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Investigating the Impact of Internationally Acquired Qualifications on Labour Market Performance: The Case of Brazil

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“This thesis is solely the work of the author and submitted in partial fulfilment of the requirements of the Degree of Master of Science in Human Resource Management”.
Abstract

The aim of this study is to examine the labour market performance of Brazilian students who have acquired international qualifications in the areas of engineering and science. A comprehensive analysis of the literature review demonstrates the importance of international qualifications covering both their benefits and challenges. The gaps found in the literature review are also discussed, as well as the need for a more concrete theoretical framework about the subject. The data used in this research was gathered by semi-structured one-on-one interviews conducted in both person and on the telephone. The participants consisted of Brazilian students who have acquired international qualifications and have gone back to Brazil to and enter the job market there. It was possible to successfully answer the two main research questions being discussed using the data collected. It was found that international qualifications affect students in many important ways including learning and improving their foreign language skills and through exchanging culture with different nationalities. Also, international qualifications present a good way to enhance noticeability within the labour market and make it easier to get a job. However, the difficulties in getting international qualification recognised once returning to Brazil presents a challenge or a barrier for these students.
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Chapter 1

INTRODUCTION

The main focus of the thesis is to examine the labour market performance of Brazilian students who have acquired international qualifications in the areas of engineering and science. Labour market performance for this research is related to the employability and noticeably of Brazilian students who have achieved an international qualification. Has this determinant (international qualification and its aspects) helped these students to find a job easier, and have they become more noticeable in the labour market, thereby receiving greater numbers of job offers related to their qualifications. In addition, the experience that Brazilian undergraduate students in fields of engineering and science are gaining during the process of international qualifications is discussed, and whether these experiences and qualifications benefited the students after returning to the labour market in Brazil.

This process was measured through semi-structured interviews with five Brazilian students who attended all their undergraduate studies in the fields of science and engineering outside of Brazil and returned there to gain employment. The students reported their experiences during the interviews that were then analysed and evaluated.

1.1 Brazil

According to World Bank data from 2012, Brazil is the world’s seventh largest economy with a Gross Domestic Product (GDP) of US$2.253 trillion. Brazil has natural resources (e.g. iron ore) and high levels of agricultural production (e.g. soya, coffee and sugar), all of which are important to the world economy (Walker 2014). In addition, in 2014 Brazil recorded a population of approximately 203 million inhabitants with an unemployment rate of 4.9% which is relatively low (World Bank 2014) (IBGE 2015).

Despite these positive figures, Brazil has suffered from a lack of qualified workers mainly in specialised areas such as engineering and science (IPEA 2012). Many surveys and publications within the Brazil’s labour market recommend about 40,000 engineers, 54,000 doctors and
117,000 IT professionals, with these figures being a characteristic of a developing country (IPEA 2012) (Exame 2013) (Fagundes 2013) (Simas 2012) (Salerno et al 2013) (Barrucho 2014). The OECD suggests that more should be done in Brazil to provide training both through the education system and by employers themselves to improve the supply of skills required in the labour market (OECD 2015).

It is therefore extremely important for those seeking employment to obtain competitive qualifications which reflect the changes in the Brazilian labour market. Considering the recent technological advancements encouraged by the globalisation process, Brazil needs qualified employees in its labour market to meet the demands that globalisation imposes on the world.

Furthermore, along with developments in technology, internationalisation is one of the predominant trends in present-day society, impacting citizens worldwide and therefore affecting employees, employers and companies in general (Vestager 2000). The current climate of Brazil’s economy underscores the aims set out to be analysed in this project.

1.2 The Catalyst for Research

Today many schools and universities in Brazil and around the world have initiated international activities which are becoming increasingly important both for the schools and universities themselves. These activities, influenced by increasing globalisation, have been further developed in the past few years. Information about foreign countries, international studies, cultural differences and contact with other countries have become everyday elements, especially in big cities.

Most students view an international education to be more prestigious than a domestic education and recognise it to be more beneficial in relation to societal status and labour market opportunities, including opportunities of achieving better jobs and higher income (Waters 2006, cited by Manjunath 2014). International education and study abroad experiences are considered to be a multibillion dollar industry which is driven by high demand and intense competition. At the moment, there is a huge number of Brazilian students overseas seeking international degrees in various different levels, mainly in English speaking countries.
According to a survey conducted by BELTA (Brazilian Educational & Language Travel Association) together with Canada’s General Consulate (2014), Canada is a preferred choice of destination for Brazilian students because it offers a multicultural environment, is a safe country, has a lower cost-versus-benefits factor compared with other countries, and offers a high quality level of education. In 2013, 68 study abroad agencies sent approximately 5,000 Brazilian students to Canada, the most of them 18 to 30 years old. After Canada, the second most popular country for Brazilian students seeking international study experiencer is USA, while the UK ranks third (Fundação Estudar 2014).

BELTA’s survey highlights the importance of costs in relation to undergraduate and graduate levels of study. For example, in Canada the total cost of an undergraduate course (including accommodation and all fees) is about R$23,000 (Brazilian Reais) to R$50,000 per year. Costs in the USA average R$25,000 to R$60,000, while UK costs are between R$37,000 to R$60,000 per year (Fundação Estudar 2014).

On the other hand, CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior) states that France is the country with the most Brazilian scholars, recording in 2010 the presence of 1,502 skilled migrants, accounting for 30.3% of total skilled migrants funded by CAPES. This was followed by the United States with Brazilian skilled migrants representing 20.7% of total qualified foreigners funded, and subsequently Portugal (13%), Germany (9.1%), Spain (7.7%), United Kingdom (5.3%), Canada (3%), Italy (2.4%), the Netherlands (1.8%) and Argentina (1.3%) (Giordano and Pagano 2013). (See data analysis in Annex A - Spatial Distribution of Skilled Brazilian Scholars Awarded by CAPES in 2010).

This research is aimed at understanding the labour market performance of Brazilian students who acquired international qualifications at an undergraduate level in areas of engineering and science. Therefore, the preceding information is very important to understand and know more about the profile of Brazilian students who have studied abroad.

1.3 The Research Objectives

The aim of this research is to analyse the performance of Brazilian students who have acquired international qualifications in the areas of engineering and science within the labour market in Brazil.
To achieve a significant result, it was necessary to follow these specific objectives:

a) Using Brazil as a case study, analyse the performance of students who have acquired international qualifications in engineering and science within the labour market.

b) Examine the importance of international qualifications for Brazilian students in areas of engineering and science within the labour market in Brazil.

To accomplish these specific objectives, a literature review was used to understand and prove the importance of international qualifications for students through the existent literature.

To measure the labour market performance and also examine the importance of international qualifications, semi-structured interviews were conducted with eight Brazilian students who fully completed their undergraduate degree in the fields of science and engineering outside Brazil and returned there to attempt to enter the labour market. The students reported their experiences during the interviews that were then analysed and evaluated.

1.4 Research Design

Research began with a comprehensive analysis of the available literature on international qualifications and their aspects. The literature was also examined to find gaps in the knowledge component and to generate research objectives or questions, research methods and identify the sample populations for the purpose of this study.

The research was conducted in two phases. The initial phase was carried out by way of literature review. The purpose of this phase was to determine the context of this study and to justify the research. The literature review explored areas such as international qualifications, and Brazil’s labour market in fields of engineering and science.

The second phase of the investigation involved primary research which was qualitative in nature. It involved semi-structured interviews, conducted both face-to-face and over the telephone, with five Brazilian students that who have acquired international qualifications and have gone back to Brazil to seek employment. The main aim of these interviews was to elicit their opinions on the impact of international qualifications on their careers. The sample is sufficiently representative for the purpose of this research which is enable this study to be replicated in future.
1.5 The Organisation of the Thesis

Chapter 1: Introduction

This chapter intends to present the reader with the rationale underpinning the research, the intended audience, the context of international qualifications, the aims and objectives of the study, and the structure of the project.

