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of Victoria**

Peter B. Gustavson
School of Business

*The world looks
different from here.*



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Note from the Editor

At the University of Victoria, one goal of the Peter B. Gustavson School of Business is to provide our Bachelor of Commerce students with the essential skills and knowledge they will require to be a successful business leader in their future global economy. This includes making certain that our students are given opportunities to support and develop their own business research. We believe that worldwide business practice, knowledge and skills are essential for taking the lead in the interdependent and intercultural world market that we are now in.

Our international exchange program is the largest in Canada with 83 currently active partnerships at universities in over 39 countries, and we continue to develop agreements in more new areas of the world. Each year, over 70% of our BCom students participate in an academic international exchange. These students travel to and become educated about the business economy and develop an international management perspective through direct experience with issues in their host country's market and organizations. During their trip, many of our students enrol in the COM 470 International Business Research course, which is designed to widen their knowledge of the nation and augment their research and writing skills by an in-depth exploration of a business issue related to this locale. Or they can focus on a specific aspect pertaining to a particular private, public or not-for-profit organization such as climate change affecting production, risk management for controversial merchandise and strategies for future technology needs to sustain growth.

Beginning with the 2007 cohort, the top COM 470 articles were showcased in a published collection of Best Business Research Papers. The topics range widely from global tourism, entrepreneurship and the service industry to specifics on consumer behaviour and branding strategies. These best in class papers continue to demonstrate our students' capacity for significant and thoughtful research in many facets of global business.

Connor Bildfell, one of this year's contributors, conducted a study of international companies located in China who are experiencing challenges regarding language. His paper focuses on the challenges surrounding English and Chinese language policies and that a 'language strategy' can be key to the success of global organizations. Connor was awarded a Jamie Cassels Undergraduate Research Award (JCURA) that provides support for students to obtain direct familiarity and understanding of research as part of their academic experience. As well, Connor's paper is the first from our Gustavson students to be published in an undergraduate student *Journal for Global Business and Community*, an official journal of the consortium for undergraduate international business education. The journal is a multidisciplinary e-journal dedicated to serving those participating in and affected by the global economy. Connor's paper can be access at the JGBC [website](#).

On behalf of the Gustavson School of Business, I am pleased to present Volume 6 of the top group of students in COM 470 from the class of 2013. I would also like to thank the team of people behind the scenes that make this comprehensive international exchange opportunity such a success: the International Programs team of Dr. A.R. Elangovan, Director; Brian Leacock, Associate Director; Jane Collins, Manager, International Exchange; Elsa Yan, Outgoing Exchange Student Advisor; Allen Sun, International Student Advisor; Jennifer Oakes, Academic Advisor, Donna Davis, Programs Clerk and to Shannon Perdigao, Academic Projects Officer, for coordinating and compiling this edition of the *Best Business Research Papers*.



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Language Strategies in China:

An Analysis and Framework Development for Multinational Companies

Connor Bildfell
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ABSTRACT

As the global business landscape has shifted in response to technological and social innovation, international profit-seeking companies located in China have encountered unprecedented challenges regarding language. Moreover, the notion of a “language strategy” proves central to success for flourishing companies. This paper focuses on the intricacies surrounding English and Chinese language policies; *mechanical*, *cultural*, and *political* theories comprise the foundational analysis. After providing a brief synopsis of China’s cultural and linguistic context, this paper addresses three predominant specific issues. First, what constitutes a language strategy? What theoretical perspectives underpin a language strategy? Lastly, how can the organization build an atmosphere conducive to language strategy success?

Results from my study conducted of international companies located in China are presented; analyses and conclusions are presented alongside leading studies in language and management. Furthermore, this paper provides managers with a foundational framework for developing well-structured language strategies concerning English and Mandarin. I reflect upon and analyse cultural insights, empirical studies, and primary-source surveys to construct a theoretical and practical approach to corporate language decision-making.

INTRODUCTION

Since the inception of the People’s Republic of China (PRC) in 1949, China has experienced a meteoric rise to supremacy. The late 1970s brought sweeping reforms in pursuit of a market-oriented system. Since then, the nation’s prodigious growth – averaging nine percent over the past two decades – has been spurred by its distinguishing focus on exports, population of over 1.3 billion, and entry to the World Trade Organization in 2001 (CountryWatch, 2012).

At the epicentre of China’s cultural undergirding lies “普通话” – Mandarin. The central government largely established the preeminence of Mandarin by decree: in 1728, Qing dynasty Emperor Yongzheng mandated that all government officials must use Mandarin (Li, 2006). Similarly, in an effort to unite the nation, the PRC fervently conducted symposia in the mid-1950s; this produced the codified national standard language, the simplified writing structure, and the establishment of Mandarin as the national *lingua franca* – a medium of communication between peoples of different languages. These efforts succeeded in raising the percentage of Chinese who could comprehend Mandarin from forty-one percent in the early 1950s to ninety percent in 1984 (Wu & Yin, 1984).

However, despite Mandarin’s imperial linguistic prominence, recent business trends have eroded the national standard to make room for a sweeping force – English. Over 1.75 billion people worldwide – one in four – speak English with useful proficiency (Neeley, 2012). Hiroshi Mikitani, CEO of Japan’s

Rakuten, describes this pervasive phenomenon as “Englishnization” (ibid.). In fact, Rakuten declared what I shall refer to as a *language strategy*, as defined below, which made English the sole corporate language of the company, despite deep Japanese roots.

The purpose of this study is to develop a clearer sense for how language crafts the landscape of the workplace. Questions invoked participants to analyse their work language environments and managerial techniques to develop successful language strategies. From this foundation, we can move forward with best practices and a solid framework for respecting and nurturing cultural interchange in the workplace; indeed, such astute management can provide a competitive advantage.

METHODS AND PROCEDURES

The basis for the following analysis is an interview/questionnaire survey I constructed for the purpose of extracting critical insights regarding managers’ and employees’ use of language strategies. First, I structured a three-tiered survey: the first section posed open-ended questions allowing respondents to provide deep insights and examples describing how language strategies are carried out in individual companies and what challenges persist; the second portion gives true/false questions that help identify the maturity and nature of the company; the third segment offers a set of Likert Scale questions (with 1 meaning “strongly disagree” and 5 “strongly agree”) in which respondents indicate and rank their sentiment towards various statements.

After I designed the survey, the Human Research Ethics Board granted approval to conduct the proposed primary research. The respondent search process entailed the following: I restricted the study to companies maintaining locations in Mainland China and engaging in some elements of international business. For example, the company could be a US company with an office in Beijing or it could be an entirely Chinese enterprise with significant exports to the West. The key factor is the existence of both *Chinese* and *English* language elements in the workplace. To contact company representatives, I used connections developed through my own professional network, the networks of University of Victoria professors, and through contacts established through my Peking University studies.

Respondents’ nature of work varied. A few respondents held executive or ownership positions in the respective company; the remainder maintained middle management and staff positions. Being located in China, most respondents were of Chinese ethnicity with a lesser portion being expatriates. Once potential interviewees were selected, I sent the survey, implied consent form, and study description via email to the individuals. All surveys were standardized and identical. Respondents completed the survey entirely electronically and then sent the results back for collection. Additionally, the survey was administered in English; however, I also translated the survey into Chinese. This version was verified and edited by fellow Peking University students; however, all respondents felt comfortable reading and responding to the English version. Out of fourteen respondents, twelve were native Mandarin speakers and two were native English speakers.

All company and employee names have been changed for the purpose of confidentiality. The majority of companies are represented by a single employee; two companies provided multiple respondents. The survey and results are shown in the appendices. When question numbers are referenced in the analysis, it refers to the third and final section of the survey.

In order to gain context and better understanding of the role of language in international business conducted in China, I also interviewed an expert in the Chinese business and finance field, Dr. Zhu Xiaoshu of the University of International Business and Economics in Beijing (September 2012). In addition, Mr. Frank Lin, General Manager and Chief Technology Officer of ACD Systems, graciously

offered to give an in-depth personal interview regarding language strategies at his international company (November 2012). These experiences added depth to my enquiries beyond that available using a limited number of survey questions.

LANGUAGE STRATEGY: ESSENTIAL ELEMENTS

A European Commission survey unearthed that nearly half – forty-eight percent – of small- and medium-sized enterprises espouse a formalized language strategy (European Commission, 2006, p. 71); yet, what does a “language strategy” look like? I propose a language strategy constitutes the following:

A formalized or tacit series of policies and practices governing a company’s scope of language use, promotion of communication diversity, and attitude towards linguistic globalization.

In short, a language strategy seeks to achieve efficiency in cross-culture communication and protection from linguistic roadblocks. To clarify, consider the following example of theory in practice: Baest, headquartered in Prague, trains employees in four languages, conducts cultural briefs, organizes linguistic audits, and promotes corporate use of multiple languages. This has led the company’s exports to comprise eighty percent of overall sales (European Commission, 2011a). Such results constitute the products of the overarching language strategy of the firm. One manager I interviewed highlighted the holistic nature of the firm’s language strategy: throughout his or her career, each employee receives support and encouragement to advance language skills in the pursuit of corporate goals.

In Europe, implementing a formalized language strategy appears causally correlated to export success: after a language management strategy was introduced in forty companies, on average three out of four of these companies increased sales turnover by at least sixteen percent (European Commission, 2011b, p. 22). However, cultural and societal conditions differ markedly in China; thus, a targeted approach is needed.

Copious companies interpret “language strategy” as a synonym for “*English* language strategy”; yet, I emphatically contend that language strategies are not confined to English. Throughout his book, “*The Clash of Civilizations...*” Huntington (2006) promulgates that with trends in societal development and economic resurgence, English will be less accepted as a ubiquitous language; civilization (and businesses) will demand linguistic diversity. Moreover, leading businesspeople such as Lee Han Shih, executive of a multimedia company, conjecture that Mandarin will overtake English (Park, 2012); in contrast, a groundswell of experts such as Tsedal Neeley (2012) proclaim English to be the preeminent language of the foreseeable future.

Experts such as Neeley give three fundamental reasons for English predominance: first, competitive pressure drives English as the standard, since suppliers and partners have pre-established English policies. Second, the globalization of tasks and resources necessitates English for efficient operations. Third, mergers and acquisitions (M&A) procedures across national boundaries frequently employ English to project a more global image – this proves particularly important for China, as a McKinsey survey of Chinese companies revealed that fifty-five percent place M&A at the centre of their long-term global strategy (Dietz, Orr & Xing, 2008). My study’s data suggest English remains indispensable: 83.3 percent of respondents either agreed or strongly agreed that it is vitally important for team members to be proficient in English. English still trumps Mandarin as the corporate standard due to its “head start” in capitalist systems and also the sheer difficulty of mastering Mandarin. Despite laborious efforts to simplify the writing structure, it still takes many years of diligent study for foreigners to grasp rudimentary writing concepts.

In speaking with Dr. Zhu (2012) of the University of International Business and Economics, I discovered discreet nuances in oral business Mandarin as well. For example, a boss may say, “Ni pang le,” to her subordinate, which indicates that he or she looks healthy and well. However, it translates to, “You have grown fatter.” Furthermore, Dr. Zhu propounds that, culturally, the Chinese convey their wishes and feelings opaquely; oftentimes, paralinguistic features such as tones and volume exclusive to Mandarin deliver the essence of communication. Achieving true fluency is clearly a formidable task.

THEORETICAL PERSPECTIVE: MECHANICAL, CULTURAL, AND POLITICAL FOCI

In their pioneering dissertation on translation within multinational companies (MNCs), Janssens, Lambert and Steyaert (2004) construct an intriguing series of lenses through which to view the role of translators in corporations. I shall adapt this general framework to critically analyse the topic of language strategy decisions of international companies found in China. I shall proceed by characterizing each lens then coalescing research and analysis to construct conclusions. Each lens espouses a unique attitude or perspective regarding language in the workplace.

Mechanical perspective

To begin, the *mechanical* perspective perceives the corporate language strategy as mitigation for linguistic misrepresentations. The astute Chinese manager will realize the inherent danger in multilinguistic environments – misunderstandings can lead to lost business opportunities. One respondent of this study remarked that business language issues “happen often and it’s really a dilemma for us...”

Thus, from a *mechanical* perspective, organizations are inclined to enact streamlined policies such as a single *lingua franca*; in fact, this theory propagates the notion that employing a variety of languages holds no inherent value. Consider, for example, a Chinese gas exporter with seventy-five percent overall sales to the United States. Preserving Chinese language might yield major inefficiencies: they may flounder in translating marketing materials (consider how Pepsi’s “Come Alive with Pepsi” slogan was interpreted as “Bring Your Ancestors Back from the Dead” in China (Ricks, 1999)), struggle in overseas meetings, and despair in projecting a “global” image.

In contrast, one must assess the effect on employees: is a *lingua franca* feasible? Will deep-rooted cultural values be cast aside? In sum, Chinese companies must comprehend the implications of the *mechanical* approach. Overall, as Charles and Marschan-Piekkari (2002) describe, a common language intends to increase efficiency by “overcoming misunderstandings, reducing costs, avoiding time-consuming translations, and creating a sense of belonging and cohesion within the firm” (p. 409). However, my research questions the applicability of this assumption to China: only 16.7 percent of respondents indicated that a single-language company is more efficient than a multi-language company. Perhaps the Chinese notion of efficiency differs from the Western concept in that Chinese may feel efficiency is built through *cultivating harmony* rather than *streamlining operations*.

Cultural perspective

However, efficiency is not the sole consideration in communication; significantly, international organizations must appeal to consumers, partners, and team members on a deeper level. Thus, the *cultural* perspective provides intriguing insight: language is not simply a means to an end. Organizations should seek to develop practices that engender respect, rich diversity, and cultural savvy. For example, the *cultural* perspective incites language strategies incorporating cultural workshops, immersion, and

networked organizations. Key benefits include flexibility attributable to a workforce flourishing in diversity, as well as increased global opportunities arising from linguistic breadth in scope. As Janssens et al. (2004) adeptly express, "...cultural specificity is acknowledged and created" (p. 421).

Political perspective

Lastly, while efficiency and diversity are cornerstones of language policies, a pragmatist perspective also arises: the *political* perspective. Here, organizations perceive and accept the connection between language strategy and power dispersion. Lambert and Van Gorp (1985) propound that any time corporations employ two or more languages, those cultures 1) compete and 2) create new combinations of value systems. To clarify, a shining example of the *political* perspective emerges from the case of a merger between two anonymous companies: one spoke French, the other spoke Flemish. To ease potential strife, the newly formed company selected English as a corporate *lingua franca* – a third, "neutral" tongue. Politically, the strategy should have engendered an even playing field and anti-favoritism; contrastingly, neither the French nor Flemish employees felt respected. With their cultural identities eclipsed, employees exhibited anemic productivity and pervasive listlessness (Janssens et al., 2004).

Bourdieu (1986) describes language competition and hierarchy as key determinants of the power structure – the "symbolic capital" of the international company. In short, symbolic capital governs networks of strength within factions. In fact, the language strategy may even govern who climbs the corporate ladder – even who simply *participates* in company functions. Gudykunst's (1988) illuminating study of a Japanese firm produced evidence indicating that American supervisors judged young, English-competent Japanese managers to be more ambitious and intelligent than older non-English-speaking Japanese managers. To extract insight, I propose these data support the notion that the language strategy, politically, determines the values and voices projected by a company. Moreover, this segues into a critical question: how can organizations develop language strategies that incite efficiency, respect employees, and balance power and value systems?

RESULTS AND DATA ANALYSIS

The following analysis carefully dissects the intriguing insights uncovered by this study's survey of Chinese professionals.

The current nature of language strategies

As a foundation, we must first describe this study's findings regarding the prevalence of language strategies. Of professionals interviewed, 91.7 percent indicated working in an environment with a "single corporate language or one-language policy." Thus, the majority of companies *have* addressed language obstacles by executing the use of one language. However, the mere existence of policy emphatically does not guarantee its effectiveness. Only two-thirds of respondents felt their company had a clearly expressed, formal language policy. In effect, many companies struggle to maintain effective language policies. Furthermore, the data indicate that Chinese employees are highly supportive of company policies: *one hundred percent* of respondents agreed or strongly agreed to feeling comfortable adhering to corporate language policies and strategies. Corporate strategists should therefore focus energy on policy development over policy enforcement.

Simply put, the survey results indicate that English is vital. The mean response to the question, "It is vitally important for team members to be proficient in English," was 4.17/5. It appears that the permeating influence of the West necessitates fluency in English, even thousands of miles away in

China. From the *political perspective*, this statistic suggests the supremacy of English. Through the *mechanical lens*, we see that managers recognize that “fighting against the current” is not feasible. Being rational, profit-seeking free-market participants, companies pursue English competencies due to the opportunistic nature of the marketplace. Intriguingly, the assumption of “free-market participants” is removed in the case of Chinese state-owned enterprises (SOEs). Consider Sinopec: this gargantuan Chinese company is state-run and operates in what is called a “parallel leadership system.” Sinopec experiences the impacts of both the *market economy* and the *planned economy*. None of the survey respondents were employed at an SOE, preventing any analysis of this unique business model. A topic of further research would be the government’s influence on language strategies in SOEs, as centrally planned enterprises may hesitate to adopt conspicuous Western elements at the expense of Chinese influence.

Next, we must lay the groundwork by outlining the core language issues facing organizations.

Issue analysis

As described by a credit relations manager:

There are 20 percent foreigners in [our] company. We can’t communicate very efficiently with those people because of language barriers. Sometimes we’re joking in local language, but it’s not funny enough after translating into English which cause[s] lots of embarrass[ment].

Thus, the issues are not confined to *business development*. In fact, corporate culture can suffer at the hands of linguistic misunderstanding. From a *mechanical* perspective, difficulties persist. A segment manager illustrated, “[Language issues] are really a dilemma for us to handle business. Our service engineer’s foreign language capability is limited whilst the operation manuals are all in English.” A senior healthcare management director expressed that, despite being taught English since first grade, Chinese still struggle with English and it is difficult to fill specialist positions involving English.

Another credit manager focused on the issues in business development: “All our Chinese customers require [a] Chinese version of [the] contract, but ou[r] system is in English and [so] is the contract.” To dissect, respondents focused on the *mechanical* and *cultural* issues in language policies as described by Janssens et al.’s (2004) theoretical framework. From inefficient contract infrastructures to punch line mishaps, companies struggle to integrate English and Mandarin language elements. In my interview with Frank Lin (2012), Mr. Lin expressed that the biggest issues arise when non-native speakers lack the confidence to speak up in a foreign tongue, even one-on-one. Strategies must aim at encouraging making mistakes and improving.

