ATTRACTIVENESS OF THE AUSTRALIAN UTILITY POLE MARKET
Case Company

Adaam, Isaac

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The objective of this thesis was to assess the attractiveness of the Australian utility pole market from the perspective of the case company. A business intelligence influenced the interest about wood poles in Australia. The intelligence predicted the need for new utility poles to replace the existing ones that had reached their usage period. The case company which produces treated wood poles for international markets required this assessment before making a decision on pursuing the Australian market.

The research method which was a case study approach, utilised qualitative data from both primary and secondary sources to assess the attractiveness of the market. The assessment is conducted under three main segments, i.e. market situation, competitive landscape, and microenvironment factors. Under each of these segments, various variables were considered to present the market from different angles. Relevant literature, focused on International market selection and International market attractiveness, was analysed to understand the theoretical underpinnings of the selection of Australia and choice of variables for the assessment.

The results and analysis of the study concluded on the Australian market not to be an attractive one for two main reasons. Firstly, despite the existing poles reaching their usage time, a new national decision supports the reinforcement these old poles instead of replacing them. As a result, the eminent demand has shifted to the next five to ten years. Secondly, the presence of a strong competitor with better competitive advantages might present some tough impediments. The study, therefore, recommends that the case company shelve plans of targeting the Australian market for the next five to ten years during which the reinforced poles would have reached their usage time. Within that period however, the company could either explore opportunities other than the wood pole business or focus on building business relations to gain further knowledge about the market.

Keywords
International market selection, International Market Attractiveness, Market opportunity analysis, competitive analysis, Macro-environmental factors
FOREWORD

It has been a great relief to complete this work, a study which started in earnest with very high motivation but had to take a nose dive due to circumstances beyond control. These notwithstanding, I am particularly grateful to the case company for the rare opportunity of doing this study. The working environment, support, and motivation will surely never be forgotten.

My appreciation also goes to all lecturers during the study period. Indeed, the knowledge that each divulged has culminated in this final report. Special mention is made of Marita Wahlroos, my supervisor, for her guided comments throughout the period. As well as Pirjo Alatalo for her expert advice in report writing, your contribution was immense. To Esa Jauhola, I am particularly grateful for your patience and encouragement. They meant a lot to me. To my colleagues of the 2014-year group, it was an excellent time with you. Thanks for the team spirit and camaraderie throughout the study period.

My deepest appreciation goes to my wife and kids for the time that you lost during my study period. In times when my motivation was low, you were around to bring back smiles and new energy to forge ahead. Finally, to my loving dad who was a strong believer in education, and who has ever been my rock, I am grateful for the amazing father I found in you. It breaks my heart that your untimely death occurred during this study period. I take solace from the fact that the completion of this study brings smiles to your face wherever you are. I dedicate this work to you, to say thank you for all the miles you went, although very harsh, to put me through school. May your gentle soul continue to rest in peace!
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<tr>
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<td>CC</td>
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<td>IMA</td>
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<td>KAP Ltd</td>
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<td>LSE</td>
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1 INTRODUCTION

The chapter begins by justifying the reason behind this study. It describes the wood pole demand situation in Australia and how this influenced interest from the case company. Compact information about the case company and motivation for this study is mentioned in this chapter. Additionally, the research objective, research questions and thesis structure are described in the concluding part of the chapter.

1.1 Background of Study

In the utility pole industry, key contributing factors to a country’s market opportunity is the electricity access rate and the extent of electrical network. Depending on the age of the network, the dynamics between these factors can signal positive or negative market potentials. All things being equal, a market with low electricity access rate requires an extension of the network to improve the electricity access rate. Extension of the network thus translates into market opportunity by virtue of the utility poles used in the network extension. On the contrary, a market with high access rate and extensive network signals negative market opportunity. Opportunities in such markets may, however, come from replacement of existing network utility poles that have reached their usage time.

The Australian utility pole market which is the focus of this study fits into the description of markets with high electricity access rate and extensive network. Australia is described as home to one of the advanced markets for electricity in the Organization for Economic Co-operation and Development (hereinafter OECD) (IEA 2012, 89). The consumption of electricity is on the ascendency. For example in 2013, about 10,700 kWh per capita was generated, including that incorporated into exports. In 2013-14, rooftop photovoltaics (hereinafter PV) resulted in 2.9% reduction in grid supply leading to a final consumption of 8800 kWh per capita for that year. (World Nuclear Energy 2016.) Being a country with a high access rate and an extensive network means that market opportunity in Australia is expected to come from replacement of existing utility poles.
It is worth mentioning that there are two critical conditions that influence market opportunities in the network scenario presented above. Firstly, the population density and coverage of the network must spread across a large area of land. Electricity networks covering vast stretches of land present better market opportunities because of the significant number of utility poles used. Secondly, the choice of network, i.e. electricity transmission and distribution must favour overhead lines instead of underground lines. Transmitting and distributing electricity via overhead lines is widespread in the traditional system of generating electricity and making it accessible to users.

Overhead lines are practically the most preferred in electricity transmission and distribution because of reliability, low-cost and workability. The world over, its usage is a known and acceptable means to transport electricity across long distances. (Xcel Energy, 2011.) Despite industry experts supporting the usage of underground cables, the reality of changing existing overhead lines into underground cables pose a daunting task. This enormous task is particularly the case for countries that have already invested heavily in overhead networks. Australia is a typical example where less than 7% of customers are served by underground cables. Transforming the existing overhead lines into underground cables is estimated to cost some $50 billion (McIlwraith 1997). Besides, Al-Khalidi (2009,1) states that the low population density, high installation cost, demographics of Australian cities, and tight restrictions on the use of overhead lines mean the preference for overhead lines will persist into the foreseeable future.

In the traditional overhead electricity network, one vital component is the use of utility poles. Utility poles are used both in transmission and distribution. Whereas transmission occurs in the transport of high voltage electricity from generating areas to substations, distribution refers to the transport of lower voltage electricity from substations to final consumers. Materials used in the production of utility poles could be either wood, steel, concrete or composite materials. Globally, timber i.e. wood pole is the most preferred and widely used. Apart from being the cheapest, it remains the only renewable material option. These characteristics of wood pole makes it the most preferred in the present era when governments and
corporate organisation are mindful about the environmental implications of decision and choices. (Li, Dackermann & Subhani 2012, 1-2.) In Australia, wood utility poles represent a significant portion which is 80% of the electricity infrastructure (Crews & Yeats-Horrigan 2000, 1).

1.2 Motivation for Case Company

Due to confidentiality reasons, the case company will be known as “Case Company” (hereinafter CC). The CC has a long history in the supply of both treated poles and sawn logs. It has however evolved over the years to become a customer-oriented supplier of not only products but also service solutions for electricity and telecommunications networks. The CC has three primary top-brand subsidiaries which will be referred to in this report as CCa, CCb, and CCc. CCa specialises in the production of treated wood poles and is a leading player in the European market. While CCb’s area of operation encompasses impregnated wood products, CCc is a service provider for infrastructure networks. This study is of interest to CCa which is the wood pole production sector of the CC. The CC’s total number of employees is about 130.

Over the past few years, the CC has been exploring market opportunities in international markets. This global market opportunity exploration is an element of the international expansion strategy of the CC. In that regard, the CC, which produces wooden poles is steadily increasing market information and knowledge gathering activities about potential markets. Current international business activities of the CC spans mostly across Europe and a few countries in the Middle East and North Africa.

The decision to focus on Australia is influenced by the fact that the CC believes it offers a viable market opportunity. Before the decision to focus on Australia, a preliminary reconnaissance analysis of possible markets which included South America and Kazakhstan was done. Australia was selected because of an estimated 5 million timber utility poles used in Australian electricity networks. Available data establishes that over 70% of these poles were installed around 1965. Considering the average lifespan of the wood species to be 50 to 60 years,
means that, by 2015, most of these poles will require replacement or maintenance. In monetary terms, a total of 2.5 billion US dollars will be required only to replace these 5 million poles. The estimated cost is based on the average cost of one treated timber pole to be five hundred US dollars. Amid the high numbers of poles required for replacement, Australia’s wood pole supply from the natural forest is in a critical situation. The local supply of timber poles is far below the demand. These shortages are projected to escalate over the next decade as demand increases and the availability of poles from traditional resources reduces. (Francis & Norton 2006, 8-11.)

1.3 Research Problem and Objectives

The preliminary reconnaissance analysis unearthed two main issues which influenced the choice of Australia. The first issue is the utility poles reaching their usage time, which will be termed as the “demand situation” in this report. The second issue is the critical condition of wood pole supply from natural forests, which will be termed as the “supply situation”.

In the view of the CC, the demand and supply situation of utility poles in the Australian market is not enough to merit further targeting activities and subsequent entry. The CC from past experiences believes that declaring the Australian market as attractive goes beyond just the demand and supply situation. Other related issues bothering on the larger business environment need critical assessment. As pointed out by MD (2015), regardless of the possible market opportunity due to the supply and demand situation, knowledge about the larger business environment is less. Against this backdrop, the CC commissioned this study CC to gain further knowledge about the Australian utility pole market.

