence of well-established administration at CFBAP. In addition, paperwork administration has kept the country behind through bureaucracy. Therefore, the only hope left to revitalise CFBAP's administration is to adopt electronic administration. In this sense, paperwork administration should be complemented with electronic administration, and electronic administration should be ready to function within paperwork administration. In fact, there is a need to complement positive aspects of both paperwork and electronic administration system at CFBAP.

## **6.3 Conclusions**

Before finalising this thesis, it is worthwhile to provide an overview of the previous chapter. CFBAP is Congo-Brazzaville's one-stop shop, which focuses on offline business registration and VAT collection in the country. It has made significant progress in brick-and-mortar business registration and VAT collection. However, online business registration is a service, which Congo-Brazzaville immigrant entrepreneurs are demanding. Therefore, CFBAP should emphasise adopting e-commerce within its company registration operations, since the Internet has dramatically changed the role of technology in the business world.

As mentioned earlier, the statement of the research problem was that if sufficient attention is not paid to the necessity of implementing an e-commerce website at CFBAP, Congo-Brazzaville immigrant entrepreneurs' business in Brazzaville will hardly secure long term profits. Therefore, increased supply chain management expenses will hinder entrepreneurial ventures, and compromise the country's GDP. In order to achieve the research objectives, an investigation was conducted among Congolese immigrant entrepreneurs in Cape Town via participant observation, focus group discussions and

self-administered questionnaires. Extensive focus group meetings were held with the top 5 Congolese immigrant entrepreneurs to assess motivating factors and reasons why Congolese immigrant entrepreneurs want online business registration service to be available at CFBAP in Brazzaville.

Questionnaires were distributed to Congolese immigrant members of the Congolese Association of Cape Town to obtain their views on issues that affect them regarding online business registration in Brazzaville whilst in Cape Town. An extensive study of related literature on the topic was undertaken. A multi-disciplinary approach was adopted, whereby literature from areas of e-commerce, organisational behaviour, economics, computer science, strategic management and other related disciplines were reviewed. Chapter 1 of the thesis dealt with an introduction and background of the problem; the statement of the research problem; the research questions; the objectives of the research; significance of the research; and the research methodology and design that were used for the research study.

In chapter 2, the researcher embarked on an extensive review of various literature to obtain a substantial background of the e-commerce revolution and successful business ventures, which include the historical evolution of computers, the Internet revolution, the role for e-commerce to Congolese immigrant entrepreneurs in management, finance, marketing and logistics, benefits of e-commerce for the economy of Congo-Brazzaville, and factors that hamper the use of e-commerce amongst Congolese immigrant entrepreneurs. However, all topics that were reviewed were relevant to the benefits of online business registration for Congolese immigrant entrepreneurs.

Chapter 3 dealt with the manner in which data was collected to answer the research questions, which were stated in Chapter 1. This was the main focus of the thesis. The chapter explored various research methodologies and adopted a combination of qualitative and quantitative research methods in order to gain better understanding of the research problem that was identified in order to obtain trustworthy and valid results. Beyond the participant observation technique, focus group meetings were held and

closed-ended questionnaires were distributed. The study was based on a particular population of Congolese immigrant entrepreneurs who live in Cape Town and members of the Congolese Association of Cape Town. Therefore, a sample size of N = 116 Congo-Brazzaville immigrant entrepreneurs was used, and 116 of them replied. Considering that the research was a matter of national pride, 100 % participation in the research meant that there was clearly support to increase the number of Congo-Brazzaville post-graduates.

Chapter 4 dealt with data analysis, which was collected through focus group discussions, questionnaires and other relevant documents, and interpretation. In addition, SPSS was utilised to analyse quantitative data (questionnaires) by using tables to illustrate the percentage of responses for different questions and statements. Moreover, results that were drawn were recorded in the form of frequencies and correlations between variables, which were established; hence the nature of action that should be taken was recommended. Also, content-based analysis was used to analyse qualitative data from the focus groups.

Chapter 5 dealt with a discussion of results, which was the core aspect of the research as it answered questions that was posed in the research problem that was identified in Chapter 1. A critical analysis of this chapter points positively to the fact that if online company registration service is offered in Brazzaville, Congolese immigrant entrepreneurs will expand their online business, which will enable them to save on supply chain management costs, secure SMMEs' profits and contribute to the country's GDP. The current author postulates that the above mentioned improvements can be achieved only when CFBAP implements an e-commerce website, which will offer online company registration. The chapter concluded by noting that the research findings matched the research problem that was identified.

Hence, based on the subsidiary conclusions, the present author has no other alternative but to conclude that online company registration is the best alternative for Congo-Brazzaville immigrant entrepreneurs' business expansion in Congo. There is indeed a positive relationship between perceived online company registration benefits for

Congolese immigrant entrepreneurs and business expansion. However, e-commerce website adoption at CFBAP is positively related to the country's legal system reliability and users' triumph over e-commerce challenges. In future, a study should be conducted concerning the benefits of online company registration for service providers because all CFBAP agencies in Congo-Brazzaville only offer offline company registration services, which are largely bureaucratic. Nevertheless, if suggestions that are postulated above are taken into consideration, e-commerce will leverage the country's World Bank ranking in terms of standards of conducting business and will boost the pride of CFBAP, as an organisation, and of the country, in general.

## **Bibliography**

Aaker, D.A. 2008. *Strategic market management*. New Jersey: John Wiley & Sons.

Afuah, A. & Tucci, C.L. 2001. *Internet business models and strategy: Text and cases*. New York: McGraw-Hill.

Ahmed, H. 2010. Benefits of Banner Ads. Available at:  
<http://ezinearticles.com/?Benefits-of-Banner-Ads&id=589677> [Accessed on 20/12/2010].

Aljifri, H.A., Pons, A. & Collins, D. 2003. Global e-commerce: a framework for understanding and overcoming the trust barrier. *Information Management & Computer Security*. Vol. 11 (3). Pp . 130-138.

Al-Gaith, W., Sanzoni, L. & Sandhu, K. 2010. Factors influencing the adoption and usage of online services in Saudi Arabia. *Electronic Journal of Information Systems*. Vol. 40 (1). Pp 1-32.

Al-Qirim, N.A. & Bathula, H. 2002. IT e-commerce outsourcing in Small to Medium-Size Enterprises in New Zealand: An Explanatory Research. 15<sup>th</sup> Bled Electronic Commerce Conference. June 17-19, 2002.

Amor, D. 2002. 2<sup>nd</sup> ed. *The e-business (r) evolution: Living and working in an interconnected World*. Upper Saddle River: Prentice Hall.

American Sociological Association. 2003. The Importance of Collecting Data and Doing Social Scientific Research on Race. Available at:  
[http://www2.asanet.org/media/asa\\_race\\_statement.pdf](http://www2.asanet.org/media/asa_race_statement.pdf) [Accessed on 02/02/2011].

Answers.com. 2010. What is the importance of computer in engineering? Available at:  
[http://wiki.answers.com/Q/What\\_is\\_the\\_importance\\_of\\_computer\\_in\\_engineering#ixzz17f6qz63z](http://wiki.answers.com/Q/What_is_the_importance_of_computer_in_engineering#ixzz17f6qz63z) [Accessed on 07/12/2010].