Chapter 2: Literature Review

This chapter examines the existing information concerning the thesis by fundamentally focusing on the importance of international qualifications for Brazilian undergraduate students in fields of science and engineering within the labour market in Brazil. This chapter sets out to present background knowledge to the reader on the main topic, while providing insight into the findings of the more prominent research in the field.

The literature review will be presented under the following headings:

- Introduction
- The General Context
- Qualifications
- International Qualifications
- The Challenges of International Qualifications
- International Qualifications in Brazil
- Limitations and Gaps in the Existing Research

Chapter 3: Methodology

This section summarises the main paradigms of the research and details the rationale behind the choice of the research method used in this study. Sampling, personal bias, confidentiality and ethics will be discussed here. A section on the research instruments used, namely semi-structured interviews, is also included. Methods of analysing the research are also explored.
Chapter 4: Findings and discussion

This chapter relays the findings from five of the semi-structured interviews, and also connects these findings with the themes explored in the literature review. In addition, this chapter revisits the research questions and answers them.

The data found is discussed, analysed and presented under the following themes:

1. The Main Challenge for International Qualifications
2. Labour Market Performance
3. The Importance of International Qualifications

The research questions of this thesis were answered.

Chapter 5: Conclusion

In this chapter, the conclusions from the research are outlined. Implications and recommendations are presented and further research is recommended. The limitations of this research are presented, and the researcher reflects on his learning from the research undertaken.

1.6 The Importance of This Study

This project has an importance for society in that it supports studies on international qualifications, informing and updating people about this subject. The analysis on the labour market in Brazil that is explored in this study is an important academic reference for research and development projects (R&D). In addition, this study provides clarification for human resource managers and recruiters, providing them a deeper understanding about international qualifications and its impacts on the labour market, therefore increasing the probability of their contracting employees with international qualifications. Also, this study impacts students and Brazilians in general, encouraging them to study abroad and acquire international qualifications.
In addition, this study is very important for the participating students, having helped them acquire practical and theoretical knowledge through literature review and fieldwork. Through their contact with professional practices, their participation helps prepare them for the labour market in different ways. In addition, this research provides not only a collaboration to add to their professional profiles, but influences each student’s personal development, presenting him with new values and concepts, and enriching his knowledge, skills and attitudes.
LITERATURE REVIEW

The role of this chapter is to demonstrate, explain and evaluate the current literature available on about the subject of the thesis. Current research is compared and contrasted with previous research in this area.

This chapter starts with an explanation about the general context of international qualifications and their origins followed by a demonstration of qualifications. In section 2.3, the subject of international qualifications is examined deeply, followed by a description of challenges faced by those having achieved international qualifications in general context and in Brazil. Finally, there is a discussion about the limitations and gaps existent in the actual research.

2.1 The General Context

As economic globalisation gathers pace, more and more companies and jobs will involve activities with an international dimension (Wordelmann 2000). Consequently, employees need to acquire new knowledge and competencies to face these changes mainly through acquiring new skills and qualifications.

There is no way to discuss internationalisation without describing the term “globalisation”. However, there is a large amount of available literature explaining this phenomenon. While some consider globalisation to be exploitation, others view it as an opportunity (Bhaqwati 2007, Marsella 2012). In addition, some talk about globalisation of capital, while others consider globalisation to be the import and export of ideas (Prilleltesnky 2012). Despite these variations, most agree that although globalisation is demarcated by different elements and consequences, in essence it is primarily about the exchange of people, products and processes across the globe (Stiglitz 2007). Therefore, the globalisation phenomenon has effects on the social, cultural, economic and political trends of a nation.

While globalisation typically refers to the broad economic, technological, and scientific trends that directly affect education and are largely inevitable in the contemporary world (Altbach, 2006), internationalisation has more to do with the specific policies and programs undertaken
by governments, academic systems and institutions, and even individual departments to deal with globalisation (Altbach, 2006).

Altbach, Reisberg and Rumbley (2009) state that globalisation has already deeply influenced education. They define globalisation as the reality shaped by an increasingly integrated world economy, new information and communications technology, the emergence of an international knowledge network, the role of the English language, and other forces beyond the control of academic institutions (Altbach et al. 2009). They define internationalisation as the variety of policies and programs that universities and governments implement to respond to globalisation. Typically, that response includes sending students to study abroad, setting up a branch campus overseas, or engaging in some type of inter-institutional partnership (Altbach et al. 2009). In addition, Risager (2000) states that internationalisation is a form of defence against the threat of globalisation. To summarise, internationalisation has been considered in many ways as a necessary "process of integrating an international, intercultural, or global dimension in the purpose, functions, or delivery of postsecondary education" (Knight 2003 p.2). This process consists largely of two main spheres of action, commonly characterized as ‘internationalisation at home’ and ‘internationalisation abroad’ (Knight 2004).

Explaining the concept of internationalisation at home consists of strategies and approaches designed to introduce an international dimension into the home campus experience. This might consist of including global and comparative perspectives in the curriculum or recruiting international students, scholars, and faculty and leveraging their presence on campus (Altbach et al. 2009). In contrast, internationalisation abroad calls for an institution to project itself and its stakeholders out in the world (Altbach et al. 2009). This includes sending students to study abroad, setting up a branch campus overseas, or engaging in an inter-institutional partnership. In this project, we sought to study and explain internationalisation abroad and its benefits for students that have gone back to Brazil to work in its labour market.

In addition, beyond the concepts of internationalisation and globalisation, a variety of other terms are used in the course of this study, such as the international dimension, international education, international qualification, international programming, international and/or inter-institutional cooperation, international partnerships, cross-border education, borderless education, and regionalisation. The varied terminology refers to the breadth of experiences in this area and to the distinctive approaches to internationalisation taken by different levels of
education systems and institutions around the world (Altbach et al. 2009). Therefore, all of these terms are inextricably linked, acting together to thoroughly explain concepts within internationalisation and globalisation.

2.3 Qualifications

To understand the meaning and the importance of international qualifications, it is essential to start with the basic term ‘qualification’ and how it can be understood and described. The EQF (European Qualifications Framework) states that a qualification is “a formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to a given standard” (European Parliament; Council of the European Union, 2008). CEDEFOP (European Centre for the Development of Vocational Training) defined the term qualification in this broad way: “the term qualification helps to clarify what can be considered as the separate building blocks of a qualification: learning outcomes; assessment and validation process; need for standards; recognition process and the role of competent bodies” (CEDEFOP 2012 p. 8).

2.4 International Qualifications

According to Wordelmann (2000), international qualifications are essential to enable workers and employees. In general, employees might need foreign languages at their place of work, but we also know that knowledge of foreign languages alone does not suffice. CEDEFOP (2000, p. 75) states that “international qualifications may be systematically divided into three ‘original’ dimensions: A) excellent professional competence as a prerequisite for international professional activity, B) foreign language skills and C) intercultural competence” (CEDEFOP 2000, p. 75). These dimensions are focused into professionalization and education. In relation to education and its aspects, we can consider acquisition of foreign languages and intercultural competences or cross-cultural competences as the main dimensions. Furthermore, all of the dimensions should be part of a comprehensive concept of qualification for international activities, and should not by any means be reduced to foreign language skills (Wordelmann 2000).
The Federal Institute for Vocational Training (BIBB) highlights that the concept of international qualifications is useful for many enterprises in the early stages of internationalisation. In addition, this concept can be broadened by means of a new concept that one could refer to as “network competence”. This term encompasses consequences of dynamic developments at the workplace, including the possibilities offered by a variety of communication technologies, in particular the internet as the principal cross-border method (BIBB 2001).

