ABSTRACT

This paper discusses the selection of Hungary as the location for a heavy truck parts distribution center to distribute parts to Central Europe. This area’s GDP per capita continues to grow, which leads to continued growth in product transportation and the parts to support this transportation. Budapest, Hungary is the best location for a parts distribution center due to its location, connection to the Central Europe Corridors, labour costs, and corruption index.

KEYWORDS: International Business, Distribution, Marketing Screening, Country Screening, Environment Screening

INTRODUCTION

Since the year 2000, the economies of Central Europe have grown faster on a per capita basis compared to those of Western Europe and the United States (see Figure 1). With increased growth, comes investment in infrastructure development and increased consumer spending. To support the investment in infrastructure, companies will need to transport raw materials, equipment, and finished goods to support the building of developments such as roads, bridges, and buildings. To support the increase in consumer spending, companies will also need to transport raw materials and equipment to the site of manufacture and the transport of finished goods to the customer. A large portion of this transportation is facilitated by trucks (United States Department of Agriculture, 2013) manufactured in Western Europe by companies such as DAF, Mercedes, MAN, Scania, and Volvo.
Owners of these trucks only make money when these products are in operation; therefore, uptime (truck in operation time) is an important attribute for customers. This means that when trucks break down, repairs occur in a shortest period possible. In order to support these repairs, customers will need quick access to parts. To provide quick access to these parts, a new parts distribution center is proposed to cover the Central European area supplying dealers in countries like Czech Republic, Slovakia, Poland, Hungary, Slovenia, Romania and surrounding countries.

A distribution center gathers components in bulk from the various suppliers; breaks the bulk packages into usable quantities, and redistributes them to various retailers (see Figure 2). With this in mind, it is important to have a good transportation network within easy access of the distribution center.

**Distribution Center**

**Transportation**

In order to support Central Europe’s long-term growth plan, the European Union identified the future transportation corridors for Central Europe in 1994 at the Pan-European Conference of Crete (see Figure 3). This was actually the second conference. The first conference was in Prague in 1991 where the corridor concept was agreed. The second conference, often referred to as the beginning, established the first nine long distance corridors. The third conference held in Helsinki in 1997 established the tenth corridor. These ten corridors have been refined into a system called the TEN Network (HB-Verkehrsgemeinschaft GmbH, 2005). The purpose of this transportation network is to support the development of Central Europe while connecting Eastern and Western Europe. Corridors 1-6 and 8-10 are roadways and railways; Corridor 7 is the Danube inland waterway with supporting canals (HB-Verkehrsgemeinschaft GmbH, 2005).

Using the corridors discussed above, PACCAR identified the major cities with the most number of roadways going in opposite directions and this is important to facilitate transportation in and out of the distribution center. The cities with five or more corridors that intersect near the center of the city are Vilnius, Lithuania; Warsaw, Poland; Katowice, Poland; Bratislava, Slovakia; Zagreb, Croatia; Budapest Hungary; Belgrade, Serbia; Skopje, Macedonia; Sofia; Bulgaria; and Dimitrovgrad, Bulgaria.

Another important aspect of a distribution center is the location relative to the number of retailers the distribution center can support. To understand this, the analysts used a circle
used to estimate a 12-hour driving distance from the distribution center. Applying this circle to the 10 cities mentioned earlier see Figure 4. These circles show the locations that cover the most amount of land in the surrounding area.

The analysts further refined the selection by looking at locations that provide the optimum flow from East to West. These criteria narrowed the cities of interest to the central European cities of Warsaw, Poland; Katowice, Poland; Bratislava, Slovakia; and Budapest, Hungary. A detail review of each circle of these four cities shows that the majority of the circles centred on Warsaw, Poland and Katowice, Poland cover mostly Poland. The other two circles centred on Bratislava, Slovakia and Budapest, Hungary covers the most amount of land in connecting countries, which makes them the most favourable location for a distribution center. The Analysts therefore picked Bratislava, Slovakia and Budapest, Hungary as the two primary areas of interest. After picking these two cities as the final candidates for the distribution center, analysts did a detailed assessment to compare the positives and negatives of each country. PACCAR Parts hired a company to perform a detailed analysis in this general region that had land available for a distribution center.

