STRATEGY ANALYSIS OF A COMPANY DISTRIBUTOR OF INDUSTRIAL EQUIPMENT

by

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ABSTRACT

This project develops a strategic analysis of ARPAC Storage Systems Corporation (ARPAC). ARPAC is one of the biggest distributors of material handling equipment in BC. The material handling industry in North America is mature and highly fragmented, and ARPAC operates in all segments of the industry. Market development and globalization processes accelerate the differences among segments, and as a result, the company needs to redefine its strategy.

This report provides an overview of the company and the competitive landscape and an industry analysis. It identifies major forces that affect current strategies among competitors. The report seeks to identify key success factors that shape rivalry and develops strategic alternatives. It further evaluates proposed alternatives in regards to the company's internal capabilities and provides recommendations for the company about how to maintain a sustainable competitive advantage.

This report recommends that to be able to provide growth, ARPAC should restructure the company to address the differences between two major industry segments.

DEDICATION

This is dedicated to my family. Their patience and support throughout the course has been much appreciated.

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to Dr. Neil Abramson for his advice, input and guidance to ensure the completion of this project and Dr. Ed Bukszar for his review of this paper.

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GLOSSARY

ITA — Industrial Truck Association represents the manufacturers of lift trucks and their suppliers who do business in Canada, the United States or Mexico.

MHE — Material handling equipment industry

WE — Warehousing Equipment market segment. The segment includes the lift truck equipment for warehousing applications.

LT — Lift Truck Equipment market segment. The segment includes the lift truck equipment for general use applications.

MES — Minimum Efficiency Scale (MES) refers to the minimum firm size at which economies of scale are exhausted.

1 INTRODUCTION:

This paper presents a strategic analysis of a company: "ARPAC Storage Systems Corp.", an equipment distributor in BC and Alberta that distributes and provides service for material handling equipment. Initially, the company started with a differentiated strategy and concentrated on Warehousing Equipment (WE) applications within the material handling industry. Following a growth strategy, the company launched new products and entered a new market – the Lift Truck (LT) Equipment market segment. Initially, the strategy appeared consistent with the company's plans to grow the business, as it allowed utilizing the company's expertise. However, the changing environment reshaped the intensity and priority of market forces within the industry, so that both segments within the industry have become very competitive. Operating in both segments of the industry brought new and unexpected challenges; costs within the company escalated and the company had to undertake steps to withstand cost pressure. Eventually the company lost its differentiated appeal and is trying to apply both strategies on a case by case basis.

The biggest problem that the company faces is mixing cost and differentiation strategies in one company. Both strategies cannibalize each other, and as a result, the company can't perform well in either cost or differentiation strategies.

My goal in this project is to analyse the industry and ARPAC's capabilities and to provide recommendations to the company as to whether it should pursue either cost or differentiation strategies exclusively, or if both, how to do so effectively and efficiently

The analysis of the industry is done on the equipment distribution side and covers North America and BC market. The BC market is significantly smaller, composing approximately 3,000 units of equipment, as opposed to the 190,000 units sold in North America; however, the market structure is similar. Because the North American market reflects all trends in the material handling industry, an analysis based on larger markets will give a better understanding of the market in BC. The rivalry analysis section will be performed on the BC market that is the home market for ARPAC.

The analysis starts with the company overview and a more detailed summary of the company's problem. The industry overview is described at the end of chapter one. Chapter two performs industry five forces and value chain analyses. The results of industry analyses allow the identification of the key success factors (KSF). Based on the KSF, existing rivalry within the industry segments is analyzed, followed by an indication of the possible strategic alternatives to improve the company's performance. Chapter three will perform a comparison of the alternatives and execution analysis, followed by recommendations in Chapter four.

1.1 Company overview

1.1.1 Description:

ARPAC is a company operating in the material handling business. It consists of two independent business units: storage systems equipment and lift truck divisions. The company operates in BC and Alberta, with its head office in BC. The storage systems division manufactures and distributes storage products under the ARPAC brand name. The storage division operates a manufacturing facility in BC and employs approximately 80 people. The lift truck division distributes and services lift trucks and other warehousing equipment. The lift truck division has three locations, one in BC and two others in Alberta, with a staff of approximately 80 people, split equally between both provinces.

1.1.2 History/Evolution

The company started in 1973 as a local BC manufacturer and marketer of storage systems. From the beginning, ARPAC's Storage Division used a differentiation strategy. The company possesses manufacturing facilities and its own engineering personnel. Every project can be developed from scratch and customized to the customer's requirements. ARPAC has a well-defined strategy to position itself as a company that leads the customer through all stages of projects, including assistance in project coordination, obtaining the necessary authorizations. At the moment, ARPAC has the highest reputation among similar storage equipment suppliers.