Earley and Mosakowski’s (2000) study of multinational teams bolsters the evidence supporting the conclusion that insufficient language strategies may uproot the organization. The study formed multinational teams ranging from low to high heterogeneity by mixing East Asians and Americans. In analysis, moderate heterogeneity groups with minimal time spent developing communication strategies achieved the lowest performance ratings; these group exhibited “bifurcation” and nonparticipation due to linguistic difficulties. Contrastingly, groups with high heterogeneity who did develop language strategies drastically outperformed the competition and exhibited higher satisfaction levels (Earley & Mosakowski, 2000, p. 32). To garner insight, the data suggest that by combining group diversity with formal language strategies, teams can outperform the competition.

Efficiency and positivity are two chief elements in corporate environments. When asked if a single-language policy environment is more *efficient* than a diverse-language context, interviewees responded

with a 2.67/5 mean, indicating no efficiency gains from a *lingua franca* strategy. Employees' enjoyment of work life cannot be overemphasized. Accordingly, companies should note that participants, when asked if a single-language environment is more *enjoyable* than a diverse-language context, indicated a 2.42/5 mean, which suggests employees seek to work for companies that support multiple languages. The insight to draw from these statistics is that Chinese concepts of efficiency may not align with Western notions of communications streamlining. Furthermore, Chinese professionals place a premium on companies that can integrate and cultivate diversity in language. This insight refutes the *mechanical* assertion that there is no inherent value in language diversity. Let us now turn to what companies are *currently* doing.

Corporate initiative analysis

Despite daunting challenges, companies are striving for solutions. The survey data suggest that two types of corporate language solution perspectives exist: first, some companies seek to solve the problem via what I shall call the "*ex ante*" strategy. These companies simply only hire those with significant English fluency, thus avoiding language diversity outright. A program director noted, "Some managers will only recruit those who reached their expectation on English speaking." The downside of this strategy is the gradual erosion of Chinese influence; if all employees are told Mandarin is less valued, this will deter Chinese talent and demean Chinese culture. Conversely, "*ex ante*" ensures efficient communication through evading the burden of duplicating materials and decreases training costs by avoiding investments in language training.

The second strategy is the "*foster*" strategy. This approach encourages a breadth of cultures and languages while developing English proficiency as a central focus. One respondent illustrated, "(Company name) hires [an] outside professional English training organization to train us three times a week. We are able to apply [to] this course freely once [we] get approval from [the] direct manager."

One may leap to the conclusion that the "*foster*" strategy is superior, as it constructs a competitive advantage in diversity and flexibility; however, I suggest using increased rigor. For massive companies with sizeable training budgets, the "*foster*" strategy proves preferable because global talent can be integrated and training can be effective. In contrast, smaller companies with budgetary constraints may reap rewards of efficiency in implementing the "*ex ante*" strategy. Moreover, managers must address industry idiosyncrasies. For example, a partner at a global law firm indicated a dearth of English-speaking Chinese lawyers; the solution was to send Chinese from America overseas to the Chinese offices. As another example, Lin (2012) proposes that, for the software industry, it becomes less vital to emphasize Chinese because all software programming is based on English.

Lin (2012) extracted a keen insight: by drawing talent from across the globe, companies grasp elements of those cultures and can utilize these inroads to compete more effectively on a *cultural* level, not just a *language* or *economic* level.

In addition to the aforementioned strategies, the survey highlights peer support as a crucial link in the language chain. In fact, 83.3 percent either agreed or strongly agreed that "support from more fluent speakers is key" to success. A junior trader noted that co-workers "review the reports or meeting recaps for others and give them their [personal] ideas for improvements, or try to provide more exercise opportunit[ies]." Interviews suggest that company culture is the element that truly enforces and sustains language strategies, not executive edicts – even in the palpably hierarchical culture of China. The following view from a trading manager elucidates:

Language communication should be based on trustable culture. Company culture is of prime importance.

Respondents positively noted corporate efforts such as foreign managers slowing speech, holding face-to-face meetings to clarify issues, the provision of translators in meetings, subsidised or free language training, e-learning, and overseas assignments. However, these efforts cannot prevent coinciding *political* issues from arising.

Political implications

Fascinatingly, the political power balance swings like a pendulum with the thrusts of language strategies. While two-thirds of respondents agreed or strongly agreed that increased English use would benefit the company, one-third of respondents agreed or strongly agreed that decreased use of Chinese would harm the company (with fifty percent indicating neutrality). Paradoxically, companies wish to increase the prevalence of English without decreasing Chinese usage. Is such a feat possible? From a *political* perspective, power is a limited resource. Each company distributes power according to prescribed goals and structures; thus, emphasizing English inevitably suppresses Chinese.

Accordingly, employees feel major impacts of language strategies in everyday work life. This study reveals that seventy-five percent of respondents agree or strongly agree that those with English proficiency receive priority to upper-level jobs and opportunities. Implications include a self-enforcing cycle: if English-speakers primarily reach the top ranks, or in the case of monopoly, policies will further thrust English into valued status. Moreover, respondents indicated a 3.42/5 mean score on question ten, meaning that they generally feel that important Chinese values are lost or overlooked due to the emphasis on English. One may conjecture this implies that Chinese elements found in corporate structure, relationships, long-term orientation, and so on will gradually recede. In contrast, this may simply reflect a shift in how Chinese values will be manifested in the future – through the veil of another tongue.

Du-Babcock (1999) extracted corroborating evidence specific to China: in Hong Kong, significant peer pressure deters individuals from learning English in their younger years. Yet, as one's career progresses, English becomes indispensable. Furthermore, the study uncovered a central consideration to language strategies. Bilingual groups were instructed to conduct some meetings in Chinese, and some in English. Du-Babcock uncovered two distinct communication patterns: when speaking Cantonese, participants used a circular, interactive behavior pattern; when speaking English, the same group exhibited a linear, directive communication pattern. Du-Babcock concluded that the Chinese adopted Western thought patterns when speaking English and retained Chinese thought patterns when speaking Cantonese. Further, one can surmise that the Chinese "collectivist" tendency (Hofstede, 2010) engendered reluctance to spontaneity when speaking English.

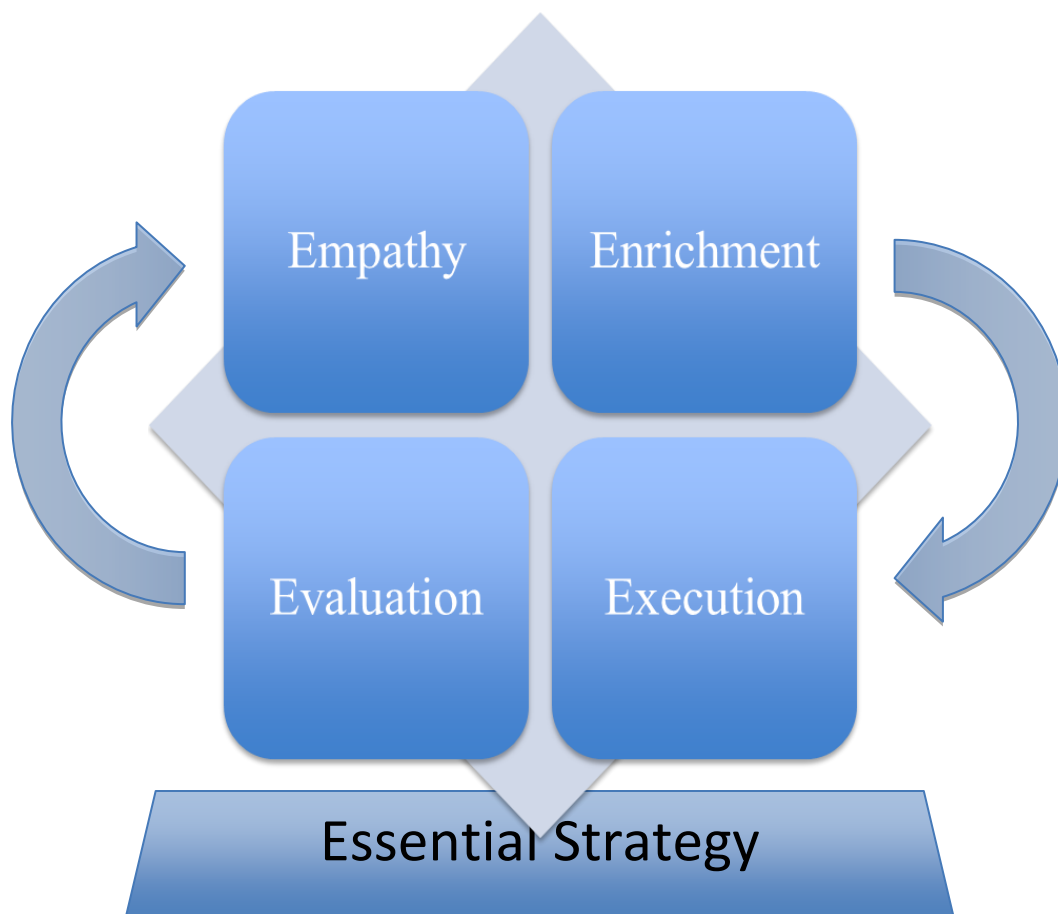
My research supports this assertion. In an in-depth conversation with Dr. Zhu (2012), Zhu noted that Chinese protect "face" by avoiding spontaneity and outspokenness in using foreign languages. If a misstatement were to occur, it would bring great shame in the group. The implications cannot be overstated. *I propose that, by manipulating core language strategies, companies may even dictate the prominent values and thought patterns nurtured.* To clarify, if the hypothetical Chinese multinational GlobeTron wishes to penetrate the Canadian market, then employing a language policy that fosters Western thought patterns might inspire exemplary entry success; contrastingly, it might uproot the very culture, pride, communication pattern, and image undergirding the organization.

To elucidate, Dr. Zhu (2012) imparted upon me the four cultural roots of Chinese communication: 1) *Guanxi* – one’s relationships and networks used to “grease the wheels”; 2) *Mianzi* – preserving one’s own face and the face of others, especially the boss; 3) *Renqing* – reciprocity and favor-returning; and 4) *Qianxu* – the state of modesty. The implication of these roots is that, without the Mandarin context in communication, these fundamental concepts will likely be thrust aside in favor of Western methods. That is to say, the language itself influences the cultural practice, as these concepts cannot be separated from linguistic connotations.

My study suggests that those who are less fluent in the corporate language are less able to participate in communications and decision-making, as question 12 received a mean score of 3.75/5. To analyse, even employees with theoretically equal lateral power in the hierarchy do not receive equal *effective power*. To clarify, two individuals with equal work history, status, and creativity may wield markedly different influence in the organization solely on the basis of fluency. Therefore, as the *political* perspective asserts, language strategies are conduits for conferring power on specific team members.

DRAWING INSIGHTS: WHAT INTERNATIONAL COMPANIES IN CHINA MUST DO TO CRAFT A SUCCESSFUL LANGUAGE STRATEGY.

Figure 1: The four E’s of essential strategy (Bildfell, 2012)



After dissecting the data and analyzing various strategic approaches, we can now draw insight by condensing the preceding discoveries into a comprehensive framework for developing language

strategies. The framework developed is a product of empirical evidence – successful strategic steps as measured by the standards of survey and interview participants.

Essential strategy

Before embarking on a language strategy, the company must conduct external and internal analysis of language use and organizational goals. My research suggests that many companies do not create a sufficiently strong link between organizational goals and language strategies; the two are not mutually exclusive, rather, company goals are supported and contingent on language. Significantly, successful companies forecast market strategies and trends five, ten, even twenty years down the road. Similarly, companies must discern whether the current linguistic challenge is characterized as short or long term and plan accordingly. For example, if an American purchaser wants a quote for a small order from a Beijing-headquartered manufacturer, such minute challenges may not necessitate a full-scale language policy change. In contrast, a series of new major foreign clients or increased global penetration may compel language strategies.

The European Commission's study (2006, p. 54) of 200 exporting enterprises illustrates remunerations of essential strategy development:

Table 1: Language strategy elements vis-à-vis export increases

Language Measure	Percentage Increase in Exports as a Share of Overall Survey Sales
Hiring staff with language skills	16.6
Establishing language strategy in advance	13.5
Employing native speakers	7
Using professional translators	7.4

To clarify, these figures indicate that, in comparison to those who do not, companies that do adopt a given measure increase their market share of exports by the corresponding percentage. The insight to be drawn is that by structuring Chinese multinationals around a formal, comprehensive language strategy, one can outperform the competition in exports.

This chief acuity opens up the remaining four E's to guide the corporation.

Evaluation

The incisive company first grasps its current state before plunging forth. A key step in evaluation is conducting a *language audit*: Chinese companies must observe *in situ* – examining boardrooms, memos, water cooler chats (or perhaps more accurately, teapot chats), and so on. Sørensen's (2005) landmark study of seventy Danish companies revealed that essentially every document was produced in the local language in addition to the corporate-standard English (p. 410). My study supports this finding, as numerous managers cited the efforts taken to duplicate materials in both English and Chinese. One credit manager noted her company discovered it even had to “develop a Chinese version of [the] trading system.” In the example given by the respondent highlighting the misunderstanding of jokes shared in Chinese, such intricacies can be difficult to uncover; hence, the language audit serves a vital purpose. Subsequently, this can lead to efforts to promote inclusion.

Clearly, the simple formalization of a language policy is meaningless without understanding the minutiae of the company's language use. The implications of haphazard policies are extensive: efficiency detriments, cultural upheaval, and image confusion. Furthermore, my research demonstrates that companies are wise to survey employees regarding fluency, comfort with linguistic changes, and desired support factors. Thus, I implore Chinese companies to look within before stepping out.

Empathy

Neeley, Hinds and Cramton's (2012) insightful research on global collaboration within companies revealed a cyclical nature: non-native speakers of the *lingua franca*, whether consciously or unconsciously, frequently reverted to their mother tongue – referred to as “code-switching” – or even skipped meetings held in the foreign language. This practice placated inner-anxiety regarding job status and communication frustration; however, native speakers balked at such behaviors and it eventually “...erod[ed] their collaborative spirit” (Neeley et al., p. 239). Inclusion, not exclusion, is key. Empathy describes the concept of understanding and supporting co-workers' efforts to progress in language comprehension.

My research supports this finding, as humour was cited as a tactic that excluded those who could not speak the mother tongue. Moreover, respondents gave a mean score of 3.75/5 when asked if non-native speakers are less able to participate in decision-making and communications, which implies some exclusion. Lin (2012) describes that Chinese may “basically give up” in meetings conducted in English. An astute counter-strategy is to assign a Chinese project manager – this manager will have a strong command of English and, once meetings finish, can clarify goals and discuss details with other Chinese staff. However, Lin notes, this inevitably slows the process down; the key is finding a balance between *efficiency* and *effectiveness*.

Thereupon, companies can take specific strategic measures to cultivate collaboration within the workplace. My research suggests that non-native speakers should be encouraged to participate; moreover, native speakers must pave that path. From a co-worker perspective, fluent speakers demonstrate support by slowing their speech, repeating what has been expressed, and verifying understanding. From a managerial perspective, my research discoveries and those of experts such as Neeley (2012), and Charles and Marschan-Piekkari (2002) support actions such as organizing language lunches, recruiting linguistically gifted employees, and providing training in an effort to build empathy. One trading manager provided an excellent example of empathy amongst co-workers who mutually review reports, clarify meeting recaps, and offer language suggestions to one another.

Enrichment

My research demonstrates that one of the most arduous challenges lies in the inevitable discrepancies in fluency. Neeley (2012) contends that, to progress from beginner to advanced communicator, employees must master about 3,500 words. Moreover, each mind develops uniquely; one method will not cultivate fluency across an entire company. Thus, a multifaceted approach proves essential. My research suggests that successful organizations enrich the learning experience of team members by offering immersion, university courses, and language partners, all tailored to goals and budgetary constraints.

One respondent illustrated a strong system in which managers lead by teaching:

The manager may need to review the reports, meeting notes, even emails and ask the employee to revise if there is something incorrectly or inappropriate[ly] expressed. By doing this, the employee could improve the English skills.

However, managers cannot carry the entire burden of language enrichment. Another manager highlighted the merits of hiring an outside agency to teach English in the company three times per week. In addition, e-learning is highly effective, as respondents noted its flexibility and tailoring to specific learners.

Benne and Sheats (1948) suggest implementing native speaker “group maintenance roles.” These individuals can ask direct questions of less confident speakers and respectfully provide ample time to respond. These “gatekeepers” can also help by nodding emphatically, displaying positive body language, slowing speech, and so on. Lin (2012) professes that it is natural and beneficial for groups to gravitate towards the most fluent speakers to act as liaisons, and strategies should aim at placing these individuals as focal points of meetings.

My research suggests that enrichment of *oral* language will not suffice. A major element surfaces: body language. Strategies must be *comprehensive* in that employees understand the *modus operandi* for both oral and physical communication. To elucidate, Dr. Zhu (2012) highlighted that Westerners draw their finger towards themselves to summon somebody near; when this motion is used in China, it indicates a man’s desire to court a female. Thus, companies clearly must establish if Western-context body language shall be the norm as well. Training, open forums, and cultural immersion can all bolster these efforts.

Execution

The eventual enactment of a language policy proves cumbersome, and data support this assertion: when 164 employees at a French firm were interviewed two years after a slapdash formal English-only language policy took effect, nearly seventy percent of employees experienced frustration. Moreover, forty-two percent of low-fluency speakers expressed advancement concerns (Neeley, 2012, p.120). I argue that by haphazardly enacting policies without first analyzing the three key perspectives, corporations simply cannot execute their goals.

For strategies in China to “bite,” steadfast advocating and role modeling from executives is vital. From my conversations with professors and business people, the notion of respect to superiors encompasses Chinese culture – the prevalence of Confucianism provides an explanation for this phenomenon. Moreover, one of Hofstede’s (2010) five cultural dimensions – power distance – illuminates this concept: China scores an astounding 80 on power distance, indicating that subordinates unquestioningly accept superiors’ mandates and unequal power distribution is accepted. To clarify, Hofstede’s landmark study examined employee value scores from over 70 countries, then quantitatively positioned each country’s dimensions comparatively. Based on this unique perspective, I propound that by holding executives responsible for modeling and even touting the policy, Chinese companies can execute comprehensive language strategies. Employees are highly supportive of corporate initiatives – as previously noted, when asked if interviewees feel comfortable conforming to and supporting language strategies, one hundred percent agreed or strongly agreed. If the executives are positive and transparent in policies, employees will support.