The main objective, therefore, is to assess the attractiveness of the Australian utility pole market from the perspective and context of the CC. The sub-objectives in that regard include the contextual meaning of the terms international market ‘selection’ and ‘attractiveness’; and how conducive is the utility pole business landscape. In totality, the study aims at generating sufficient knowledge about the Australian utility pole market. The objective, therefore, is to provide new insights
to aid the CC to decide whether the market opportunity and business environment are favourable for subsequent targeting.

1.4 Research Questions

In achieving the main objective and sub-objectives thereof, three research questions were generated. The research problem and objective discussed in the previous section delineated the focus and boundaries of this study. The research questions similarly fall within these same boundaries and focus. The answers to each of the research question addresses different segments of market assessment as explained in the Research framework. The three research questions are as follows:

1. What do international market ‘selection’ and international market ‘attractiveness’ mean from the case company’s point of view?

The answer to the first research question is mainly evident in the theoretical section of this report. In answering the question, the researcher, through reference to studies and scholars explains the generic meaning of the concept ‘selection’ and ‘attractiveness’. Furthermore, the researcher sheds light on the assessment modalities for ‘selection’ and ‘attractiveness’ through the discussion of approaches, determinants, and criteria. These generic concepts are then narrowed down in the context of the CC by explaining what influenced the choice of the Australian market, and the approaches used for the attractiveness analysis.

2. What is the state of the Australian utility pole market?

This question addresses the specificities of the Australian utility pole market. As pointed out earlier, emphasis is placed on the supply and demand situation which instigated this study. Additionally, the size of the utility pole market, future trends and developments are also analysed. Finally, answers to this question address the market competition and factors that contribute to performance success in the sector.
3. How conducive are the Australian utility pole market and general business environment, especially for new entrants?

The purpose of this research question is to gain an understanding of external issues that affect the utility pole market in Australia. The question examines selected macro-environmental factors bordering on the successful operation of the utility pole business in the region. While the second research question focuses only on what pertains in the utility poles sector, this question’s focus is on the externalities that have some impacts on the market. The goal is to determine whether the totality of these selected factors do indeed promote the attractiveness of the Australian utility pole market.

1.5 Thesis Structure

The report begins with the introductory part i.e. Chapter one which lays out the background and motivation for the study. It briefly describes the role of utility poles in electricity networks, the preference for wood poles, why Australia is the focus of this study, and why the commissioning of this research by the CC. The research problem, research questions and objective are also discussed in the chapter. The second chapter explores relevant literature on the study and is followed by discussing the research methodology, i.e. methods of data collection and analytical procedures used in chapter three. Chapter four discusses the results and analysis. In chapter five, the researcher presents an interpretation the mains aspects emanating from the results and analysis. Chapter six which is the final chapter draws the conclusions and provides recommendations to guide the CC in making a targeting decision about the Australian market.
2 LITERATURE REVIEW

This chapter discusses literature relevant to the objectives the study. Specifically, the literature review establishes and explains theoretical underpinning of the study. Bearing in mind the main objective, one could be tempted to focus on literature related only to attractiveness analysis. The researcher believes this might not be enough and is likely miss the vital step which led to the selection of a market for attractiveness analysis. For this reason, the researcher also considers theory on international market selection. As emphasized by Papadopoulos, Chen and Thomas (2002, 166), effective selection of an international market for subsequent attractiveness assessment is a strategic decision although few studies have employed prevailing theories/models to justify how firms choose international markets (Brouthers & Nakos, 2005, 366).

The researcher therefore believes that in line with the study objectives, it is better that the literature review focuses on both the “cause” and “result”, i.e. international market selection (hereinafter IMS) and international market attractiveness (hereinafter IMA). The IMS section, on the one hand, looks at the approaches, driving forces, and determinants of IMS. The IMA, on the other hand, elucidates the approaches, variables, and tools for assessing international market attractiveness for its application in the empirical discussion and analysis.

2.1 International Market Selection

The concept and importance of IMS are clear across the international business literature. However, studies on IMS seem to be very limited and remain disjointed because of the much focus on entry mode selection which dominates IMS studies (Sakarya, Eckman, & Hyllegard 2007, 208 - 238). Existing literature prescribes several models to conducting IMS. These models which vary across firms mostly utilise macro level indicators as the first step in the IMS decision process (Koch 2001). Irrespective of the IMS model used, which also vary in terms of sequential stages, there however exist a clear acceptance on the main stages involved. This report supports the main stages as proposed by Kumar, Stam and Joachimstahler (1994) and Root (1994). In practice, the stages suggested by both
scholars are identical and only differ by how they are named. While Kumar et al. (1994) refer to the main stages as screening, identification, and selection, Root (1994) terms the stages preliminary screening, in-depth screening, and final selection.

Relying on the above concept of IMS, this study draws from the definition provided by Andersen and Strandskov (1998) and Anderson and Buvik (2002). Andersen and Strandskov (1998, 67 original emphasis) define IMS as “the process of establishing criteria for selecting (country) markets, investigating market potential, classifying them according to the agreed criteria and selecting which markets should be first addressed and those suitable for later development.” Anderson and Buvik (2002, 348) however describes IMS as part of the international expansion process of firms and refers to the selection of a country where the international transaction will be conducted (Anderson & Buvik 2002, 348).

In terms of what IMS entails, the dissimilarities in these two definitions of the concept of IMS are not notable. Firstly, both definitions support that IMS should involve the comparison of international markets and which establishes the international feature of IMS. Secondly, it is a process that could be regarded as part of the international expansion of firms, or a process in the sense that IMS is always preceded and succeeded by an activity. Finally, the substance of a good IMS must include a comparison of variables of some sort and is climaxed by making a choice. To this end, the contextual meaning of IMS in this report refers to the activity by the CC in its international market opportunity analysis process. This process involves the comparison of possible international markets with a goal of selecting the best one for further market targetting actions.

2.1.1 Approaches to IMS

Despite the common acceptance of what IMS is in international business literature, several arguments arise when discussing approaches to IMS. No single framework yields the required results if strictly followed. Thus, managers have had to rely on a combination frameworks and models in different
circumstances to achieve results (Sakarya, et al. 2007, 208-238). Current research by Brewer (2001) upgraded existing systematic and unsystematic into Market Selection Approach (hereinafter MSA) and Internationalization Process approach (hereinafter IPA) respectively. This report thus makes use of these new concepts.

Depending on the IMS approach employed, the variety of activities involved therein is likely to differ significantly. In most cases, the MSA which is normative in nature and more suited to Large Scale Enterprises (hereinafter LSE) uses formalised decision process. It comprises the use of different statistical methods to analyses target markets potential. On the contrary, the IPA suited for Small and Medium Enterprises (hereinafter SME) is descriptive in nature and simplified to eliminate complexities. It utilises rules of thumbs such as selection of those foreign markets that minimise the perceived psychic distance. (Anderson & Buvik 2002, 348.)

The problem with the MSA is that apart from being a cumbersome process, it is not easily relevant and applicable across all industries. Anderson and Strandskov (1998, 81) do however emphasise the positive and superior impacts of the MSA irrespective of the cumbersome nature. The positive and higher effects are strong arguments why firms opt for the MSA. However, existing research (Papadopoulos & Martín 2011, 135; Bradley 1995, 5) do indeed buttress the fact that most companies ascribe to the IPA. Businesses prefer to expand internationally on an opportunistic (unsystematic) basis; a practice typically common among SMEs than LSEs.

Apart from the above approaches, Prygara (2006, 63) from another perspective lists two ways in which market selection can be made. Firstly, market selection could be made subjectively, i.e. relying on personal preferences, subjective feelings and expectations of persons making the decisions. Secondly, market selection could be executed objectively. This selection is based on market research and comparison of objective data. The objective approach, per Tsygankova (1998, 56) is further classified into comprehensive or discrete. Comprehensive encompasses parameters of possible markets according to a
system of indicators or an in-depth analytical justification under an individual model. The basis of discrete approach is on the evaluation of a small aggregate of the status of indicators that are the most important for a company and the prospects for development of the market. The comprehensive approach, in practice, is an arduous task and not any way linked to the strategic objectives of the firm.

Comparing the IMS approaches explained above, one could draw some relationship between the approaches put forward by Brewer (2001) and that of Prygara (2006, 63). The MSA described by Brewer (2001) can be likened to the objective approach in Prygara (2006, 63) because both involves the analysis of objective data. Similarly, the IPA can be placed in the same category as the subjective approach since both approaches mostly rely on the firm or individual conducting the analysis.

This study takes the path of both the IPA i.e. subjective approaches for the following reasons. To begin with, IPA is a natural choice since the case company is an SME. This details and concept of what constitute an SME are beyond the scope of this report; only a brief summary is therefore provided. According to Ayyagari, Beck, and Demirguc-Kunt (2007), the term encompasses an array of definition and measure that vary across countries. One standard rule, however, is the number of employees which is limited to 250 employees for SME. In that regard, the CC qualifies to be called an SME based on its employee strength one hundred and thirty.