- Associated Content. 2010. How computers are making sports safer. Available at:  
[http://www.associatedcontent.com/article/47937/how\\_computers\\_are\\_making\\_sports\\_safer.html](http://www.associatedcontent.com/article/47937/how_computers_are_making_sports_safer.html) [Accessed on 10/12/2010].
- Armstrong, L. 1998. Ford slips a neural net under the hood. *Business Week*, 28 September 1998. Available at: <http://www.businessweek.com>.
- Babbie, E. and Mouton, J. 2001. *The practice of social research*. South Africa Ed. Cape Town: Oxford University Press.
- Babbie, E. & Mouton, J. 2009. *The practice of social research*. Cape Town: Oxford University Press.
- Babbie, R. Earl. 2010. 12<sup>th</sup> ed. *The Practice of Social Research*. Wadsworth: Cengage Learning.
- Barber, M. 2010. Advantages to computers in the food & beverage industry. Available at:  
<http://ezinearticles.com/?Advantages-to-Computers-in-the-Food-and-Beverage-Industry&id=222039> [Accessed on 14/12/2010].
- Botha, A.R., Bothma, C.H., Geldenhyus, P. Singh, A.M., Van der Merwe, D., Booysen, H. & Fourie, I. 2004. *Managing e-commerce*. Paarl: Juta.
- Bellis, M. 2011. Inventors of the modern computer. Available at:  
<http://inventors.about.com/library/weekly/aa052198.htm> [Accessed on 23/01/2011].
- Best Price Computers.2010. What are Management Information Systems? Available at:  
<http://www.bestpricecomputers.co.uk/glossary/management-information-system.htm>  
[Accessed on 17/12/2010].

Bester, A. 2006. Information systems performance in the construction sector: the role of the chief executive officer. Cape Town: Cape peninsula university of Technology unpublished MTech thesis.

Bharati, P. & Chaudhury, A. 2004. An Empirical Investigation of Decision – Making Satisfaction in Web-Based Decision Support Systems. *Decision Support System*. Vol. 37. (2). Pp. 187-197.

Bharati, P. 2005. India's IT services industry: a comparative analysis. *IEEE Computer*. Vol. 38 (1). Pp. 71-75.

Bharati, P. & Chaudhury, A. 2006. Current status of technology adoption: Micro, small and medium manufacturing firms in Boston. *Communications of ACM*. Vol. 49 (10).Pp 88-93.

Blackmore, P. & Blackwell, R. 2003. *Towards strategic staff development in higher education*. Maidenhead: Open University Press.

Blurtit. 2010. What are the advantages and disadvantages of computer data processing over manual data processing? Available at:  
<http://www.blurtit.com/q9834095.html> [Accessed on 15/12/2010].

Bless, C., Higson, C. & Kagee, A. 2006. *Fundamentals of social research methods: An African perspective*. 4<sup>th</sup> ed. Cape Town: Juta.

Brace, I. 2004. *Questionnaire Design: How to plan, structure and write survey material for effective market research*. London: Kogan.

Brandon, P. & Tonhofer, D. 2011. Babbage's difference engine. Available at:  
<http://www.icons.org.uk/nom/nominations/babbage-s-difference-engine> [Accessed on 20/01/2011].

Brynard, P.A. & Hanekom, S.X. 2006. *Introduction to research in management-related fields*. Pretoria: Van Schaik.

Byers, S., Rubin, A.D. & Kormann, D. 2004. Defending against an Internet-based attack on physical World. *ACM Transaction on the Internet Technology (TOIT)*, 4(3). Pp. 239-254.

Cap Gemini .2006. Online Availability of Public Services: How Is Europe Progressing?, available:

[http://europa.eu.int/information\\_society/eeurope/i2010/docs/benchmarking/online\\_availability\\_2006.pdf](http://europa.eu.int/information_society/eeurope/i2010/docs/benchmarking/online_availability_2006.pdf) [Accessed on 18/03/2010].

Computer Hope. 2010. What types of jobs are available in the computer industry?

Available at:

<http://www.computerhope.com/issues/ch000764.htm> [Accessed on 17/12/2010].

Cassidy, A. 2002. A Practical guide to planning e-business success: *How to e-enable your enterprise*. Florida: CRC Press.

Campus Udayton. 2010. Second generation computers. Available at:

<http://campus.udayton.edu/~hume/Computers/second.htm> [Accessed on 21/01/2011].

Ced Magic. 2010. 1952: UNIVAC computer used to predict the 1952 election. Available at: <http://www.cedmagic.com/history/univac-cronkite.html> [Accessed on 04/01/2011].

Chemistry Explained. 2011. Kekulé, Friedrich August. Available at:

<http://www.chemistryexplained.com/Hy-Kr/Kekul-Friedrich-August.html> [Accessed on 27/01/2011].



Chen, S. 2005. *Strategic management of e-business*: Chichester: John Wiley & Sons.

Cherry, K.2011. What are descriptive statistics? Available at:

<http://psychology.about.com/od/dindex/g/descstats.htm> [Accessed on 06/02/2011].

Cherry, K. 2010. What is correlation? Available at:

[http://psychology.about.com/od/cindex/g/def\\_correlation.htm](http://psychology.about.com/od/cindex/g/def_correlation.htm) [Accessed on 08/02/2011].

Clear Books. 2010. Online VAT return. Available at:

<http://www.clearbooks.co.uk/partners/case-study/online-vat-return/>

[Accessed on 20/12/2010].

Columbia Education. 2009. Herman Hollerith. Available at:

<http://www.columbia.edu/acis/history/hollerith.html> [Accessed on 21/01/2011].

Computer Supports. 2009. Third generation computers (1964?-). Available at:

<http://computer-supports.com/third-generation-computers-1964/> [Accessed on 22/01/2011].

Daniel, L. 1998. Artificial Intelligence gets real. *Forbes*, 30 November 1998.

David, F.R. 2007. *Strategic management: Concepts and Cases*. Upper Saddle River: Pearson.

David, B. & Resnik, J.D. 2010. What is Ethics in Research & Why is It Important?

Available at: <http://www.niehs.nih.gov/research/resources/bioethics/whatis.cfm>

[Accessed on 02/02/2011].

David, M. 2011. Descriptive statistics. Available at:

<http://davidmlane.com/hyperstat/A28521.html> [Accessed on 07/02/2011].

Durie, B. 2001. *E-Business essentials*. Oxford: How to books.

Documents for Small Business & Professionals. 2010. Input process, Output diagrams. Available at:

<http://www.docstoc.com/docs/4220218/Input-Process-Output-Diagram-Inputs-Materials-or-Resources-Processes> [Accessed on 22/01/2011].

Dhhs. 2011. Data collection. Available at:

[http://ori.dhhs.gov/education/products/n\\_illinois\\_u/datamanagement/dctopic.html](http://ori.dhhs.gov/education/products/n_illinois_u/datamanagement/dctopic.html)

[Accessed on 01/02/2011].

Drago, J. 2010. The advantages of court reporting video services. Available at:

<http://ezinearticles.com/?The-Advantages-of-Court-Reporting-Video-Services&id=5591716> [Accessed on 23/01/2011].

E-commerce Juice. 2010. Landing pages can increase your conversions exponentially overnight. Available at: <http://www.ecommercejuice.com/2010/06/landing-pages-can-increase-your-conversions-exponentially-overnight/> [Accessed on 20/10/2010].

E-commerce Juice. 2010. Using Google Pay Per Click (PPC) to get immediate e-commerce sales. Available at: <http://www.ecommercejuice.com/2010/06/using-google-pay-per-click-ppc-to-get-immediate-ecommerce-sales> [Accessed on 20/12/2010].