Knowledge of a foreign language is indispensable for occupational activity in an international context, however, opportunities do exist to study abroad using the same language; Brazilian students can study in Portugal using their native language. Language is not the only benefit acquired during the process of acquiring international qualifications. Though research has consistently shown that the foreign language predominantly needed is English, companies have done little to encourage the acquisition of a second language skills according to the skilled workers and employees questioned (Wordelmann 2000). English, spoken in 110 countries, is the most popular language around the world, and there are 1,500 billion additional learners across the globe – see annex B and C for more information (Lopez 2015).

According to many researchers, learning a foreign language is beneficial for students. It helps them understand general grammar better and improves their overall communication and problem-solving skills. Beyond the intellectual benefits, knowledge of a foreign language facilitates travel, enhances career opportunities, and enables one to learn more about different peoples and cultures (National Research Council 2007). In a survey of 581 alumni of The American Graduate School of International Management in Glendale, Arizona, most respondents said they had gained a competitive advantage from their knowledge of foreign languages and other cultures within the labour market (Grosse 2004). Knowledge of a second language is not only necessary for communication with foreign business partners, but also represents a social obligation in establishing communication with foreign friends and colleagues (Wordelmann 2000).

To understand intercultural or cross-cultural dimensions, there is a need to define culture. French (2010, p.24) states that “culture is often conceptualised as being closely linked with attitudes and values which are first learned and subsequently manifested by member of a group”. In addition, “the knowledge, languages, values, customs and material objects that are
passed from person to person and from one generation to another in a human group or society” (Bratton et al. 2007, p.523).

Intercultural competence ranges from coping while travelling abroad and general cultural curiosity, to a high level of negotiating skills in a foreign situation using a foreign language. This includes the capacity to communicate and cooperate with foreign partners, colleagues, and customers at a shared level. Intercultural competence also encompasses knowledge of foreign cultures and of foreign markets including ways of life, customs, habits, values, mentalities, behaviour, etc. (BIBB 2001). In practice, a knowledge of foreign languages, intercultural competences and the ability to adapt rapid changes generated by intercultural competences are essential and taken for granted within today’s labour market (Wordelmann 2000).

According to the BIBB (2001), companies expect foreign language abilities and intercultural skills, along with outstanding specialised knowledge from their skilled staff working in the international and local sphere. These are seen to be holistic qualifications, encompassing economic, organisational, and technology-related skills. Employees also require a certain psychological and physical fortitude for extended stays abroad. Also, management and social policy skills are inherent in the application of intercultural skills in the sense that culturally related conflicts can be resolved through intercultural learning, both within the company and externally (BIBB 2001).

2.5 The Challenges of International Qualifications

The CEDEFOP’s (2012) booklet establishes a basis for better understanding the function and value of international qualifications and provides concrete examples (cases) of international and non-state qualifications with the purpose of developing a conceptual framework which can help identify and classify international qualifications. There are some obstacles for the acknowledgement of qualifications received in international settings when operating on the basis of their merit outside national. Some of these obstacles are outlined in the table below:
### Particular Challenges of International Qualifications

| The sector and level of the degree must be precisely outlined in order to be understood across national and sectoral borders. |
| The assessment procedures employed to achieve the degree must be demonstrably reliable and valid. Quality standards in this area reflect a need for transparent and trustworthy procedures and processes. |
| The degree must be based on standards reflecting relevant stakeholders’ needs. The education process might require initial development and continuous review based on the active contributions of those stakeholders. |
| The formal recognition of the qualifications should potentially cite various sources of legitimacy. In some cases international law allows legitimacy, as in the automatic recognition of qualifications earned in the EU within the EU internal market. In other cases, the legitimacy of a qualification will reflect market position and power of the country in which it was earned. |
| Even at domestic level, a wide variety of bodies may award a qualification on behalf of state authorities. This variety increases further when taking into account the many countries awarding international qualifications. Awarding institutions include a wide range of public and private bodies, international organisations, sectoral bodies and associations as well as private companies. While the definition of a qualification helps us to understand some of the similarities and differences between national and international qualifications, a systematic review of qualifications developing outside of the control of domestic bodies is currently lacking. While this partly reflects the fact that international education to achieve qualifications is fairly recent, it is even more highly affected by the wide variety of stakeholders involved in awarding and approving qualifications. |

(Adapted from CEDEFOP 2012 p. 10)

These elements are pertinent to the EU (European Union), although they represent very similar challenges to those that international qualifications face in Brazil at the moment. The most salient challenge in Brazil relates to the recognition of international qualifications, because the process is very bureaucratic, slow and expensive as experienced by many Brazilian students. Currently, for an international qualification to be recognised in Brazil and have domestic validity, the undergraduate degree must be revalidated by a Brazilian public university that has the same or similar course, and be recognised by the government. According to the Ministry of Education Brazil, 2015, this process is as follows:
1. The process begins by presenting a revalidation request to a public institution of higher education in Brazil. According to regulations, only public universities can revalidate diplomas being recognised as “competent to process and grant the revalidation of graduate diplomas in public universities that teach courses in the same field of knowledge or a related field and the same level of degree” (Article. 3º Resolution. 1º - 29th January 2002).

2. A copy of the applicant’s diploma must be presented to be revalidated, accompanied by documents relating to the institution of origin, duration and course curriculum, syllabus, bibliography and transcripts.

3. The student must pay a fee for the cost of administrative expenses. The fee is not set by the National Council on Education and therefore may vary from institution to institution.

4. To judge the equivalence of the diploma, a special commission is formed, comprised of professors from the university or other establishments that have compatible skills with the area of knowledge and the title level to be revalidated.

5. If there is doubt as to the similarity of the course, the commission may decide to carry out examinations and exams (performed in English) in order to fully determine the equivalence.

6. The applicant may also perform further studies if the committee determines that the international course does not fulfil the minimum requirements for equivalence.

7. For the judgement of equivalence to be valid, the university must reach a decision on the revalidation application within 6 months of the application date.

Brazil does not have any mechanism in place for automatic recognition of certain qualifications. Diplomas and transcripts must be notarised in the Brazilian consulates where the studies were conducted (translated by the author from the Ministry of Education Brazil, 2015).

2.6 International Qualifications in Brazil

International qualifications are a new and controversial subject of discussion in Brazil because the number of Brazilians studying abroad has increased significantly. In 2002, CAPES (Coordenação de Aperfeiçoamento de Pessoal de Nível Superior) awarded only 287 scholarships for undergraduate students to study abroad, while in 2012 the number increased to
This has put the issues related to international qualifications and their aspects into the forefront of discussion (Geo Capes 2015).

As the world’s seventh wealthiest economy, the strong vitality of the economy and industry of Brazil has lead to a significant increase in demand for highly qualified workers to be inserted in its productive system (WorldBank 2015). In response to this, central authorities have implemented several programs to raise the level of skilled labour force necessary to meet the development needs of the country (Giordano and Pagano 2013). A large number of the programs that have been implemented are fulfilled using foreign study programs and therefore call into question the problem of domestic acceptance of international qualifications.

According OECD (2015), a country should aid in the development of relevant skills by encouraging and enabling people to learn throughout life, including fostering international mobility of skilled people to fill skills gaps and promoting cross-border skills policies. Brazil is seeking to meet this prescription and is filling gaps in domestic education programs through programs abroad in all levels of education.