Among SME’s, IMS is often merely a reaction to a stimulus provided by a change agent. SME’s view market selection as a decision between “go” or “no-go”. Additionally, the market selection, mostly subjective is driven by a low psychic distance such as similar culture, language, political system (Hollensen 2011, 261.). Contextually, low psychic distance in this report refers to same language and political system.

Furthermore, the selection of Australia was not based on any systematic analysis of statistical data. The supply and demand situation which favoured the choice of
Australia for this attractive analysis were all based on the subjective preference of the CC. Finally, the selection of Australia falls within the scope of the subjective discrete approach as pointed out by Tsygankova (1998, 56). A situation which stems from the fact that this study considers only few variables that match up with the strategic objectives of the CC.

2.1.2 Driving Forces of IMS

Going further after explaining the approaches to IMS, it is essential to consider the driving forces of IMS. The earlier parts of this section did emphasise the significance of IMS in selecting a market for further analysis. This significance is related to the driving forces. Firstly, IMS is predominantly driven by economic reasons because entering new markets; especially international ones involve massive commitments of resources, including strategic, technical, managerial, and financial. Limitation of resources means firms must strategically decide on which markets to enter and allocate resources accordingly. Given this and because companies cannot afford to expend money on trial and error basis in conducting in-depth analysis prior making a final choice, the IMS process is employed (Zaribaf & Sohrabie 2011). This situation explains why among LSE’s, a deliberate approach, albeit costly and time-consuming is applied in the selection of countries for in-depth analysis. The approach screens the available options to select candidates for the in-depth analysis (Root, 1994). Unlike LSEs, SMEs adopt a different approach in the selection of markets for in-depth analysis. The subjective and less complicated approach results in a few possible markets for in-depth analysis. Thus, among SMEs, only the last steps of the international market selection process is done i.e. in-depth attractiveness analysis and possible final targeting.

The second driving force of IMS is strategic reasons. Firms embarking on international expansion consider IMS to be strategic because it has close links with the mode of entry, marketing activities and, eventually, performance and success. It is for this reason that Kumar et al. (1994, 34) support an IMS approach that synchronously considers organisational objectives, resources, and general expansion strategies. This strategic driving force is much more relevant in the
IPA than the MSA. According to Papadopoulos and Martin (2011,135) and Bradley (1995, 5), the absence of the strategic element in the MSA approach, despite being superior to the IPA, is a possible reason why more firms are opting for the IPA.

The effects of economic and strategic driving force are evident in this study. For example, but for economic reasons, the same attractiveness analysis done for the Australian utility pole market should be repeated in both the South-American and Kazakhstan markets. However, since the CC cannot afford that luxury obviously due to economic reasons, it was prudent to select one of the markets for the attractiveness analysis. In the same way, the strategic choice of the Australian market came from the fact that the CC had no detailed knowledge of the Australian utility pole market. There is an existing deliberate market information strategy to gather information globally about utility pole markets unknown to the CC.

2.1.3 Determinants of IMS

Similar to IMS approach controversy, there are varying views on international business and market literature about the determinants or factors that influence IMS. This study looks at three of the views in the discussion of IMS determinants. First and foremost, Koch (2001, 351-359) argues that the determinants are a hybrid of both the environmental and firm factors. In his view, all the determinant factors of IMS fall into three broad categories: external, internal, and the mixed i.e. internal/external category. The determinants as suggested by Koch (2001, 352) is shown in Figure 1.
All the oval circles in Figure 1 represent the various determinants in the selection of an international market for expansion. The multiplicity of these determinants confirms the many factors that influence the selection of international market. Additionally, these factors which fall under external, mixed and internal categories signify the complexity when deciding on determinants. A situation which arises because some of these determinants have an influence on others. These are indicated in Figure 1 by arrows that move from one oval shape to another instead of the circle shape which is the overseas market selection.

Hollensen (2011, 262) in a way supports the view of Koch (2001). Despite suggesting several potential determinants of a firm’s international market choice. He groups these determinants into either environmental or firm factor. Hollensen (2011, 262) thus takes away the third category proposed by Koch (2001) which is a combination of both environmental and firm factors.
Musso and Francioni (2012, 45-46) also suggest a framework of the most important factors influencing IMS. These factors, (shown in Table 1) based on several IMS prescriptive models are categorised into firm-specific factors, host country factors and entry barriers.

Table 1. Categories of factors influencing IMS (Musso & Francioni 2012)

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<th>CATEGORIES</th>
<th>FACTORS INFLUENCING IMS</th>
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<td>FIRM-SPECIFIC FACTORS</td>
<td>a) Type of product</td>
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<td>b) Management characteristics</td>
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<td></td>
<td>c) Firm size</td>
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<td></td>
<td>d) International experience</td>
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<tr>
<td>HOST COUNTRY FACTORS</td>
<td>a) Market attractiveness</td>
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<td>b) Country attractiveness</td>
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<td></td>
<td>c) Marketing infrastructures</td>
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<td></td>
<td>d) Competition</td>
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<tr>
<td>ENTRY BARRIERS</td>
<td>a) Country risk</td>
</tr>
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<td></td>
<td>b) Tariff and non- tariff barriers</td>
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<tr>
<td></td>
<td>c) Psychic distance</td>
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<td></td>
<td>d) Geographic distance</td>
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Table 1 also gives another perspective of factors influencing the selection of international markets. Categorising them into Firm-specific, Host Country and Entry Barrier factors. Of relevance is the host country factors which is an appropriate situation for the objectives of the study. This can be explained from the context that the selection of Australia was influenced by the perceived attractiveness of the country’s wood pole market.

In sum, this section on IMS sought to explain the theoretical underpinning of what went into the decision process in selecting the Australian Utility pole market. The discussion on IMS emphasised the importance of IMS, the approaches adopted by firms, driving forces and the determinants. The researcher from the review of the literature agrees that an inherent link exists between the IMS approach and the determinant factors for IMS Analysis. The normative MSA is a bit rigid in the choice of determinants since the choice of determinants hinges on the IMS model utilised for analysis. On the contrary, the IPA which is subjective has the flexibility to utilise many relevant determinants to suit the strategic needs of the firm.
2.2 International Market Attractiveness (IMA)

This section on international market attractiveness (hereinafter IMA) discusses literature on the definition, purpose and conduct of attractiveness analysis in foreign markets. To proceed, it is worth noting that existing literature is clear on the fact that market attractiveness is inherently subjective across firms, and dependent on the market being analysed (Wright Associates 2010, 6). For example, different firms conducting attractiveness analysis in the same market might look at varying indicators to conclude whether the market is attractive or not.

Due to the subjective nature of market attractiveness, the scholarly views on what constitutes an attractive market vary. It is, therefore, imperative to clearly state the contextual meaning of an attractive market for the study. This is to aid in delineating the boundaries, contextual and subjective factors that are used to assess the attractiveness of the Australian utility pole market. The rationale for this contextual description of market attractiveness is because there exists a positive relationship between market attractiveness and success. For this reason, the purpose of every good attractiveness assessment should be viewed from the context of corporate objectives. A view that was rightly expressed by MD (2015) of the CC who interprets the attractiveness of the Australian market to mean "lots of wooden poles used by utilities annually and fewer risks in the general business environment."

To describe the contextual meaning of an attractive market in this report, the researcher considers three views. Firstly, Cooper (1993, 297-298 original emphasis), describes an attractive market as one where the competition is weak, there is potential growth, there are few players, and the customer base has an unsatisfied need for the product to be supplied. In practice, this means that decisions about target market attractiveness must be made within the context of environmental factors, competitive conditions and available resources. The definition, therefore, supports the notion that, the conduct of market attractiveness analysis is indispensable if the firm expects to make targeting decision. Secondly, in the view of Go (2013), when assessing the attractiveness
of a market, firms need to ask what’s changing on the market, how market structure impacts how a new entrant compete, and the barriers to entry. Finally, Tanner and Raymond (2012, 170-171) points out that an attractive market must have some characteristics. These include sizeable enough to be profitable given a firm’s operating cost, growing market, not already swamped by competitors, it is accessible, firms have the resources to compete with it and it “fits in” with a firm’s objectives and mission.

2.2.1 Key Features of an Attractive Market

A look at the three definitions of market attractiveness above unearth some similarities about the objective of this study. These similarities will be termed differently and explained into details. The first similarity is the issue of reduced market competition. The second is the potential growth of the market and finally barriers to entry. These similarities are dealt with in the subsequent paragraphs under separate sub-headings.

**Reduced market competition**

The first feature of an attractive market is “reduced market competition”. Discussing the term market competition in relation to attractiveness is an attestation to the fact that market competition has some impacts on market success and profitability. This is particularly true in niche markets like the wood pole industry. Reduced market competition in this report means that the CC can enter the Australian utility pole market without any significant hindrances, be able to compete with existing firms and make some significant profits in the medium to long term. The reason for expecting to make significant profits in the medium to long term comes from the general perception that new international businesses are not expected to make significant profits in the beginning years. The ability to compete with existing firms means that factors such as economies of scale, intellectual property rights, first mover advantage, protection from foreign competitors, etc. do not present significant obstacles.