Erwin, G. & Singh, S. The Emerging need for e-commerce accepted practice (ECAP). In Lubbe, S. & Van Heerden, 2003. *The Economic and social impact of e-commerce*. Hershey: Idea Publishing Group.

Fake, C. 2011. The role of education in entrepreneurship. Available at:

<http://www.readwriteweb.com/start/2010/04/the-role-of-education-in-entrepreneurship.php> [Accessed on 07/02/211].

Fielden, J. 1998. Higher education staff development: a continuing mission. Paper delivered at the World Conference on Higher Education, Paris, 5 – 9 October 1998.

Furnell, S. Tsagani, V. & Phippen, 2008. A Security beliefs and barriers for novice Internet users. *Computers & Security*, Vol. 27(7-8). Pp. 235.

*Forum des Jeunes Entreprises du Congo. 2010. Les PME de Brazzaville et de Pointe-Noire.* Available at : <http://www.fjec.org> [Accessed on 21/03/2010].

*Forum des Jeunes Entreprises du Congo. 2009. Les PME de Brazzaville et de Pointe-Noire.* Available at : <http://www.fjec.org> [Accessed on 21/03/2009].

Fact Index. 2011. Computer. Available at:

<http://www.fact-index.com/c/co/computer.html> [Accessed on 19/01/2011].

Faruque, S. 2010. Quantitative Vs. Qualitative Research methods. Available at:

<http://www.suite101.com/content/quantitative-vs-qualitative-research-methods-in-sociology-a320362> [Accessed on 02/02/2011].

*Forum des Jeunes Entreprises du Congo. 2010.* Available at: <http://fjec.org> [Accessed on 0/04/2010].

Family Health International. 2011. Qualitative research methods: a data collector's field guide. Available at:

<http://www.fhi.org/nr/rdonlyres/etl7vogszehu5s4stpzb3tyqlpp7rojv4waq37elpbyei3tgmc4ty6dunbccfzxtaj2rvbaubzmz4f/overview1.pdf> [Accessed on 01/02/2011].

Françalani, C. & Morato, V. 2008. Integration and business performance. *Journal of Information Technology*, Vol. 23. (4) Pp. 303-310.

Frei, J. 2010. How computers benefit society. *Helium*. Available at:  
<http://www.helium.com/items/640725-how-computers-benefit-society> [Accessed on 17/12/2010]. Pp.1-2.

Gavetter, F.J & Forzano, Lori-Ann B. 2009. *Research methods for the behavioural sciences*. Belmont: Wadsworth.

Giddens, A. 1995. *Sociology*. 2<sup>nd</sup> ed. Cambridge: Polity Press.

Gibson, R. Online customer service. In Lubbe, S. & Van Heerden, J.M. (eds). 2003. *The economic and social impact of e-commerce*. Hershey: Idea Group.

Goldstein, I.L. & Ford, K.J. 2002. *Training in organizations: needs assessment, development, and evaluation*. 4<sup>th</sup> ed. Belmont, CA: Wadsworth.

Golafshani, N. 2003. Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*. Vol. 8. (4). Pp. 597-607.

Gomory, R.E. & Baumol, W.J. 2004. Globalisation: Prospects, promise and problems. *Journal of Policy Modelling*, 26: 452-438.

Goddart, W. & Mellville, S. 2001. *Research methodology: an introduction*. Paarl: Juta.

Goold, B. 2011. Multipurpose News. Available at:  
<http://www.medipurpose.com/2011-news/> [Accessed on 19/01/2011].

George, B.C. 2005. Qualitative methods. Available at:  
<http://webspace.ship.edu/cgboer/genpsyqualmeth.html> [Accessed on 31/01/2011].

Gupta, A. 2009. Definition of data processing. Available at:  
<http://www.articlesbase.com/outsourcing-articles/definition-of-data-processing-716308.html> [Accessed on 17/12/2010].

Gray, D.E. 2009. 2<sup>nd</sup> Ed. *Doing research in the real world*. London: Sage Publications.

Graham, M. 2011. Disintermediation, altered chains and altered geographies: the internet in the Thai silk industry. *The Electronic Journal on Information Systems in Developing Countries*. Vol. (45). 5. Pp. 1-25.

Grant, P. 2005. Bridging Qualitative and Quantitative Methods in Educational Research: Analysis of Patterns in Time and Configuration (APT&C). available at: <https://www.indiana.edu/~tedfrick/proposals/apt&c.pdf> [Accessed on 01/02/2011].

Greenfield. T (ed.). 2002. *Research methods for post graduates*. 2<sup>nd</sup> ed. London: Arnold.

Groves. R .M. Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E. & Tovrangean, R. (eds). 2004. *Survey Methodology*. New Jersey: John Wiley & Sons.

Gruppe, Fritz H., Tony Von, S., & Owrang, O. "An Executive's guide to Artificial Intelligence." *Information Strategy*, Fall 1995, 44-48.

Harris, L. 2007. Mobile Technology: Remote Control. *CIA Africa*, Quarter Two. Pp. 40.

Hargittai, E. 2010. Digital Na(t)ives? Variation in Internet Skills and Uses among Members of the ‘Net Generation. Available at: <http://www.webuse.org/pdf/Hargittai-DigitalNativesSI2010.pdf> [Accessed on 08/02/2011].

Henn, M., Weinstein, M. & Foard, N. 2009. 2<sup>nd</sup> ed. *A critical introduction to social research*. London: Sage Publications.

How. 2010. Early types of programming. Available at: [http://www.ehow.com/facts\\_5081374\\_invented-computer-programming.html](http://www.ehow.com/facts_5081374_invented-computer-programming.html) [accessed on 22/01/2011].

Hongxiu, L. & Yong, L. 2009. Measurement of e-service quality: an empirical study on online travel service. *Scholar One*. 17<sup>th</sup> European Conference on Information Systems. Pp. 1-13.

Hongxiu, L. & Reima, S. 2007. Evaluating electronic service quality: A Transaction process based evaluation model. In Dan, R. (ed). *Proceedings of the European Conference on Information Management and Evaluation*. Montpellier: 20-21. September 2007. Pp. 331-340.

[http://devdata.worldbank.org/AAG/cog\\_aag.pdf](http://devdata.worldbank.org/AAG/cog_aag.pdf) World Bank: Congo, Rep. at glance. 2009. [Accessed on 20/03/2009].

Hub Pages. 2010. UNIVAC. Available at: <http://hubpages.com/hub/UNIVAC> [Accessed on 04/01/2011].

*Impots*. 2010. available at: <http://www.impots.gouv.fr> [Accessed on 20/07/2010].

Importance of computers from 1946 to date. 2010. Available at: <http://en.allexperts.com/q/Computer-Science-3197/importance-computers-1946-date.htm> [Accessed on 04/12/2010].

Idea Finder. 2006. Jacquard Loom at glance. Available at: <http://www.ideafinder.com/history/inventions/jacquard.htm> [Accessed on 18/01/2011].

Indian Child, 2010. Computers: a blessing or curse? Advantages of computers. Available at: [http://www.indianchild.com/computers\\_blessing\\_or\\_curse.htm](http://www.indianchild.com/computers_blessing_or_curse.htm) [Accessed on 14/12/2010].

Inder Singh, A. 1998. *Information system and computer application: Introduction to computers, their types, history and generation*. Patiala: Punjabi University.

Info web links. 2010. Computers and sport. Available at:  
<http://www.infoweblinks.com/content/computersandsports.htm>  
[Accessed on 10/12/2010].