CONCLUSION

Concurrent with China's prodigious rise in international business, language management has risen to the top of organizations' priorities. In fact, Dietz et al. (2008) interviewed executives at thirty-nine Chinese companies – nearly eighty percent proclaimed globalization as a strategic priority (p. 1). These ambitions require a language strategy.

It is evident that managers in China have copious issues to consider. The *mechanical*, *cultural*, and *political* perspectives embody lenses through which to approach these challenges. Companies in China have evidently adopted simple strategies such as the *ex-ante* strategy or the *foster* strategy, but these policies can be greatly enriched. Built upon contextual analysis and interviews with Chinese professionals, I offer the *Four E's of Essential Strategy* framework to provide managers and strategists with valuable insight regarding the formulation, adaptation, and execution of language strategies. As economic, cultural, and societal paradigms shift with the waves of international exchange, managers should seek to respect and understand one of the most remarkable forces of our world: language.

REFERENCES

Benne, K. & Sheats, P. (1948) 'Functional Roles of Group Members' *Journal of Social Issues*, 1(4), pp. 41-49.

Bourdieu, P. (1986) 'The Forms of Capital' In: Richardson, J. (ed.) *Handbook of Theory and Research for the Sociology of Education*. Greenwood Press, Westport, CT, pp. 242-258.

Charles, M. & Marschan-Piekkari, R. (2002) 'Language Training for Enhanced Horizontal Communication: A challenge for MNCs' *Business Communication Quarterly*, 65(2), pp. 9-29.

CountryWatch Inc. (2012) *China Country Review*,
http://www.countrywatch.com/country_profile.aspx?vcountry=37. Accessed September 5, 2012.

Dietz, M., Orr, G. & Xing, J. (2008) 'How Chinese Companies Can Succeed Abroad' *McKinsey & Company – The McKinsey Quarterly*.
https://www.mckinseyquarterly.com/How_Chinese_companies_can_succeed_abroad_2131. Accessed September 5, 2012.

Du-Babcock, B. (1999) 'Topic Management and Turn Taking in Professional Communication: First- versus second-language strategies' *Management Communication Quarterly*, 12(4), pp. 544-574.

Earley, C. & Mosakowski, E. (2000) 'Creating Hybrid Team Cultures: An empirical test of transnational team functioning' *The Academy of Management Journal*, 43(1), pp. 26-49.

European Commission (2006) 'Effects on the European Union Economy of Shortages of Foreign Language Skills in Enterprise' http://ec.europa.eu/languages/languages-mean-business/files/elan-full-report_en.pdf. Accessed September 5, 2012.

European Commission (2011a) *The Language Guide for European Business: Successful communication in your international trade*. http://ec.europa.eu/languages/languages-mean-business/files/language-guide-for-european-business_en.pdf. Accessed September 5, 2012.

- European Commission (2011b) 'Promoting, Implementing, Mapping Language and Intercultural Communication Strategies in Organisations and Companies (PIMLICO Study)' http://ec.europa.eu/languages/languages-mean-business/files/pimlico-full-report_en.pdf. Accessed September 5, 2012.
- Fredriksson, R., Barner-Rasmussen, W. & Piekkari, R. (2006) 'The Multinational Corporation as a Multilingual Organization: The notion of a common corporate language' *Corporate Communications: An International Journal*, 11(4), pp. 406-423.
- Gudykunst, W. (1988) *Language and Ethnic Identity*, Multilingual Matters, Clevedon, pp. 1-14.
- Hofstede, G. (2010) *Five Cultural Dimensions – China*. <http://geert-hofstede.com/china.html>. Accessed September 5, 2012.
- Huntington, S. (1996) *The Clash of Civilizations and the Remaking of World Order*, Simon and Schuster, New York.
- Janssens, M., Lambert, J. & Steyaert, C. (2004) 'Developing Language Strategies for International Companies: The contribution of translation studies' *Journal of World Business*, 39(4), pp. 414-430.
- Lambert, J. & Van Gorp, H. (1985) On describing translations, in T. Hermans (Ed.), *The Manipulation of Literature: Studies in literary translation*, Croom Helm, London & Sydney, pp. 42-53.
- Li, D. (2006) 'Chinese As a Lingua Franca in Greater China' *Annual Review of Applied Linguistics*, 26, pp. 149-176.
- Neeley, T. (2012) 'Global Business Speaks English: Why you need a language strategy now' *Harvard Business Review*, 90(5), pp. 116-124.
- Neeley, T., Hinds, P. & Cramton, C. (2012) 'The (Un)Hidden Turmoil of Language in Global Collaboration' *Organizational Dynamics*, 41(3), pp. 236-244.
- Park, J. (2012) 'Is English or Mandarin the Language of the Future?' *BBC News Magazine*. <http://www.bbc.co.uk/news/magazine-17105569>. Accessed September 5, 2012.
- Ricks, D. (1999) *Blunders in International Business*, Blackwell Publishers, Cambridge.
- Sørensen, E. (2005) "Our Corporate Language Is English: An exploratory survey of 70 DK-sited
Wu, R. & Yin, B. (1984) *Putonghua Social Survey: Script reform*, 11, pp.37-38.

APPENDIX 1: Survey form

Language Strategies Survey:

Name: _____

Company: _____

Position: _____

(Please note: your personal information will remain anonymous in the results)

Interview Questions:

Please type your response to the following three questions in the blank spaces provided. Thank you.

1. Has the company experienced notable difficulties arising from language barriers, cultural differences, or language policy failure? Please explain:
2. What specific actions do managers and executives take to ensure that corporate language policies and strategies are carried out effectively? Furthermore, what resources are provided to employees to develop these skills? Please explain:
3. Are team members supportive of one another in pursuing language proficiency? If so, how is this support manifested? Please explain:

Survey Questions:

True or False

Please type "True" or "False" below each statement. Thank you.

1. The company has a single-language usage policy or a "common corporate language."
2. The company primarily uses English and Chinese in communication.
3. The company is a multinational company.
4. The company sells goods overseas.

Scaled Responses

(Please indicate your feelings towards each statement with 1 meaning “Strongly Disagree” and 5 meaning “Strongly Agree.”)

- 1 - *Strongly Disagree,*
- 2 - *Disagree,*
- 3 - *Neither agree nor disagree,*
- 4- *Agree,*
- 5- *Strongly agree*

For example, if you feel that English is very important in your company, you would write “4” or “5” below Questions #1.

1. It is vitally important to the company for team members to be highly proficient in English.

Answer (1-5):

2. The company has a formalized, clearly expressed strategy about which language to use in communications.

Answer (1-5):

3. I feel comfortable adhering to corporate language policies and strategies.

Answer (1-5):

4. I feel increased use of English will benefit the company.

Answer (1-5):

5. I feel decreased use of Chinese will hurt the company.

Answer (1-5):

6. I feel a corporate environment demanding the use of a single language is more efficient than one that emphasizes diversity in language usage.

Answer (1-5):

7. I feel a corporate environment demanding the use of a single language is more enjoyable than one that emphasizes diversity in language usage.

Answer (1-5):

8. I feel that by emphasizing English, the company will attract more business internationally.

Answer (1-5):

9. I feel that those with proficiency in English language are given priority to upper-level jobs and opportunities.

Answer (1-5):

10. I feel that important Chinese values are lost or overlooked due to the emphasis on English.

Answer (1-5):

11. I feel that support from more fluent speakers is key to language learning success.

Answer (1-5):

12. I feel those who are less fluent in our spoken languages are less able to participate in decision making or communications.

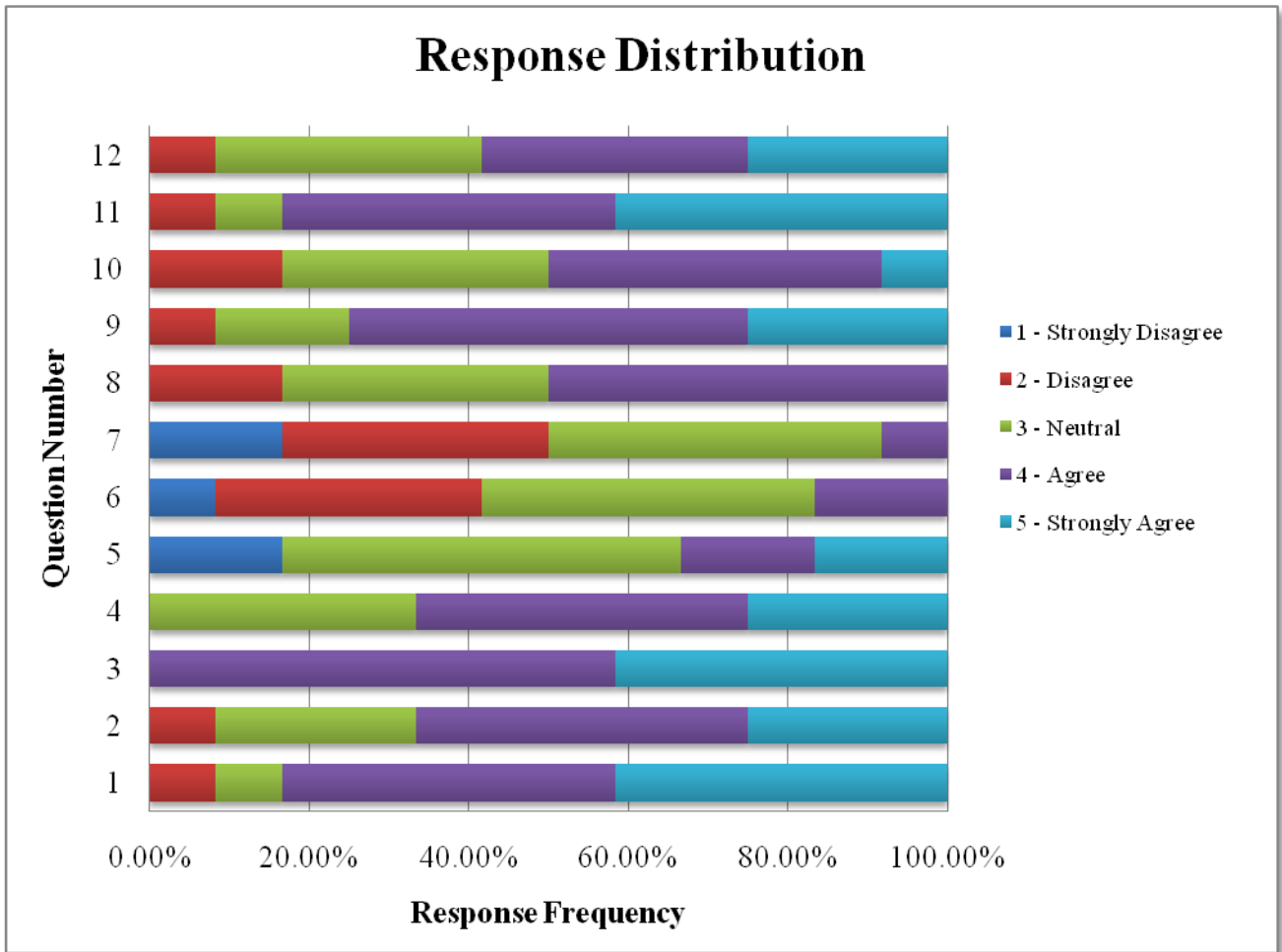
Answer (1-5):

Thank you for your participation. After you complete this survey, please e-mail your completed survey to:

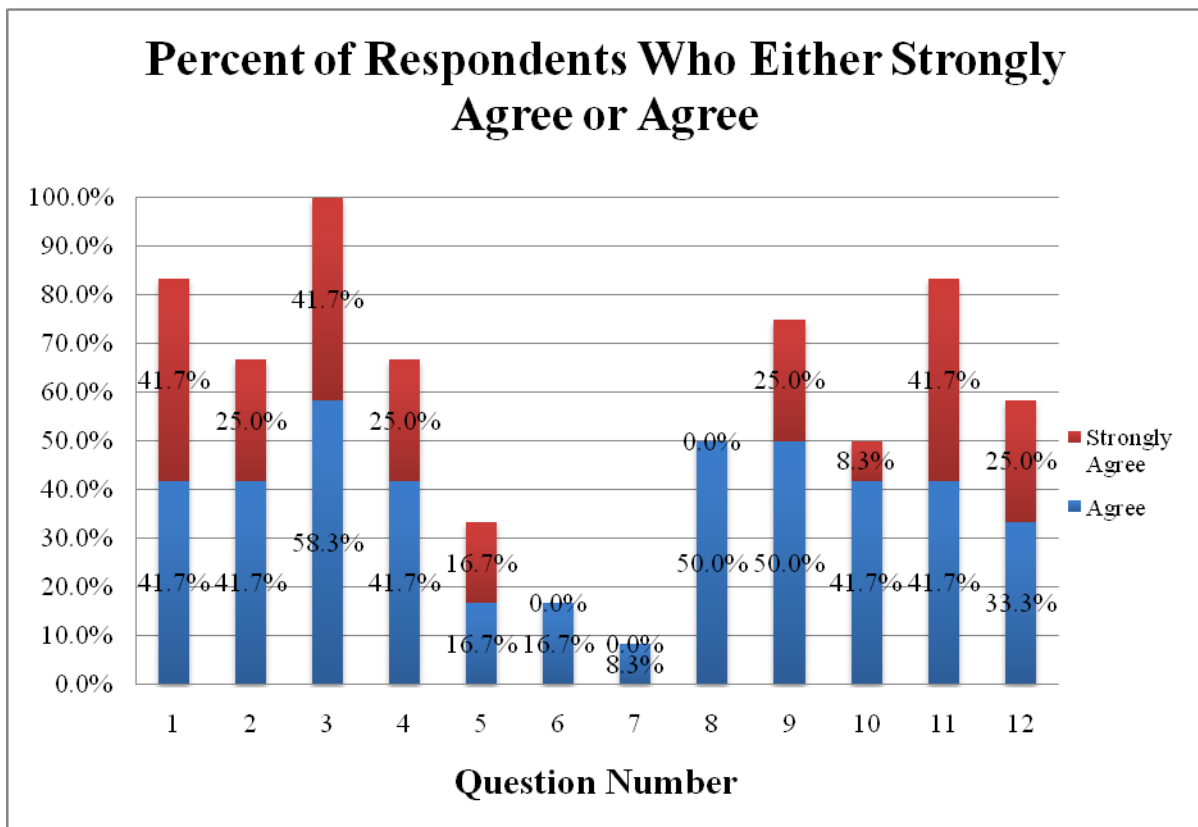
connorb@uvic.ca

Thank you,
Connor Bildfell
Peking University and the University of Victoria

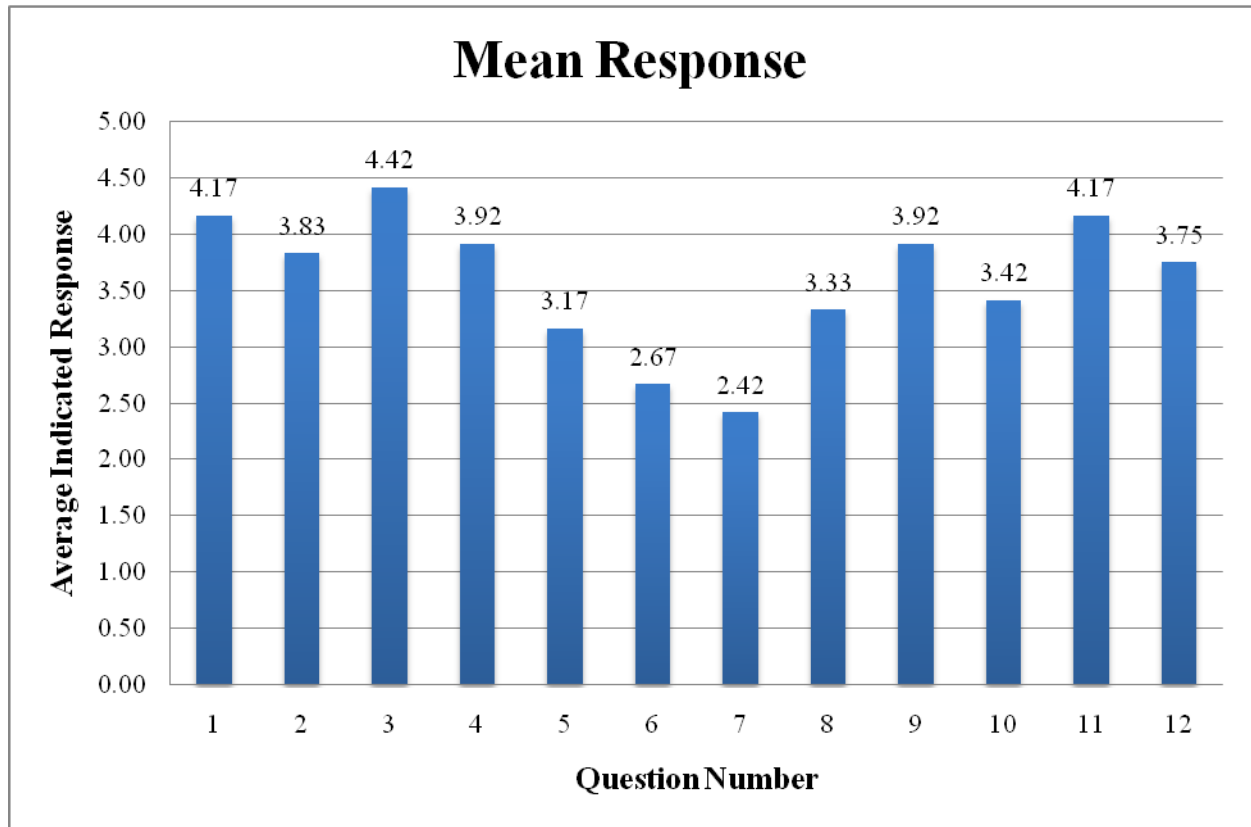
APPENDIX 2: Response distribution



APPENDIX 3: Agree or strongly agree response distribution



APPENDIX 4: Mean response



VOESTALPINE AG:

An Analysis of the Voestalpine Group and its Development from a State-Run World-War II Steel Manufacturer to a Fully Privatized International Success

Jordon Davis

Fall 2012

ABSTRACT

This paper provides a historical overview and assessment of steel manufacturing in Linz, Austria, focusing on Austria's leading steel manufacturer Voestalpine AG. The purpose of this paper is to analyze the history of the Voestalpine Group and understand how steel manufacturing in Linz transitioned from a state-run World War II steel manufacturer to a fully privatized international company. This paper not only analyzes the historical development of Voestalpine AG, but also discusses the drivers behind privatization in Austria. Further, an analysis of the group's current operations is performed. Current operations with respect to the nature of both their external and internal environment will be evaluated. The evaluation of the group's external environment will be performed based on the Andrew's framework, analyzing the implications of technology, ecology, economics, industry, society, and politics. An analysis of the global steel manufacturing industry is performed using Porter's Five Forces Model, determining the industry's attractiveness and Voestalpine AG's strategic position relative to its major global competitors. The group's internal resources will be evaluated using a framework developed by Jay Barney. To accompany the analysis, both primary and secondary sources will be utilized, including an interview with a local student who had an internship at Voestalpine AG. Using the results of the analysis performed in this paper, recommendations for the Voestalpine Group to maintain a strategic position in the steel manufacturing industry are provided. Further, implications for managers in the steel industry will be discussed with the purpose providing insight behind key factors of successful operations within this highly competitive and ever changing industry.