Furthermore, of relevance when discussing the term reduced market competition is the industry related competition unique to the utility pole industry. Beyond the
market competition that will come from existing firms because of economies of scale, intellectual property rights, first mover advantage, and other similar factors, there is an intrinsic competition that poses some challenge to the use of wood poles for the distribution and transmission of electricity. In recent times, the discussion of disruptive technologies or innovations is given prominence when forecasting future market opportunities. This brings up some critical issues related to the Australian wood pole industry that needs to be considered in any future discussion about competition. First, will the transmission and distribution of electricity using overhead lines persist into the foreseeable future. Secondly, is there a possibility of wood being replaced by a better material on the Australian market. Finally, will there be any impacts of new generating sources that will not require the use of utility poles.

**Market size and potential growth**

Another feature of an attractive market is the market size and potential growth. In the utility pole industry, the size of the market is directly related to the extent of the electrical network that is overhead lines. As explained in the introductory chapters, since the electricity access rate is 100% in Australia, the market size and potential growth are expected to come from many wood poles that need to be replaced. In practice, and peculiar to the wood pole industry, market growth and potential have direct relations to the life span of utility poles used in the network.

**Stability and low barriers to entry**

Stability is another key feature of an attractive market although it was not directly mentioned in the definitions considered above. It is very key in the sense that for all other market factors to function effectively, there must be stability. This stability can be described as the external factors that have some effects on the functioning of the utility pole market. For instance, without sound macroeconomic and peaceful country, the need and ability to replace electrical network will be non-existent. Closely linked to stability is the issue of barriers to entry. The barrier issue applies in foreign markets where some governments try to protect local firms.
Contextual definition of attractive market

In summary, and deducing from key features explained above of an attractive market, the researcher, defines the attractiveness of the Australian utility pole market as a stable market with three key features as follows: reduced market competition, a sizeable market with growth potentials, and no significant barriers to entry. This definition thus forms the basis of the research framework and how the attractiveness assessment is accomplished.

2.2.2 Approaches to IMA

The approach to IMA discusses the various ways in which attractive analysis can be done. As already indicated, market attractiveness assessment is a subjective activity across firms. In the same manner also, the approach utilised is similarly subjective across firms. Existing literature summarises these approaches into three main areas.

Market assessment based on external market environment

Firstly, in the view of Azarian (2008, 200), the concept of international market attractiveness emanates from the context where organisations evaluate and choose their international target markets for expansion. It has a connection with an analysis of how external factors in the market environment impact on the activity of businesses entering these target markets. The approach evaluates the attractiveness of a country’s business climate through the application of different indicators. For example, publications of information agencies that offer analytical evaluations and integral risk indicators, along with corresponding investment ratings analyzing the factors of a country’s political, economic, and sociocultural environment as well as its resources and infrastructure (Avdokushin 2002, 88).

Market assessment based on expert strategic analysis

Another perspective of attractiveness analysis is through the utilisation of scientific sources. These sources specifically deals with the strategic analysis of activities of firms and strategic management to determine sector attractiveness (Vikhanskhy 2003, 292). By this approach, the attractiveness decision is based on the combined recommendation of experts in a specific industry. This technique
of market attractiveness became popular through the application of the method of portfolio analysis of the activity of diversified companies in the construction of the General Electric matrix (Prygara 2006, 1). Proponents of this technique, who are experts in strategic management resort to different methods to defining the attractiveness of a sector.

**Market assessment based on general profitability**
The third concept of market attractiveness does not treat market competitiveness as a single independent entity. Rather, it is measured alongside the competitive situation of the market and the competitiveness of enterprises and national economy. It is within this category that the famous Porter’s country competitive advantage and five forces of competition fall. So, for instance, the attractiveness of the wood pole market in Australia will not be limited to only competition among existing wood pole suppliers. It will as well take the cognizance of the threats of new entrants and substitutes, as well as bargaining power of suppliers and customers. The fact that this approach considers not only factors pertaining to the target market is an advantage. It considers factors beyond the borders of the target market which impacts on the favorability on market’s attractiveness.

**Chosen assessment approach**
The approach used in this report is a combination of all the three approaches explained above. The mix of these approaches subsequently informed the careful selection of variables used for the attractiveness analysis. In the researcher’s opinion, since he was not familiar with the distant Australian market, it was prudent to rely on all three approaches to viewing the attractiveness from different perspectives. It is a combination of these approaches that gave rise to three main areas of assessment in this study. The main areas of assessment are further explained under the research framework.

2.2.3 Variables for Assessing Attractiveness

Once an attractiveness approach choice is made, the next step is to identify indicators or variables to be used for the assessment. In other words, the variables to be evaluated help answer the question of the attractiveness of the
Australian market. The measure of market attractiveness on a local market is not very much different from what pertains on the international scene. The same principles apply except that more factors are considered on the international market. There is no universally established set of indicators or variables because every assessment is driven by a subjective motive or goal.

Across international business literature, however, there exist some lack of uniformity in the choice of variables for market assessment. This lack of universality is somewhat entrenched by the lack of uniformity between academia and practitioners. According to Keillor (2011, 174), this phenomenon is evident in two ways. In the academic circles, the evidence is in the fragmentation and other methodological weakness in research. Among business practitioners, is the tendency to make international market assessments unsystematically.

Although a barrage of variables can be utilised for every assessment, based on expected objectives, Dibb and Simkin (2013, 170) caution that variables need to be carefully done. It is essential that strategic assessments of this nature need to incorporate both short and long term factors. It is also worth noting that there is no one right analytical tool for every situation. What matters is the depth and complexity of analysis, which of course hinges on the case at hand and assessment objectives. This goes to confirm that, no one method is capable is churning out all the expected answers needed by the CC about the attractiveness of the Australian market. It is for this reason that Babette and Fleisher (2012, 16) recommends a combination of techniques for optimal results.

In selecting the appropriate variables, this study draws from Wood and Robertson (2000, 34), Dibb (1995, 189-203) and McDonald and Dunbar (2004, 294). An extensive study by Wood and Robertson (2000, 34) summarised variables that are common when firms conduct the international market assessment. These indicators included political factors, market potential, economic factors, culture, infrastructure, legal factors, organisational and environmental factors. Similarly, Dibb (1995, 189-203) explain that most of the factors centre on subjects such as market growth potential, the level and structure of competition, nature of customer needs, relevant company expertise and entry barriers. A comparison between the
two views does confirm the subjective nature of attractiveness analysis and the choice of variables. The terms to describe specific variables may vary, but the effective substance and expected result remain same. The choice of variables must answer what the attractiveness analysis seeks to know about a target market. The variables are the basic level but can be grouped into categories for analysis and interpretation sake. This study used this categorization of the variables to form the three main areas of analysis. A practice which supports the view of McDonald and Dunbar (2004, 294). Their categorization of variables was beyond the basic level and thus identified three categories of attractiveness factors - growth rate, accessible segment size and profit potential.

2.2.4 Research Framework

In line with the strategic objectives of the CC for commissioning this study, the attractiveness assessment of the Australian utility pole market will be done through three main areas referred to as market situation; competitive landscape; and macro-environmental factors as illustrated in figure 2.
The research framework in Figure 2 above illustrates how the attractiveness assessment of the Australian utility pole market was done. Firstly, it was necessary to identify the key features of an attractive market which then informed the main areas of assessment in this report. Haven settled on the main areas of areas of assessment; there is a need to identify tools to be used for the assessment. The choice of tools is also influenced by choice of basic assessment variables. These variables were chosen from existing market analysis models explained in next section. These variables are to give answers that feed into the three main areas of the study, i.e. market situation, competitive landscape and macro-environmental factors. A combination of analysis from these three areas assisted in determining the attractiveness of the Australian market.
**Market situation**

Strategic decisions about a target market are grounded on some key vital elements as stated by Aaker and McLoughlin (2010, 60-61). As such, the assessment in this area sought to give a situational report or current state of the utility pole industry regarding market structure, product preferences, growth potential, and other dynamics of the market. Since not all markets are the same, this assessment aimed to gain a deeper contextual understanding of the Australian market. The assessment of the market situation is key. It assisted in determining the attractiveness of a market from the angle of current and potential participants and understanding the dynamics of the market. The variables utilised in that regard included market size, growth rate, profitability trends and developments. (Aaker and McLoughlin 2010, 60-61.)

**Competitive landscape**

On the premise of the significance of reduced market competition as a key feature of an attractive market, competitive landscape provided details about the competition environment. It highlighted the strengths and weaknesses of current and potential competitors in a bid to identify opportunities and threats for the CC. The rationale for analysing competitors in the Australian utility pole market is to gain a superior knowledge of competitors, which offers a legitimate source of competitive advantage (Babette & Fleisher 2012, 46). According to Porter (1998, 46), competition within an industry is grounded in its underlying economic structure. It goes beyond the behaviour of current competitors. The state of competition in an industry depends upon five basic competitive forces. The collective strength of these forces determines profit potential in the industry. Different industries have different profit potential—just as the collective strength of the five forces differs between industries. The assessment, therefore, sought to establish if certain competition factors hinder or bolster the attractiveness of the Australian utility pole industry. The assessment tool used was “Porter’s five forces” analytical tool.