**Decision Analysis**

Figure 5 identifies the positives and negatives for each country as a decision analysis followed with a discussion on each point.

**Labour**

A forklift driver is one of the largest labour requirements in a distribution center. Per the U.S. Bureau of Labour Statistics, the cost of labour is $9 per hour for employees in Hungary compared to $11 in Slovakia. Start up cost can be significant to a wholly owned subsidiary. Hungarian law supports employees of the EEA (European Economic Area) citizens and family members to work without a work permit. This allows PACCAR employees from the Netherlands and other EEA facilities to work in the Hungary facility (United States Department of Labor, 2013; Euroguidance Hungary, 2012).

**Human Development Index (HDI)**

Quality of life fosters a quality work force and productive operations. The Human Development Index (HDI) is a statistical indicator of health, education, and income (see Figure 6). A comparison of the HDI rankings for Slovakia (35 out 187) and Hungary (38 out
of 187) shows Slovakia slightly higher, but both countries are considered above average for the region, and thus are scored as equal in the decisions analysis (Human Development Report, 2011).

**Corruption Index**

A corruption index was used to determine the honesty of the populace and the supporting government. Corruption translates to suffering of the populace and the business environment and can be seen as inconsistent access to the justice system as well as inefficiencies and inadequacies in infrastructure due to very few of the resources funds actually being applied to the infrastructure project itself. Based on Transparency International, Hungary has a corruption ranking of 46 out of 176 countries with an overall score of 55 out of 100 and Slovakia has a corruption ranking of 62 out of 176 countries with an overall score of 46 out of 100. The edge, while not separated by a large margin, goes to Hungary (Transparency International, 2012).

**Land**

It is important to own land outright and not lease as a hedge against inflation, which was the case for PACCAR. PACCAR looked at land cost as well as property ownership rules for the two countries. The rates were nearly identical. The ownership laws are very similar between the two countries with the foreign company being required to establish a locally registered legal entity that owns the land (Colliers - KPMG, 2012).

**Political Stability**

Political Stability is a critical variable a multinational company must fully understand when entering a new country. Both Slovakia and Hungary established parliamentary governments after emerging from Communism. Both countries governments have remained primarily stable despite economics fluctuations. However, a series of controversial and unpredictable policy decisions adopted by Hungary has undermined market confidence and elevated risk perceptions (see Figure 7) (Euler Hermes, 2012).

**Selection**

With the decision analysis nearly being equal, Bratislava, Slovakia was the first selection but in the process of trying to acquire land, government officials violated PACCAR
property rights by public action by. After this action, the primary focus shifted to Budapest, Hungary. The driving factors being that it met the criteria for access to transportation as well as geographic proximity to the gravity centers of the region. Budapest’s favourable labour rate and lower corruption (as experienced with Bratislava) were also very important to the decision.

SWOT Analysis

The SWOT Analysis in Figure 8 illustrates the country’s characteristics a multinational must consider, if they are looking to open a facility in Hungary.

One of the most important strengths about Hungary is its strategic location within Central Europe. Hungary is landlocked and surrounded by eight countries, with central land routes and access to the Danube and Tisza rivers. Hungary also has numerous global relationships to help increase its awareness to investors and multinational countries, including the United Nations and the North Atlantic Treaty Organization. Along with the central location, Hungary has an extensive motorway infrastructure and access to multiple trade routes in Europe and in the East.

Even though Hungary has a highly skilled workforce in spite of the high unemployment rates, they still have a concern regarding their decreasing birth rate. The Government uncertainty over the last several years and lack of work has been causing families to have less children or to move to another country in hopes of seeking a better career opportunity. Other weaknesses that a company has to consider are the high level of pollution and the lack of environmental awareness among the population. These aforementioned problems, if not addressed, they could limit the growth potential Hungary. Another weakness in Hungary is the current lack of water and rail transportation infrastructure to transport goods in and out of a facility. A multinational company would need to work with the local governments on how to improve the current state of their rail and water transportation (CIA, 2013).