The most popular of these programs is called “Science without Borders”. This program seeks to promote the consolidation, expansion and internationalisation of science and technology, innovation and competitiveness of Brazil through the exchange and international mobility of Brazilian students (Science Without Borders 2015). The program expects to see 64,000 students studying around the world by 2018. It is clear that the purpose of Brazil’s central authorities is to increase the quantity of qualified human capital in the country, but at the same time it must be focused on the quality of these skilled human resources, as well.

The recognition of international qualifications is a pertinent situation which Brazil must face; one of the most pressing issues for participants in these study abroad programs is in relation to the recognition of the certificates or the disciplines studied overseas. There have been various estimates put forth on the number of human resources that the country will need in the near future (as referenced in chapter 1). Giordano and Pagano state:

“"The school and university systems are currently unable to train qualified personnel capable of responding to the skills and know-how needs of the local economic, industrial and scientific systems. Despite the increasing number of graduates, the
Brazilian economy is growing at a faster velocity. According to the Conselho Federal de Engenharia e Agronomia—Confea, the skilled labour force deficit will push local firms to seek more and more employees abroad, given that Brazil will need approximately 300,000 professionals in the technology sector, while the country can train only half of it. Most of the remaining vacancies will be, then, occupied by foreign personnel (Salvador 2012). In addition, as reported by Inter Press Service, Brazil will have a shortage of professionals in the fields of mining, oil and information technology, accounting for about 400,000; while it is estimated that by 2012 the deficit of IT professionals will amount to 800,000 (Frayssinet 2012).”

(Giordano and Pagano, 2013 p. 27)

Brazil must change and develop new policies on international qualifications to meet the demand of students who have studied abroad and have returned to Brazil to work within its labour market. There are many qualified students who have achieved international degrees waiting for the recognition of their certificates in order to begin work in Brazil. In 2012, The Federal University of Minas Gerais (FUMG) and The Federal University of Mato Grosso (FUMT) received 292 and 705 applications respectively to recognise medical certificates acquired abroad. In 2012, the quantity of those applications increased to 1,036 and 840 respectively (Moreno 2014). These numbers are set to increase due to influence from the globalisation phenomenon and its aspects.

2.7 Limitations and Gaps in the Existing Research

In Brazil, there have been very few research studies made into international qualifications and their aspects, including their dimensions, benefits and concepts. Studies have tended to solely encompass information about recognition, and the process of how to work through the qualification.

The existing research about international qualifications gives valuable understanding on the main important aspects and benefits of foreign study, such as the acquisition of foreign languages and cross-cultural or intercultural competences. The professional competence of employees that work abroad who have a history of studying abroad has also been studied. However, the literature has a number of shortcomings which are substantially significant. A throughout analysis of the existing literature found that there is no indication or studies examining the point of view of students which have acquired international qualifications on the process of internationalisation and its benefits. There are further research gaps regarding the performance of those who acquire international qualifications within the labour market. There is no insight into issues related to getting a job, or the pros and cons of acquiring an international qualification.
This study attempts to clarify those shortcomings and fill the gaps through semi-structured interviews and their analysis. Since there is no publication on this theme available yet in Brazil, this study may be considered the first study researching international qualifications and their benefits within the Brazilian labour market.
Chapter 3

3 METHODOLOGY AND RESEARCH DESIGN

This chapter describes the methodology, the research design, the research ethics, sampling, access and the interview techniques adopted for the purpose of data collection during this study.

3.1 Methodology

The aim of this research is to examine the importance of international qualifications for Brazilian students within the Brazilian labour market. For an effective and efficient achievement of these goals, it was necessary to follow a structured plan, the details of which are as follows.

Part of the research was carried out by way of a literature review. This phase is important to demonstrate, explain and evaluate the current existent literature about the theme of the thesis. Furthermore, through this reviews, one may compare and contrast the previous research in this area. Further study beyond the literature was necessary to fulfil the goals of this research. This was undertaken in the form of qualitative research. Qualitative research is a broad term that covers a wide range of techniques and philosophies. In simple terms, a qualitative research method can be defined as an approach that allows a researcher to examine people’s experiences in detail by using specific research methods such as in-depth interviews, focus groups, observation, content analysis, life histories or biographies (Hennink et al. 2010).

3.2 Ethics

This study was formulated to comply with ethical guidelines and submitted to the relevant guidelines. The ethical approval for this research was established by the Kemmy Business School at the University of Limerick in Ireland. Some of the potential ethical questions arose in relation to information access and confidentially. According to the ethical guidelines set by the University of Limerick students may be contacted only after the research has been approved.
Official participants for the interviews were initially contacted using social media. Announcements were posted in group or community pages on social media forums such as Facebook and LinkedIn. Contact was made with universities and private colleges in Brazil and in a few other countries. Any participants who were contacted through personal means were selected according to the interview’s profile rules.

Throughout the research, confidentiality, anonymity was assured and any identifying details were eliminated from the data. Given names were exchanged for the purpose of communication, however the names of the participants have been replaced in the interview transcripts to protect participant identity. The participants were made fully aware before research started that the data obtained would be solely used for research and would be treated with anonymity. The data would be stored securely and the right to access the data would rest only with the researcher.

After the completion of the process of data collection and the analysis of that data, the participants were contacted again, and were provided with a summary of the conclusion and findings.

3.3 The Interview

For this research study, data was mainly collected by way of interviews. Interviews are a very useful form of conducting qualitative research because they yield data that is rich and detailed (Bryman 2006). The use of interviews allows the researchers to explore understand the views, attitudes, perceptions, values and feelings of the interviewees and helps them to bring out their version of the situation (Bryman 2006). Additionally, an added benefit is that the researcher can clarify the meaning of their version of the situation and in many cases can also prompt for more information that could be very valuable for the research (Wellington 2000).

Interviews also have a weakness that should be considered. For example, interviews generally are lengthy, and transcribing and analysis can be a very time consuming procedure (Manjunath 2014). In addition, some researchers argue that interviewees may under-report situations that might potentially put them in bad light (Bryman 2006).

For the purpose of this thesis, a face-to-face, in depth, semi-structured interview was conducted with the participants. Although there are alternate formats that may be used, for example via
phone and through the internet, a face-to-face approach was adopted to develop a rapport with the participants, and to ensure no drawbacks while collecting data. Individual interviews were used to ensure an in-depth understanding of the interviewee’s personal point of view that would not have been possible during a group interview (Bryman 2006).

The interviews were conducted through performing semi-structured interviews over video conferencing with five Brazilians that had completed an undergraduate degree in the fields of science and engineering in a foreign country. After having acquired these international qualifications, the interviewees had returned to Brazil to attempt to enter the labour market. The main aim of the interview was to elicit the students’ opinions on the importance of international qualifications, the positives and negatives of their experiences, and their performance within Brazil’s labour market.

Most of the interviews were conducted via the internet video-messaging service, Skype. Using the program, the video conversation was recorded and transcribed with the names of participants being kept confidential. These transcripts are restricted to use for the purpose of analysis by this study and will not be shared with anyone else; the recording will not be used for any other purposes. All interviews were conduct individually. The date and time of the interview was prearranged with each interviewee and each interviewee attended their interview on time. There were no cancellations, postponements or rearrangements and all interviews went ahead as scheduled over two days, from the 26th to the 28th of June, 2015. Prior to commencing the interview, each of the interviewees was informed of the researcher’s contact details. Each interviewee was also informed of the procedures which would be followed and was asked to sign and date a consent form to record that their consent was informed and freely given. These details of the interview included in the consent form were as follows:

1. The duration of the interview (interviewees were advised that the interview would take approximately 30 minutes to complete);
2. A statement of confidentially guaranteeing all information collected would be kept entirely confidential. Interviewees were informed that the research would not ask for any information that would allow identification of those participating in the interview. In addition, in the event of any publication or presentation resulting from the research, interviewees were informed that no personally identifiable information would be shared as their names would in no way to linked to the research;
3. The right to ask questions or raise concerns related to the study at any time;
4. The right to voluntarily participate, which included interviewees being informed of their right to stop or withdraw from the interview any time. Each interviewee was informed that they did not have to answer any question they did not want to answer;
5. A statement that participants must be 18 years old or older to participate in the study.