Internet Marketing For Newbies. 2011. Discover how to avoid dangerous business opportunity landmine. Available at:  
<http://blog.internetmarketing-fornewbies.com/beware-discover-how-to-avoid-the-dangerous-business-opportunity-landmine/> [Accessed on 07/02/2011].

IT History. 2010. Fourth generation of computers (1927-1984). Available at:  
[http://www.it-history.net/forth\\_generation.html](http://www.it-history.net/forth_generation.html) [Accessed on 21/01/2011].

IS City. 2010. Research methodology. Available at:  
<http://www.is.cityu.edu.hk/staff/isrobert/phd/ch3.pdf> [Accessed on 31/01/2011].

Javalgi, R.G. 2004. The Export of e-services in the age of technology transformation: challenges and implications for international service providers. *Journal of Services Marketing*, Vol. 18 (7).Pp. 560-573.

Joppe, M. 2000. *The Research Process*. Available at:  
<http://www.ryerson.ca/~mjoppe/rp.htm> [Accessed on 03/02/2011].

Johnson, J. 2011. How to make frequency tables. Available at:  
[http://www.ehow.com/how\\_4480973\\_make-frequency-tables.html](http://www.ehow.com/how_4480973_make-frequency-tables.html)  
[Accessed on 07/02/2011].

Jenkins, L. 2009. Fundamentals of quantitative research. Available at:  
<http://www.suite101.com/content/fundamentals-of-quantitative-research-a149406>  
[Accessed on 01/02/2011].

Kane-Berman, J. & Macfarlane, M. (Eds). 2008. *South African Survey 2007/2008*. Johannesburg: Institute of Race Relations.

Kash, W. 2009. Government computer network. Army sees benefits in social-media presence. Available at: <http://gcn.com/Articles/2009/10/27/Army-see-benefits-in-social-media-presence.aspx> [Accessed on 14/12/2010].

Kuchinskas, S. 2005. *Fraud Chewing E-commerce Profits*.  
<http://www.ecommerce-guide.com/news/research/article.php/3563526>  
[Accessed on 04/07/2010].

Kuratko, D.F. & Hodgetts, R. M. 2007. 7<sup>th</sup> ed. *Entrepreneurship: Theory, Process, Practice*. Quebec: Thomson.

Khumalo, F. Vilakhazi, D. & Greenstein, L. 2007. *Economics Study Guide: Exam Success*. Cape Town: Oxford Press.

Liebermann, Y. & Stashevsky, S. 2002. Perceived risks as barriers to Internet and e-commerce usage. *Qualitative Market Research: An International*, Vol. 5(4). Pp. 291-300.

Lith, I. 2011. Inductive reasoning vs. Deductive reasoning. Available at:  
<http://everything2.com/title/Inductive+reasoning+vs.+Deductive+reasoning> [Accessed on 19/02/2011].

Lina, H. 2006. Disadvantages of computers in our society? Available at:  
<http://answers.yahoo.com/question/index?qid=20061218192817AAqidq0> [Accessed on 17/12/2010].

Lipsky, J. 2007. International financial markets: stability and transparency in 21st century. *International monetary fund*, available at:  
<http://www.imf.org/external/np/speeches/2007/062007.htm> [Accessed on 20/12/2010].

List, D. 2005. Know your audience. Available at:  
<http://www.audienceialogue.net/kya16a.html> [Accessed on 07/02/2011].



Leedy, P.D. 1989. 4<sup>th</sup> ed. *Practical research: Planning and design*. New York: Macmillan.

Learn Higher. 2011. Advantages and disadvantages of qualitative data analysis. Available at: <http://www.learnhigher.ac.uk/analysethis/main/qualitative1.html> [Accessed on 31/01/2011].

Maksimovic, Z. 2010. What Is Return On Investment (ROI)? Available at: <http://www.buzzle.com/articles/what-is-return-on-investment-roi.html> [Accessed on 20/12/2010].

Molina, M. 2010. The Advantages and disadvantages of a computer work at Home business. Available at: <http://ezinearticles.com/?The-Advantages-and-Disadvantages-of-a-Computer-Work-at-Home-Business&id=1121868> [Accessed on 13/12/2010].

Manohar, U. 2011. List of famous inventors. Available at: <http://www.buzzle.com/articles/list-of-famous-inventors.html> [Accessed on 25/01/211].

Mavoungou, R. 2008. CFBAP director's interview with the World Bank Brazzaville office. <http://www.ddp-exp.worldbank/.org> [Accessed on 29 March 2009].

Mutula, S.M.2008. Digital divide and economic development: case study of sub-Saharan Africa. *The Electronic Library*. Vol. 26. (4). Pp. 468- 489.

Munukka, K. 2005. Bridging the digital divide? Development of information society in Namibia - conception of the local actors. University of Temper.

Merriam, 2011. Frequency distribution. Available at: <http://www.merriam-webster.com/dictionary/frequency%20distribution> [Accessed on 07/02/2011].

Medical Tourism Corporation. 2010. Computer-aided assisted. Available at:  
<http://www.medicaltourismco.com/medical-tourism/computer-aided-assisted-total-knee-replacement-surgery-hospital-surgeons-in-india/> [Accessed on 21/01/2011].

Mouton, J. 2008. How to succeed master's and doctoral studies.

Myers, M.D. 1997. Qualitative research in information systems. *MIS Quarterly*, 21(2):241-242.

McDaniel, L.H. & Terblanche, B. 2004. 2<sup>nd</sup> Ed. *Marketing: South African edition*. Cape Town: Oxford University Press.

McClelland, J. 2010. Reaping the benefits of computers: factors encouraging and discouraging computer use. *JOE Technical Support*. ISSN: 1077-5315. Available at:  
<http://www.joe.org/joe/1986summer/a3.php> [Accessed on 22/01/2011].

Neal, J. 2005. A case study in software implementation. Available at:  
[http://www.inventorymanagementreview.org/case\\_studies/](http://www.inventorymanagementreview.org/case_studies/) [Accessed on 25/01/2011].

Neena, B. 1997. Just Don't Call It AI. *Computerworld*, 13 January 1997.

Nieman, G., Hough, J. & Nieuwenhuizen, C. (eds). 2003. *Entrepreneurship: A South African perspective*. Pretoria: Van Schaik.

News Center. 2009. First integrated circuit invented by Jack Kilby. Available at:  
<http://newscenter.ti.com/media/p/2884.aspx> [Accessed on 02/01/2011].

New York Education. 2011. What is research design? Available at:  
<http://www.nyu.edu/classes/bkg/methods/005847ch1.pdf> [Accessed on 31/01/2011].

Ngo, D. 2011. Observation methods. Available at:  
<http://www.humanresources.hrvinet.com/observation-methods/>  
[Accessed on 02/02/2011].

Nguyen Thuy, V. 2008. E-commerce support technology standard application in Vietnam. Available at:

[http://www.unescap.org/tid/projects/tfforum\\_bs2\\_vynote.pdf](http://www.unescap.org/tid/projects/tfforum_bs2_vynote.pdf)

[Accessed on 08/02/2011].

Oak, M. 2010. The Importance of Computers in Medicine. Available at:

<http://www.buzzle.com/articles/importance-of-computers-in-medicine.html>

[Accessed on 01/12/2010].

OECD. 2010. Central Europe B2C E-commerce report 2010. Available at:

<http://www.slideshare.net/ReportLinker/central-europe-b2c-ecommerce-report-2010>

[accessed on 21/01/2011]

Old Computers. 2010. MITS Altair 8800. Available at:

<http://oldcomputers.net/altair.html> [Accessed on 28/01/2011].