**Porter’s five forces**

Porter’s five forces of competitive position analysis, as is popularly referred to, is a framework for assessing the attractiveness of different industries (CIMA 2013,
Its approach has a basis in industrial organisation theory (hereinafter IO). The IO assumes that attractiveness of an industry is determined by the market structure because market structure affects the behaviour of market participants. (Raible, 2013.)

Apart from assessing the attractiveness of an industry or sector, the five forces can help unearth an agenda for further action or investigation. The five forces as shown in Figure 3 are the threat of entry into an industry; the threat of substitutes; the power of buyers; the power of suppliers; and the extent of rivalry between competitors in the industry. Porter’s essential message is that where these five forces are high, then the industry is not attractive. There will be too much competition, and too much pressure, to allow reasonable profits. (Johnson, Scholes & Whittington 2008, 59-60.)

**Macro-environmental factors**

Beyond the market situation and competitive landscape, assessment of the attractiveness of the Australian market was also done from the perspective of...
macro-environmental factors. This comes from the background of stability and low barriers to market entry as explained under the key features of an attractive market. In discussing the attractiveness of Australia, it essential that the CC appreciates the fact that larger forces are impacting not only on the utility pole market but also the general business environment. For example, Western Union (2013) explains that there are political, environmental and social issues that vary from country to country, so it becomes imperative and strategic that the CC understands the comprehensive intertwined dynamics of the Australian market. Also, how the dynamics of macro-environment indices impact on the general attractiveness. The PESTEL analytical tool was employed in the assessment of the macro-environmental factors.

**PESTEL analysis**

PESTEL Analysis is a valuable tool for understanding the ‘big picture’ of the Australian business environment, and for thinking about the opportunities and threats that lie within it. A better understanding of the Australian business environment will enable to the CC to take advantage of opportunities and minimise threats. PEST stands for Political, Economic, Social and Technological and has several variations (PEST, SLEPT, STEEPLE) depending on the elements considered in the analysis. (University of Washington 2011.)

The PESTEL analytical tool is particularly important in this study for the following reasons.

- The use of the tool ensures that assessment of the utility pole market is related positively with the forces of change that affect the Australian business environment. In recognising these external forces, the assessment is regarded to be very holistic.

- The tool unearths and elaborate on actions specific to the Australian business environment that is condemned to failure for reasons beyond the CC’s control.

- The tool helps minimise unconscious assumptions and give a clearer picture of an unknown market (Australian market). This assists in quick
adaptation of the realities of the new Environment. (University of Washington 2011.)
3 METHODOLOGY

This chapter delineates and justifies the methodology employed for this study. It starts with an exploration of research paradigm and connects it with the research approach. The data collection methods are explained as well as the method used for data analysis.

Due to the impacts of research philosophy/paradigms, Chalmers (1999, 108-116) highlights the essentiality relating research to its grounding philosophy; in obtaining and analysing results. Research philosophies, whether positivists or naturalist, differ on the goals of the research and the way to achieve these goals. The paradigm then influences the choice of methodology. That notwithstanding, the methodology must not be an automatic offshoot of the research paradigm. Rather, the choice of methodology ought to be influenced by what one is trying to achieve than a commitment to a paradigm (Cavaye 1996, 227–242). The methodology employed must thus match the research interest. So far as dissimilar phenomena may require the use of different methodologies, researchers can select appropriate methodologies for their enquiries if the focus is on phenomenon instead of methodology (Falconer & Mackay 1999, 626).

3.1 Research Paradigms

The two dominant ontological and epistemological traditions/ideologies are positivism and naturalism. Positivists, on the one hand, claim there is a single, objective reality that can be observed and measured without bias using standardised instruments. On the other hand, naturalists and interpretive constructionists, accept there is a reality but argue that it cannot be measured directly, only perceived by people, each of whom views it through the lens of his or her prior experience, knowledge, and expectations. That lens affects what people see and how they interpret what they find. What we know, then, is not objective; it is always filtered through people and subjective. (Sage 2015, 15-17.)

In the positivist paradigm, the researcher sees himself or herself as a neutral recorder. Different researchers using the same instruments are expected to
achieve the same conclusions. Thus, positivists evaluate the success of their research in part by measuring how the findings of different researchers’ match. Under the naturalist–constructionist paradigm, the fact that interviewers or observers reach a different conclusion is not considered problematic since meaning is always contextually interpreted. (Sage 2015, 15-17.)

There is no way that international market research can reduce uncertainty completely although it can assist in knowledge-based decisions instead of guessing (Doole & Lowe 2008, 103). As stated, the basic role of this study is to aid in decision-making. To serve as a tool helping reduce the risk in decision-making i.e. risks arising from either macro-environmental uncertainties or lack of knowledge in international markets. It ensures that final targeting or other decisions are based on solid foundation of knowledge and focuses strategic thinking on the needs of the marketplace rather than the product. (Hollensen 2011, 174.)

Comparing the primary role of this study against that of positivists’ paradigm unearths the unsuitability of the positivists’ paradigm. For example, the nature of positivism would have expected this study to give a precise answer, whether the CC should or should not go further with targeting activities. Achieving that requires the conduct of a comprehensive study and complete analysis of the Australian market. Apart from being a herculean task, conducting such comprehensive study in this context is likely to make international market research time-consuming and expensive. This study will therefore draw conclusion based on the selected main area of assessment.

Conversely, since international market research fulfils the need for further knowledge enlightenment and insights into how other issues impact on a target market, Majaro (2012, 62), it is prudent that interpretation of results goes beyond a simple yes or no. It must be able to explain factors peculiar to the Australian market and how these impact on its attractiveness. The naturalists’ philosophy, of which this study is inclined to, is thus most suitable for enabling result's interpretation that would cover how the market factors relate or impact on the general attractiveness.
3.2 Research Approach

There is a strong tendency to locate the two primary methods (qualitative or quantitative), in two different methodological paradigms. This temptation, which results from the use of the term “paradigm”, presumes the thinking of dealing fundamentally with incompatible ways of looking at the world. The borderline, however, between qualitative and quantitative research does not need to be quite so impenetrable. (Kelle & Erzberger 2004, 172.) Since the methodology chosen impacts on results and conclusions, the methodology must correlate to research purpose.

The broader objective of this study is to subjectively assess the attractiveness of the Australian market through selected variables. This analysis apart from being a knowledge building activity will subsequently form the basis for a decision on the market. This study is not interested in the jurisdiction of quantitative method, which supports the gathering of numerical or statistical data that allows for different variable analysis. Rather, interest is in the in-depth analysis and understanding of the Australian market. The use of the qualitative approach is, therefore, most suited to this situation when the researcher is not familiar with the target market (Doole & Lowe, 2004).

This study also utilises the case study approach. Case study despite having its foundation on the constructionist paradigm is suitable because of the interest to cover contextual conditions (variables for assessment) related to the Australian market Yin (2012, 171). Laws and McLeod (2004,4) also explain the case study approach as a way of conducting mainly qualitative analysis, and is usually used when it is impossible to control all the variables that are of interest to the researcher.

3.3 Data Collection

Justifying the suited approach of data collection does not signify that this study is exclusively qualitative. While the collection of primary data was mainly a qualitative approach, quantitative methods were used to collect secondary data
like market situation analysis. According to Yin (2012, 10-13), the common sources of data collection in case studies include direct observations, interviews, archival records, documents, participant observation and physical artefacts.

3.3.1 E-mail Interview

Due to time, distant and cost constraints, an e-mail interview was used in the primary data collection. The initial plan was to contact various industry experts to serve as respondents. That approach was unsuccessful because the expected contact person indicated an inability to meet the interviewing expectations. This inability led to the researcher’s decision to use e-mail interviews.

The development of the internet has presented researchers with new means of conducting interviews and e-mail interview is an example. According to Murray and Judith (1998, 103-121), e-mail interview involves communicating via the internet by use of computer through some different forums - such as person-to-person and person-to-groups. This study involved person to person communication. Although the technical team of Timber Preservers Association of Australia (hereinafter TPAA) answered the question, the data was gathered by one representative who had correspondence with the researcher.

After numerous e-mails requests sent out, there was a positive response from the technical team of the TPAA who accepted to respond to the questions (Appendix 1). The researcher deemed the technical team as equally competent to respond to the questions. TPAA represents the nation's wood preservation industry. It is made up of timber treaters, preservative suppliers, research organisations, and individuals and bodies having an interest in the production and use of preservative-treated timber. The TPAA promotes knowledge of the principles and methods of timber preservation within the industry, helps with establishing and adhering to Standards for the treatment of timber, and promotes best practice in the production of treated wood (TPAA 2016).

Despite the convenience and advantages of using e-mail interview, the researcher does not lose sight of its impact on data collected as compared to the
traditional face to face interview. Chief of these impacts is the tendency to misinterpret collected data especially if respondents are not available for follow-up clarification questions. Additionally, the lack of personal contact means that non-verbal communication that could have given added meaning to some responses will be lost. (Murray & Judith 1998, 103-121.) Some of these impacts were experienced during the data interpretation when responses provided were not explicit.