All interviewees were informed that all information would be stored in a password-encrypted computer. For the purpose of analysing and transcribing the data collected during the course of the interviews, each interviewee was asked for their permission to have the interview audio recorded though use of a Dictaphone. All five interviewees gave their permission to be recorded during their interview. After all of the interviews were concluded, the audio data generated by the Dictaphone was transcribed by the researcher. The Dictaphone was tested before use. The researcher also took notes during the interview in the event that a technical difficulty might arise related to the retrieval of the audio data collected.

The interview questions were formulated to obtain the personal points of view and perspectives of the interviewees along with their experiences as was necessary to develop the research theories. The interview was written to avoid providing leading questions, allowing discussion but intervening to encourage deeper explanations and curtail tangents. Probing questions were utilised and resulted in an elicitation of the participants’ experiences. The interviews were allowed to occur organically and the participants gave their opinions freely.

The interview scripts were divided into four parts as follows: 1) The participant’s overview regarding the main topic of the thesis; 2) the participant’s personal perceptions 3) the participant’s views on international qualifications and their aspects; 4) their views of their experiences within the labour market in Brazil.

The direction and flow of the interview varied from interviewee to interviewee, as each interviewee perceived his/her experience differently. In order to ensure confidentiality, each interviewee was named in relation where they completed their undergraduate studies, as each student studied in a different country. For example, participant one completed his undergraduate studies in Ireland, and is identified as ‘Ireland’ within the study.
3.4 Sampling and Access

The sampling strategy followed a specific sequence. Firstly, 27 Brazilian students who had acquired international qualifications were contacted. These students were contacted through specific groups in on social media networks such as Facebook and LinkedIn. Eight of the possible participants matched with the proposed interviewee profile and were chosen for the interview. Five of the eight students chosen accepted the offer to participate. Social media groups were fundamental for this project and included pages entitled ‘Brazilians in Canada’, ‘Brazilians in Ireland’, ‘Brazilians in Russia’, ‘Brazilians in USA’ and ‘Brazilians in Portugal’. An example of these groups may be found in annex C. Universities and private colleges in Brazil and in different countries were also contacted. Permission was acquired from each student through a contract agreement to follow the proscribed process.

For the qualitative section of the research, the sample was fixed at the five Brazilian students as chosen in above process. Each of the students was interviewed to ascertain their experiences and understanding about international qualifications and the performance of Brazil’s labour market. The names of the participants are kept confidential to protect their identity; pseudonymous were chosen in relation to the student’s country and course of study. The participants are identified as follows:

a. Participant USA – Civil Engineering
b. Participant Cuba – Medicine
c. Participant Russia – Medicine
d. Participant Ireland – Pharmacy
e. Participant Argentina – Architecture

The conditions that were set during the selection of the participants were:

1. The participants must be Brazilian citizens and must have lived in and undergone a part of their education in Brazil.
2. The participants must have concluded an undergraduate course in the field of science or engineering outside of Brazil.
3. The participants must have acquired an international qualification at the undergraduate level in the areas of science or engineering.
4. The participants must have returned to Brazil and must be actively pursuing their career there.

Convenient and opportunist sampling were used to build this sample set. Convenience sampling refers to the selection of a sample that is easily accessible to the researcher, and opportunist sampling means selecting the sample of participants that appear during the process of conducting the research (Wellington 2000).

Gaining access to the sample population might be one of the toughest components of the research as it takes a great deal of time and persistence (Manjunath 2014). For this thesis, getting access to students means identifying, contacting and securing the consent of the participants. This sample is sufficiently representative for the purpose of this research, which is to enable the study to be replicated in future.

3.5 Analysing Data

Analysing data acquired during qualitative research is challenging because the data is not straightforward and may be arranged in a complex form. However, this method also gives the researcher the flexibility to analyse and interpret the findings (Wellington 2000).

As qualitative research generates complex data, it requires a lot of effort to read, re-read, understand and reflect on the data throughout the process of analysing to make sense on the whole (Wellington 2000). Furthermore, data collection by means of questionnaires, interviews, diaries, etc. mean very little until they are analysed and evaluated (Bell 1993). Data analysis in this case study included analysing the semi-structured interviews with the five Brazilians who had completed their undergraduate degree outside of Brazil.

Hitchcock and Hughes’ recommendations comprised the important themes for consideration while processing and interpreting the interview data. The tape and transcripts were intimately studied alternating between descriptions and analysis. General units of meaning were isolated and were then related to the research focus. Patterns were identified formed into themes. The way others made sense of their world was studied through their descriptions and reported actions. The subjects’ classifications were also explored.
The main themes explored are as follows:

1. The Main Challenge for International Qualifications
2. Labour Market Performance
3. The Importance of International Qualifications
Chapter 4

4 FINDINGS AND DISCUSSIONS

4.1 Introduction

The purpose of this chapter is to relay the findings from the research process which included five semi-structured interviews, while also comparing these findings with the themes explored in the literature review. Whether or not the study’s findings are consistent with or contradictory to previous research is determined, and findings which were not previously established or not given due emphasis are drawn to attention. Data is supported by quoting statements from the interviews. Interviewees are named by country of study to protect their identity and for ease of presentation.

The chapter was structured in accordance with the main themes.

1. The Main Challenge for International Qualifications
2. Labour Market Performance
3. The Importance of International Qualifications

In addition, this chapter revisits the research questions posted in Chapter 1 and seeks to answer them in relation to their respective subjects.

4.2 The Main Challenge for International Qualifications

The main challenge that students, education systems, and governments have faced is related to degree recognition. Although 4 of 5 interviewees had their certificates recognised, as discussed in literature review, the recognition of international qualifications in Brazil is an expensive, bureaucratic and slow process. The Brazilian government is trying to change the law through a proposal put forth by Senator Roberto Requião. This proposal states that the international qualification recognition process will be evaluate by the public universities of Brazil, and that the certificates in levels of undergraduate, masters and doctoral studies acquired in universities of excellence outside Brazil will be automatically recognised (Senado Federal 2013). However,
the process to legalize and approve this amendment is very slow, and there is no information about the status of the legalisation (Senado Federal 2013). During the interviews, all of the interviewees report issues related to the recognition of their international qualifications within the public universities in Brazil.

The most tragic example was relayed by Participant Ireland that completed an undergraduate course in pharmacy in an institute of technology in Ireland and subsequently went back to Brazil to attempt to gain employment. He states:

*I received many job offers, but I cannot work in Brazil without my international certificate being recognised in a public university. Because of this, I have not worked in my field since I returned to Brazil. I have tried to get my certificate recognised at the University of Sao Paulo, but they have declined twice. I don’t understand. It is very expensive to gain recognition -- I have paid a lot of money and they’ve declined twice.*

*(Participant Ireland - Pharmacy)*

Because of these issues, the student is obligated to work in a different area. The same participant states:

*I am working as a salesman in an electronic store. I studied to be a pharmacist, so I want to work as a pharmacist.*

*(Participant Ireland - Pharmacy)*

All of the participants relayed problems they encountered during the process of degree recognition in relation to the cost, the process, the time, and the organisation of bureaucracy.