The Equipment division was created in 1983 to facilitate existing differentiation of the Storage division. Initially, the Equipment division distributed and sold the

equipment manufactured by Crown Equipment, one of the leading equipment manufacturers in the industry. The Crown brand, with its premium products, naturally complemented ARPAC's activities. After adding the Crown line to the company's portfolio, ARPAC was able to serve a wide range of warehousing applications within the industry by supplying premium equipment and providing quality services and an organically shared differentiation model with its "older" Storage Division. In the warehousing equipment market, ARPAC faced a formidable competitor - Johnston Equipment, a direct subsidiary of one of the biggest warehousing equipment manufacturers in the industry, Raymond Equipment, which operates in all provinces of Canada. Due to its size and market presence, Johnston Equipment represented a serious threat to ARPAC's business. The limited size of the market in BC and the pressure from the stronger competitor forced ARPAC to consider new business opportunities.

The new business opportunity for ARPAC came up in 1996. Nissan Forklift dropped its previous dealer in BC because of some operational and financial disputes.

Nissan Forklift equipment works predominantly in general use lift truck equipment applications (LT). As the LT market was relatively new to ARPAC, the company decided to add the Nissan brand to the company's portfolio. The presence in the new LT market seemed a good fit, as it allowed ARPAC to grow by entering new markets. The addition of new product lines seemed to fit well the company's previous expertise in equipment distribution business. With new products, ARPAC was able to cover the entire material handling equipment industry, and appeared likely to benefit from economies of scale by serving the industry with one sales and service network.

1.1.3 Latest developments

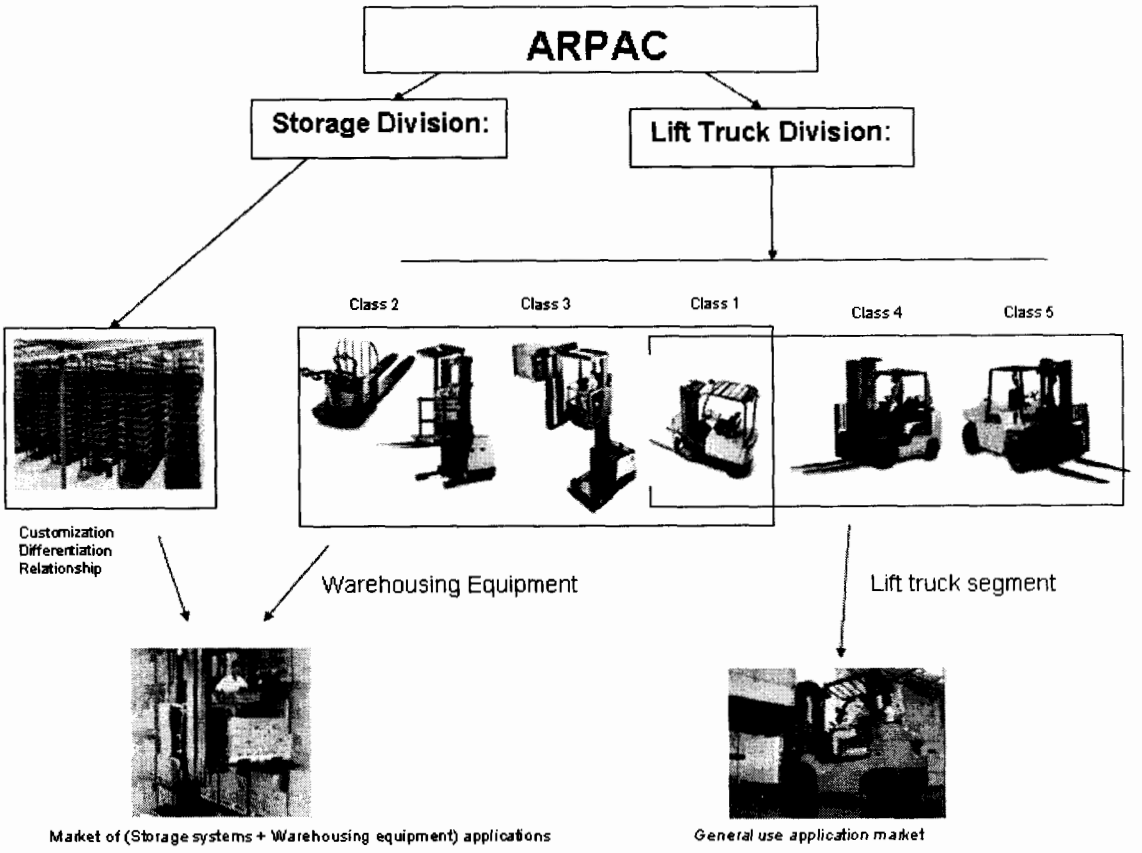
New product expansion brought new challenges to ARPAC. The LT market proved to be different from WE, where ARPAC had its expertise. The intense rivalry in LT, a market with an economy that is close to the perfect competition model[1], puts enormous cost pressure on all equipment vendors. The equipment users in the new LT market and their requirements were different from those in the WE market. Following cost pressures, ARPAC started transforming its initial differentiation strategy. The strategy eventually drifted towards a low cost model by adding low cost product lines such as Heli Forklift and other "me-too" product lines, and in some cases reducing the amount or the quality of service. Eventually, the company's experiments with lowering costs in some cases and increasing differentiation in others led to the point where the company's strategy became mixed and confused.