Ozzie, R. 2009. Can Ray Ozzie fix the house that Bill built? *Wire*. Vol. 6. (12). Pp. 172-179.

Pathak, J. 2004. Guest editorial: Risk management, internal controls and organisation vulnerabilities. *Managerial Auditing Journal*, Vol. 20(6). Pp. 569-577.

Pillai, P. 2010. Uses of computer. Available at:

<http://www.buzzle.com/articles/uses-of-computer.html> [Accessed on 12/12/2010].

Pilgrim, G. 2010. Who invented the first computer? Available at:

<http://www.buzzle.com/articles/who-invented-the-first-computer.html>

[Accessed on 01/01/2011].

Pieper, G. 2011. What makes a computer works? Available at:

[http://www.ehow.com/video\\_4987260\\_computer-work\\_.html](http://www.ehow.com/video_4987260_computer-work_.html)

[Accessed on 27/01/2011].

Pearson's correlation. Available at:

<http://academic.uofs.edu/departments/psych/methods/cannon99/level1a.html>

[Accessed on 20/11/2010].

PC Laptop Repair. 2010. Importance of Computers in Sports. Available at:

<http://www.pclaptoprepairs.com/computer-repairs/default.asp?p=importance-of-computers-in-sports> [Accessed on 10/12/2010].

Price Water House Coopers. 2007/2008. *Gaffiny's local government in South Africa*. Sandton: Graffiny Group.

Professors House. 2011. First computer invented. Available at:

<http://www.professorhouse.com/Living/Technology/Computers/Articles/First-Computer-Invented/> [Accessed on 03/01/2011].

Prensky, M. 2001. Digital Natives, Digital Immigrants. *MCB University Press*, Vol. 9 (5).

Pbs. 2010. Integrated circuits. Available at:

<http://www.pbs.org/transistor/background1/events/icinv.html> [Accessed on 21/01/2011].

Random Number Table. Available at: <http://statrek.com/Tables/Random.aspx>

[Accessed on 25/10/2010].

Reference for business. 2010. [Artificial Intelligence \(AI\) - benefits](#). Available at:

<http://www.referenceforbusiness.com/encyclopedia/A-Ar/Artificial-Intelligence-AI.html#ixzz181xsMrXi> [Accessed on 14/12/2010].

Remenyi, D. & Sherwood-Smith, M. 1999. Maximize Information Systems value by continues Participative Evaluation. *Logistics Information Management*. Vol. 12(2). Pp. 14-31.

Rifkin, J. 1995. *The end of work: The decline of global labour force and the dawn of the post market era*. New York: Putman.

Rosenberg, R.S. 2004. *The social impact of computers*. California: Elsevier Academic Press.

Reade, C. 2008. Define computer hardware. Available at:  
<http://ezinearticles.com/?Define-Computer-Hardware&id=1665675>  
[Accessed on 20/012011].

Sandhyarani, N. 2010. Advantages of Computers. Available at:  
<http://www.buzzle.com/articles/advantages-of-computers.html>  
[Accessed on 11/12/2010].

Samples and sampling. Available at: <http://ccnmtl.columbia.edu>. [Accessed on 20/10/2010].

Sidhu, D. 2011. ECommerce Business - Importance of Supporting Expansion With Technology. Available at: <http://www.ezinearticles.org>  
[Accessed on 07/02/2011].

Singleton, R.A. & Straits, B.C. 2005. . 4<sup>th</sup> ed. *Approaches to social research*. New York: Oxford University Press.

Seddon, P.B. 1997. A Re-specification and extension of the Delone and McLean Model of IS Success. *Information Systems Research*. Vol. 8(3). Pp 240-253.

Seetharaman, A. Low, K. L.T. & Saravan, A.S. 2004. Comparative justification on intellectual capital. *Journal of Intellectual Capital*. Vol. 5. (4). Pp. 522- 539.

South Africa Survey. 2007/2008. Institute of Race Relations. Johannesburg.

Shah, V. & Kamlesh, T & Metha, T. 1998. Workforce, information technology and global unemployment. *Industrial Management & Data Systems*, 98 (5): 226-231.

Sharma, S.K., & Gupta, J.N.D. 2003. Adverse effects of e-commerce. In Lubbe, S. & Van Heerden, J.M. (eds). *The Economic and social impact of electronic commerce in developing countries*. London: Idea Group Publishing. Pp. 33-49.

Sholte, J.A. 2000. Globalisation: a critical introduction. Basingstoke: Macmillan.

Shivute, M.I. 2007. The use of information and communication technology for health services in Namibia. Unpublished MTech thesis. Cape Peninsula University of Technology, Cape Town.

Schaub, K. 2008. Quantitative Methods: MBAC 6030. Available at:

<http://leeds-faculty.colorado.edu/schaub/>

[Accessed on 01/02/2011].

Schuster, S. 2011. The advantages of quantitative evaluation. Available at:

[http://www.ehow.com/list\\_7615466\\_advantages-quantitative-evaluation.html](http://www.ehow.com/list_7615466_advantages-quantitative-evaluation.html)

[Accessed on 01/02/2011].

Slabbert, A. 1996. Capitalism at the crossroads. *International Journal of Social Economics*, 23 (9):41-50.

Slabbert, 2006. *The Knowledge based society and structural unemployment: Mutually exclusive concepts?* Paper delivered at the World Science Academy Venice, Italy.

Šumak, B., Polančič, G. & Heričko, M. 2009. Towards an e-service knowledge system for improving the quality and adoption of e-services. *22nd Bled e-Conference*. June 14 - 17, 2009; Bled, Slovenia.

Sutton, S. & Hampton, C. 2003. Risk assessment in an extended enterprise environment: redefining the audit mode. *International Journal of Accounting Information Systems*, 4(1).Pp. 37-73.

Survey, 2010. Momo, A.M. *The benefits of online company registration for Congolese immigrant entrepreneurs: Congolese Association of Cape Town*. Unpublished Report of Congolese Association of Cape Town. Cape Town.

Stat Trek. 2010. Teach yourself Statistics: Random number table. Available at: <http://stattrek.com/Tables/Random.aspx> [Accessed on 02/10/2010].

Statistics South Africa. 2007, 2008 & 2009. Tourism and migration. Available at: <http://www.satssa.gov> [Accessed on 20/02/2009].

SPSS. 2010: regression models. Available at: <http://www.spss.com/statistics/regression/> [Accessed on 03 May 2009].

South African Survey. 2007/2008. Demographics. South African Institute of Race Relations: Johannesburg.

Stair, R.M. Jr. 1986. *Computers in today's World*. Homewood: Irwin.

Stock, J.R. & Lambert, D.M. 2001. 4<sup>th</sup> ed. *Strategic logistics management*. New York: McGraw-Hill.

Stokvis, R. 2001. *Knowledge and the nature of capitalism. Some Schumpeterian observation*. A paper presented at the 13<sup>th</sup> annula meeting on Social-Economics at University of Amsterdam, The Netherlands.

S3amazonaws. 2010. Response rates & survey techniques: Tips to enhance survey respondent participation. Available at:

[http://s3.amazonaws.com/SurveyMonkeyFiles/Response\\_Rates.pdf](http://s3.amazonaws.com/SurveyMonkeyFiles/Response_Rates.pdf)

[Accessed on 27/01/2010].

Student Enterprise Awards. 2011. What is a questionnaire? Available at:

<http://www.studententerprise.ie/questionnaires.html>

[Accessed on 02/02/2011].