INTRODUCTION

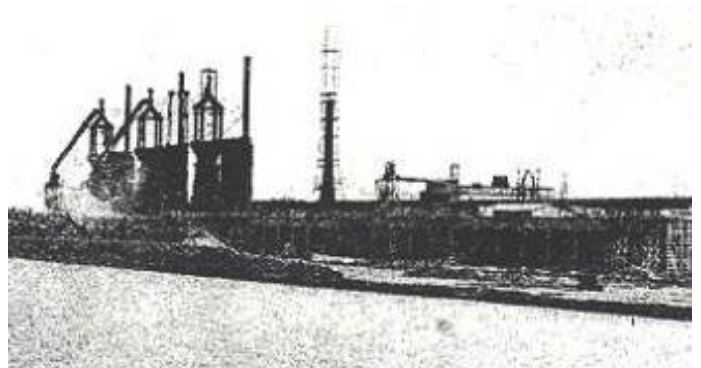
The steel manufacturing industry is a vital materials producer for an endless number of products used all over the world. Products that contain steel are essential for today's functioning society; everything from transportation products and buildings, to manufacturing equipment and cooking utensils requires steel as an essential material in their production. Headquartered in Austria's third-largest city, Linz, Voestalpine AG is an international Austrian holding company for a group engaged in producing and distributing steel products, and supplies railway infrastructure and services. The Voestalpine Group uses their trademarked Linz-Donauwitz procedure to produce steels and special steels used in automotive, white goods, energy, and tool industries. Today, the Voestalpine Group is a fully privatized global leader in steel production that is continuing to grow in the competitive steel manufacturing industry. However, prior to the privatization of Voestalpine AG, steel production in Linz was run by the State, and holds a rich history dating all the way back to World War II (1938). Historical analysis of steel manufacturing in Linz provides insight on the establishment of Voestalpine AG and examines the company's transition from being run by the state to becoming a fully privatized company. An assessment of the Voestalpine Group's current operations analyzes its current market position with respect to its external operating

environment based on the elements of technology, ecology, economics, industry, society, and politics. An assessment of the group's internal resources (human, physical, and organizational) provides insight on Voestalpine AG's ability to achieve a sustained competitive advantage. Provided are recommendations to help Voestalpine AG maintain its strategic position within the industry. Managers can use the strategy behind the Voestalpine Group's successful operations as a benchmark to improve future steel manufacturing operations in the increasingly competitive and demanding steel manufacturing industry.

HISTORY OF STEEL MANUFACTURING IN LINZ, AND THE DEVELOPMENT AND PRIVATIZATION OF VOESTALPINE AG

Steel manufacturing in Linz commenced during World War II as a part of the national-socialist war industry. It was founded in 1938 as the Reichswerke Hermann Göring plant, a subsidiary of the state-owned Reichswerke Göring-Werke facility, which was founded in Berlin in 1937 and then later merged with Alpine Montan AG. Large steelworks construction commenced in 1939 and continued throughout World War II (Reference for Business, 2012). The construction of the Linz steel plant as well as steel production was a substantial, labor-intensive undertaking; it was not possible without forced labor. Foreign civilian workers, followed by forced laborers and prisoners of war were brought to Linz to construct and work in the Hermann Göring plant. Concentration camp prisoners were also used from 1942 to help satisfy the increasing demand for steel during the war. By 1944 foreign laborers constituted two-thirds of the plant's workforce; this did not include prisoners of war and concentration camp prisoners (Voestalpine, 2011). The Linz Hermann Göring plant held five large companies that manufactured steel used for several applications; the Eisenwerke Oberdonau produced armaments and was given the highest priority. Because of the Hermann Göring plant's heavy involvement in producing steel and armaments used by the Axis Military Alliance, it was heavily targeted. In 1944 the Linz plant began to be bombed and attacked by Allies (Voestalpine, 2011).

Figure 1: View of Original Linz Plant in 1948
(Voelstapine, 2012)



Following the defeat of the Axis alliance in 1945, marking the end of World War II, the Linz Hermann Göring plant was confiscated as German assets by American troops. Shortly following the plant's confiscation, it was re-named "Vereinigte österreichische Eisen- und Stahlwerke AG" (VÖEST), detached from Alpine Montan AG, nationalized, and handed over to the Austrian Government. Following nationalization, VÖEST undertook a period of rebuilding from the Allied attacks, and further expansion; it experienced success with sheet metal manufacturing and became an "export-oriented model enterprise of Austria's nationalized industry" (Encyclopedia of Austria, 1994). 1949 marked a substantial step for VÖEST, as the plant became the world's first steel mill with oxygen converters. Oxygen converters allowed steel to be produced more quickly and efficiently through a process trademarked the Linz-Donauwitz Procedure. This procedure boasted substantial progress and success for VÖEST and fostered a long period of growth and internationalization.

VÖEST constructed its first steelmaking plant outside of Austria in 1958 in Rourkela, India; a co-operative project with Germany's Fried Krupp Company. During this time (1959), VÖEST replaced its public management with organizational customary bodies that consisted of management and supervisory boards (Voestalpine, 2011). The period from 1945 and 1973 marked a period of success and growth for VÖEST, permitting it to expand operations and gain a presence on an international scale. In 1973, VÖEST merged with "Österreichisch-Alpine Montangesellschaft," Wien, forming VÖEST-ALPINE AG (Voestalpine, 2011).

Following the merger in 1973, VÖEST-ALPINE AG began to experience a serious downturn due to repercussions of the international economic crisis (oil) reaching Austria. The crisis altered the industrial environment. Manufacturers began to use steel more efficiently and began to look into alternative materials, and steel-using industries such as ship building entered the recessions resulting in a serious drop in demand for steel. Low-cost steel producers began to enter the market, further threatening VÖEST-ALPINE AG's operating position (Reference for Business, 2012). In attempt to sustain operations during this economic downturn, VÖEST-ALPINE AG consolidated various companies and integrated them into their operations. In 1977, the company re-organized its operations into four segments: finished products, industrial plant construction, processing, and steel works. VÖEST-ALPINE AG also initiated a comprehensive diversification strategy to further save its operations. This strategy included entering ventures such as microchip development and participation with American steel companies. Unfortunately these diversification ventures proved unsuccessful. This failure was accompanied by other internal and external influences that resulted in further losses and VÖEST-ALPINE AG continued to accumulate operating deficits. As a result, plant closures commenced, which led up to the crash of VÖEST-ALPINE AG in 1985 (Voestalpine, 2011). In attempts to recover from the crash, VÖEST-ALPINE AG developed a new organizational structure, which included new programs to streamline operations; an investment program was also authorized. In 1987, the group approved investment in an environmental protection package and founded the "Stahlstiftung" (Steel Foundation) to aid in supporting employees who lost their jobs (Voestalpine, 2011). The addition of the Stahlstiftung changed the group's name to VÖEST-ALPINE STAHL AG.

1988 brought changes in political perceptions about large conglomerate corporations in Austria, which resulted in some fundamental reorganization in attempts to improve efficiency. ÖIAG, the state-owned Austrian holding company that gained control of the plant since the Americans gave it back to Austria, was divided into separate companies, one of which was VÖEST-ALPINE STAHL AG. At this time, the Austrian government decided to partially privatize ÖIAG (Reference for Business, 2012). VÖEST-ALPINE STAHL AG was then placed under ÖIAG's wholly owned subsidiary Industrie- und Beteiligungsverwaltungs-GesmbH (IBVG) in 1989, which was then converted into Austrian Industries AG (AI) in 1990. AI was broken up in 1993 creating three groups with the goal of privatization; VÖEST-ALPINE STAHL AG was one of them (Voestalpine, 2011). This was the first step towards the privatization of Voestalpine AG. Today, ÖIAG is Austria's investment and privatization agency; it is a holding company that operates closely with industries and is free of any political influence (ÖIAG, 2012).

In 1995, VÖEST-ALPINE STAHL AG went public, obtained a new ownership structure, and made its initial public offering on the Vienna Stock Exchange (Net Industries, 2012). Following its IPO, the company began to focus on further expanding its operations and increasing its product portfolio. During this period of growth, VÖEST-ALPINE STAHL AG successfully improved operating efficiencies by expanding processing capabilities and implementing updated technologies into steel production. The company also achieved success in product innovation such as "sour service plates" for tubes (Voestalpine, 2011). These successes allowed the company to transform from a steel production group to a successful steel processing group aimed to extend its value chain into engineering and processing activities (ÖIAG,

2003). At this time, VÖEST-ALPINE STAHL AG also decided to pursue an umbrella brand strategy and changed its name to Voestalpine AG to separate itself from its original roots solely as a steelmaker (Voestalpine, 2011).

ÖIAG fully privatized Voestalpine AG in 2003 by issuing the remainder of government-owned shares. This offering comprised of a public offering in Austria, and to institutional investors and qualified institutional buyers in the US (ÖIAG, 2003). Voestalpine AG's full privatization was confirmed in 2005. Following its privatization, Voestalpine AG commenced geographical expansion into Eastern Europe, China, Brazil, India, and Great Britain up until the 2008-2010 economic crisis (Voestalpine, 2011). However, the group was able to react comprehensively to the recession, sustain operations, and quickly re-attain profits once the economy began to recover. Today, Voestalpine AG continues to be a world leader in the steel manufacturing industry.

DRIVERS BEHIND PRIVATIZATION IN AUSTRIA

Privatization of a company indicates the shift of responsibility from government to the private sector (Poole, 2008). Throughout the World War II period and for the following years of economic recovery, the government, or public sector, has had a very strong influence in the Austrian economy. Major industries such as aluminum, chemicals, mining, oil, and steel were nationalized in order them to sustain operations during the post-war recession (Aiginger, 1998).

However, over the past two decades, privatization has become increasingly prominent as a key element of structural policy reforms in the majority of the European Union, Austria included (Belke & Schnieder, 2004). Governments have decided to sell their majority stakes and privatize major firms in attempts to achieve the following objectives: to raise state revenues, reduce government influence in the local economy, raise investment capital for the company/industry being privatized, promote shared ownership, improve efficiency, expose firms to market competition, and introduce greater competition (Price Waterhouse, 1989). Giving up public sector ownership within companies frees up capital and gives governments more money to invest back into the state via such projects as stimulus packages, improving education and infrastructure, and reducing national debt. Further, private ownership reduces government influence on the local economy, allowing business to react freely to market conditions without being influenced by government regulations. Privatization also increases channels to raise investment capital; globalization has more closely connected the world and has opened the doors for private firms to sell shares to international investors. Opening companies up for global investment also promotes shared ownership, which can help companies improve operations, expand geographically, and help them achieve a competitive advantage and greater returns, a great benefit not only to the firm but also the nations in which it operates. Privatization accompanied with globalization, in theory, is beneficial for both the privatized company and the consumer because it promotes increases in efficiency. Being open to more investment channels gives access to operating structures, equipment, and technologies that have global influence. For example, shareholders from developed countries can implement new skills, techniques, equipment, and technologies that can improve the firm's efficiency and reduce costs. These cost reductions can also be relayed down to the consumer in the form of reduced selling prices. Lastly, privatization induces greater competition by introducing a global spectrum of market competitors. Increased competition emphasizes the importance of improving efficiencies so firms can keep costs low and remain competitive. Opening up to market competition also threatens and essentially eliminates any local monopolies that a previously government-owned firm may hold, which in turn drives down selling prices, enhancing consumer value. These drivers behind privatization have made private firms have a major presence in today's global markets.

VOESTALPINE AG TODAY

Today, the fully privatized Voestalpine AG is an internationally successful holding company that consists of a group of highly specialized and multidimensional companies that develop, process, and produce specialized steel products. The group's most well-known invention, the Linz-Donauwitz procedure, still sets the standard in producing the highest quality steel products. The group holds representation by over 500 group companies in more than 50 countries on all five continents. During the last fiscal year, Voestalpine AG generated revenues of EUR 12.1 billion and employed over 46,000 workers worldwide (Voestalpine 2012). The group is actively listed on the Vienna stock exchange (VIE) as VOE and is currently valued between EUR 20 and 30 (The Wall Street Journal, 2012).

The companies representing the Voestalpine group operate under four core divisions: Steel, Special Steel, Metal Engineering, and Metal Forming. Each of these operating segments has achieved global leadership status. The Steel division produces and processes flat steel products such as hot and cold rolled steel, electro and hot-tip galvanized steel, organically coated plate steel, electrical steel strip, and is also involved in heavy plate production. Steels produced in this division are commonly used in automotive, white goods, and construction industries (Reuters, 2012). Voestalpine AG's Special Steel division manufactures tool steel products, including: long steel products (primary output), medium-wide strip steel, open die forgings, and drop forgings. Products manufactured in this division are used in the automotive, aviation, and consumer goods industries. The Special Steel division also offers energy technology such as components for gas and steam turbines (InsideView, 2012). The Metal Engineering division specializes in producing welding filler materials, seamless tubes, pre-stressing steel, rails, and semi-finished steel products. These products are used mainly in developing transportation infrastructure such as railways. This division also provides services for railway production such as engineering, planning, transport, logistics, and installation (Yahoo Finance, 2012). The group's Metal Forming division produces solid and hollow welded tube sections, as well as custom roll forming of special tubes and sections. Products manufactured in this division have applications in construction, automotive supply, transportation, storage, and furniture industries. The Metal Forming division processes materials other than steel such as plastics and composites (graphite, fibreglass, etc.) into components, modules and systems for the automotive industry. Further, this division also supplies precision parts and safety technology components (Bloomberg Businessweek, 2012). Voestalpine AG sells its products mostly in North America, Asia, Brazil, and European countries; including Austria where the group's headquarters is located.

Voestalpine AG's headquarters remains at the original manufacturing plant in Linz, Austria. Although the facility has been modernized significantly, it is conscious about its history and has come to terms with its past, both morally and significantly, through the good and bad. The group has made significant amends for exploiting forced and slave labor during the darker times of its past (Eder, 2012). Voestalpine AG Linz (Voestalpine Stahlwelt) remains one of the city's largest employers, which brings substantial purchasing power and local economy reliance on the facility's operational success. The Linz facility is the major producer in the special Steel Division. In January 2012, the Voestalpine Stahlwelt facility opened up an interactive museum to showcase the country's history, steel applications and innovations, and explain the Linz-Donauwitz process and how it is implemented.

Figure 2: Inside Voestalpine Stahlwelt's Interactive Museum (Voestalpine, 2012).



ANALYSIS AND EVALUATION OF VOESTALPINE AG'S CURRENT OPERATIONS

The analysis and evaluation of the Voestalpine Group's current operations have been performed on two fronts. First, the external nature of the group in the steel manufacturing industry will be assessed to determine the influence of key external factors such as technology, ecology, economics, industry, society, and politics. Second, Voestalpine AG's internal resources, which include physical resources, human resources, and organizational resources, will be analyzed and evaluated to determine the group's ability to achieve a sustained competitive advantage.

To supplement the assessment of Voestalpine AG's current operations, primary research was conducted by engaging in conversation about the Voestalpine Group with students who studied at Johannes Kepler University (JKU) in Linz, Austria. Conversations were held with eight students aged 20 to 25, all of whom were studying Social Sciences. The purpose of these conversations was to gain an impression of how well known Voestalpine AG's operations were among locals and how the group influences the local economy, and its dependency on external influences. Common views from these conversations will be discussed in the "Economy" and "Society" sections of this analysis. Further, an interview was conducted with Ms. Pia Hase, a local student studying business at JKU who recently completed an internship at the Voestalpine Group's headquarters in Linz. She provided valuable information relating to the internal and external assessment such as the group's operating structure, source of resources, important policies, demand for products and its dependence on external factors. Her input will be mentioned throughout the analysis section of this report.

The External Context of Voestalpine AG and the Steel Manufacturing Industry

To evaluate the external nature of Voestalpine AG and the steel manufacturing industry, the initial step of the "Concept of Corporate Strategy," a framework developed by Kenneth Andrews (1980) will be utilized. This step of the Andrews framework evaluates the nature of a company's external environment based on the elements of: technology, ecology, economics, industry, society, and politics.

Technology

The competitive nature of the steel manufacturing industry is fuelled by rapid technological change (Manning & Fruehan, 2001). Advancements in technology have allowed for companies to produce steel products of higher quality, more efficiently, at lower cost, and with less waste by-products. Because steel is the foundation for a wide array of products, buyers want to purchase steel with the highest value possible, that is, a high quality product at the lowest offered price. That being said, blast furnaces

remain the backbone for iron extraction, the main raw material needed to make steel (Manning & Fruehan, 2001).

Voestalpine AG is highly invested in innovation, and is setting very high standards with technologies in the fields of environment, energy, and raw material efficiency (Eder, 2012). Ms. Hase also added that the group's trademark innovation, the Linz-Donawitz procedure still sets the standard for producing the highest quality steel in the industry. Voestalpine AG has a patent on the procedure so it is a source of competitive advantage; the group focuses innovation around producing low quantities of highly customized quality steel products.

Ecology

The steel manufacturing industry faces a wide range of ecological concerns, especially in today's movement towards sustainability. Steel production is extremely resource intensive as it is derived from iron, which is mined from the earth. Further ecological concerns are related to the industry's high-energy requirements, and by-products from production; a substantial amount considering that more than 725 million tonnes of steel are produced each year worldwide (Manning & Fruehan, 2001).