1.1.4 Product mix

Currently ARPAC offers a wide range of products and covers all sectors in the material handling equipment industry. A wide range of products suggests a very broad customer base. A brief summary of ARPAC's product offerings is indicated in the following diagram (Figure 1), which shows most of the common products and the most common industry segments served by ARPAC.

[1] The Perfect competition model requires five parameters to be fulfilled: atomicity (large group of producers and consumers), homogeneity (goods are perfect substitutes, low differentiation), perfect information, equal access to technology and resources, and free market entry and exit.

Figure 1: ARPAC's product mix



ARPAC carries equipment from Crown Equipment, Nissan Equipment, Heli Industrial Equipment, Taylor Dunn, and Isle Master. Crown products, in some classes of equipment, competes directly with Nissan and Heli, Nissan Forklift is a direct competitor to Heli Industrial Equipment, and some Isle Master products substitute for those in Crown's range. Such a brand-products mix situation is typical for the industry.

1.1.5 Current strategy:

ARPAC's current strategy is to supply the entire material handling equipment industry with the maximum possible range of products by providing quality services. The

two biggest equipment segments, WE and LT, however, have different rivalry intensities and market forces. The WE segment allows differentiation, while LT, with its enormous cost pressure, makes a differentiation model very difficult. Competition in both market segments has forced ARPAC to change its initial differentiation business model and to apply a differentiation strategy in one industry segment and low cost strategy in others. As mixing two opposing strategies within one company is practically impossible, the resulting strategy became a mix of both strategies.

1.1.6 Company challenges

The mixing of two opposing strategies within one company has become the biggest challenge for ARPAC. ARPAC can't lower costs while operating in a cost-sensitive market because it still has a legacy of a differentiation business model in WE. Nor can ARPAC better differentiate in WE, which requires differentiation, because the company's services have already been affected by its low cost strategy. The resulting "mix" strategy doesn't work effectively as the basis of competition, for both industry segments are different. By applying a single strategy, ARPAC can't compete well in either industry segment, which represents an efficiency problem.

1.2 Material handling equipment Industry:

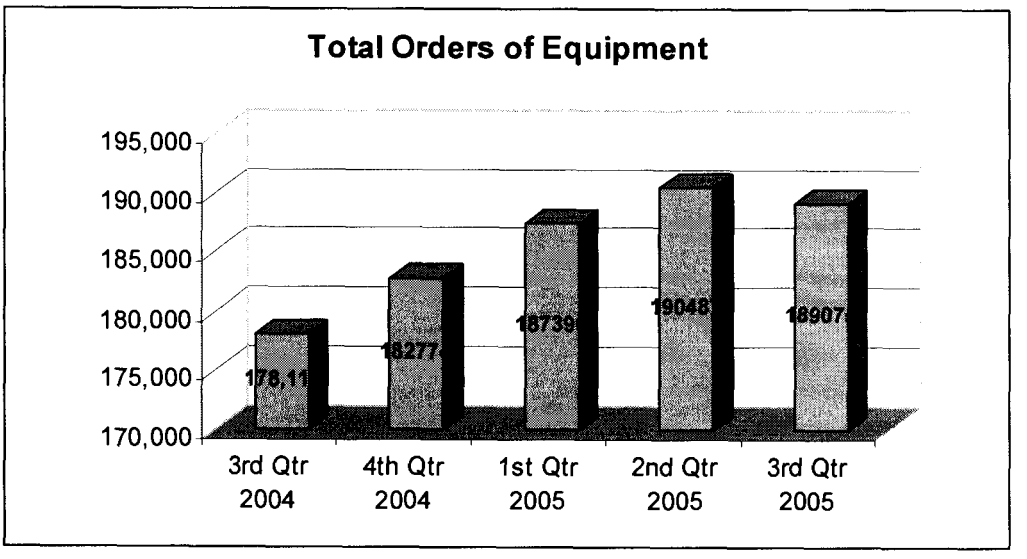
1.2.1 Industry overview:

The Material Handling Equipment includes lift trucks and inventory-handling systems such as conveyors, sorters, storage racks, shelving systems and carousels. The industry generates combined annual sales of $15 billion, about half due to lift truck sales.