Struwing, F.W. & Stead, G.B. 2001. *Planning, designing, and reporting research*. Cape Town: Pearson.

Thamarai S.N., Arasu,S. Sivagnanasundaram, M. 2011. Role of existing channels on customer adoption of new channels: a case of ATM and internet banking. *The Electronic Journal on Information Systems in Developing Countries*, Vol.45 (1). Pp. 1-15.

Terre Blanche, M. Durrheim, K. & Painter, D. (Eds). 2009. *Research in practice: Applied methods for social sciences*. Cape Town: University of Cape Town Press.

Thomas, A.B. 2004. *Research skills for management studies*. London: Routledge.

Teijlingen, E & Hundley, V. 2002. The importance of pilot studies. *Nursing Standards*. Vol. (16). 40. Pp. 33-36.

The Role of Computers in Manufacturing Engineering. 2010. Available at:

<http://www.123helpme.com/preview.asp?id=27613> [Accessed on 01/12/2010].

Think exist. 2010. Nelson Mandela quotes.

[http://thinkexist.com/quotation/education\\_is\\_the\\_great\\_engine\\_of\\_personal/152278.html](http://thinkexist.com/quotation/education_is_the_great_engine_of_personal/152278.html)

[Accessed on 31/12/2010]

The Role of Computers in Manufacturing Engineering. Available at:

<http://www.123helpme.com/preview.asp?id=27613> [Accessed on 01/12/2010].



Thomson, R. 2000. Real-time digital gauging for process control. *International Journal of Radiation Applications and Instrumentation*. Vol. 41 (10-11). Pp. 935-942.

Thomas, L. 2010. What are some of the differences between Primary & secondary Data? Available at: [http://www.ehow.com/list\\_7167531\\_differences-between-primary-secondary-data\\_.html](http://www.ehow.com/list_7167531_differences-between-primary-secondary-data_.html) [Accessed on 31/01/2011].

Skipec Chert. 2010. Twenty three Ways your business can use the Internet. Available at: <http://www.skipecchert.com/23ways.html> [Accessed on 25/11/2010].

Ukperere, W.I. 2007. The functional relationship between globalisation, internationalisation, human resources and industrial democracy. Cape Town: Cape Peninsula university of Technology. Unpublished DTech thesis.

Ukperere, W. 2009. Distinctiveness of globalisation and its implications for labour markets: an analysis of economic history from 1990-2007. *The Indian Economic Journal*, 56(4). Pp. 1-20.

United Nations Conference on Trade and Development. 2001. *Improving the competitiveness of SMEs in developing countries: The role of finance to enhance enterprise development*. New York: United Nations.

Universal Accreditation Board. 2003. Table for Determining Random Sample Size from a Given Population. Available at: <http://www.praccreditation.org/secure/documents/coachHO16.PDF> [Accessed on 02/02/2011].

Van Teijlingen, E & Hundley, V. 2002. The importance of pilot studies. *Nursing Standards*. Vol. (16). 40. Pp. 33-36.

Vinaja, R. 2003. In Lubbe, S. & Van Heerden. J.M. 2003. *The Economic and Social Impact of Electronic Commerce in Developing Countries*. Hershey: Idea Group. Pp. 22-32.

Vogt, J.J., Pienaar, W.J. & De Wit, PWC. 2003. *Business logistics management: Theory and practice*. Cape Town: Oxford University Press.

Walker, G. 2009. *Modern competitive strategy*. New York: McGraw Hill.

Walonick, D. 1993. Everything you want to know about questionnaires. Available at: <http://www.statpac.com/research-papers/questionnaires.htm> [Accessed on 02/02/2011].

Wise Geek. 2010. What is e-government? Available at: <http://www.wisegeek.com/what-is-e-government.htm> [Accessed on 14/12/2010].

Wilson, M. 2010. What are the benefits of computers in the home? Available at: [http://www.ehow.com/list\\_6197191\\_benefits-computers-home\\_.html](http://www.ehow.com/list_6197191_benefits-computers-home_.html) [Accessed on 04/12/2010].

Welman, J.C., Kruger, S.J. & Mitchell, B. 2006. *Research methodology*. 3<sup>rd</sup> ed. Cape Town: Oxford University Press.

Woon, I.M.Y. & Pee, L.G. 2004. Behavioural factors affecting internet abuse in the workplace: An Empirical investigation. *Proceedings for the third annual workshop on HCI Research in MIS, Washington, D.C.* December 10-11, 2004. Pp. 80-84.

World Bank. 2008. The Republic of Congo at a glance. Available at: <http://www.worldbank.org> [Accessed on 12/02/2009].

Word Iq. 2010. Real-time operating system. Available at: [http://www.wordiq.com/definition/Real\\_time\\_operating\\_system](http://www.wordiq.com/definition/Real_time_operating_system) [Accessed on 28/01/2011].

Writing, A. 2010. Benefits of fax machines. Available at:  
[http://www.ehow.com/list\\_6328090\\_benefits-fax-machines.html](http://www.ehow.com/list_6328090_benefits-fax-machines.html)  
[Accessed on 21/01/2011].

Writing. 2011. Advantages of closed-ended questions. Available at:  
<http://writing.colostate.edu/guides/research/survey/com4a2a1.cfm>  
[Accessed on 07/02/2011].

Yahoo answers.com. 2010. What is the importance of computer in mechanical engineering? Available at:  
<http://answers.yahoo.com/question/index?qid=20070830031806AA38e9t>  
[Accessed on 07/12/2010].

Yang, P.P. 2007. South African SMM owner/Managers' perception of e-commerce related risk. Unpublished MTech thesis. Cape Peninsula University of Technology. Cape Town.

Yin, R.K. 2003. *Case study research: design and methods*. 3<sup>rd</sup> ed. Thousand Oaks, CA: Sage.

Yu, T. Zhang, M.M. Southern, L. & Joiner, C. 2010. E-commerce safety and security: a statistical analysis of consumers' attitudes. Pp. 1-7.  
Available at:  
[http://www.iaicis.org/iis/2001\\_iis/pdf%20files/Yu494.PDF](http://www.iaicis.org/iis/2001_iis/pdf%20files/Yu494.PDF) [Accessed on 26/02/2011].

## **Appendix A: Questionnaire**

### **THE BENEFITS OF ONLINE COMPANY REGISTRATION FOR CONGOLESE IMMIGRANTS**



The purpose of this questionnaire is to analyse the benefits of online business registration for Congo-Brazzaville immigrants in Cape Town. The information given will help us to motivate CFBAP Brazzaville to adopt e-commerce technology, improve conditions of

conducting business in Congo-Brazzaville and create synergy for better economic co-operation between the Republic of Congo and South Africa. We would like to emphasize that your responses will be anonymous and will not be used for any other purposes.