There are many new opportunities for a company building a site in Hungary. Helping the country reverse its migrating population to other countries in Europe could benefit not only Hungary, but also the company with highly skilled employees that are willing to work. A company could also help restore investor confidence as well as the confidence of the people of Hungary if unemployment rates would fall and bring more money back to their economy. Again, there are multiple opportunities to help work with local governments on
improving the waterway transportation for more future growth opportunities and allow for more trade ports.

Additionally, there may still be threats to consider when expanding a company into Hungary. Even though Hungary ranks lower than some other companies on the corruption index, it would still have to consider the current level of instability in their political system and that bribes may be something a company may have to address. With the increasing government control on trade and regulations, it is something that needs much thought and consideration. A multinational company may also have to be more patient and expect there may be some roadblocks working with Hungarians because adopt change slowly and cautiously. One last important item a company would need to consider is environmental impact of doing business in Hungary. This country also experiences for high pollution, so from a company brand perspective it is very important to find ways to mitigate the environmental impact of doing business and find ways to improve the current conditions (Hungarian Investment and Trade Agency, 2013).

Implementation

After the fall of communism, land was de-nationalized and enterprising land developers have been purchasing adjoining parcels of land to create business parks. PACCAR will target these parks as possible facility locations in the Budapest, Hungary area.

Hungary’s business culture for strong long-term relationships should drive the hiring of at least half of the management and operations team for the parts distribution center from Budapest. The managing director at implementation will be from the parent company to establish the company culture and expectations.

The company must be proactive in regards to environmental stewardship such that the local team understands that there is a higher standard established than what practiced locally. The facility, being a new from the ground up, will be an opportunity to utilize the latest proven and accepted technologies in energy efficient construction as well as zero waste to landfill practices. The company should review its ethics policy, ensure that it is up to date, and then it must be deploy it effectively in establishing the company culture with the new parts distribution center.
Conclusion

The rapidly increasing opportunities for truck part sales due to the development of the markets in Central Europe highlights a need for a parts distribution center that is located geographically such that it can meet the current as well as future regional needs while minimizing labour and transportation costs. The selection process considered these economic factors while also weighing in other important global drivers such as politics, land ownership, culture, and corruption. The search narrowed to Budapest, Hungary and Bratislava, Slovakia with the decision ultimately being made in favour of Budapest, Hungary.

Figure 1. 

GDP Growth per Capita

Figure 2
Figure 4

Central Europe Corridors

Figure 5

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<tr>
<th></th>
<th>Budapest, Hungary</th>
<th>Bratislava, Slovakia</th>
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<tr>
<td>Labour</td>
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<td>Land</td>
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<td>Political Stability</td>
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**Figure 6**

![Diagram showing the Human Development Index with dimensions like health, education, and income][1]

**Figure 7**

**Hungary** as per 11/2012

Country Risk Level:
- Low Risk
- Medium Risk
- Sensitive Risk
- High Risk

Country Grade: **C**
High external transfer & convertibility risk and well below average business environment.

**Slovakia** as per 11/2012

Country Risk Level:
- Low Risk
- Medium Risk
- Sensitive Risk
- High Risk

Country Grade: **AA**
Very low external transfer & convertibility risk and very strong business environment.

**Figure 8**

**STRENGTHS**
- Strategic Location
- Strong Global Partnerships
- Mismatch Infrastructure
- Low Operation Costs

**WEAKNESSES**
- Declining Gdp Rate
- Government Uncertainty
- Environmental Awareness
- Water & Rail Transportation

**OPPORTUNITIES**
- Resource Worker Migration
- Increase Waterway Transportation
- Lower Unemployment
- Improve Energy Efficiency
- Restore Investor Confidence

**Threats**
- Government Corruption
- Environmental Degradation
- Intensive Foreign Debt
- Culture — Resistant to Change

[1]: https://example.com/figure6.png
References