NACCO Industries, Toyota and Linde AG are the largest manufacturers worldwide. There are approximately twenty lift truck brands, with about 4,000 distribution outlets for material handling equipment in the US.

The lift truck industry in North America is a mature one. Aggregated figures of the equipment sold in America and Canada total around 180,000 – 190,000 units (Figure 2).

Figure 2: Total Orders of Material Handling Equipment

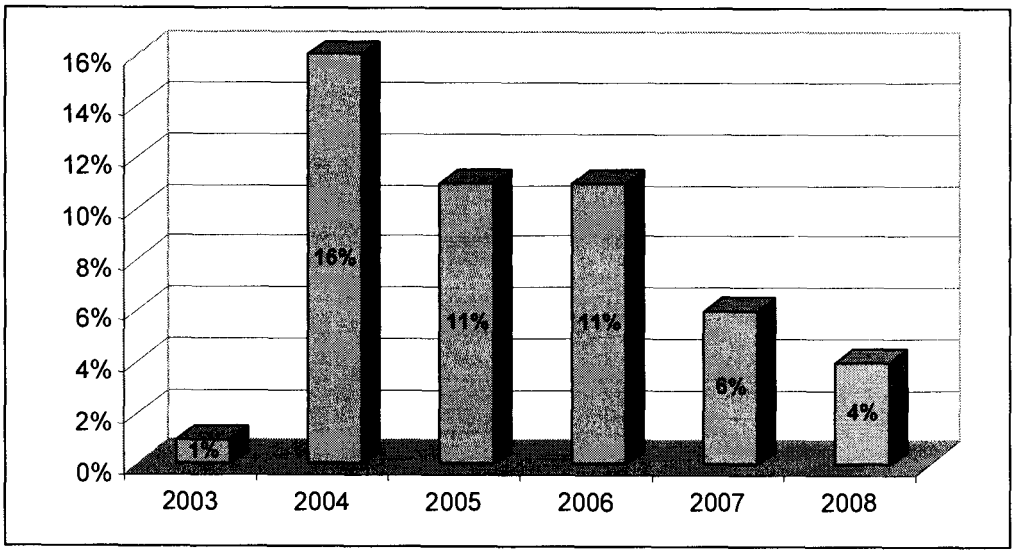


Source: J. Malvaso (Raymond Corp.), Material Handling Equipment Dealers Conference, 2005

Demand for material handling equipment (MHE) depends on the level of goods moving through the US economy from domestic production, imports, and sales. In general, demand for equipment reflects economy conditions. In a stagnant economy, the only demand for new MHE is to replace retired units.

In the last few years, the industry has gone though rapid growth following the general trend in the US economy. The one-percent industry growth in 2002 was followed by a 16-percent spike in 2004. However, predictions for 2006 and thereafter for aggregated sales in material handling industry indicate a steady industry decline, down to 4 percent growth in 2008 (Figure 3) due to the predicted cooling of US economy.

Figure 3: Predicted Industry Growth



Source: Interindustry Economic Research Fund, Inc. (IERF), College Park, MD, 2005

1.2.2 Industry definitions

A basic principle of material handling is the concept of unit loads. A unit load is a number of items arranged as one unit, to be moved or handled at one time. In effect, the unit load implies the container and the support platform or pallet. The main advantage of using unit loads is the ability to handle more items at one time.

The material handling equipment industry has different classes of equipment that serve different working applications. Only a few manufacturers produce an entire range of equipment "in-house"; the majority of manufacturers specialize in particular types or classes of equipment. The number of companies in the industry varies from class to class. Depending on geographic area, the market share for every manufacturer within certain classes of equipment varies greatly. Worldwide, in general, none of the competitors has a market share of more than 10 percent. Locally, however, the market presence of some brands can reach up to 50 per cent.