For any query, please contact us on the details below:

Researcher: Alain Michael Momo

Supervisor: Prof. Ukpere I. Wilfred

Email:208134999@cput.ac.za

Email: ukperew@cput.ac.za

Cell phone: 076-461-62-65

Telephone:021-460-3113

Position: HOD Entrepreneurship

### Section 1: Demographic data

The information in this section will be used for profiling purposes only. Please *tick* (✓) only appropriate box:

1		Gender	
Male	1	Female	2

2	Your age:						
18 - 25	1	26 - 35	2	36 - 49	3	50 and above	4

3	What is your highest level of education?						
Primary School	1	High school	2	College	3	University	4

4	What is your marital status?						
Single	1	Married	2	Divorced	3	Other (Specify)	4

5	Dependents	Yes	1	No	2	If yes, how many?	
---	------------	-----	---	----	---	-------------------	--

6	How many years have you been working in Cape Town?								
0 - 2 years	1	3-5 years	2	6-8 years	3	9 - 11 years	4	12 or more	5

### Section 2: Benefits of online business registration in Brazzaville

Please *tick* (✓) the questions below about your entrepreneurial mindset:

7 Yes, I have a Business      1    No, I don't have one      2    I plan to have one      3

8 What is your business gross assets value? (ZAR)  
 0-99      1    100 000 – 249      2    250 000 -1 199 999      3    1 200 000-2 999 999      4  
 999                      000

9 Are you planning to expand activities in Congo-Brazzaville?    Yes                      1    No                      2

10 How often do you use the Internet for business purpose?  
 Daily      1                      Weakly      2                      Monthly      3                      Never      4

Instruction: Please read each statement clearly before answering.

Tick (✓) appropriate box and give only one response for each statement.

Statements	Represent the following: 1-Strongly agree 2-Agree 3-Disagree 4-Strongly disagree <b>Recommendation: circle the number that applied from the four response alternatives.</b>			
<b>The benefits of e-commerce for Congolese immigrants</b>				
11. We use e-mail to communicate with suppliers or customers	1	2	3	4
12. We make electronic payment to our suppliers	1	2	3	4
13. Our company has its own website	1	2	3	4
14. The Internet is the main channel of communication	1	2	3	4
15. We use electronic banking	1	2	3	4
16. We have advertising on the Internet	1	2	3	4
17. We sell products online	1	2	3	4
18. We do VAT online declaration	1	2	3	4
19. We use the Internet to select our suppliers	1	2	3	4
<b>IT awareness among Congo-Brazzaville immigrant entrepreneurs</b>				
20. I Learnt the Internet before I start my business	1	2	3	4
21. My business' situation forced me to learn the Internet	1	2	3	4
22. I handle myself all online transactions	1	2	3	4
23. I ask for help to handle online transactions	1	2	3	4
24. Internet connection is available in Cape Town	1	2	3	4
25. Internet connection is accessible in Cape Town	1	2	3	4
<b>Online business registration perception in Brazzaville</b>				
26. CFBAP e-commerce website will attract me to register a business in Brazzaville	1	2	3	4
27. Online business registration will reduce costs	1	2	3	4

28. CFBAP e-commerce website will help me to obtain new customers.	1	2	3	4
29. CFBAP e-commerce website will raise productivity	1	2	3	4
30. CFBAP e-commerce will improve communication in my company.	1	2	3	4
31. CFBAP e-commerce website will create value chain among businesses in Brazzaville.	1	2	3	4
32. CFBAP e-commerce will ease conditions of conducting businesses in Congo-Brazzaville	1	2	3	4
<b>Online business registration perceived challenges for Congolese immigrants</b>				
33. E-commerce is not my business culture	1	2	3	4
34. My company has IT equipments making it possible to conduct e-commerce transactions.	1	2	3	4
35. The Internet virtual environment is risky for my business	1	2	3	4
36. The Internet security is a threat to my business	1	2	3	4
37. Computer viruses attack my systems	1	2	3	4
38. Theft of private information is a problem	1	2	3	4
39. The Internet fraud affects my trust of using e-commerce	1	2	3	4
40. I am worried about CFBAP online information reliability	1	2	3	4
41. I am worried about Congolese e-commerce law reliability	1	2	3	4
42. I have enough Internet skills to use CFBAP e-commerce website	1	2	3	4

Other e-commerce issues I have met and think are crucial for Congolese immigrant entrepreneurs:

---



---



---

Thank you very much for your highly appreciated contribution.

If you wish to have the analysed results of this questionnaire when it is available please provide your e-mail address or other information below.

Email address: \_\_\_\_\_

Contact telephone: \_\_\_\_\_

## **Appendice B: le questionnaire**

### **LES BENEFICES D'ENREGISTREMENT ENLIGNE DES ENTREPRISES POUR LES IMMIGRES CONGOLAIS**



Le but de ce questionnaire est d'analyser les bénéfices d'enregistrement en ligne des entreprises pour les immigrants Congolais de Cape Town. Vos informations nous aideront à motiver le CFE de Brazzaville à adopter les technologies d'information et de



communication axées sur le commerce électronique. Cette adoption, si possible, améliorera les conditions des PME au Congo, créera des synergies pour une bonne coopération économique entre le Congo-Brazza et l’Afrique du Sud.

Nous aimerons préciser que vos opinions seront gardées à l’anonymat et ne seront pas utilisées pour d’autres fins hors cadre de cette étude.

Pour plus des détails, contacter les personnes susmentionnées :

Chercheur: Alain Michael Momo

Promoteur de la thèse: Dr. Ukpere I. Wilfred

Email: Momomike161@gmail.com

Email: ukperew@cput.ac.za

Cell phone: 076-461-62-65

Telephone: 021-460-3113

Poste: Chef de département de l’Entrepreneuriat

### Section 1: Données démographiques

Les données de cette section seront utiles pour dresser votre profil. SVP cocher (✓) la mention appropriée.

1 Genre:

Masculin	1	Féminin	2
----------	---	---------	---

2 Ton age:

18 - 25	1	26 - 35	2	36 - 59	3	50 et plus	4
---------	---	---------	---	---------	---	------------	---

3 Quel est ton niveau d’études le plus élevé?

Primaire	1	Collège	2	Lycée	3	Université	4
----------	---	---------	---	-------	---	------------	---

4 Quel est ton état civil?

Célibataire	1	Marié	2	Divorcé	3	Autre (Spécifié)	4
-------------	---	-------	---	---------	---	------------------	---

5.	Enfants	Oui	1	Non	2	Si oui, combien?	
----	---------	-----	---	-----	---	------------------	--

6 Combien d’année as-tu vécu à Cape Town?

0 – 2 ans	1	3-5 ans	2	6-8 ans	3	9 – 11 ans	4	12 ou plus	5
-----------	---	---------	---	---------	---	------------	---	------------	---

### Section 2: Les Benefices d’ enregistrmnt enligne des entreprises à Brazzaville

SVP cocher (✓) les questions ci-dessous concernant vos intentions d'entreprendre une affaire:

7 Oui, j'ai une affaire 1 Non, je n'en ai pas 2 Je planifies d'en avoir 3

Si vous aviez cocher oui à la question 7 SVP répondre aux questions 8, 9 and 10 suivantes :

8 Nom de votre entreprise 8

9 Estimer en Rands (ZAR) la valeur de votre chiffre d'affaires  
 0-99. 999 1 100.000 – 249.000 2 250. 000 -1, 199.999 3 1. 200. 000-2. 999,. 999 4

10 Planifiez-vous à étendre vos activités d'affaires au Congo-Brazzaville?

Oui 1 Non 2

11 Combien de temps utilisez-vous l'Internet pour raisons d'affaires?

Journalièrement 1 Hebdomadairement 2 Mensuellement 3 Jamais 4

Les instructions à suivre: SVP lisez attentivement chaque phrase avant de cocher.

Merci de cocher (✓) seulement la mention appropriée pour chaque rubrique.