*The process was expensive and took a few months – about 7 months altogether*  
*(Participant USA – Civil Engineering)*

*It is very expensive to gain recognition – I have paid a lot of money and they’ve declined twice.*
God, it took a long time. I had to translate all of the documents related to my course from English to Portuguese, and it was so expensive. After that, I submitted my application online. And then I had to take exams through a Public University. Altogether, it was more than one year.

I came back to Brazil and then I registered for the process of recognition through a public university with all related documents translated from Spanish to English. That was so expensive, by the way. After that, I took an exam, but I did not get enough points to pass in one area. Then, I had to do a module in the public university related to that area. I did, and then I passed. After that, I got recognition. It sounds very simple but it is not, because I lost one year studying and preparing while I could have been working.

The process was very bureaucratic, expensive and took 8 months.

All of the students faced problems in getting their certificates recognised, and during the process all of them remained either unemployed or working in an area unrelated to their studies, devaluing the effort they had made towards their studies. Brazil has a need for a process that is more flexible and democratic. For example, in European Union the treaty amongst the Euro countries allows the process of recognition for international qualifications to be more flexible and efficient.

According to the European Commission website (2015) the Bologna Process is a collective effort of public authorities, universities, teachers, and students, together with stakeholder associations, employers, quality assurance agencies, international organisations, and institutions, including the European Commission. The main focus is related the standardisation of the three cycle system (bachelor/master/doctorate) which strengthens quality assurance and allows for easier recognition of qualifications and periods of study.
Therefore, Brazil might use the Bologna Treaty as an example on how to go forward in improving its international qualifications recognition process. MERCOSUL (Mercado Comum do Sul) countries (Brazil, Argentina, Uruguay, Chile, Paraguay, Venezuela, Peru, Equator, Colombia, Bolivia and Mexico), European and non-European countries that Brazil has educational agreements (such as Germany, France, Portugal, Italy, Ireland, Spain and UK), together with BRICS countries (Brazil, Russia, India, China, and South Africa) might use the Bologna Treaty as a framework. This option would require extensive joint studies with the participating countries and to establish accords between them.

4.3 Labour Market Performance

The labour market performance as defined in this thesis is related to the employability and noticeably of Brazilian students who have earned an international qualification. This study examines whether this determinant (international qualification and related aspects) helped these students to find a job easily, and whether they are noticeable in the labour market receiving greater numbers of job offers related their qualifications, as discussed in chapter 1.

The most salient point related to labour market performance discovered during the interviews is that four of the five students report that they are happy with their salary which they report as being consistent with their position within their respective companies.

[My salary] is very good and relevant to my position. I have benefits and receive commission as well.

(Participant USA – Civil Engineering)

My salary is consistent with my position. I don’t wish to say the exact number, but it is a good salary. I am happy with that.

(Participant Russia - Medicine)

[My salary] is relative to my position.

(Participant Argentina - Architecture)
Participant Cuba related that there is no salary difference between an internationally qualified professional or a professional with a national qualification.

There is no difference between my salary and a doctor’s salary that studied in Brazil.

(Participant Cuba - Medicine)

In terms of finding employment, all of the students interviewed found a job in their studied fields after receiving degree recognition except Participant Ireland. In general, the students reported unemployment for a period of 6 to 12 months until their degree recognition was processed. Participant USA related:

I was still in the USA and a Brazilian company contacted me. We conducted a few interviews through videoconferencing and over the phone, the company liked me, and then they asked for me to work for them in Brazil."

(Participant USA – Civil Engineering)

All of the interviewees started their positions as being entry level, with titles such as trainee, junior manager, and doctor assistant.

Having an international qualification is a good factor for drawing company attention during the job seeking process. All of the participants related that they got many job interviews and between two to six job offers.

Two big companies [offered me a position], but I decided on one, and have been working there for the past six years

(Participant USA – Civil Engineering)
All the hospitals that I applied to offered me a job. There were six in total.

(Participant Russia - Medicine)

[I got] about three [offers]

(Participant Argentina - Architecture)

At the moment, I am working in one hospital, two small clinics and in my own clinic.

(Participant Cuba - Medicine)

Three of the five participants stated that international qualification were not the only factor that helped them to get a job, but their success included a number of other points, such as competencies, skills and experiences.

They were posited the question: Do you think that international qualifications are an important factor for students when seeking employment? Did they help you to get a job?

It wasn’t just the international qualification, but it was many factors.
In my opinion, acquiring an international qualification does not mean that you will get a job easier; it all depends on your competences and capabilities.

(Participant USA – Civil Engineering)

No. In Brazil we need loads of doctors. You don’t need an international qualification to get a job in medicine.’’

(Participant Russia - Medicine)
My qualification in medicine helped me to get a job very easily, because the demand for doctors in Brazil is massive. Studying outside of Brazil was not the thing that helped me to get a job.’’

(Participant Cuba - Medicine)

On the other hand, one participant states that international qualifications were important to gaining employment.

After my degree was recognised, [international qualifications] were very important. Mainly, it’s because to studying abroad is a good distinction for the companies to see. The opportunities that international qualifications offer is a distinction, such as learning a different language, the experiences of living abroad, and cultural exchange. The benefits are very important for getting a job easier.

(Participant Argentina - Architecture)

In addition, two participants cited that international qualifications might help in certain fields.

It depends on many factors, such as your area of study and your skills. I think for example in the business sector there is no problem.

(Participant Cuba – Medicine)

In the business sector, I think [international qualification] is [an advantage].

(Participant Ireland - Pharmacy)

According to Participant Ireland, international qualifications might help science and engineering students gain employment, and in fact they might pose a risk.

In courses related to science and engineering it is not [an advantage]. The degree recognition system is so bureaucratic, expensive and unfair.

(Participant Ireland - Pharmacy)
4.4 The Importance of International Qualifications

The importance of international qualifications covers many aspects such as cross-cultural communication, languages acquisition and cultural exposure.

During the interviews, the most important aspect of their international studies that the interviewees identified was related to learning a foreign language and exchanging culture. They feel that these skills help them within their work.

*I can speak three languages fluently. Because my course was in the USA, it was taught completely in English. Besides English, I can speak Spanish as well.*

*(Participant USA - Civil Engineering)*

*I learned two languages: English and Russian. My course was taught in English and my internship was in Russian. If some patient from a different country that speaks English comes to my clinic, I can support him.*

*(Participant Russia - Medicine)*

*You can learn two languages and meet people from different cultures.*

*(Participant Russia - Medicine)*

*Spanish was the main language, but I had subjects in English and Portuguese. I can help people from different countries that speaks English or Spanish.*

*(Participant Cuba - Medicine)*

*Learning languages and living with different cultures are positive points.*

*(Participant Cuba - Medicine)*
The main language Spanish and I had a few modules in English. I work for a multinational, so I have contact with a lot of different cultures in the same place. We communicate just using English.

(Participant Argentina - Architecture)

All of the participants recommended study abroad for all reasons above. The medical students stated that the costs of the course in Cuba or Russia are much lower than in Brazil, and the universities provide good structure, equipment and materials. On the other hand, all of them advise that before a student goes to study an undergraduate course abroad, that student should inquire about the degree recognition process and try to find a university overseas with an agreement with an university in Brazil, thus potentially simplifying the recognition process.

4.5 Research Questions

1. Using Brazil as a case study, analyse the performance of students who have acquired international qualifications in engineering and science within the labour market;

Four of the five students interviewed achieved good performance within the labour market in Brazil, despite having been unemployed between 7 to 12 months while waiting to have their certificates recognised. They were well noticed during the job seeking process, drawing the attention of companies through both their international qualifications and their competencies. In relation to salary, all of them are receiving a competitive salary and are happy with their salary level. In addition, they all started working at an entry level, with roles such as a trainee, junior management and doctor assistant.