Major customers are manufacturing plants and inventory-handling facilities. A typical customer is a distribution centre that services 100 stores a day with 300,000 cases, 21,000 pallets, and 20,000 SKUs. The facility has a flow-through design, with receiving at one end and shipping at the other, and uses single and double-deep pallets and pushback racks, and forklifts to move material. Because the material handling equipment industry is diverse and fragmented, equipment prices vary greatly, depending on the size and complexity of the equipment. High-volume, lower-priced products are susceptible to competitive pricing, but more expensive equipment is less vulnerable to price pressures. A key element in the sales of complicated inventory or process systems is the physical configuration of the customer's production floor or warehouse space. With construction and real estate costs increasing, customers have distributors help them design and build the best layout and material handling system to maximize use of a compact space.

1.2.3 The material handling equipment distributors (Dealers)

There are almost 4000 distribution outlets for Material Handling Equipment in the US[2]. Distributors usually operate in either the lift truck segment or in the inventory systems segment, but not both. ARPAC seems to be one of the few companies in the industry that operate in both areas – inventory systems and lift truck distribution. Most distributors have just one or two distribution outlets.

Distributors are usually independent, but are often affiliated with a particular manufacturer. Some manufacturers own their own dealerships. Every dealer operates within an assigned territory and assumes all sales and service activities in that territory on behalf of the equipment manufacturers. To reduce uncertainty with future sales, some dealers carry several lift truck manufacturer's brands; thus it is very common that one dealer sells several products that directly compete with each other.

In addition to selling new and used equipment, dealerships lease and rent equipment, either long- or short-term. Lift truck dealers operate much like traditional car dealers, providing sales, service, spare parts, and financing (often in cooperation with the manufacturer); taking trade-ins; and selling used trucks. A large base of existing trucks provides dealers with a big market for replacement parts, maintenance, and retrofitting. In most cases, the margins on service are better than those on original sales. A dealer's territory is limited by its ability to provide service. Distributor sales and service personnel of complex material handling products and systems need more advanced training and skills than their peers who work with low-level products. The product lifetime for the

[2] Source: Interindustry Economic Research Fund, Inc. (IERF), Industry Research Paper, https://www.firstreseach.com/industryprofiles/ss/reports/. Accessed: June 18, 2006

industrial type of equipment is in the 5-15 years range. The revenue from the service part of a dealer's business generally almost equals that from sales of new equipment. The service part of the dealer's business requires extensive investments in labour resources and supporting infrastructure.

Profitability for distributors is determined by sales volume. Small distributors can compete by specializing in a specific industry or type of equipment, or by offering excellent service programs. Large distributors can negotiate favourable distribution agreements, based on volume. Average sales per employee vary greatly because of the wide variety in equipment, prices, and industries served.

Revenue and cash flow in the MHE industry are highly cyclical, sometimes changing sharply from year to year. The size and quality of receivables depend on the health of the end-use industries a particular distributor sells to.

1.3 Decision criteria

The decision criteria are the criteria that the senior management decision-makers use to evaluate whether a strategic change is satisfactory and should be implemented. Market forces and industry value chain analysis will identify the key successful factors the company needs to concentrate on, and will enable the company to maintain and further strengthen its competitive advantage.

2 INDUSTRY ANALYSIS

Two major segments in the industry will be discussed later in the analysis. The analytical section will focus on applying Porter's five forces and industry value chain analysis. Both analyses will help to identify key successful factors so as to determine alternatives that will produce a competitive advantage. Further, the findings will be analysed in terms of the company's internal capabilities, including management preferences.

2.1 Product segments

The Industrial Truck Association (ITA)[3] defines five classes of lift trucks – Class 1: electric counterbalanced equipment; Class 2: electric high lift; Class 3: electric low lift; Class 4: internal combustion cushion tire; Class 5: internal combustion pneumatic tire. Classes 1, 2 and 3 are usually described as the warehousing equipment (WE) market segment; Classes 4, 5 (and part of Class 1) compose the general use lift truck (LT) market segment. Even though some degree of overlapping between classes exists, two segments of the industry usually serve different customer bases. Class 1 Lift trucks can be used in both the WE and LT segments.