3.3.2 Secondary Data

Apart from primary data from the TPAA, the researcher relied on secondary data which included market research reports on the Australian market, regulatory sector reports, policy documents and business environment analysis documents. Secondary data refer to the use data or information prepared by someone else for some other purpose other than this study (Cnossen 1997). When diligently used, secondary data can equally provide essential data to help answer research questions. In this study, secondary data did provide further information and clarification to the responses received from the primary data.

3.4 Data Analysis

Data analysis takes on the content analysis approach. Content analysis, according to Malhotra and Birks (2007, 251) is used to ‘reduce’ qualitative data, to simplify them by summarising and structuring the data per rules derived from existing theory. For each of the main areas of assessment (market situation, competitive landscape, macro-environmental factors), data collected was reflected upon theories or through the application of analytical tools to give a better understanding of the data. Through inductive content analysis of the various variables of assessment, the summation of assessment in all three areas gave an idea about the attractiveness of the Australian market.
4 RESULTS AND ANALYSIS

This chapter presents the data gathered from both the primary and secondary sources of data of the study. Apart from presenting the data, analyses are conducted and connections are drawn in relation to the research objectives. The information in this chapter is structured into the three segments i.e. market situation, competitive landscape and macro-environmental factors. The discussions in all these three segments provide answers to the second and third research questions. Whereas the market situation and competitive landscape specifically answers the second research question, the macro-environmental section answers the third research question.

4.1 Market Situation

At an optimal electricity access rate of 100%, Australia’s transmission networks are available in each state and territory. The National Electricity Market (hereinafter NEM) in eastern and southern Australia provides a fully interconnected transmission network from Queensland through to New South Wales, the Australian Capital Territory, Victoria, South Australia and Tasmania. The transmission networks in Western Australia and the Northern Territory does not fall under the jurisdiction of NEM because these networks do not interconnect with the NEM or each other. Appendix 1 gives details of the extent and ownership of these networks.

Australia has 16 major electricity distribution networks, of which 13 are in the NEM. Queensland, New South Wales, Victoria and Western Australia have multiple networks, of which each is a monopoly provider in a designated area. In the other jurisdictions, there is one major network. There are also small regional networks with separate ownership in some jurisdictions. Appendix 2 illustrates the distribution network areas for Queensland, New South Wales, the Australian Capital Territory and Victoria. Australia’s electricity network is made up of over 40,000 kilometres of transmission lines and 777,000 kilometres of distribution networks with a total asset value of over AUD$70 billion. (Parsons Brinckerhoff 2016.)
4.1.1 Market Size

Wood poles on the Australian utility pole landscape are highly valuable and strategically important for critical infrastructure. The pole market is a fully matured one characterised by steady and stable demand (KAP Ltd 2015, 4). The most recent data about utility poles in Australia is an assessment conducted in 2004 by the Energy Networks Association of Australia (hereinafter ENA). The survey estimated a total of five million utility poles in use, out of which timber poles account for 80%. TPAA (2015) however estimates the current Australian utility pole markets to have some 6.5 million Poles. Considering the average cost of a treated wood pole is 500 dollars means an equivalent of almost 90 million dollars will be required annually for the next twenty years (starting from 2015) for replacement poles only. The assumption here is that wood poles will still be used for the replacement; if not, the total investments required will be higher because wood is the cheapest compared to steel, concrete or composite poles.

Apart from these replacement poles, new utility poles will be required to extend electricity to new settlement areas. With an annual demand rate of 70,000 wooden poles, the investment required amounts to 35 million dollars. Combining both poles required for replacement and new ones places the annual value of the Australian wood poles at almost 125 million dollars.

4.1.2 Growth Rate

The market growth rate in the utility poles industry has some relation with the life span of a utility pole. In Australia, wood poles make up about 80% of the total utility poles population. It is over forty years since the installation of most of these poles. Meaning most of these poles should be at the end of their lifespan, therefore, requiring replacement. However, that is not the situation. According to TPAA (2015) figures, annual replacement is less than 65,000 poles. Coincidentally, this figure is almost the same as the estimated annual demand rate of 70,000 poles in Australia. Based on these figures, TPAA (2015) describes the industry to be declining.
Another reason for the declining rate is the increased preference for pole reinforcement instead of replacement among network operators. A pole asset management plan developed by Western power, for example, gave higher preference to reinforcement due to available resources. A commitment to replace 100 450 poles and reinforce 268 760 poles by 2017. Detail of the plan is shown in Figure 4. Although reinforcement is cheaper compared to replacement, it is only a short-term measure that will extend the serviceable pole life by 15 years. Ultimately, however, Western Power (2013) share the belief that these poles should be replaced.

![Figure 4. Western Power's historical and proposed replacement and reinforcement program for 2006-17 (Western Power, 2013)](image)

Figure 4 depicts that the reinforcement decision came into effect between 2007-2008 after total replacement during 2006 - 2007. Since then, the percentage of poles that are reinforcement has risen. The rise in the reinforcement of wood poles that have reached the end of their lifespan suggests satisfaction with the reinforcement decision.
4.1.3 Profitability

According to TPAA (2015), the Australian Energy Regulator (hereinafter AER) has capped what utility companies can charge by 33% on average for next five years. What this means is that the costing and the resultant utility charges cannot go beyond this margin during the period. The effect is that barring any reduction in other costs, the proportional price margin of utility poles must also remain with the average specified by the AER.

In a paper submitted by Koppers Australia Pty Limited (hereinafter KAP Ltd) to the Forest Industry Advisory Council for strategic directions, access to the timber resource comes up as one of the key issues affecting profitability in the wood pole industry. It explained that native forest continues to be the pre-eminent source of hardwood poles and high-quality hardwood sawed logs. This potential is unlikely to be replaced by hardwood plantations in the short to medium term. The stable pole market needs continuous access to timber resources both from Crown reserves and native forests on private property. Crown timber reserves should be managed under the best sustainable silvicultural regimes to maximise growth and returns to the public purse. Continued access under existing or less demanding regulation is necessary to keep the industry viable. (KAP Ltd 2015.)

TPAA (2015) was, however, cautious and explained the situation was not getting any better and the wood pole industry is feeling the pressure from governmental budget cuts in all areas of the economy. Primarily because if forests and even plantations are to be able to churn out the required quality and quantity of the resource required, there must be investments. One downside is that investments in the industry are long term ones, but since governmental budgetary cuts are short term, there is a likely tendency that the resource will be affected.

4.1.4 Trends and Developments

**Fall in electricity consumption and rise in photovoltaics**

Current data from the national energy regulator reports decrease in electricity consumption among both residential and commercial users. This trend has
continued from 2009-2010. Even though this may not have a direct correlation with the number of utility poles used in electricity distribution or transmission networks, some of the reasons surely give cause for concern. One of the reasons for the reduced consumption is the increased acceptance of rooftop photovoltaics all over the country. This rising trend, especially in Australia, has prompted industry experts like the Grattan Institute (2015) to forecast some dire consequences on the traditional grid system of electricity distribution. There are over 1.4 million homes that have installed solar energy, the highest penetration rate in the world.

According to Grattan Institute (2015), an increased penetration of photovoltaics does not totally spell doom or cause a “death spiral” for grid electricity. There is, however, the likelihood of challenges for the network business. Photovoltaics can directly influence the amount of peak demand required from the grid system the quantum usage of the grid. Going into the future, this means a reduction in the need to build extra network infrastructure. At the same time, it reduces the need to use the existing grid and ultimately such grids may become redundant.

**Underground supply in development**

The technical committee of the TPAA mentioned the development of underground cables as a trend in the Australian electricity distribution industry. This underground cable development is probably due to the high success chalked in a large scale governmental underground cable project in Western Australia. The State Underground Power Program was a state governmental initiative in response to severe storms that caused widespread damage to the overhead distribution network in Perth in 1994. The project aimed at the undergrounding of Western Power’s existing overhead distribution cables in selected residential and commercial areas. (Economic Regulations Authority, Western Australia, 2011, 1.)

About ten years ago, over 7% of Australian homes were served by the underground cable. This figure is expected to have increased although exact estimates were not known. Although official parliamentary documents seem to give a general governmental support to underground cables as evidenced in efforts to increase the area served by underground power, the enthusiasm is not
the same across all regions of Australia. For instance, in most States, the underground power connection is a mandatory requirement in the development of new areas that connects to the grid. The political will, however, to do more is believed to be lacking. (Parliament of Australia, 1997.)

4.2 Competitive Landscape

4.2.1 Supplier Power

KAP Ltd Chemicals is a long-established competitor on the Australian market. It supplies chemicals used in the wood treatment and possesses a very significant supplier power, for two main reasons. First, it owns a patent for the treatment process used and secondly, it has a branch of the company that also produces wood poles. It is no surprise it commands a big share (60%) of the wood pole market. (TPAA 2015.)

4.2.2 Buyer Power

The main buyers of wood poles in Australia are state-based electricity providers. A practice that is quite common among most countries because of the classification of electricity as an essential service in most countries. Irrespective of the political powers of governments, the Australian government does not exert much influence regarding buying power in the industry. The percentage of buyers has changed over the past five years due to company mergers. A situation that has not affected buying power because of strict regulation in Australia on how much utility providers do their costing. (TPAA 2015.)