On the other hand, one participant has not gotten a job related to his qualification because he did not get his certificate recognised through a public university despite having tried twice. He is currently working in a different field.

2. Examine the importance of international qualifications for Brazilian students in areas of engineering and science within the labour market in Brazil;

The importance of international qualification is broad and unmeasured. The most important aspects for the interviewees involved learning a foreign language and exchanging culture. This answer is complex, because this importance of international qualifications varies depending on the country of origin and destination, the fields of study, the economy of the country, the course type, the university attended, etc. All of the interviewees recommended studying abroad for an undergraduate course.
4.6 Conclusion

This chapter presented the data from the semi-structured interviews in relation to the main aims of the project and its research questions. The presentation of data is interlinked, as themes emerged while the students spoke. The data was focused through the recognition of emerging themes as the study developed. Brazilian students, the Brazilian government and the public universities of Brazil have a variety of concerns and challenges related to international qualifications; each group experiences studying abroad in many different ways. Each student had his own story to tell. The students who participated in the research were excited about getting the opportunity to speak about themselves and how their international qualifications affected their life.
Chapter 5

CONCLUSION

The purpose of this chapter is to outline the conclusions reached in this study. The study’s contribution to existing knowledge and the limitations of the research are presented. In addition, further research is recommended and finally reflections on the information gained from the research is discussed.

5.1 Contributions to knowledge

As discussed, there is a gap in the literature review regarding the effect of international qualifications within the labour market, and the experience of students during the process of acquiring their qualifications. Because of this there is a need to study and develop a more concrete theoretical framework about international qualifications and their aspects.

This thesis contributes to the existing knowledge regarding international qualifications and their impacts within the labour market, in addition to their benefits and consequences for Brazilian students. Furthermore, this study provides an opportunity for further research in this domain.

5.2 Limitations of the Research

In relation to the research process, the scale of the project was limited as it involved only five Brazilian students that were compatible with the sought research profile; this limited the generalisability of the research. In addition, there is no data available regarding the quantity of Brazilian students studying an undergraduate course overseas per year, or even the quantity in general. The above study was a project and not a major thesis, therefore time involvement was limited by the scale of the task undertaken.

Another limitation is related to the locations in which the students completed their bachelor degree. There was not one specific country being examined, but the sample set involved students that had studied in any destination outside of Brazil. Each country examined has different rules related to education and different agreements with the Brazilian government facilitating the recognition of international qualifications.

In addition, there is a limitation involving the importance of international qualifications for the students once returning to Brazil. This subject is very broad, involving many diverse factors that might influence the results of the project.
Finally, this study was retrospective in nature; the students were interviewed after returning to Brazil and the time gap involved may have allowed the opportunity for memory issues to affect the recall of the participants who had made a decision to return to Brazil to look for employment.

5.3 Further Research

The review of literature and the findings of the research presented a few interesting aspects for further research.

The subject of international qualifications is a broad theme that is a part of the global discussion. Within that expansive scope, there are many subjects to be considered and developed for further research. These include the proportion of the importance of the international qualifications in relation to their benefits for students and for the labour market, and also if the costs for acquiring an international qualification is correspondent with the benefits. The latter question is of course dependent on the foreign country of study. Finally, there is room for research on the process of achieving recognition of international certificates in relation to the country in which they were awarded.

5.4 Reflection of the Research

The process of investigating the present project has enlightened the researcher on the complex topic of international qualifications. The researcher had only a basic understanding of international qualifications and their aspects before the study, which encouraged becoming familiar with the Brazilian students’ perspectives about their experiences with international qualifications and their positive and negative points. The knowledge and insights gained and the experience of interviewing the students individually was beneficial to the researcher's knowledge on the subject, and will aid in for his career.

Through this study, the researcher has become increasingly aware of how international experiences and their aspects affected the students both during and after their studies. Because of this, the researcher now understands the importance of the Brazilian government’s recognition of not only the certificates earned during international studies, but also the importance of this type of study for students. The difficulties of acquiring international degrees at any level should be recognised on the national level. The researcher also feels that the Brazilian government should pursue further studies on international qualifications and their
policies to ensure equal treatment of local and non-local students which would go far in motivating Brazilian students to study abroad and participate in a unique experience.

The researcher understands that the Brazilian students studying abroad face many challenges both during and after their studies, especially in relation to the process of degree recognition. However, these difficulties may present a learning experience, as well. Based on the results of this study the researcher recommends undertaking an international experience to acquire an international qualification.
BIBLIOGRAPHY


European Commission (2015) Learning Opportunities and Qualifications in Europe, Published [on line], available:


GEOCAPES (2015), [on line] available:  [accessed 07 Jan 2015].


Ministerio da Educação – Brazil, 2015, Revalidação de Diploma Graduação, published [on line] available: 

Ministerio do desenvolvimento, Industria e Comercio Exterior do Brasil, published [on line] available  

http://www.gwu.edu/~clai/working_papers/Moraes_Thais_11-10.pdf, Published 31 August 2010, [accessed 05th July 2015].

Moreno, A. (2014) Saiba como ter diploma de medicina de fora reconhecido sem o Revalida, 
published [on line] available  


OECD – Organization for Economic Cooperation and Development (2015) Fostering international mobility of skilled people to fill skills gaps, Published, [on line], available: 


OECD - Organization for Economic Cooperation and Development (2014) Investing in Youth: Brazil, [on line] available:  


APPENDIX A – Interview Plan

Interview Plan - Introduction of interviewer

Hello, my name is Charles Alves de Castro, I would like to thank you for taking your time to participate of this interview.

The main focus of the thesis is to examine the labour market performance of Brazilian students who have acquired international qualifications in the areas of engineering and science. Labour market performance for this research is related to the employability and noticeably of Brazilian students who have achieved an international qualification.

Development of the Interview

<table>
<thead>
<tr>
<th>Topics</th>
<th>Main Questions</th>
<th>Additional Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The labour market performance</td>
<td>1. When have you gone back to Brazil to try to find a job?</td>
<td>1. In which level? (Internship, trainee, junior, senior etc).</td>
</tr>
<tr>
<td>2. International Qualifications</td>
<td>2. Did you find employment? Yes or No?</td>
<td>2. Do you think that international qualification is important for students to get a job?</td>
</tr>
<tr>
<td>3. The importance of international qualifications for the Brazilian’s students</td>
<td>3. If yes, which was the job title?</td>
<td>Clarifying Questions</td>
</tr>
<tr>
<td></td>
<td>4. How many job offers did you get?</td>
<td>1. Could you expand a little on this?</td>
</tr>
<tr>
<td></td>
<td>5. How much is your salary?</td>
<td>2. Could you tell me anything else?</td>
</tr>
<tr>
<td></td>
<td>6. Did you get the job related to your international qualification?</td>
<td>3. Could you give me some examples?</td>
</tr>
<tr>
<td></td>
<td>7. Do you think that your international qualification helped you to find a job?</td>
<td></td>
</tr>
</tbody>
</table>

Conclude

I would like to thank you again for all information and take your time for this interview.