Warehousing Equipment (WE) segment: The warehousing equipment segment is designed for applications that require storage of the product inside warehouses and require storage systems (racks and shelves) for storing the palletized product. Examples

[3] Source: Industrial Truck Association (ITA), http://www.indtrk.ogr. Accessed: April 17, 2006

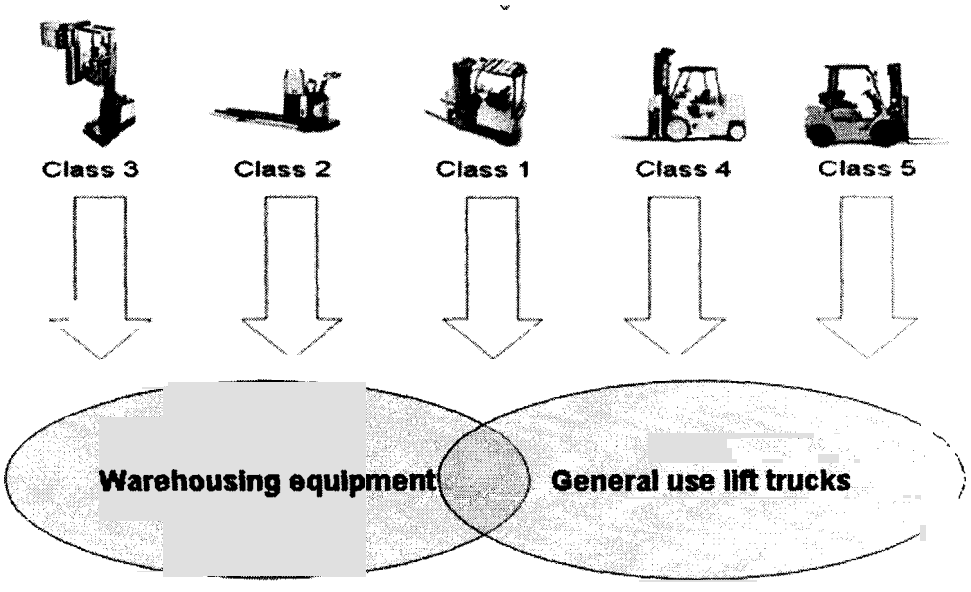
of such applications are packaged goods distribution centres, such as Superstore, Versa Cold, Kalotire, Canadian Tire, Costco, Wal-Mart, and Safeway. Such accounts usually run high density warehouses with a high product turnover. The product offering to those users usually requires complex and carefully selected equipment. A key element in the sales of complicated warehouse equipment is the physical configuration of the customer's equipment to match the customer's particular storage systems layout.

The user usually receives the equipment within three or four months after placing the order, as the equipment can be manufactured only after all details of the specification are clarified.

Lift Truck (LT) segment: LT segment serves more general and less complex working applications with lower density warehouses that do not require complex storage systems for storing the product. Typical applications for LT products are loading and unloading trucks. The users are usually manufacturers, lumber companies, ports, beverage distributors, and similar operations. Product variations for those customers are less than those for warehousing equipment. In most cases, vendors have a certain amount of equipment in stock. Usually, the different classes of equipment within the LT market compete for one customer, which is an example of cross competition.

Two industry segments with indication of equipment classes within each segment are presented in Figure 4.

Figure 4 Market Segments and Equipment Classes



The industry market segments, WE and LT, are almost equal in size and dollar value.

2.2 Porter's 5-forces analysis:

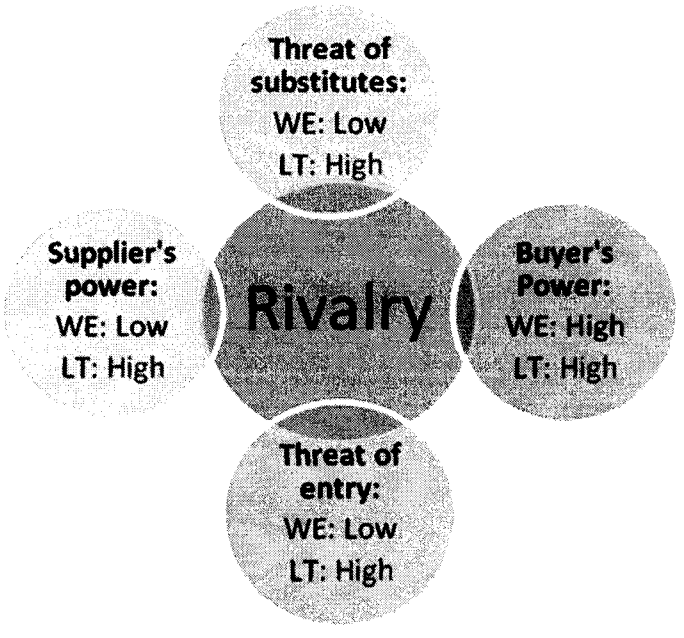
The industry analysis is best described by using Porter's 5-forces analysis.[4] Porter's concept describes five forces that determine the attractiveness of a market. According to Porter, five forces create a microenvironment within the company that affects its ability to serve its customers and make a profit. Since the industry consists of two major segments, warehousing equipment and general purpose lift trucks, Porter's analysis will be performed for both industry segments to show any potential differences

[4] Porter, M. 1980, "Competitive strategy", New York: Free Press, 4

and similarities. Differences in the five forces between two market segments normally require a company to re-assess the marketplace.