Rubrique	Signification: 1-Fortement Vrai 2-Vrai 3-Faux 4-Forcement Faux			
<b>Les bénéfices du commerce électronique pour les immigrés Congolais</b>				
12 Nous utilisons l'email pour communiquer avec nos clients et nos fournisseurs	1	2	3	4
13 Nous effectuons des paiements électroniques à nos fournisseurs	1	2	3	4
14 Notre entreprise dispose d'un site Internet	1	2	3	4
15 L'Internet est notre media majeur de comunication	1	2	3	4
16 Nous effectuons l'Internet bancaire	1	2	3	4
17 Nous faisons des publicités sur Internet	1	2	3	4
18 Nous vendons des produits et services enligne	1	2	3	4
19 Nous déclarons la TVA enligne	1	2	3	4

20 Nous utilisons l'Internet pour sélectionner nos fournisseurs	1	2	3	4
<b>Connaissances informatiques parmi les immigrés Congolais</b>				
21 J'ai appris l'Internet avant de commencer mes activités	1	2	3	4
22 Mes activités m'ont poussées à apprendre l'Internet	1	2	3	4
23 Je navigue moi-même	1	2	3	4
24 Je demande de l'aide pour naviguer	1	2	3	4
25 La connection Internet est disponible à Cape Town	1	2	3	4
26 La connection internet est accessible à Cape Town	1	2	3	4
<b>Perception d'enregistrement en ligne des entreprises à Brazzaville</b>				
27 Le site d'e-commerce de CFE m'attirera à enregistrer en ligne une entreprise	1	2	3	4
28 L'enregistrement en ligne des entreprises réduira les coûts d'exploitation de l'entreprise.	1	2	3	4
29 Le site e-commerce de CFE m'aidera à avoir des nouveaux clients.	1	2	3	4
30 le site e-commerce de CFE augmentera ma productivité	1	2	3	4
31 Le site e-commerce de CFE améliorera ma communication.	1	2	3	4
32 Le site d'e-commerce de CFE ajoutera de la valeur aux opérations d'affaires au Congo-Brazzaville.	1	2	3	4
33 Le site d'e-commerce de CFE rendra facile d'entreprendre au Congo-Brazzaville	1	2	3	4
<b>Les défis d'enregistrement en ligne des entreprises tels que perçus par les immigrés Congolais de Cape Town</b>				
34 Le commerce électronique ne fait pas partie de ma culture d'affaires	1	2	3	4
35 J'ai des équipements ex. PC, carte de crédits, etc... devant me permettre de me connecter et de pratiquer le commerce électronique.	1	2	3	4
36 L'environnement virtuel de l'Internet est risquant pour mes affaires	1	2	3	4
37 La sécurité sur Internet est une menace pour mes affaires	1	2	3	4
38 Les virus informatiques attaquent mes machines	1	2	3	4
39 Le vol des données personnelles sur Internet est un mal potentiel	1	2	3	4
40 Le Fraude sur internet affect la confiance que je fais au commerce électronique	1	2	3	4
41 Je m'inquiète de la fiabilité des informations en ligne de CFE	1	2	3	4
42 Je m'inquiète de la crédibilité de l'informatique juridique au Congo	1	2	3	4
43 J'ai assez des connaissances Internet pour naviguer dans le prochain site e-commerce de CFE	1	2	3	4

Voici autres problèmes rencontrés et utiles pour aider à automatiser le CFE du Congo-Brazzaville:

---



---



---

Merci beaucoup pour votre contribution.

Si vous voulez être au courant de l'évolution du projet, prière de pourvoir ton adresse e-mail dans l'espace ci-dessous

Adresse email: \_\_\_\_\_

Téléphone : \_\_\_\_\_

### **Appendix C: Focus group questions**

#### **THE BENEFITS OF ONLINE COMPANY REGISTRATION FOR CONGOLESE IMMIGRANTS**



Name: \_\_\_\_\_ Date: \_\_\_\_\_

Surname: \_\_\_\_\_ Contact details: \_\_\_\_\_

The purpose of this research is to analyse the benefits of online business registration for Congo-Brazzaville immigrants in Cape Town. The economy of Congo-Brazzaville focuses in crude oil exploration, forestry and minerals rather than create conditions that are capable of attracting, strengthening and sustaining SMMEs in order to improve the living standards of ordinary citizens. In South Africa, for example, the Department of Trade and Industry (DTI) has adopted e-commerce for online business registration processes whereby local entrepreneurs in Cape Town cut supply chain management cost. To attract, sustain Congolese immigrant's businesses and help them to save in supply chain costs and secure long term profit, CFBAP Brazzaville should adopt e-commerce technology. I would like you to answer to the following questions as your perception of e-commerce website at CFBAP will create synergy for better economic co-operation between the Republic of Congo and South Africa.

**1. Identifying the benefits of e-commerce for Congolese immigrants**

1.1 What is the Internet?

---

---

1.2 Did you learn about the Internet at school?

---

---

1.3 Do you use the Internet for business?

---

---

---

---

1.4 What benefits do you gain from using the Internet in business?

---

---

**Assessing IT awareness**

1.5 Will the CFBAP e-commerce website enable your business expansion in Brazzaville?

---

---

1.6 Does your French culture affect your Internet skills?

---

---

1.7 How does Internet connectivity in Cape Town affect your business?

---

---

**Online business registration challenges**

1.8 Would you recommend CFBAP to enable online company registration?

---

---

1.9 Would you contain related challenges to online business registration at CFBAP?

---

---

1.10 Will you be able to use the potential CFBAP e-commerce website?

---

---

**Thank you for your time in answering the questions. Your contribution is highly appreciated.**

**Appendix D: French announcement to association members**



**Cape Peninsula  
University of Technology**

**Cape Town campus  
Faculty of Business**

**ANNONCE**

**For Congo-Brazzaville citizens only  
POUR LES CONGOLAIS DE BRAZZAVILLE SEULEMENT**

Dans le but d'automatiser le Centre des Formalités administratives des Entreprises (CFE) de Brazzaville, un projet d'études de faisabilité a été initié et soutenu par CPUT.

Tous Congolais de Brazzaville désirant participer activement dans cette recherche en vue de promouvoir la co-opération de nos deux pays (Congo-SA), je vous prie de bien vouloir m'envoyer votre **oui, j'accepte de contribuer** au [momomike161@gmail.com](mailto:momomike161@gmail.com) pour recevoir des questionnaires à remplir.

Votre anonymat étant garanti, merci de toujours faire quelque chose pour changer les choses.

Le Chercheur  
[208134999@cput.ac.za](mailto:208134999@cput.ac.za)  
Momomike161@gmail.com

Alain Michael Momo

## **Appendix E: Letter of consent to the president of the Congolese Association of Cape Town**



From Alain Michael Momo  
4802, Cape Town 8000

Cape Town, 12/10/2010

To the President of the Congolese Association  
Of Cape Town, South Africa

**Object: Follow up**



Dear President,

As per discussion, this letter represents your willingness to allow me, Alain Michael Momo, to distribute my research questionnaire among members of our association and conduct group focus discussions with the first five Congolese immigrant entrepreneurs in Cape Town.

Dear President, once again the research objective is to analyse benefits of online business registration for Congo-Brazzaville immigrants in Cape Town. Therefore, the members' opinions will be helpful in order to address the research problem that was identified. The problem is that if sufficient attention is not paid to the necessity of implementing an e-commerce website at CFBAP, Congo-Brazzaville immigrants' business will hardly secure long term profits. Therefore, increased supply chain management expenses will hinder Congolese immigrants' entrepreneurial ventures, and compromise the country's GDP.

However, any member who has finished his or her questionnaire can call me on 076-461-6265 or just send me a miss call so that I call him or her back and arrange questionnaire collection.

Thanking you for the assistance.

Alain Michael Momo

Researcher