Ms. Hase also mentioned that Voestalpine AG is taking initiatives to reduce energy consumption by harnessing the heat from the blast furnaces and re-using it to heat water required in the production process. Further, the Voestalpine Group also owns its own power plant to supply energy to the operating facilities.

Economics

Economic trends are increasing demands for steel production. Modernization in today's globalized world is causing substantial infrastructure growth in developing nations, which in turn is driving up steel demand (David, 2011). Due to steel being an input good, its increasing demand will in turn help local economies in two ways: first, local businesses are also dependent on steel to manufacture their products, and second, the steel industry is a major employer.

The students interviewed were all very aware of Voestalpine Stahlwelt's economic importance in Linz, as the city's largest operation and major employer. Ms. Hase also contributed by mentioning that Voestalpine AG is a quality leader, but not a cost leader. As a result, the group's sales of basic steel have been decreasing, but this is offset by an increased demand for special and customized steels.

Industry

To provide insight about external industry factors of the steel manufacturing industry on a global scale, an analysis utilizing Porter's Five Forces Model (1979) will be used. This model determines the attractiveness of an industry based on its competitive intensity. The model will discuss the following external elements: threat of new entrants, threat of substitutes, competition, supplier bargaining power, and buyer bargaining power.

Threat of New Entrants

The steel manufacturing industry is extremely capital intensive. High fixed costs pose as a barrier for new players trying to enter the market. Further, the steel manufacturing industry is dominated by an oligopoly of well-established companies that have developed a vast network of global operations and distribution. If new competitors tried to enter the market, they would have to have very deep pockets,

and would lose time trying to build their operations and distribution to a competitive level. The threat of new entrants in the steel manufacturing industry is low.

Threat of Substitutes

Today, steel is still a staple input good required to construct a wide array of products from household goods to infrastructure. Further, innovation is still expanding steel applications. However new technologies and innovation are generating composite products that can act as substitutes for steel. Substitutes include titanium, aluminum and other metal alloys, as well as composite materials such as graphite, fibreglass and carbon fiber. It is important to note that although these materials mentioned are substitutes, they are not perfect substitutes. For example, aluminum is a sufficient replacement in automotive manufacturing, but not in building railways (Bruyerson et. al., 2009). Overall the threat of substitutes is still low.

Competition

The steel manufacturing industry is highly competitive, and international competition is expected to increase (PRWEB, 2012). With innovation driving corporate success, companies are constantly competing to develop new, higher quality, customized steel products that can be produced more quickly, with fewer resources and less waste. Voestalpine AG's major competitors are ArcelorMittal, Tata Steel Europe Limited, and ThyssenKrupp Steel Europe AG (Hoovers, 2012). That being said, Ms. Hase clarified that although competition in the steel industry is high, the competition largely affects basic steel for the Voestalpine Group. Their patented Linz-Donawitz procedure gives the group a major competitive advantage in producing high quality special steel products.

Supplier Bargaining Power

Steel manufacturing companies synthesize their own steel products through the organization's own special process. Hence, the only major supplies required is the iron ore that is mined from the ground. Supplier bargaining power in the steel manufacturing industry is medium. Well-established steel companies have fully integrated their operations and own their own mines, virtually eliminating the need for any major suppliers (Equitymaster, 2008). Supplier influence does persist for companies that are not fully integrated. There is competition between mines that keeps ore prices down especially with today's modern transportation infrastructure and global connectedness. However, steel supplies are extracted, not synthesized; this increases supplier bargaining power in two ways. First because the supply is a resource that is extracted from the ground, mines must go to the supply; this makes supplies fragmented and different mines dominant in different regions. Second, because supplies cannot be synthesized, the availability of iron ore can affect the price (Bruyerson et. al., 2009).

Buyer Bargaining Power

The overall buyer bargaining power of steel is relatively high. This is because steel, in a general sense, is not differentiated, which makes the market price-sensitive. Price sensitivity is also increasing due to the emergence of low cost steel manufacturers in India and China. However, some well-established companies can enjoy a premium because of quality and brand value (Bruyerson et. al., 2009). Ms. Hase contributed by mentioning that Voestalpine AG has high brand value for innovation and quality. As a result, demand for the group's basic steel is decreasing due to low cost competitors, but the demand for special steels continues to increase due to its premium quality.

Society

Society relies heavily on steel in the construction and manufacturing of necessary products and infrastructure that are essential parts of everyday life in today’s modern world. Everything from buildings, cars, railways, and machinery, to appliances, tools, sports equipment, and toys all require steel to be produced, products which today’s society depends on. From talking to local Linz students, it is very apparent how much Voestalpine AG influences residents in the city and surrounding communities. Not only does the local society rely on Voestalpine Stahlwelt as a major employer, its establishment during the Second World War resulted in the displacement of surrounding cities, adding them to Linz (Eder, 2012). The major employer also provides bus service to take workers into Linz and the surrounding communities once their 8-hour shift is complete.

Politics

For the most part, governments have a favorable policy for steel manufacturers because it is a major industry and helps drive local economies. However, there are some regulations regarding resources, such as allocation of ore mines and land acquisitions. Further, political issues and regulatory clearances are apparent, which cause problems for new entrants (Equitymaster, 2008). There are also regulations in production; products must fulfill industry quality requirements for products to be approved for sale. Because the main source of Voestalpine AG’s competitive advantage comes from the Linz-Donauwitz process, which sets the industry standard for quality, it is extremely important that the group focuses on quality and provides public evidence that their products conform to the highest standards. Lastly, in today’s movement towards sustainability, environmental regulations are increasingly prominent, especially in the resource intensive steel manufacturing industry. Energy consumption and waste output are becoming increasingly regulated.

Assessment of the Voestalpine Group’s Internal Resources

Voestalpine AG’s internal resources will be analyzed and evaluated by using a framework developed by Jay Barney called “Looking Inside for Competitive Advantage” (1995). This framework determines a company’s ability to achieve a sustained competitive advantage by evaluating the organization’s internal resources. The Voestalpine Group’s internal resources (strengths and weaknesses) will be assessed based on the following criteria: value added, rareness, imitability, and organization. A summary of the results is presented in the table below:

	Physical Resources	Human Resources	Organizational Resources
Adds Value?	✓	✓	✓
Rare?	✓	✓	✓
Inimitable?		✓	✓
Organized Appropriately?			✓

Physical Resources

The Voestalpine Group’s physical resources add value to the organization. Implementing the most innovative technologies and advanced machinery into their state of the art facilities definitely adds value to the production process by improving efficiency and lowering costs. These physical resources are rare; not necessarily in terms of them being unavailable, but the capital required to obtain them. It is extremely resource intensive, time consuming, and expensive to acquire the resources that Voestalpine

AG holds. However, if obtained, the group's physical resources can be imitated. So although they do assist achievement of a competitive advantage, physical resources are not the primary factor.

Human Resources

Human resources also add value to Voestalpine AG's operations. The large scale of the group's operations requires a highly qualified workforce. Special skills required in the Voestalpine Group's workforce are rare, but the group has designed arrangements to contract desired employees. For example, in Linz, Voestalpine AG has established reciprocal arrangements with Johannes Kepler University and with various nearby technical colleges to hire candidates that fit the group's high requirements (Eder, 2012). Ms. Hase also mentioned that Voestalpine AG has its own human resource company that supports and trains employees specifically for the group's operations. Having their own human resource company makes it difficult for competitors to imitate the Voestalpine Group's human resources. However, human resources are still not the group's primary source of achieving a competitive advantage. Although Voestalpine AG's rare and inimitable human resources add significant value, reciprocal employment arrangements appear to be inconsistent between subsidiaries; human resources have the potential to be organized more appropriately.

Organizational Resources

Voestalpine AG's strongest source of a sustained competitive advantage is derived from organizational resources. The key driver behind the group's operational success is the process in which their steel is manufactured, the Linz-Donauwitzer procedure. Invented in Linz, this process fuels the Voestalpine Group to continually set the industry standard in producing high quality, customized special steel products. It has allowed the group to achieve global leadership status in all four of its divisions. The Linz-Donauwitzer process is a rare organizational resource that cannot be imitated; it is exclusive to Voestalpine AG, as the group has the process protected by a patent. The Linz-Donauwitzer process is also organized appropriately as it is fully integrated throughout the entire group's international steel manufacturing facilities.

IMPLICATIONS FOR MANAGEMENT

Several key factors have contributed to the success of Voestalpine AG within the steel manufacturing industry. First, the group has developed a sustained competitive advantage through innovation, especially through their patented Linz-Donauwitzer procedure. Competition within the steel manufacturing industry is increasing as low-cost global competitors emerge and compete for limited resources. Innovation is integral in this industry to successfully differentiate products and generate brand value. The Voestalpine Group invests heavily into innovation and has stretched the boundaries for steel in both quality and applications. Secondly, Voestalpine AG has effectively reduced operating costs and efficiency by re-using energy sources and constructing their own power plant. Also, the group holds a significant amount of capital, which is extremely advantageous to grow market share in the industry. Starting as a government-owned manufacturing facility permitted access to significant government funding so that Voestalpine AG could establish itself and expand. Already having a strong presence upon privatization likely attracted substantial investment, further increasing the group's capital. Voestalpine AG is also extremely selective in their hiring process and invests heavily into their employees. Having a skilled workforce that has been trained specifically for the group's operations further aids in Voestalpine AG's strong performance.

Overall, the Voestalpine Group has successfully established itself as a global leader in the steel manufacturing industry. Utilizing innovation as a driver, the group continues to be successful in this increasingly competitive industry. Voestalpine AG has been able to exploit its strengths, especially the

Linz-Donauwitz process, to establish recognition as a leader in quality steel production. Managers can use factors of Voestalpine AG's successful operations and adapt them to their own operations to strengthen corporate success.

RECOMMENDATIONS

After completing the internal and external analysis, some recommendations have been formulated for Voestalpine AG to assist the group in sustaining operations in both the short and long term. First, the group should continue to invest heavily into technology and innovation. Using the Linz-Donauwitz procedure as their backbone, Voestalpine AG should strive to continue being the world leader in producing customized, special steel products of the highest quality. That being said, because the group is losing demand for basic steel to low cost manufacturers, Voestalpine AG should shift their focus to their special steels and engineering divisions. Demand for the group's special steel products continues to rise.

Second, because today's society is increasingly active in attempting to preserve the environment, Voestalpine AG should continue to research and invest in sustainable initiatives. Improving the sustainability of their operations would be beneficial for the group as shareholders are more attracted to environmentally conscious firms. Also, environmental regulations are becoming increasingly strict; the Voestalpine Group should be aware of this and take action to prevent any fines or switching costs in the future.

Also, iron-ore is a limited resource, and global competition in the steel manufacturing is continuing to rise. It is recommended that Voestalpine AG attempt to secure long-term contracts with mines in order to ensure supplies in the future. To take things one step further, due to Voestalpine AG's substantial size and capital, it might be wise to look into searching for coal deposits and mining their own ore.

Lastly, Voestalpine Stahlwelt's (Linz) reciprocal arrangements with local educational institutions have been extremely successful in attaining employees with desired skill sets. However, because these arrangements are only done in Linz, the distribution of skilled workers across the group's subsidiaries may become fragmented due to the presence of new global competition. It is recommended that further reciprocal arrangements be made between the subsidiaries and educational institutions in which they operate. This will contribute to the skill level of Voestalpine AG's workforce throughout the entire group.

CONCLUSION

CEO Wolfgang Eder states: "modern life would be inconceivable without steel as a construction material" (2012), and as globalization increases and technology improves, international competition is constantly striving to increase market share and generate a competitive edge. Overall, the Voestalpine Group has boasted remarkable success since its foundation in 1938; it has a rich history that has shaped the company to how it stands today. The group is very conscious about their history, even through the darker times. Voestalpine AG is an example of a company originally run by the state that successfully transformed into a fully privatized industry leader. Its global leadership in special, high quality steel is majorly attributed to the group's patented Linz-Donauwitz procedure, which still contributes to their competitive advantage today. Voestalpine AG should continue to drive forward with technological advancements while making attempts to reduce their impact on the environment. Lastly, securing long term supplies and further recruiting skilled employees would aid in the group's success in the long run.

REFERENCES

- Aiginger, K (1998). "The Privatization Experiment in Austria" *Austrian Institute of Economic Research*.
- Andrews, K. R. (1980). *The Concept of Corporate Strategy*, Revised Ed. xi.
- Barney, J. B. (1995). "Looking Inside for Competitive Advantage" *Academy of Management Executive*, 9(4), PP. 49-61.
- Belke, A. & Schneider, F. (2004). "Privatization in Austria: Some Theoretical Reasons and Performance Measures" *Department of Economics, Johannes Kepler University of Linz*. No. 0404.
- Bloomberg Businessweek (2012). *Voestalpine AG (VOE: Vienna)*.
<http://investing.businessweek.com/research/stocks/snapshot/snapshot.asp?ticker=VOE:AV>. Accessed November 18, 2012.
- Bruyerson et. al. (2009). *World Steel Industry: Industry and Competitive Analysis*.
<http://www.slideshare.net/rjpetrescu/steel-industry-overview#btnNext>. Accessed November 24, 2012.
- David, A. (2011). "Global Steel Demand Continues to Rise" *The Market Oracle*,
<http://www.marketoracle.co.uk/Article29032.html>. Accessed November 23, 2012.
- Eder, W. (2012). "Innovators in Steel" *Linz. Verändert Magazine*, 2012: p.4-5.
- Encyclopedia of Austria (1994). *VOEST, Vereinigte Österreichische Eisen- und Stahlwerke AG*.
<http://www.aeiou.at/aeiou.encyclp.v/v616487.htm>. Accessed November 11, 2012.
- Equitymaster (2008). *Steel: Five-Force Analysis*.
<http://www.equitymaster.com/detail.asp?date=12/29/2008&story=4&title=Steel-Five-force-analysis>. Accessed November 27, 2012.
- Hoovers (2012). *Voestalpine AG Names of Competitors*. http://www.hoovers.com/company-information/cs/competition.voestalpine_AG.9dd5d2948d7065f6.html. Accessed November 29, 2012.
- InsideView (2012). *Voestalpine AG*. <http://www.insideview.com/directory/voestalpine-ag>. Accessed November 17, 2012.
- Manning, C. P. & Fruehan, R. J. (2001). "Emerging Technologies for Iron and Steelmaking" *JOM*, 53(10), pp. 20-23.
- Net Industries (2012). *Voestalpine AG Business Profile, Information, and History*.
<http://companies.jrank.org/pages/4736/Voestalpine-Ag.html>. Accessed November 10, 2012.
- ÖIAG (2003). *ÖIAG to Fully Privatize Voestalpine AG*. http://www.oeiag.at/english/komm/OIAG_20031109.shtm. Accessed November 11, 2012.
- ÖIAG (2012). *ÖIAG*. <http://www.oeiag.at/english/oia/oia.shtm>. Accessed November 11, 2012.

Poole, R.W. Jr. (2008). "Privatization" *The Concise Encyclopedia of Economics, Second Edition*.
<http://www.econlib.org/library/Enc/Privatization.html>. Accessed November 12, 2012.

Porter, M. (1979). "The Five Competitive Forces that Shape Strategy." *Harvard Business Review*, 57(2), pp. 137-145.

Price Waterhouse (1989). "Why Privatize?" *Privatization: Learning from the UK Experience*.
http://www.eia.gov/emeu/pgem/electric/ch1_box1.html. Accessed November 16, 2012.

PRWEB (2012). *Iron & Steel Manufacturing in the US Industry Market Research Report from IBISWorld has Been Updated*. <http://www.prweb.com/releases/2012/11/prweb10145700.htm>. Accessed November 28, 2012.

(2012). *Voestalpine AG – Company Profile, Information, Business Description, History, Background Information on Voestalpine AG*. <http://www.referenceforbusiness.com/history2/8/voestalpine-AG.html>. Accessed November 10, 2012.

Reuters, (2012). *Profile: Voestalpine AG (VOES. VI)*.
<http://in.reuters.com/finance/stocks/companyProfile?symbol=VOES.VI>. Accessed November 17, 2012.

The Wall Street Journal (2012). *Voestalpine AG: VOE (VIE)*. <http://quotes.wsj.com/AT/VOE>. Accessed November 17, 2012.

Voestalpine (2011). *History of the Voestalpine Group*.
<http://www.voestalpine.com/group/static/sites/default/downloads/en/group/history-of-voestalpine.pdf>.
Accessed November 10, 2012.

Voestalpine (2012). *Discover a New World*. <http://www.voestalpine.com/stahlwelt/en/World-of-Discovery>.
Accessed November 30, 2012.

Voestalpine (2012). *1938-1945: The Linz Site of Reichswerke AG "Hermann Göring" Berlin*.
<http://www.voestalpine.com/group/en/group/history/1938-1945.html>. Accessed November 30, 2012.

Voestalpine (2012). *Voestalpine Group: Corporate Presentation Business Year 2011/12*.
<http://www.voestalpine.com/group/static/sites/default/downloads/en/publications-2011-12/2011-12-corporate-presentation.pdf>.
Accessed November 17, 2012.

Yahoo Finance (2012). *Voestalpine AG (VLPNY)*. <http://finance.yahoo.com/q/pr?s=VLPNY>. Accessed November 18, 2012.

Bluer Skies: Germany's Path Towards a Renewable Future

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ABSTRACT

This research paper's objective is to evaluate Germany's Renewable Energy Sources Act (EEG), and outline how the nation can achieve its goals. It summarizes the changes Germany is making in order to phase out nuclear energy, and what consequences these may have. In addition, this paper evaluates Germany's efforts to shut down nuclear energy while still managing to increase renewable power generation. Focusing on Wind and Solar power generation, this paper describes the initiatives that Germany is taking to successfully reach its goals, and what challenges they are facing. It uses the Natural Step Framework to describe the EEG and outlines three main focus areas that need to be considered when moving forward. These include increasing energy efficiency, reducing carbon emissions in all sectors, and bridging the gap after removing nuclear energy and increasing storage capacity to ensure a stable energy sector using renewable sources. A short survey taken by university students in Cologne indicates a preference towards investing in renewable energies. After reviewing all of these aspects, the results indicate that Germany is currently successful in staying on schedule with their Renewable Energy Sources Act, and will most likely be able to achieve its goals, perhaps even sooner than planned.