The summary of market forces is indicated in Figure 5. The WE segment is characterized by high intensity buyer's power, with the rest of the forces being at a low level. The other industry segment, LT, has a high level of all market forces.

Figure 5: Summary of Market Forces within Industry Segments.



2.2.1 Bargaining power of buyers: (Strong)

The bargaining power of buyers refers to the ability of buyers to influence the setting of prices, the terms of transactions and the nature of business relationships. Powerful buyers can make an industry less attractive by extracting price concessions for products and services that reduce industry profitability. In the material handling equipment industry, the power of buyers is strong, especially in the LT segment.

2.2.1.1 Buyers' profile and decision making process

The typical user in both segments of the industry is a business account. Generally, companies employ professional buyers to select and obtain the equipment. A typical purchasing process in the industry includes several decision makers. Professionals that select the equipment and make a purchase have skills and qualifications that allow them to do so while maintaining maximum benefit to the company that makes the purchase. There is less emotional context involved in the process of selecting the equipment. The latest trend toward vendor rationalization[5] is expected to continue as companies seek additional efficiencies in their supply relationships and buying processes. The buyer uses a variety of financial tools and criteria such as ROI and IRR to evaluate the purchase. In general, the typical customer in the material handling industry is very price sensitive, and price becomes one of the crucial factors in evaluating the supplier.

The most attractive industry segment is huge national and multinational accounts. Usually approximately 80 percent of the total equipment available on the market is purchased by huge multinational accounts, such as Wal-Mart, Coca-Cola, Costco, General Motors, and Ford. These accounts not only have extremely skilled professionals who obtain the equipment, but also enjoy economies of scale in purchase that allow them to obtain huge discounts while buying in volume. In some cases these large purchases are followed by long-term contracts that specify additional long-term benefits for the buyers. While material handling equipment distributors and dealers constitute a popular, if not a preferred, buying channel, such customers aren't necessarily committed to buying only

[5] National Association of Wholesale Distributors, "Facing the Forces of Change", Annual report 2004

from local distributors. Thus, price becomes increasingly important in the process of selecting the equipment vendor.

The two different equipment market segments contain some differences in regards to the buyer's power.

Warehousing Equipment (WE) segment: The typical customer in the WE market is a distribution centre or a warehouse. Such accounts require higher degree of physical configuration and even customization of the products; thus, besides price, quality and reliability become important. The reliability is very closely associated with manufacturer's brand, and consequently brand becomes the second biggest factor in the decision-making process. The ability of the dealer to provide expertise while selecting the equipment is another important factor. In general, in the WE market, brand and dealer's reputation (based on the knowledge and experience level of dealer's personnel, and the dealer's ability to perform complex tasks such as project assistance and product customizations) are next in importance to price in the customer's decision-making process.

Equipment in WE is not perceived as a commodity. There are significant differences in the operational and technical side, as well as in the functionality. These differences in design lead to the point where the user faces significant costs if switching away from his current supplier. The ability of the equipment vendor to provide appropriate service for a long period of time becomes the next important factor in the purchasing decision. In some cases, at a customer's request, the dealer needs to provide a

packaged offering that covers equipment and storage systems. Such packages usually cover installation of the entire warehouse system with relevant equipment included.

In summary, several factors are considered by a customer while selecting the equipment vendor in the WE segment. These are, in order of importance, price, equipment brand, the reputation of the equipment vendor and his ability to provide service, and project management.

Lift Truck (LT) segment: The LT segment is affected by different market forces. Due to simpler applications and product designs, equipment in LT market tends to be perceived as a commodity. Even though there are some smaller subgroups within LT segment, such as heavy-duty lift trucks in the lumber business, in general, most of the equipment is still perceived as a commodity. The group of equipment manufacturers serving the LT segment is larger than that in WE The equipment itself and the process of selecting equipment in LT is much simpler than in WE. LT equipment purchases usually do not require complex coordination with other products, such as storage systems. Customization of LT equipment is very limited compared to that in WE. The existing small differences in design allow users to change their current equipment brand and equipment vendor without involving a significant switching cost. This product and market homogeneity leads to the point where the most important criterion in the decision to buy a particular piece of equipment is price.