4.2.3 Competitive Rivalry

TPAA (2015) explained that there exist six wood pole producers in Australia although the exact market strength and share of these companies are not available. Market estimation, however, suggests that KAP Ltd has over 60% market share and continues to expand through acquisition of smaller companies. KAP Ltd utilises road, rail and shipping port infrastructure for timber procurement to its treatment facilities and to deliver finished poles to customers across
Australia and the near Pacific Region (KAP Ltd 2015, 1). KAP Ltd poles find use in domestic markets and some export markets. Among the wood pole producing companies, however, one distinct competitive advantage is the ability to access the high-quality poles. The high-quality poles that have less sapwood, long and straight have equally high prices.

4.2.4 Threat of Substitution

There exist other suitable materials used for electricity distribution which includes steel, concrete, and composite materials. However, among these, timber (wood) pole is the most preferred and widely used. Apart from it being the cheapest, it is the only renewable material. (Li, Dackermann, & Subhani 2012, 1-2.) In Australia, wood utility poles represent a significant portion (80%) of the electricity infrastructure (Crews & Yeats-Horregon 2000, 1). As stated earlier, the challenge might rather come from underground cables which use no poles and have excellent aesthetic benefits. The ability to switch from one material to another is however not a problem so far as it meets regulatory requirements of the specifications.

4.2.5 Threat of New Entry

Beyond the current market competition, one factor that inhibits the entry of new companies in the sector is the strength of the worker’s union. The Workers Union are unyielding in negotiating the salary of employees in the industry. Workers in the forestry sector receive considerably high wages and remunerations. Experts in the industry believe all these factors have contributed to the reduced number of wood pole companies actively producing wood poles. (TPAA 2015.)

4.3 Macro-environmental Factors

4.3.1 Political and Legal

There is a robust and enduring tradition of democracy in Australia where the rule of law and regulatory frameworks prevail. The Government welcomes and encourages foreign investment consistent with community interests. Australia’s screening process for foreign investment is transparent and very liberal. The
Government has the power to block proposals that fail the mandatory notification requirement and which are determined to be contrary to the national interest. (PwC 2015.)

The Foreign Investment Review Board (hereinafter FIRB) is a non-statutory body that examines proposals by foreign persons to undertake direct investment in Australia and makes recommendations to the Government on whether those proposals are suitable for approval under the Government’s Foreign Investment Policy and whether they follow the Foreign Acquisitions and Takeovers Act 1975. FIRB also provides information on Australia’s foreign investment policy guidelines and, where necessary guidance to foreign investors to ensure compliance with the Government’s policy. (PwC 2015.)

4.3.2 Economy

Australia has one of the strongest, most competitive, open and flexible economies in the world. In 2009, the standard of living in Australia surpassed that of France, Germany, Italy, Japan, Russia and the United Kingdom. (PwC 2015.) Similarly to Finland, Australia is a member state of the World Trade Organization (hereinafter WTO). WTO is an international organisation whose goal is to help producers of goods and services, exporters, and importers conduct their business. WTO trading principles ensure the elimination of all forms of discrimination in trading. Two of such anti-discriminatory trading principles are the Most Favoured Nation (hereinafter MFN) and National Treatment principles. Whereas the MFN principle ensures that countries cannot discriminate against trading partners, the national treatment principle ensures equal treatment of both local and imported goods. (WTO 2016.)

Australia’s economy has grown (on average) by approximately 3.3 per cent per annum since 1990. In 2012 - 2013, the Gross Domestic Product of Australia was approximately AU$1,525 million. Over the last 15 years, the inflation rate has been stable, at an average of 2.5 percent over the period. (PwC 2015.) Despite the high economic growth, the utility industry seems to be reeling with budgetary issues. According to TPAA (2015), there will be the sale two of the three utilities
in Australia during the term of the current Government as a result of cutbacks in all areas.

4.3.3 Socio-cultural

As home to one of the advanced markets for electricity in the OECD (IEA 2012, 89), there is no doubt Australia needs a constant and dependable electricity to propel its technological advancement. Australia’s corporate tax rate of 30 percent is very competitive when compared with other major economies, with higher company income tax rates applying in the United States, China, Japan, Germany, France and India. Australia is a leading financial centre in the Asia-Pacific region. The Australian Securities Exchange is among the ten largest listed exchanges in the world with a market capitalization of AU$1.5 trillion. Australia’s alliance with markets throughout the region is increasingly providing business people with a comprehensive range of financial services in the Asia-Pacific region. Australia offers real cost advantages for every category of operational requirements from prime central business district office space, urban factory space and industrial land, to transport infrastructure and low-cost utilities. (PwC 2015.)

4.3.4 Technology

In the electricity industry, Australia is one of the countries with the highest rate of solar panels. There is also an extensive usage of the smart grids. The impact of these has already being mentioned above under “trends and developments”. Australia is known for adopting new technologies at a faster rate than most other countries in the world; for example, it entered the new millennium with one of the highest rates of internet access in the world. Australia scientists and researchers from have been credited with many breakthroughs and technological developments around the world. In fact, Australia boasts of eight Nobel Prize recipients, which is a relatively high number for a country with a population of about 19 million.

The growth of technology in Australia has had several significant results; it has increased opportunities for innovation and design; helped various industries
make improvements in their already existing establishments, and helped them to improve the quality of their goods. The technology growth has also contributed to improving Australia’s economy. Currently, Australia is a leading country for importing and exporting of goods. (International students 2015.)
5 DISCUSSIONS

This chapter discusses the main issues emanating from the results and analysis in the previous chapter. In the form of response to the first research question, this chapter begins with a discussion on the selection of Australia for this study. Additionally, this chapter addresses the other two research questions by focusing on the study’s main assessment areas i.e. market situation, competitive landscape and macro-environmental factors.

5.1 Selection of Australia

Support for the selection of Australia was derived from existing literature. Economic and strategic reasons were the main driving forces that influences the selection of Australia. For SME’s such as the CC, IMS is often a reaction to a stimulus provided by a change agent. The change agent here is the expected high number of wood poles required by electricity networks in Australia since the existing ones have reached the end of their life cycles. The change agent is further supported by the lack of wood pole resources, i.e. the supply and and demand situation. Furthermore, it is common among SME’s that low “psychic distance drives the selection of a market for attractiveness analysis”. The official language of the CC which is English, and the sound political situation in Finland is comparable to Australia. These factors therefore provided the reference point of the low “physic distance” which also influenced the selection of Australia.

5.2 Market Situation

The Australian utility pole market is a matured one demonstrated through the extensiveness and complex nature of the electrical network. The coverage rate is an indication that utility pole requirements will be for new area and settlements that have no electricity. This rate is sure to be insignificant considering the advanced developmental stage of Australia with an electricity access rate of 100%. The only possible area of high utility pole requirement would be the replacement of old poles that have reached the end of their life cycles. However, the decision to rather reinforce these poles that have attained their usage time
instead of total replacement means very limited business opportunities for wood pole producers already in the system. Expectedly, this is not an encouraging market situation that a new entrant will be interested in doing business.

There is a high probability that the reinforcement decision will persist since no there have been no reports of negative impacts. Practically, it may be difficult even to produce cheaper poles that could prompt a second thought about the reinforcement the decision. The introductory chapter had already established the preference for wood poles over alternative utility poles. Added to the fact that wood poles amount to almost 80% of the total utility poles in Australia. The practical difficulty in changing the reinforcement decision stems from the fact that reinforcement takes away other costs that would come to play when replacing old poles. Among the several reinforcement options, the preferred choice in Australia is the use of steel. Drawing from the discussions above, the researcher is of the position that the wood pole industry in Australia would not require a significant amount of wood poles from now till the next ten years when the reinforcement would have reached its usage time and the need to replace poles becomes inevitable.

The impacts of PV’s and underground cables as would not have presented any significant threat considering current global usage. However, in the case of the Australian market, it would be prudent to consider the future potential threats of especially PV’s. This is because Australia currently has the highest installation of PV’s globally. If this feat is to serve as a point of reference, then there could be some threats to the wood pole industry in the very near future. Primarily because PV’s significantly reduce the number of utility poles used in a network.

5.3 Competitive Environment

KAP Ltd, the competitor with the biggest market share is a 100% subsidiary of Koppers Incorporated of Pittsburgh, PA, USA. The company is involved in the manufacture and distribution of coal tar chemicals, carbon black, preserved timber and timber preservation chemicals globally. Apart from the unattractive situation posed by the reinforcement decision, the presence of KAP Ltd in
Australia also pose a viable threat to both existing wood pole companies and new entrants. Commanding 60% of the market share is a real competitive advantage, a confirmation of the effectiveness and superiority of the company in the sector. The company uses sophisticated and well-planned logistics in its supply chain thereby creating a strong value network with other businesses. These value network is critical success factor considering the tradition customers of the wood pole business such as national, regional or district governments. Another advantage that KAP Ltd has apart from treating wood poles is the supply of treatment chemicals which inure to its benefit and gives the attestation to its high market share.