INTRODUCTION

Only recently has environmental sustainability become a prominent topic for policy makers in developed countries. It has become clear to the world that our previous methods of conducting business, sourcing energy, and living our daily lives are not feasible options for the future. Sustainability is based upon one simple principle: the limits of our planet's capacity must be recognized in order to guarantee lasting economic prosperity and social well-being, for today and for the future. Each generation takes on the responsibility to solve the problems facing them today, to be aware of the impact they have on our Earth, and which will affect future generations. Sustainability is not confined to national borders, but is a global issue that is linked by business, society, and the environment. For this paper, I have chosen to focus on Germany's initiative towards sustainable energy.

The production and consumption of energy holds a key position in the economic process not only because it is a necessity that is growing in demand, but also because it affects every level of a sustainable society. Energy is used to heat homes, run vehicles, power appliances; almost every aspect of modern society uses some form of energy. However, our current preferred method of fossil energy sources such as gas and oil are in limited supply, and have drastic effects on our planet. After the traumatic effects of Fukushima, nuclear energy, a relatively carbon free source, has also proven to have extreme consequences and limitations. For these reasons, a transition towards changing Germany's fundamental energy consumption infrastructure is being undertaken by the government. The country is phasing out nuclear energy and pushing towards renewable sources derived from natural processes. This paper will focus on wind and solar, primary alternatives to nuclear energy, and how they will

contribute to Germany's Energy Concept. Germany has the chance to become one of the first major industrialized countries to have an efficient energy system, based on renewable sources.

GERMANY'S GREEN PLAN

Germany is pursuing a very unique and bold path towards reaching their sustainability goals. The major piece of legislation driving increased renewable energy is Germany's Renewable Energy Sources Act (EEG) and the Electricity Feed-in Law (strEG). This law is a feed-in-tariff that requires utilities to connect renewable sources to the energy grid and reimburse them at a certain rate over a period of time. The EEG provides a fixed rate for producers of green energy (Keppley, 2004).

In September 2010, the government released the Energy Concept, which outlined their plan to reduce carbon emissions using strategic targets unparalleled by the rest of Europe. Using 1990 as the base marker, Germany plans to reduce carbon emissions 40% by 2020, and an astounding 80-95% by 2050. The government aims to reduce primary energy consumption 20% by 2020 and 50% by 2050. In addition, electricity consumption is to fall 10% by 2020 and by 25% by 2050 using 2008 as the benchmark. One of the most pinnacle points is the country's ambition to have renewable energies achieve an 18% share of gross final energy consumption by 2020, 30% by 2030, 45% by 2040, and 60% by 2050 (BMU, 2011).

Decision to remove nuclear energy

After the disaster in Fukushima, the German government deemed nuclear power an unsafe means of electricity. Germany decided to phase out their reliance on nuclear electricity (which was about 30% of the national supply in 1999) (Bundesregierung, 2011). Seven nuclear plants were shut down permanently within three months following the accident (Bundesregierung, 2011). Germany was able to avoid blackouts and meet energy demands by reducing surplus electricity exports, by temporarily importing electricity from neighbouring countries, and by using the reserve capacity of traditional back-up power plants (Jungiohn & Rickerson, 2011). The remaining nine plants will be shut down completely by 2022 at the latest and perhaps even sooner (Bundesregierung, 2011). This phase out of nuclear power has opened up doors for investment in renewable energy and high-efficiency natural gas plants instead, which reduces the cost for these technologies and creates a less costly adaptation for the economy.

Not all countries in the European Union (EU) feel the same way. French Prime Minister Francois Fillon, whose country operates more than one-third of the nuclear reactors in the EU and uses 80% nuclear energy to power the country believes this plan is unrealistic. Fillon respects the decision, but believes there is no way for the European Union to meet its emission-cutting targets without some nuclear power (WRI, 2011). However, Germany has already transformed the way it produced energy; from 2000 to 2010 Germany managed to transform its use of renewable electricity from 5% to 17%. Andreas Carlgren, Sweden's Environment Minister, also criticized the German decision, saying it could result in higher electricity prices across Europe (WRI, 2011). However, Germans have been willing to tolerate slightly higher energy prices if it means the promotion of a domestic renewable energy industry (Keppley, 2012).

One way Germany was able to avoid blackouts was by temporarily importing electricity from neighbouring countries. In 2011 Germany was increasingly importing energy from France and the Czech Republic (Gitschier & Neubecker, 2011). Since France produces mainly nuclear energy, Germany appeared to be replacing nuclear with nuclear, and outsourcing the risk to neighbouring countries. However this apparent hypocrisy will be short lived as the country builds gas plants and invests in solar

and wind power to make up for the loss in energy production. Germany certainly does not plan to rely on other countries for energy sources on a long-term basis.

Without nuclear energy, Germany will need to develop more efficient power grids. In May 2012, the country announced that over the next decade they would expand their energy grid to help renewable power fill the gap. At the request of the government, the four major grid operators drew up a strategy for the essential grid expansions. This included upgrading 4400 km of existing transmission lines and adding some 3800 km of new high-voltage lines over the next ten years. The cost of this investment would reach up to 20 billion by 2022 (World Nuclear, 2012). However, without the proper investment and upgrades, Germany could experience higher costs elsewhere. For example, it could lead to shutdowns of regional energy producers because the proper infrastructure is not available, resulting in higher prices nationally and perhaps the need to import energy as a price-taker (World Nuclear, 2012). Currently, power stations are located relatively close to where electricity is consumed. However, in the future, power generation at sea and in coastal areas will increase significantly. This means power can be fed into the grid from many different generation systems, like photovoltaics, wind, or biomass.

The costs of the phase-out policies depend on the number of available substitutes and their capabilities. Germany is already one of the world leaders in wind and solar energy production, and has taken action to increase their investment.

A MOVEMENT TOWARDS GREEN ENERGY

Planning

Any transition like the one Germany has undertaken requires a significant amount of planning. For this reason, I have decided to use the Natural Step Framework: the A-B-C-D process to outline Germany's progression.

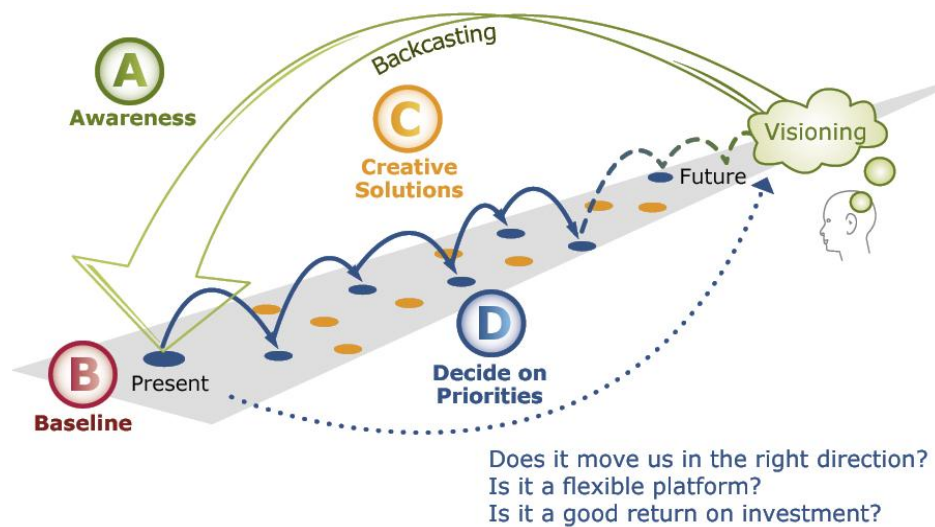
As outlined in The Natural Step, there are four key principles in moving towards a sustainable society:

1. Eliminate our contribution to the progressive build-up of substances extracted from the Earth's crust
2. Eliminate our contribution to the progressive build-up of chemicals and compounds produced by society
3. Eliminate our contribution to the progressive physical degradation and destruction of nature and natural processes
4. Eliminate our contribution to conditions that undermine people's capacity to meet their basic human needs (Natural Step, 2012)

In addition to these four principles, the Natural Step also offers the A-B-C-D framework, standing for Awareness, Baseline, Clear and compelling, and Down to action.

The first step in the ABCD model is creating awareness about the problem in order to find a solution. After the tragic effects of Chernobyl, and then again in Fukushima, Germany became well aware that using nuclear energy can have disastrous after effects. Not only that, but the nation is making sustainability its main target for coming years. During this stage, ambitious goals are to be set, which may require radical changes and innovation to overcome limitations. This can be seen in Germany's Renewable Energy Sources Act (EEG), which outlines many drastic goals that will be discussed throughout this paper.

Figure 1: The ABCD model for planning in complex systems (Natural Step, 2012)



The next step of the framework is Baseline mapping. This step uses the four sustainability principles mentioned earlier to establish the sustainability ‘gap’ and to evaluate the country’s industries in terms of sustainability from ‘cradle-to-cradle’. Inside Germany’s EEG act, 1990 was used as the baseline in many cases to determine the improvement ratios and goals. This allowed the nation to identify target areas, like carbon emissions, and percentage of renewable energy production, and create policies that utilize any assets Germany has in order to overcome obstacles.

The third step of the ABCD process is finding creative solutions to overcome these obstacles and establishing a clear vision. The goals and procedures for achieving sustainability must be clear and compelling when motivating a nation to strive for success. This also can be seen in the Renewable Energy Sources Act, which compares Germany’s current status, and where they could be by 2050. The EEG Act educates the public on all the benefits of using renewable energy, backed up with investments in research projects. In addition, the government outlines their incentive plans to help people not only understand the necessity to changing their ways, but why they would want to.

The final stage, and most important of the four, is Deciding on priorities and getting down to action. Germany has been in this stage since 2009, working to achieve the goals set out by the EEG that year. Due to the continual updating of targets and evaluating their progress, Germany has been able to stay on track. One example being the fact that Germany has already transformed the way it produced energy; from 2000 to 2010 the nation managed to transform its use of renewable electricity from 5% to 17% (WRI, 2011).

THE MAIN FOCUS: INVESTING IN WIND AND SOLAR

This section will briefly discuss the backgrounds of both types of energy generation, and the benefits/challenges that they offer Germany.

Wind

Wind energy plays a key role in the reduction of CO₂ emissions and clean energy generation worldwide. Due to its low environmental impact and wide availability, offshore and onshore wind energy is the fastest growing energy resource today (Dincer, 2011). Wind turbines use kinetic energy created through changes in atmospheric pressure close to the Earth's surface to rotate the blades. In Germany, modern turbines use the lift principle; the blades do not offer any resistance to the wind, but turn as the wind flows past causing them to rotate and generate energy. This energy source is carbon free and is an important aspect in climate protection.

In Germany, the technology is pivotal to the Renewable Energy Sources Act, the replacement of nuclear power, and reducing their carbon emissions. In 2009, 952 new wind turbines were installed in Germany, reaching a total of 21,164 and an energy generation capacity of 25,777 MW. Wind energy saved about 20 million tonnes of CO₂, and wind power generation is expected to increase 25% by 2025 (BMU, 2011). This shows how crucial wind energy is for Germany to becoming carbon neutral while still meeting electricity demand.

However, wind energy does have its challenges. Wind turbines are useless without a strong wind resource, thus the correct location of each individual turbine is significant for any wind energy project. A reduction of wind resources by just 10% can increase the generation cost by 8.5% (Blanco, 2009). Wind turbines should therefore be dispersed over a large geographical area to ensure a more reliable energy supply. If the wind speed in one is incorrectly calculated, generation in different regions can compensate for the loss. If wind turbines are situated in remote locations far from cities there is greater necessity for costly transmission lines. In addition, wind turbines may be renowned for their low impact on the environment compared to other technologies, however there is concern about the visual impacts, depletion of bird populations who are killed by the blades, as well as the noise produced by the rotor blades. Expansion of offshore wind power production faces challenges due to environmental protection acts along the shores. In addition, Germany's offshore projects face deeper waters (30-40m) close to shore, as compared to offshore wind projects elsewhere (Busgen & Durrschmidt, 2009). This brings about higher costs for base re-enforcement and maintenance. Other issues include a high investment cost with only a turbine lifetime of around 20 years (Blanco, 2009).

Despite these challenges, wind energy is still the most promising form of renewable energy available. Wind turbines have the capability to produce large amounts of power, enough to meet Germany's growing demand. For example, in 2009, 12 wind turbines were placed offshore, a relatively new technology, but these 12 generators alone can power the electricity demand of 50,000 households. The German government plans to grow offshore wind energy and feed up to 25,000 MW of energy into the grid by 2025, increasing its share of electricity generation to 15% (FME, 2010). Moreover, due to the high proportion of wind-generated electricity, especially in northern and eastern Germany, onshore wind systems should be able to contribute to grid stability. Wind energy is currently the largest portion of Germany's renewable electricity generation, and both on- and offshore turbine farms offer good potential for expansion, strengthening Germany's ability to reach their EEG goals (Busgen & Durrschmidt, 2009).

Solar

Solar is another crucial technology for Germany's renewable energy plan. Solar panels work using the photovoltaic process (PV) where radiation energy is absorbed and generates electricity. This radiation energy is absorbed into semi conductor cells and changed from photo (light) energy into an electrical current. The electrical current is created when the sun's radiation hits a silicon atom (from the semi-

conductor) and knocks off an electron (Whitburn, 2012). Two types of solar panels exist, the first being Crystalline silicon technology that has been used for almost 50 years. This type of solar panel was used for powering satellites in space. It has the ability, or photovoltaic efficiency, of converting up to 18% of solar radiation exposure into useable electricity.

The Renewable Energies Act entered an obligation for all new buildings to use renewable energies as the source for heat supply. Solar energy is one example of how buildings are becoming more carbon neutral. Germany will achieve its targets for expanding renewable energies given plants can be built without excessive red tape or resistance. The new Planning Acceleration Act will make it easier to build solar plants beside and on buildings (Bundesregierung, 2011). In addition to this and a recent boom in PV panel installations, German utilities claimed solar power production to be more than 50% of what it was in 2010 (USA Today, 2012). The PV capacity rose from 32 MW in 1999 to nearly 17,320 MW in 2010, which made Germany the largest market for solar cells (Huentelera, Schmidt & Kanieb, 2012).

One issue with solar energy, the same as with wind, is its unreliability. Solar panels are dispersed all over the country, and when the sun shines, they act as one plant, pushing electricity into the grid. However, this can cause problems when the grid receives too much energy than is required. For this reason, Germany must invest in better energy storage plants and find a way for the inconsistency of solar energy to be less harmful. One might think that having too much energy than expected would be a good thing! However, the rapid expansion in solar panels is increasing the costs for consumers significantly. As solar expanded from 1 percent of energy in 2009 to 3.5 percent in 2011, the costs for subsidies, largely paid for out of consumers' pockets, are quickly rising (Dowling, 2012). In addition, cheaper production costs in Asia are causing domestic companies to go bankrupt. Almost half of the panels being installed in Germany are imported from China, an issue that must be addressed by the German government (Dowling, 2012).

STRATEGIES

This section describes three strategies that Germany will need to work towards if they wish to succeed in becoming powered mainly by renewable sources.

Strategy 1: Energy Efficiency

In order to run a country with primarily renewable energy successfully, the industries that require large amounts of power must also be transformed. This means improving energy efficiency in all sectors. Germany has placed a strong focus on improving the building sector. This can be seen in the European Union's instruction in the Energy Performance of Buildings, which outlined that all new buildings must consume close to zero energy from 2020 onwards. Germany has put in place a very successful incentive scheme (KfW-scheme) which supports ambitious renovation that goes far beyond the minimum requirements set by the EU. The KfW-scheme impact includes:

- 1.65 million buildings and building units constructed and/or renovated
- 7.5 billion Euro funded between 2006 and 2010 by special tax reductions, renovation programs, etc. to go towards lower energy consumptions and modernizing the building sector
- Greenhouse gas emissions reduced by 4.2 million tons per year (Drybol, Thomsen & Danfoss, 2010).

In addition to more strict building standards, inefficient appliances must be replaced in the market by highly efficient ones. Consumers should be able to more easily identify how much energy each product consumes. This means the government should push for more ambitious standards on energy consuming appliances and labels should be more transparent.

Strategy 2: Carbon Free Energy in all Sectors

In order for Germany to meet their long-term de-carbonization goals, all sectors must be transformed. This is being done in the power sector by focusing on renewable energies like wind and solar. However, the success of their efforts highly depends on having the proper infrastructure. For example, the transportation and automobile sector produces large amounts of carbon emissions each year. The automobile industry in Germany is one of its largest, and a transformation towards electric/more sustainable cars would have a great impact. If the German government implemented stronger efficiency standards for companies like BMW, VW, and others, efforts to cut long-term emissions could be more effective. This can be seen in their efforts to have a minimum of one million electric cars on German roads by 2020 (Bundesregierung, 2011). If this nation of car-lovers became the leading producer as well as the leading market of electric vehicles, their influence would hopefully carry over into other countries. Germany hopes to encourage the purchase of electric vehicles by providing ten years free of vehicle tax, designated electric vehicle parking spaces equipped with charging stations, and permission to use bus lanes (Bundesregierung, 2011).

Strategy 3: Bridging the Gap and Power Storage

Solar and wind power are not exactly reliable sources of energy. If Germany wishes to provide a constant and dependable supply of energy, they must be able to store energy in case it is needed. This requires modern storage options that will allow electricity to be fed into the national grid as required. The federal government has acknowledged this issue, and will be providing up to 200 million Euros for research and development in this area as an initial phase, scheduled to run until 2014 (Bundesregierung, 2011).

Transforming the energy sector toward renewable sources while phasing out nuclear power requires other fuels to fill the gap to ensure a stable power network. Germany has begun the development of highly efficient gas- and coal-fired power stations to create a swifter turnover and help balance fluctuations from wind and solar plants (Bundesregierung, 2011).

ASSESSMENT

Table 1 compares annual renewable electricity generation predictions of two studies commissioned by the federal ministries of environment (BMU) and economy (BMWi) accompanied with mid-term projections for the electricity system operators (TSOs). Included in the table are the goals set by Germany's National Renewable Energy Action Plan submitted to the European Commission in 2010 and the expected political targets set by the German federal states (Länder).

Table 1. Gross electricity generation from domestic renewable energy sources (Lechtenböhmer & Samadi, 2013).

		2010	2011	2015	2020	2025	2025 vs. 2010
Actual	^a	103	122	–	–	–	–
Scenarios/projections	TSOs ^b	–	122	174	–	–	–
	BMU ^c	103	116	166	234	283	+180
	BMWi ^d	–	–	161	199	231	+128
Political targets/expectations	NREAP ^e	105	116	168	217	–	–
	Länder ^f	–	–	–	315	–	–

^a AG Energiebilanzen (2012).
^b IE (2011).
^c BMU (2012).
^d BMWi (2011).
^e National Renewable Energy Action Plan (German Government, 2010).
^f Sum of individual targets of German federal states (dena, 2011).