Clarifying Questions

<table>
<thead>
<tr>
<th>Topics</th>
<th>Clarifying Questions</th>
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<tr>
<td>1. Could you expand a little on this?</td>
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<tr>
<td>2. Could you tell me anything else?</td>
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<tr>
<td>3. Could you give me some examples?</td>
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Elaborated by the author (2015)
APPENDIX B – Ethics Guidelines

Kemmy Business School Research Ethics Committee
Application Form

The completion of this form is only necessary where the proposed research involves working with human subjects.¹

Faculty and PhD Research Students (please note that your answers must be typed)

Name: Charles Alves De Castro
E-mail Address: 13196723@studentmail.ul.ie
Date: March 06 2015
Title of Project (please do not use acronyms): Investigating the Impact of Internationally Acquired Qualifications in Labour Market Performance: The Case of Brazil
Names of other researchers involved:

PART A

Research Purpose: (50-100 words)
I propose to conduct a study on the labour market performance of students who acquired international qualifications in the areas of engineering and science. This study seeks to achieve the following specific objectives: a) Using Brazil as a case study, analyze the performance of students who have acquired international qualifications in engineering and science; b) Examine the importance of international qualifications for the Brazilian’s students in areas of engineering and science within the labour market in Brazil;

Research Methodology: (100-150 words)
This study will rely on two primary methodologies. The initial phase of my research will be carried out by way of the literature review. The purpose of this phase is to demonstrate the context of this study and justify the research. The literature review will explore areas such as international qualifications and Brazil’s labour market in fields of engineering and science.

¹ Examples of research involving human subjects include (but are not limited to): carrying out interviews; conducting a survey; distributing a questionnaire; using focus groups; and the observation of individuals or groups.
The second phase of my investigation will be qualitative in nature. It will involve face to face and by telephone semi structured interviews with eight Brazilian that who have acquired international qualifications and have gone back to Brazil to seek employment. The main aim of these interviews is to elicit their opinions on the impact of international qualifications for their careers.

1. Human Subjects

Does the research proposal involve:

(a) Any person under the age of 18? Yes □ No x
(b) Adult patients? Yes □ No x
(c) Adults with psychological impairments? Yes □ No x
(d) Adults with learning difficulties? Yes □ No x
(e) Adults under the protection/ control/influence of others (e.g., in care/ in prison)? Yes □ No x
(f) Relatives of ill people (e.g., parents of sick children)? Yes □ No x
(g) People who may only have a basic knowledge of English? Yes x No □

2. Subject Matter

Does the research proposal involve:

(a) Sensitive personal issues? (e.g., suicide, bereavement, gender identity, sexuality, fertility, abortion, gambling)? Yes □ No x
(b) Illegal activities, illicit drug taking, substance abuse or the self reporting of criminal behaviour? Yes □ No x
(c) Any act that might diminish self-respect or cause shame, embarrassment or regret? Yes □ No x
(d) Research into politically and/or racially/ethically sensitive areas? Yes □ No x

3. Procedures

Does the proposal involve:

(a) Use of personal or company records without consent? Yes □ No x
(b) Deception of participants? Yes □ No x
(c) The offer of disproportionately large inducements to participate? Yes □ No x
(d) Audio or visual recording without consent? Yes □ No x
(e) Invasive physical interventions or treatments? Yes □ No x
(f) Research which might put researchers or
participants at risk?  Yes ☐  No ☐

4.  

(a) Who will your informants be?  

A small number of selected Brazilian students that who have acquired international qualifications and have gone back to seek employment.

(b) Do you have a pre-existing relationship with the informants and, if so, what is the nature of that relationship?  

No.

(c) How do you plan to gain access to /contact/approach potential informants?  

I will try to contact the participants through specific groups in social network media such as: Facebook and LinkedIn. In addition, I will contact by e-mail and telephone the International Educational Division across various universities, colleges and institutes of technology in different countries regarding the proposal of research, thus trying to find participants suitable for this project.

(d) What arrangements have you made for anonymity and confidentiality?  

The interviews will be recorded and transcribed with the names of participants, kept confidential. Further, these transcripts will only be used for the purpose of analysis by the author and will not be shared with anyone else. The identify of companies or individuals involved will not be revealed in any way.

(e) What, if any, is the particular vulnerability of your informants?  

None

(f) What arrangements are in place to ensure that informants know the purpose of the research and what they are going to inform about?  

An Email will be sent out to the participant with related information about the purpose of study and the information required from them in helping the study.

(g) How will you ensure that informants are aware of their right to refuse to participate or withdraw at any time?  

An Email which includes an information sheet and consent form will be sent out to the participants which will contain the rights of participants to withdraw the study at any time.

(h) How would you handle any unforeseen safety issues should they arise?
No safety issues are foreseen. The interviews study will take place in a safe environment.

(i) How do you propose to store the information?

The information will be tape recorded and transcribed for recording the proceedings for the collection of data. All data will be stored in a password protected computer. This recording will be destroyed after one year.

If you have answered YES to any of the questions in PART A, sections 1-3, you will also need to comply with the requirements of PART B of this form.

If you have answered NO to all of the questions in PART A, sections 1-3 above, please ignore PART B of the form.

You should return 8 hard copies of this form to Michelle Cunningham, Research Administrator, Room SG-09, Kemmy Business School, University of Limerick or alternatively applications can be left in the drop box marked KBS Research Ethics Applications located on level 3 of the Kemmy Business School. This form must be submitted before the research begins.

Signature of principle investigator:__________________ Date: ______________

Supervisor Signature (where relevant):__________________ Date: ______________

Insurance Cover

Insurance cover is required for all research carried out by UL employees. Principal Investigators/Supervisors should carefully view the University’s ‘Insurance Guidelines for Researchers’ document and the University’s Insurance cover to ascertain if their proposed research is covered. These documents are available at http://www.ul.ie/insurance.

Where any query arises about whether or not proposed research is covered by insurance, the Principal Investigator/Supervisor must contact the University’s Insurance Administrator at insurance@ul.ie to confirm that the required level of insurance cover is in place.

Please indicate by way of signature that the research project is covered by UL’s insurance policies:

PI/Supervisor signature: _________________________________
PART B

This part of the application form is only relevant where researchers have answered ‘YES’ to any of the questions in sections 1-3 of PART A.

Please attach a report to this application addressing the following questions with a maximum of 300 words per question.

You must answer the following questions:

1. What are the ethical issues involved in your research?

2. Explain why the use of human participants is essential to your research project.

3. How will you ensure that informed consent is freely given by human participants?

Answer the following questions where relevant to your research project and after consultation with your supervisor (where relevant) and a member of the KBS Research Ethics Committee:

4. How will you protect human participants if your research deals with sensitive issues?

5. How will you ensure that vulnerable research participants are protected? (Please state clearly if you abide by the Child Protection Guidelines and/or have Garda Clearance where necessary)

6. How will you protect human participants if your research deals with sensitive research procedures?

7. Outline how you intend to comply with any established procedures which have been approved by ULREG for your research.

8. How will you manage data protection issues?

Ethics Guidelines – Created by Kemmy Business School – University of Limerick (2015)
APPENDIX C – Ethics Guidelines Approved

Michelle.Cunningham <Michelle.Cunningham@ul.ie>
Fri 17/04/2015 14:21

To: ULStudent:CHARLES:ALVES:DE:CASTRO:
Cc: Patrick.Gunnigle:

You forwarded this message on 21/04/2015 08:19.

Dear Charles,

Many thanks for your research ethics application which was reviewed by the KBS Research Ethics Committee on the 15th April 2015. I am pleased to inform you, that your application has been given research ethics approval.

Kind regards,

Michelle

Michelle Cunningham
KBS Research Office
Kemmy Business School
University of Limerick
Limerick
Ph: 353 61 202627 - Room SG-09
Email: michelle.cunningham@ul.ie

ANNEX A – Spatial distribution of skilled Brazilian scholars awarded by Capes in 2010

ANNEX B – A world of language 1
ANNEX C – A world of language 2


ANNEX D – Facebook and LinkedIn Groups

Adapted from Facebook and LinkedIn/Edited by the author (2015)