Furthermore, KAP Ltd is a patent holder of the CCA treatment process as well as a custodian of one of the standards requirement for wood poles in Australia. The Patent is another advantage that KAP Ltd possesses since the CC uses the same treatment process. What this means is that profitability of the CC could be limited as they may have to pay royalties to the patent owner. Specific identification of the said Patent and the duration of same is beyond the scope of this study. However, Patent laws permit the patent holder exclusive rights for twenty years during which other users of the patent may have to seek permission from the proprietor. Granted the fact that the CC is a new entrant and is likely to use KAP Ltd patent, one can foresee a significant impediment in this area first in getting the right to use the patent, and secondly having to pay royalties.

5.4 Macro-environmental Factors

In totality, the sum of various macro-environmental factors do indeed support the general Australian business landscape as an attractive one for foreign companies. Considering the fact that the main buyers of poles in Australia are either local or national government buttresses the conduciveness of the business landscape, especially for transctions with governments. This comes from the fact that both Finland and Australia are member states of the World Trade Organization (hereinafter WTO). For that matter, the CC can expect to enjoy equal treatment as local businesses in dealings with the Australian government. For example, the Australian government cannot charge different taxes or
customs duties just on the basis that the CC is not a local company. This is a trade regulation accorded to all member states of the WTO, therefore if the CC were to commence business in Australia and experiences any unfair treatment, the CC could resort to the WTO for remedy is discriminatory situations.

A downside of the macro-environmental factors related to the utility pole industry is the budgetary cuts which could signify the reluctance of the Australian government to invest heavily in the electricity sector. These cuts could also be a reason for opting to reinforce old poles rather than total replacement. If this deduction is true, then one can conclude that there exists a bleak future for the wood pole business in Australia. The reason for such a bleak future is that the business model of utility pole industry requires long-term investments from governments; however, when such investments are lacking, it should give a cause of concern to industry players.
6 CONCLUSION AND RECOMMENDATION

This last chapter draws conclusions from the main findings of assessment. The researcher expresses his view on the attractiveness of the Australian utility pole market and gives recommendations to the case company. The main aim of the study was to provide knowledge about the Australian market to enable the case company make a decision of pursuing the market. To achieve this, the researcher focused on three main areas of assessment. The areas included market situation, competitive landscape and macro-environmental factors. Specific market assessment tools were used for each of these main areas of assessment.

With regards to market opportunities, the study confirms the Australian market for wood poles to be a matured one with high competition level. There exist potentials in photovoltaics that could impact on the utility pole market, albeit at a minimal level currently. The presence of Koppers Australia Pty Ltd which has the biggest market share presents a difficult impediment. In addition to the market share, Koppers Australia Pty Limited possesses Patent rights of which the case company might have to pay some royalties for the use of those patents. A situation that can impact negatively on profit margins of the CC.

The supply and demand situation dynamics does not support the general attractiveness of the utility pole market. Although the quantity of wood pole used is very high, all of which are at the end of the life cycle, a nationally accepted reinforcement decision means that the outright replacement of these old poles cannot happen soon. This decision, therefore, renders the sound macro-environmental factors in Australia irrelevant when assessing the holistic attractiveness of the market. Thus, current demand for wood poles is not attractive to warrant any serious profit making. The apparent lack in demand situation, coupled with the governments’ seeming lack of commitment to long-term investments contributes to making the market unattractive for new entrants.

Based on the factors explained above, the researcher concludes that the Australian utility pole is not attractive and recommends the following. First, the case company can explore the possibilities of starting a business relationship with
either Koppers Australia Pty Limited or another wood pole producer already on the market. The rationale here is to learn more about the utility pole market and to also create the business relation that will enable the case company supply wood poles when the current reinforced pole reach their usage time. This is because, unlike Australia which has wood pole supply crises, the case company has access to enough wood pole resources. Secondly, the case company can explore the market possibilities in the two other areas that it operates in i.e. electricity network services or supply of lumber and processed wood. Finally, the case company can decide to put on hold any further activities that will target the Australian market. Another attractiveness analysis could however be conducted within five to ten years time by which time the reinforced poles will reach their usage time.
BIBLIOGRAPHY


https://www.saylor.org/site/textbooks/Principles%20of%20Marketing.pdf


APPENDICES

Appendix 1. Extent and ownership of electricity network in Australia
Appendix 2. Distribution network
Appendix 3. Questionnaire Guide
Appendix 1. Extent and ownership of electricity network in Australia

<table>
<thead>
<tr>
<th>NETWORK</th>
<th>LOCATION</th>
<th>LINE LENGTH</th>
<th>ELECTRICITY TRANSITED (TWh, 2011-12)</th>
<th>MAXIMUM DEMAND (MW, 2011-12)</th>
<th>ASSET BASE (2012 $ million)</th>
<th>INVESTMENT—CURRENT PERIOD (2013-14 $ million)</th>
<th>CURRENT REGULATORY PERIOD</th>
<th>OWNER</th>
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<td>48 576</td>
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<td>3 922</td>
<td>2 528</td>
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<td>Queensland Government</td>
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<td>76 359</td>
<td>12 954</td>
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<td>1 July 2009 – 30 June 2014</td>
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<td>51 927</td>
<td>9 850</td>
<td>2 232</td>
<td>990⁴</td>
<td>1 Apr 2008 – 30 Mar 2014</td>
<td>Publicly listed company (Singapore Power International 51%)</td>
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<td>11 298</td>
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<td>233 901</td>
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<td>8 292</td>
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<td>Western Power</td>
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<td>6 792</td>
<td>14 500</td>
<td>3 420</td>
<td>21 35⁷</td>
<td>15 29⁷</td>
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<td>1 July 2009 – 30 June 2014</td>
<td>Northern Territory Government</td>
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</table>

1. The regulated asset bases are as at the beginning of the current regulatory period for each network, converted to June 2008 dollars.
2. Investment data are forecast capital expenditure over the current regulatory period, converted to June 2008 dollars.
3. EnergyAustralia’s transmission assets, at 1 July 2009, are treated as distribution assets for the purpose of economic regulation. Future performance of the network will be assessed under the framework applicable to distribution network service providers.
4. SP AusNet’s investment data include forecast augmentation investment by AEMO (formerly VENCorp).
5. Not all interconnectors are listed. The unlisted interconnectors, which form part of the state based networks, are Heywood (Victoria – South Australia), QNI (Queensland – New South Wales), Snowy - New South Wales and Snowy-Victoria.
6. Given Basslink is not regulated, there is no regulated asset base. The asset value listed is the estimated construction cost.
7. Data from the ERA's draft decision on proposed revisions to Western Power’s access arrangement for the period 2009-10 to 2011-12.
8. At July 2009 Western Power’s access arrangement for the period 2009-10 to 2011-12 was not finalised.

Principal sources: AER, Transmission network service providers; electricity performance report for 2007-08, Melbourne, 2008, and previous years; AER/ACCC revenue cap decisions; ERA (Western Australia), Draft decision on proposed revisions to the access arrangement for the South West Interconnected Network, Perth, July 2009; company websites and media releases.
## Appendix 2. Distribution network

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<th>NETWORK</th>
<th>LOCATION</th>
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<th>LINE LENGTH (KM)</th>
<th>ENERGY DELIVERED (GWh) 2007-08</th>
<th>MAXIMUM DEMAND (MW), 2007-08</th>
<th>DISTRIBUTION LOSSES (%), 2007-08</th>
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<td>4,142</td>
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Appendix 3: Questionnaire Guide

**Market Situation**
1. Market size
2. Growth rate
3. Profitability
4. Trends and developments
5. Industry cost structure
6. Distribution systems
7. Key success factors (KSF)

**Competitive Landscape**

**Buyer Power**
1. main utility pole buyers/users in Australia
2. largest buyer and share
3. other alternatives to buying poles apart from local market supply

**Supplier Power**
1. Suppliers for wood treatment on the market
2. Distinctive products of suppliers
3. Ease of switching suppliers

**Competitive rivalry**
1. How many wood poles producers on the Australian market
2. Market share and strength
3. Competitive advantages of these existing companies

**Threat of new entrants**
1. Barriers to entry – knowledge, technology, brand, distribution network
2. Cost of entering new market
3. time to recover

**Threat of substitutes**
1. Substitute product and how effective
2. Ability to switch from wood poles to other substitutes

**Macro-Environmental Factors (PESTEL ANALYSIS)**

**Political**
1. Are there any governmental policies that impact greatly on the wood pole industry?
2. Any existing trade agreements between Australia and EU
3. How easy is it to do business in this country? Tax, currency, money repatriations, interest rates, etc

**Economic**
1. What is the expected growth rate of the target segment for the next five years?
2. State of electricity transmission and distribution

**Socio-cultural**
1. How big are the cultural differences between the target country and the home country?
2. Demographics, changes and impacts on electricity usage

**Technological**
1. Any new technologies impacting on the business
2. Any existing intellectual property

**Environmental**
1. Local environmental issues relating to wood poles

**Legal**
1. Certifications and standards for wood treated poles, fabrications, etc