This table shows the range of expectations regarding electricity generation from renewables held by the BMU, 2012 and BMWi, 2011. The ministry of environment expects renewable electricity generation to reach 283 TWh/a¹ by 2025. In comparison, the scenario for the ministry of economy (BMWi, 2011) predicts 18% less at 231 TWh/a. Projections by the TSOs state that growth in renewable electricity generation might actually exceed expectations in both scenarios. This could be due to the rapid growth in the solar PV industry. In between the predictions by both ministries lay the goals set out by Germany in their National Renewable Energy Action Plan.

The differences between the government agency scenarios and the political targets of the Länder for 2020 are due to differing expectations for the growth in onshore wind capacity (Lechtenböhmer & Samadi, 2013). The technology is already relatively competitive within the market, but the success of wind energy is highly dependent on the states and municipalities who are responsible for planning the sites of wind power plants.

This table indicates how renewable electricity generation will continue to grow in the coming future, and how realistic the goals set by the German government can be. Renewable energy does have the

¹ TWh: The kilowatt-hour (symbolized kWh) is a unit of energy equivalent to one kilowatt (1 kW) of power expended for one hour (1 h) of time. Major energy production or consumption is often expressed as terawatt hours (TWh) for a given period that is often a calendar year. One terawatt hour is equal to a sustained power of approximately 114 megawatts for a period of one year (Wikipedia, 2013).

capability to meet the country's energy needs, given, of course, that Germany is able to manage all of the respective challenges, for example the adaptation/expansion of electricity grids.

THE NEW GENERATION

In order to gain insight into how students feel about the EEG act, I conducted a short survey in front of the University of Cologne Library. I quickly asked 25 students questions and asked them to rank their answers from 1 to 3, 1 being no, 2 being maybe, 3 being yes.

Questionnaire

1. Would you be willing to pay slightly more for electricity if you knew it came from a renewable source?

Results: 1: 6 responses
 2: 5 responses
 3: 14 responses
2. Do you think the removal of nuclear power in Germany is a good idea?

Results: 1: 6 responses
 2: 7 responses
 3: 12 responses
3. How important is renewable energy to you? 1 being not very, 2 being kind of, and 3 being very.

Results: 1: 3 responses
 2: 9 responses
 3: 13 responses

Results and conclusions

The survey I conducted does not determine how the rest of the nation feels, as this is a small sample group of a specific population. However, these students will become the future of Germany, and do hold relevance in that they are all voters. The responses to question 3 indicate that even at an age around 20-26, renewable energy is important. This may be an indication of why the Renewable Energies Act has such momentum and the wind and solar industries have exploded. The general trend from this survey shows a generation more concerned about the well-being of their planet, and that they are willing to invest.

CONCLUSION

Environmental health directly affects all fields of life and should become a serious concern in the global society. Given recent tragedies including but not limited to, Fukushima and the BP oil spill, from mine collapses in China, West Virginia, Russia, to natural gas explosions in San Bruno, California, how we source our energy can have detrimental impacts on human life and the environment (Madrigal, 2011). These catastrophes show that steps must be taken to create more sustainable and safe power sectors that are based on renewable energies. Germany has taken action to transform their power market by moving it to the center of the country's political agenda and creating the EEG clean-energy law.

By focusing on renewable energies, mainly solar and wind, the country will cut their CO₂ emissions in the long run, creating a climate-friendly, sustainable, and secure energy supply for Germany. To ensure their EEG plan is successful the country must conquer the challenges ahead. Germany must find a way to expand the national energy grid and make it better suited for renewable energies. There must be investment in R&D for developing better energy storage plants to help deal with the unreliability of wind and solar generation. The nation must also change the demand on energy by creating more efficient industries, for example the building and automobile sectors. If these obstacles as well as others are met with innovation and support by the country, Germany will be one of the first industrialized nations to be powered primarily by renewable energy.

Lesson for other countries

Germany's combination of sustainable policies, emissions trading, standards, regulations, and incentive programs has allowed this country to completely overhaul their energy industry. By focusing on long-term infrastructure, and rigorous planning and investment into their EEG act, the nation has been able to transition to an economically strong, low carbon economy. While this mix may not work in every country, other nations can learn from Germany's efforts, and take pieces from the German package to change their own country, and help the world work towards a more sustainable future.

REFERENCES

Blanco, M (2009). 'The Economics of Wind Energy'. *Renewable and Sustainable Energy Reviews*. 13(6-7), pp. 1372-1382.

Bundesregierung (2011). Ushering in the age of renewables – the individual measures at a glance. http://www.bundesregierung.de/Content/EN/Artikel/2011/06/2011-06-06-energiewende-kabinettt-weitere-informationen_en.html?nn=447030. Accessed December 28, 2012.

BMU (2011). 'The Energy Concept and its Accelerated Implementation'. <http://www.bmu.de/en/topics/climate-energy/transformation-of-the-energy-system/resolutions-and-measures/>. Accessed December 28, 2012.

Dincer, F (2011) 'The Analysis on Wind Energy Electricity Generation Status, Potential and Policies in the World'. *Renewable and Sustainable Energy Reviews*. 15(9), pp. 5135–5142.

Dowling, S (2012). 'Germany Battles over the Future of Solar Energy' *Global Post*. <http://www.globalpost.com/dispatch/news/regions/europe/germany/120217/germany-battles-over-the-future-solar-energy>. Accessed January 3, 2013.

Durr Schmidt, W & Busgen, U (2009). 'The Expansion of Electricity Generation from Renewable Energies in Germany: A review based on the Renewable Energy Sources Act Progress Report 2007 and the new German feed-in legislation'. *Energy Policy* 37(7), pp. 2536-2545.

Gitschier, L & Neubcker, A (2011). 'Greenwashing After the Phase-Out: German 'Energy Revolution' Depends on Nuclear Imports'. *Spiegel Online* <http://www.accessmylibrary.com/article-1G1-267189619/website-examines-germany-transformation.html>. Accessed December 28, 2012.

Huentelera, J, Schmidta, T, & Kanieb, N (2012). 'Japan's post-Fukushima Challenge – Implications from the German experience on Renewable Energy Policy'. *Energy Policy* 45(1), pp. 6-11.

Jungjohnn, A & Rickerson, W (2011). 'No Nukes, No Problem? Germany's Race for a Renewable Future'. *Renewable Energy World*. <http://www.renewableenergyworld.com/rea/news/article/2011/05/no-nukes-no-problem-germanys-race-for-a-renewable-future>.

Keppley, J (2012). 'A Comparative Analysis of California and German Renewable Energy Policy'. *The Josef Korbel Journal of Advanced International Studies* 4(1), pp. 1-26.

Lechtenböhmer, S & Samadi, S (2013). 'Blown by the Wind. Replacing Nuclear Power in German Electricity Generation.' *Environmental Science & Policy*. 25, pp. 234-241.

Madrigal, Alexis (2011). 'The Atlantic, 25 other Energy Disasters from the Last Year'. *The Atlantic*. <http://www.theatlantic.com/technology/archive/2011/03/25-other-energy-disasters-from-the-last-year/72814/>. Accessed January 3, 2013.

Morgan, J & Matthes, F (2011). 'How Germany Plans to Succeed in a Nuclear Free, Low Carbon Economy'. *Open Climate Network*. <http://insights.wri.org/open-climate-network/2011/07/how-germany-plans-succeed-nuclear-free-low-carbon-economy>.

The Natural Step (2013). 'The Natural Step Framework: the A-B-C-D Process'. <http://www.naturalstep.org.nz/images/abcd.jpg>. Accessed January 3, 2013.

The Natural Step (2013). 'The Four System Conditions'. <http://www.thenaturalstep.org/the-system-conditions>. Accessed January 3, 2013.

Thomsen, K, & Albeck, T (2010). 'European Directive on the Energy Performance of Buildings: Energy Policies in Europe - Examples of Best Practice ACEEE. 8, pp. 127-140.

USA Today (2012). Germany's solar power use jumps 50% this year. <http://www.usatoday.com/story/money/business/2012/11/05/germany-renewable-power/1682675/>. Accessed December 29, 2012.

Wikipedia (2013). Kilowatt Hour. http://en.wikipedia.org/wiki/Kilowatt_hour. Accessed January 4, 2013.

Whitburn, G (2012). How Solar Panels Work. <http://exploringgreentechnology.com/solar-energy/how-solar-panels-work/>. Accessed December 28, 2012.

Shaking Up France's Mobile Market: An Analysis of Free Mobile

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ABSTRACT

Free Mobile is a French broadband company. Free offers many services ranging from television, internet, and home phone; only recently Free has come into the mobile market in January 2012. Entering the market, Free offered low-cost plans that were almost four times lower than any other plan on the market at that time. This attracted many new customers and also created a price war between mobile providers in the industry. To set up their network, Free made a roaming agreement with another mobile provider, Orange. Because their initial network was quite small, this agreement allowed Free Mobile customers to use Orange's network when Free's network was not in reach. The three main competitors in the French mobile market are SFR, Bouygues, and Orange. When Free Mobile entered the market, each company was forced to adjust their mobile offerings and come up with new ways to attract and maintain their customers. Free Mobile was able to offer such low-cost plans because of their innovative technology and cost-saving methods. Free set up a network for internet use that allowed smartphone users to automatically switch from using the 3G network to Wi-Fi hotspots. This greatly saved on data roaming costs. To analyze Free's business strategy and which factors make it successful, I will conduct a SWOT analysis, and examine Free's marketing strategies and factors that affect customer loyalty.

INTRODUCTION

Free Mobile burst on to the French mobile market in 2012. With an aggressive low-cost pricing strategy and innovative technology, they attracted the attention of many people very quickly. The prices offered for mobile plans were significantly lower than those of all of Free's competitors, and this was offered as one of the few plans on the market at that time that did not require a contract. This paper will analyze Free Mobile as a mobile provider and the effect Free's entrance has had on the French mobile market. In addition, I will also discuss the benefits and disadvantages of Free's services and whether Free's current strategy will continue to be successful in the future. To do this, I will look at France's mobile market using Porter's Five Forces model, and then examine the competitors within the market. I will analyze the services and products Free Mobile provides, and how these affect and will affect their customer loyalty. I will also conduct a SWOT analysis, identifying strengths, weaknesses, opportunities, and threats to the company. Lastly, some recommendations of how Free Mobile could keep their competitive advantage in the mobile market will be discussed, along with the potential future of the company.

BACKGROUND OF FREE MOBILE

Free Mobile is a French mobile broadband company. Free's parent company, Iliad, is a large telecommunications company in France that provides the financial statements and press releases related to Free. There are a variety of services provided by Free, ranging from television, internet, and home telephone. Since their entrance into the mobile market in January 2012, Free's CEO Xavier Niel

believes the company is revolutionizing the mobile market, and is making great strides to continue its long term success. He also stated he thought other French mobile providers “squeeze French consumers dry”, and that it was time for a change in the mobile market (Dillet, 2012). To Niel, this change is Free Mobile –a new offering to the consumers different than anything else in the market.

Within six months of its launch, Free Mobile captured 5.4% of the French mobile market (Wall Street Journal, 2012). This surprising start raised the question: What caused this sudden and rapid change in the market? Being such a new player in the market, Free Mobile offered new low cost, no obligation plans that were appealing to many consumers. Free Mobile initial offers that got the public’s attention were as follows:

- €2 per month plan*: No commitment
- 60 minutes of calls per month
- 60 SMS (text messages)

**Since the initial release, Free has changed this offer to be two hours of calls per month, and unlimited SMS, with the price consistent at €2 per month.*

- €19.99 per month: No commitment
- Unlimited SMS and MMS (multi-media messaging) usage
- Unlimited calls in mainland France and 40 other destinations (including Europe, United States, Canada)
- Unlimited Internet (web, mail, VoIP- Voice over Internet Protocol, on 3G and Wi-Fi networks)
- 3 GB of Data usage

In their January 2012 press release, Free announced these offers claiming these plans to be over four times cheaper than other offers on the market (Smartphone users at this time paid approximately between €40- €65 per month). Customers who already used Free’s home box services could get these mobile plans for even cheaper prices. This created much excitement and chaos as competitors fought to keep their customers.

In 2009, before the official launch of their company, Free Mobile became the fourth 3G mobile operator in France. It then took time to set up the network and prepare for their release in 2012. In the October 2009 press release from Iliad, it was stated that the purchase of the 3G network was made for the purpose of “Speed[ing] up the expansion of mobile multimedia technologies and [to] meet strong consumer demand for more user-friendly, cheaper and more innovative offerings . . . it will trigger significant capital expenditure in France from 2010 and lead to significant job creation”. Free has achieved cheap and innovative offerings to its customers; with its potential future expansion Free has a great opportunity to create more jobs as their company needs more expertise and management.

Free’s mobile network is set up through its customers’ home broadband boxes. The company has offered its home telephone and internet services since 1999, which has allowed their broadband boxes to be accepted into a significant number of customers’ homes, thus making the network quite large. Since the network is connected through home broadband boxes, this means the network is concentrated mainly in heavily populated areas.

There are over four million of these hotspots in France (Dillet, 2012). This Wi-Fi network makes it possible for Smartphone users to switch automatically from using the 3G network to a Wi-Fi hotspot, reducing the amount of data usage. The customer does not have to do anything or enter any information to access these Wi-Fi spots, as the switch between 3G network and the hotspot is

automatic. It is seen on Free Mobile’s end as a way to cut costs of data, as less time is used on the 3G network. The automatic authentication to access Wi-Fi networks is in the mobile’s SIM card –this technology is called EAP-SIM (Extensible Authentication Protocol- Subscriber Identity Module). Free Mobile states: “Each subscriber is automatically connecting to the Wi-Fi network community with a dedicated IP address and whose communications are encrypted” (Iliad Press Release, March 8, 2012).The user merely enjoys the use of internet through their mobile phone when they need it.

Free Mobile demonstrates the many strengths that provide an advantage to them in the market. Their rapid entry into the market was a major factor underpinning their success. This initial success in the market took Free’s competitors off guard, and they were forced to quickly adapt and compete with these low-cost plans to maintain their customer base. As stated previously, Free’s innovative technology is a huge strength, and one they would not have been able to offer their low-cost plans without.

Iliad’s most recent press release, February 28, 2013, announced record growth for the group and the success of Free Mobile. Free Mobile had some promising numbers in this year-end revenue report. Within the first year, Free Mobile gained 5.2 million mobile subscribers, which is almost 8% of the entire mobile market.

Table 1: Key operating indicators as at December 31, 2012 for Free Mobile. Iliad February 2013 press release. Note: “Alice” is an Internet Service Provider, taken over by Iliad in 2008.

KEY OPERATING INDICATORS AS AT 31 DECEMBER 2012

	31 Dec. 2012	31 Dec. 2011	31 Dec. 2010
Total mobile subscribers	5,205,000	-	-
Total broadband subscribers	5,364,000	4,849,000	4,534,000
- Free	5,173,000	4,461,000	3,969,000
<i>Of which migrations from Alice to Free</i>	<i>140,000</i>	<i>85,000</i>	-
-Alice	191,000	388,000	565,000
Unbundled subscribers as % of the total	94.1%	92.2%	89.2%

PORTER’S FIVE FORCES MODEL

In order to give an overview of the French Mobile market and the competitors within, I began by using Porter’s Five Forces Model (1979). The five forces in Porter’s model are: threat of new entrants, threat of substitute products or services, bargaining power of customers, bargaining power of suppliers, and the intensity of competitive rivalry.

Threat of new entrants is relatively low in the French mobile market. Free Mobile is the newest entrant in 2012, with there being little change of entrants before this. In order to enter the market, a company must first be established, and then create a network for their mobile usage. A company must also file an application for a network with the French National Assembly, and the licence is then sold to the company, thus making the process quite lengthy and expensive. Generally the number of players in the mobile market is small and the companies are well established with large customer bases. There are four main competitors in the French mobile market - Orange, SFR, Bouygues, and Free Mobile.

The threat of substitute products or services is moderate to high. With the acceleration of technology, it is easy to get in contact with others, even if one does not have a mobile phone. Many consumers simply use land line telephones, email, instant messaging, and Skype or other VoIP (Voice over Internet Protocol) carriers. As Wi-Fi has also become so common, many people simply use their computers or tablets and utilize home and public Wi-Fi hotspots. However, in this day and age mobile phones are incredibly common, with a significant portion of the population having a mobile phone. Therefore, if a consumer does need a mobile phone, they will have to choose from the options in the mobile market, whatever those offers may be.

Bargaining power of customers is also high. Since customers have such a variety of substitute products to choose from, mobile providers are constantly adapting to customer demands and wants in order to keep their products appealing to these customers. The bargaining power of customers is high, as they have a persuasive effect on prices. This concept is blatantly seen in Free Mobile's case. A significantly low cost plan was offered, and many consumers flocked to this new offering. This forced the competing mobile providers to bargain with their customers, and adjust their offerings to attract back their customers.

Bargaining power of suppliers is relatively low. Though suppliers create the technology and phones used in the market, they rely on the mobile companies to promote and distribute these products. There is a lot of pressure on the suppliers to constantly provide new and innovative products for the market. The suppliers are meeting the demand of both the mobile providers, and what the end user desires.

Intensity of competitive rivalry is very high. With so few players in the market, each provider must constantly be changing and evolving to their customer's needs and wants, while watching what their competitors are offering as well. The market is so competitive that mobile providers must react very quickly to their competitors' actions in order to maintain their customers, and attract new ones. The competitors in the mobile market will be further analyzed in the next section, by company –SFR, Bouygues, and Orange.

OVERVIEW OF THE MARKET AND ITS COMPETITORS

Today, the mobile market is huge, with almost everyone having a mobile phone. With the rapid development of Smartphones - iPhones, Androids, and many more – about 40% of French mobile users are now using Smartphones (Mobithinking, 2013), which has also resulted in a large increase in data usage from Smartphone users. Mobile networks are separated into generations. The generations used today are: 2G, 3G, and 4G. The second generation (2G) is based on the first digital mobile system, Global System for Mobile Communications (GSM), which is the most common, and these networks are in most countries. The third generation (3G) is quite common today and is known to many Smartphone users. It is a network made of voice and data digital mobile systems, providing data services. Lastly, fourth generation (4G) is the newest addition which provides mobile ultra-broadband internet access, a step up from the previous generation (Orange website-networks).

The France mobile market has four main players in the market: SFR, Bouygues, Orange, and Free Mobile. According to Mesnard (2011), before Free Mobile entered the market, "Orange has half of the market and the lowest marginal costs, SFR has one-third and its marginal costs are greater than those of Orange while Bouygues Telecom has one-sixth and the highest marginal costs".

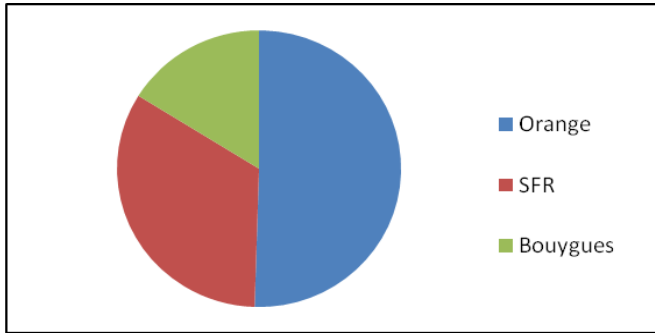


Figure 2: Mobile phone operations in France, 2011 (Mesnard)

France Mobile phone operators market share (%):

Although Free came into the market with very low cost plans, SFR, Orange, and Bouygues quickly cut costs and came up with competitive low cost plans to attract back customers.

SFR

SFR has a variety of mobile plans, the most popular ranging in price from €10.99 to €60, with an additional €140 contract for those who desire international calls and texting. Each plan has a twelve-month or twenty-four month commitment contract. All plans listed on SFR's website include unlimited SMS, showing SFR has realized the importance of text messaging in the market.

To compete in this competitive market, SFR has recently purchased the first 4G mobile network to be available to the public in France. As most mobile providers in France offer the 3G network, SFR is hoping to attract customers with this new and faster technology. Mobile phones that are able to run on the 4G network are fairly new into the market, which will open an opportunity for phone creators. SFR's head stated they are excited to be the first provider of the 4G network to the general public, as it "show[s] that this new, better technology is not reserved for [only a] happy few" (Abboud & Barzic, 2012). With this new technology SFR is positioning itself in the market as a high tech company. As their plans cost slightly more than their competitors, they hope their customer will see the innovation of their network and be willing to pay a premium for a quicker, valued added network.

According to BBC News on August 30, 2012, SFR's profits drastically dropped in 2012, about 7.5% in the first quarter. This was caused by many factors, significantly Free Mobile's entrance into the mobile market at this time. SFR lost many of their customers to the new mobile operator, and was also forced into a price war of lower cost plans to compete with Free Mobile's. Currently, the company is to close 150 of the 850 branches in France this year (Fox Business, 2013).

However, very recently, SFR has offered alternative low cost plans to compete in the new low-cost market. This range of offerings is called the Red Series, which are no-contract plans ranging in price from €4.99 – €19.99.

Bouygues

Bouygues Telecom was created in 1996, as a part of the Bouygues group with its headquarters in Paris, France. Bouygues Telecom, like its competitors, offers a range of products including television, home internet, Wi-Fi, home telephone, and mobile. They have been a 3G operator since 2007, making them very experienced with mobile technology and Smartphones (Mesnard, 2011).

Currently, Bouygues is working on many new innovations to keep them competitive in the market. One recent development is their partnership with Skype, which will allow Bouygues customers to make VoIP calls for free over their phone (Borard, 2013). In addition to this, Bouygues has [signed a deal with Devicescape](#), a company specializing in software for wireless networking, to access its virtual hotspot

network. This will allow Bouygues' Smartphone customers to connect to Wi-Fi hotspots all around the world. Devicescape works in a different way than creating its own network. Instead, Devicescape uses crowd sourcing software to create a virtual network along free Wi-Fi hotspot access points (Fitchard, 2012).

The B&You plan is Bouygues' newest offering. These mobile plans are without obligation, and much lower prices. There are two main packages, one offering €19/month with unlimited calls (France and some international), unlimited SMS with 40MB of 3G usage. The second offering costs about €9.99 and is about equivalent in its plan offerings to Free Mobile's €2 plan. In addition to this, B&You also offers a prepaid card option for as low as €4.99.

Orange

Orange has the greatest share in the mobile market, providing for nearly half of French mobile users. Orange is the mobile division of France Telecom. Orange originated in the United Kingdom, and has expanded to France and many countries throughout Europe. A large part of Orange's success is the brand recognition. As Orange is well-known throughout Europe and has approximately 114 million users worldwide (Orange corporate website), Orange has made a name for themselves and upheld a positive reputation. Orange has positioned itself in the market as being widely available in many countries, and therefore making roaming much cheaper in these countries.

According to Orange's Financial Press releases, "Orange was ranked the best network by the French regulator ARCEP [Regulatory Authority for Electronic Communications and Posts] for the third consecutive year". In addition to this, Orange stated they had a "difficult" first half of 2012, but battled back with new offerings and secured their French market share at 37.3%, with 27 million customers (Orange Financial Press Releases, 2012).

Sosh is Orange's newest mobile offering on the market, executed in 2012. It is a non-commitment plan costing €9.90- €24 per month, depending on features. One main feature that stands out is the Unlimited SMS while travelling within Europe (in the higher cost plans). This means a customer is not paying extra fees while trying to text in other places, or to friends or family in other countries in Europe.

ROAMING AGREEMENT BETWEEN ORANGE AND FREE MOBILE

Initially, Free Mobile had problems with their mobile coverage. Mobile phones were often in "roaming" mode as coverage was discontinuous. Free's "indoor" coverage needed work. Since Free's own network does not cover a large portion of France, Free signed a roaming agreement with Orange to cover the gaps in its network. In the July 21, 2011 Iliad Press release it was stated that "Free has signed an agreement with France Telecom-Orange to jointly finance FTTH networks (fibre to the home) to be rolled out in less densely populated areas".

While this has been beneficial for Free, as customers have greater reach and usage in their network, Free also must pay a percentage to Orange for these roaming costs (Fitchard, 2012). As Free has not had ample time to expand its network, it can be said that a large portion of Free's services have been travelling on Orange's network, making profits for Orange as well. This relationship has worked well to help Free's start up, but it also means that Free is very reliant on Orange for support at this point. This agreement says Free should be off of Orange's network by 2018. Therefore, Free does have a deadline to get its own network up and running, as they make their way to being a fully functioning independent company.

MARKETING STRATEGIES

Free has effectively used promotional channels to their advantage. One major tactic is the use of signs and billboards. These signs are plain, simple, and easy to read. They clearly state the price of their plan (usually the two euro plan), with a simple text reading “Merci Free”, with a photo of a happy-looking male, female, or child. This attracts the customer by showcasing their low cost plans (significantly lower than anything else on the market at this point) and makes the customer more interested in the product. These signs and billboards are seen in major cities all over France – many covering bus and train stations, and along the streets in busy cities.

Through its video advertisement, Free has stuck with its simple, to the point advertising. One commercial in particular simply follows a slowly spinning two euro piece, and zooms in with the details of the two euro plan with the Free logo and tagline: “Incroyable mais Free”, which translates to “Incredible but Free”.

Customer loyalty

As Free has thus far succeeded in differentiating themselves in the market, it is important to examine which factors attracted customers to Free Mobile, and ways they can retain these customers.

Loyalty programs are non-existent thus far with Free Mobile. As they are a new entry into this market, Free’s main focus has been acquiring customers. The next step will be to retain these customers and keep them loyal. As other companies are quickly competing with Free’s low cost pricing plan, Free Mobile should be looking for other ways they can retain customers and keep their competitive advantage.

By analyzing certain factors of Free’s services, I have identified gaps and opportunities for improvement. Some essential factors in measuring customer loyalty include: pricing plan, core services, and value-added services (Lee, Lee & Feick, 2001). The following is an evaluation of Free Mobile’s potential customer loyalty, according to these principles.

Pricing plan

At this point, Free Mobile is the price leader in the market, with their plans being the cheapest in the market, and therefore attracting many customers. However, if competing mobile providers offer similar low cost plans as they have already started to, Free will lose their advantage. All of Free’s plans require no contract, making their plans look even more appealing to the customer. However, this is both an advantage and disadvantage. As stated previously, if competing companies offer low cost plans, Free’s no contract customers could easily switch over if desired, considering the switching costs are quite low.

Switching costs refer to the cost of switching from one provider to another. For instance, many mobile companies require their customers to be on a twelve or twenty-four month commitment plan. If the customer wants to terminate the contract earlier than agreed upon, they must pay an exit fee or pay out the contract. In addition, some phones can be used only with certain networks or providers, adding extra costs if the phone needs to be “unlocked” to be used with another carrier. In Free Mobile’s case, the switching costs are quite low to leave the company. As they provide no commitment plans, the customer is free to terminate their phone plan whenever they see fit. If Free’s competitors are offering a better priced plan, customers may easily make the switch to this company. However, Free’s no-contract plans are a selling feature in themselves.

Core services

Free's core services are fairly standard as far as mobile providers go. Free also sells mobile phones – some with payment instalment options or paying in lump sum. Many of the newest models of phones and Smartphones are offered. However, it is clear the mobile phones themselves are not Free's main service, as there is a fairly limited amount offered on their online store. Many customers are able to use their existing mobile phone (if it is unlocked to work with Free's network system), and keep their existing number.

Free offers two main plans, both including core features such as unlimited texting, voice mail, and international calls. However, a potential future issue for Free Mobile could be their coverage of calls. As they focus on heavily populated areas, customers who do not live in large cities, or those who travel a lot may not have the coverage they need. Free's sound quality so far has not had any major complaints; the biggest issue under core services will be the coverage of calls, especially once the roaming contract with Orange is terminated.

Value added services:

Free Mobile's customer service is focused over the telephone and internet. They do not have any physical stores within France as of now, and have none planned for the future. Because Free focuses mainly on the phone plans and not the phones themselves, most customer service can be achieved through non face-to-face contact. Regarding their online interface, there is an online customer space for viewing and paying bills, purchasing plans, phones and additional services. However, they do not provide a contact email for customer questions or concerns. If a customer wishes to contact an employee of Free online, the only option is over Free's Twitter account (@FreeMobile), where many people have asked simple questions. Though this can be effective for some, it is not guaranteed the customer's question will be answered, depending on the quantity of requests and the complexity of the problem. In addition, this Twitter account is not mentioned on Free's website, so there are likely many customers who do not know about this service, or do not have Twitter to access it.

For most issues, customers must call in to Free's service line. This phone line is available from 07:00-23:00, allowing for a decent amount of time for customers to contact them. However, as many know, these customer service phone lines are often very busy and a customer may have to wait on hold for many minutes. Though it is a positive that Free offers this service, it is essential they offer more customer support.

Precision of billing

Free Mobile uses on-line services to bill their customers. Customers are able to access their accounts online and see their individual charges for the month. Payment options are fairly standard with the option of automatic payment every month with credit card. Free Mobile has had no major problems with their billing thus far. However, if a client does want a paper copy of their bill sent to them, they will need to request this. As more and more services are becoming available on the internet, Free's use of online billing seems to be effective, and not a major issue for customer loyalty.

SWOT ANALYSIS:

Based on the research provided, I have prepared a SWOT analysis summary of Free Mobile:

Strengths:

- Rapid entry into the market creating initial success
- Low-cost plans attracting many new customers
- Use of Wi-Fi hotspots to reduce data roaming costs
- Use of advertising and promotion through frequent billboards and signs in public areas

Weaknesses:

- Wi-Fi hotspots are limited to heavily populated areas, not optimal for everyone
- Lack of physical store
- Customer service and technical assistance only available over telephone
- Reliance on Orange for Wi-Fi and 3G network
- Lack of variety in plan offerings

Opportunities:

- Additions of Wi-Fi hotspots
- Expansion of coverage outside France
- Expansion of independent network within France
- Competition: adapting to competitor's options
- Customer Service enhancement
- Customer loyalty plans to increase customer retention

Threats:

- Other industries looking to do the same low-cost strategy by making accessible Wi-Fi hotspots (Example: Bouygues' deal with Devicescape to access its virtual hotspot network)
- Customer loyalty could waver if other companies release similar low-cost plans
- Free's network may not be able to support new 4G network (too slow)

RECOMMENDATIONS AND CONCLUSION

Free's lack of solid customer service and physical presence in France could be a problem for the company in the future. Customer loyalty is an important factor, and while Free provides low cost, no-contract mobile plans, they must also provide quality customer service to retain current customers. As there are other mobile companies who are moving in on Free's idea of Wi-Fi hotspots, Free will not have this advantage that differentiates them in the market for much longer. In addition, Free must build on the opportunity to expand their Wi-Fi hotspot areas, as those living in less populated areas are not able to take advantage of Free's plans.

Regarding Bouygues' new network and agreement with Devicescape, it will be a great advantage for Bouygues and a possible threat to Free Mobile. However, while a threat, Bouygues' network targets a different kind of hotspot than Free Mobile:

"Free Mobile and Bouygues' Wi-Fi networks won't have much overlap as they target different kinds of hotspots. Free's network is [built into the home broadband set-top boxes](#) Iliad installs in residential customers' homes. So its coverage is limited to areas where people live and is

optimized primarily for indoor usage . . . While Devicescape's network does include some open residential access points, it also incorporates the free Wi-Fi offered by local governments, restaurants, coffee shops and retail businesses". (Fitchard, 2012)

As of now, Free is generating success with help from Orange's network. Orange is also benefitting from the partnership by receiving cuts of the profits from Free's roaming costs. However, this will not be an opportunity for Free Mobile for much longer. As the roaming contract between the two companies expires in a few years, Free will have to have a strong network, something their competitor Orange clearly already has. Orange takes up the greatest percentage of market share, with its network and internationalization being huge advantages. In order to compete with their once ally, Free will have to make great strides in their network development. One major concern is whether Free's network would be able to keep up with new trends, such as the 4G network. Free must continue in innovating through its technology, and improving and maintaining its processes in which they differentiated themselves.

Free Mobile was released in France's mobile market with the intention of making a big splash to disrupt the market. With their extremely low priced plans, Free Mobile attracted many new customers and forced its competitors to adapt their pricing strategies and re-evaluate how to compete in the market. As new entrants to this market are rare, it is interesting to see how a new player can cause so much change. Free has had a very successful starting year, but they must continue to innovate and create value for its customers to keep an advantage in the market and keep growing. At this point France is waiting to see what Free's next move will be, and if their success will continue far into the future.

As a new entrant into the market, Free Mobile jump started a more competitive environment – creating price wars with each provider coming up with cheaper plans with more services, and the expansion of 3G and 4G networks. Customers are certainly much happier with the changes and the new offers they are receiving. Though Free Mobile shook up the French mobile market, perhaps it was a disturbance well-needed to benefit France's mobile users.

REFERENCES

- Abboud, L. & Barzic, A. (2012). "Vivendi's SFR begins 4G battle in France". *NBC News*.
http://www.nbcnews.com/id/50007711/ns/technology_and_science-wireless/#.UTeWVTJJl0I.
- Baritault, A. (2009). "France offers fourth 3G license". *Muniwireless*.
<http://www.muniwireless.com/2009/02/10/france-offers-fourth-3g-license/>. Accessed March 3, 2013.
- BBC News- Business. "Vivendi plans to cut jobs and costs amid price war". 30 Aug 2012.
<http://www.bbc.co.uk/news/business-19427266>. Accessed March 3, 2013.
- Bouygues Telecom Website. www.bouyguetelecom.fr. Accessed February 15, 2013.
- Dillet, R. (2012). "How the telecom company Free disrupted the mobile landscape in France". *Tech crunch*.
<http://techcrunch.com/2012/09/03/how-the-telecom-company-free-disrupted-the-mobile-landscape-in-france/>. Accessed February 2, 2013.
- Feick, L., Lee, J., & Lee, J. (2001). "The impact of switching costs on the customer satisfaction-loyalty link: mobile phone service in France", *Journal of Services Marketing*.15 (1) pp. 35 – 48

Fitchard, K. (2012). *Gigaom Online*. "Free Mobile corners 5.4% of France's Mobile Market in 6 months". August 31, 2012. "Bouygues launches its own free Wi-Fi to challenge Free Mobile". June 11, 2012. <http://gigaom.com/2012/06/11/bouygues-launches-its-own-free-wi-fi-to-challenge-free-mobile/> <http://gigaom.com/2012/08/31/free-mobile-corners-5-4-of-frances-mobile-market-in-6-months/>. Accessed February 12, 2013.

Fox Business. "SFR to close 150 stores in France". 3 March 2012 <http://www.foxbusiness.com/news/2013/03/01/vivendi-sfr-to-close-150-stores-in-france-report/>. Accessed March 3, 2013.

France mobile industry. <http://web.ebscohost.com.ezproxy.library.uvic.ca/ehost/pdfviewer/pdfviewer?sid=4e72cd1d-025b-45fe-b3c6-fd38fdff212f%40sessionmgr4&vid=4&hid=10>. Accessed January 28, 2013.

Free Mobile commercial. <http://vimeo.com/36284930>

Iliad Corporate website. Press releases 2012, 2013. http://www.iliad.fr/en/presse/2012/CP_080312_Eng.pdf. "Free Mobile Network". March 8, 2012. Accessed January 15, 2013.

Iliad Management Discussion and Analysis (2012). http://www.iliad.fr/en/finances/2012/Rapport_Gestion_S1_2012_310812_Eng.pdf. Accessed January 20, 2013.

Mesnard, L. (2011). "More firms, more competition? The case of the fourth operator in France's mobile phone market". *International Journal of Production Economics*, 130 (2), pp. 186- 195. Accessed February 12, 2013.

Mobithinking (2013). "Global mobile statistics 2013 Part A: Mobile subscribers; handset market share; mobile operators". <http://mobithinking.com/mobile-marketing-tools/latest-mobile-stats/a#smartphonepenetration>. Accessed March 10, 2013.

Orange. Corporate website, Press Releases, Network: <http://www.orange.co.uk/http://www.orange.com/en/finance/investors-and-analysts/financial-press-releases/France-Telecom-Orange-reached-its-operating-cash-flow-target-of-8-billion-euros-in-2012-while-increasing-its-investments>. Accessed March 1, 2013.

Porter, M. (1979). "The Five Forces That Shape Strategy". *Harvard Business review*. 57(2).

SFR Corporate Website. www.sfr.fr. Accessed February 15, 2013.

Wall Street Journal. August 2012. <http://online.wsj.com/article/SB10000872396390444914904577622822655324242.html>. Accessed February 10, 2013.