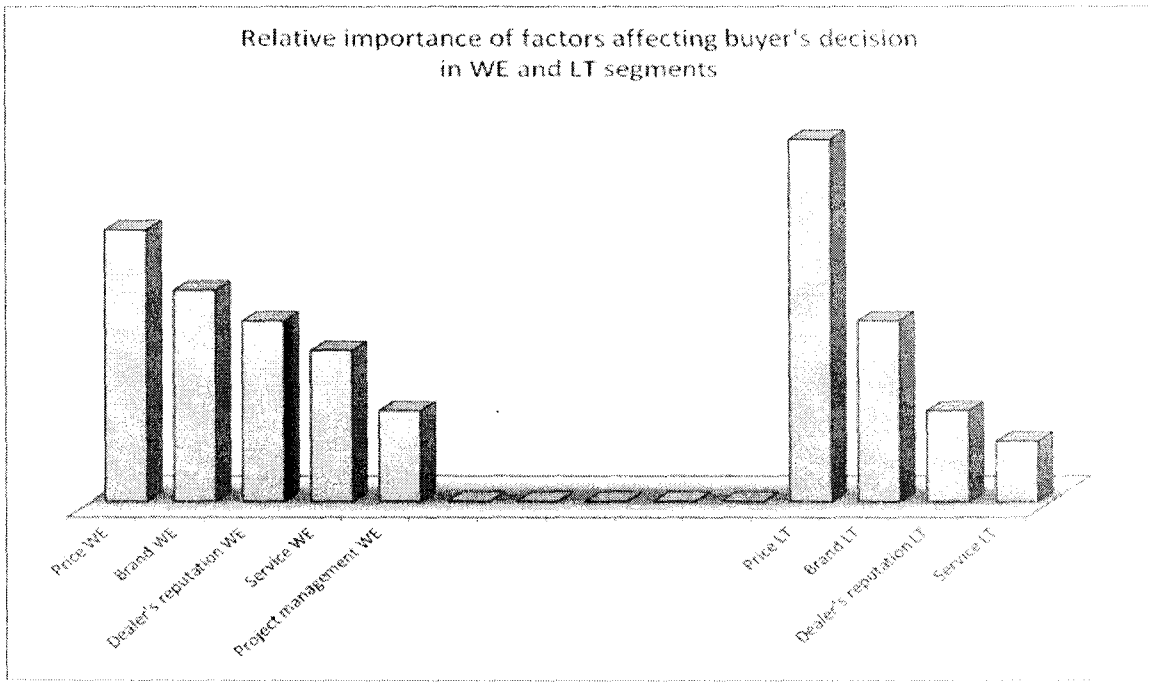
Even though the LT market tends to be a commodity market, there is a minimum level of quality and reliability of the equipment that is acceptable to the user. Very low-quality products cannot be sold, despite having a low price. The quality of the products is

usually associated with the brand; thus the brand becomes the second important factor in the buyer's decision. However, the wide range of equipment manufacturers with similar quality and reliability characteristics in LT makes this factor of lesser importance to users than is true in the WE segment. The low service switching cost and the wide availability of equipment dealers in the LT segment make other factors less important.

In summary, in the LT market, the most important factor in a buyer's decision is price. Brand is of significantly lower importance than price; it is even less important as a factor than in the WE segment. Other factors, such as a dealer's reputation and service, are of low importance.

The buyer's priorities and their comparative importance are given in Figure 6.

Figure 6 Buyer's Decision Making Factors and Their Relative Importance Scale



2.2.1.2 The globalization process and power shift:

The material handling industry is a mature industry. In mature industries, buyers usually have a high level of product knowledge that gives them extra bargaining power.

WE segment: In the WE segment of the industry, the buyer's knowledge is greatly reduced. Material handling equipment is a part of a global supply chain industry. The supply chain reflects general economy changes. Markets in developed countries, such as North America and Europe have a tendency towards building more specialized warehouses, utilizing less floor space and providing more storage space, and significantly increasing speed and functionality. The trend towards building more specialized high performance facilities places more emphasis on the WE as opposed to the LT segment. The WE segment becomes more specialized and therefore more fragmented. The fragmentation of the WE segment greatly reduces the level of the typical buyer's knowledge base and therefore shifts the bargaining power towards the equipment vendor. To reduce product uncertainty, the buyer tends to count more on the seller and his expertise; thus the need for support tends to necessitate the need for a relationship.

LT segment: Globalization trends affect the less technical side of commodity-type equipment in the LT segment; the buyer has less incentive for maintaining a relationship and instead concentrates more on the lowest price. In the latter case, the globalization process will greatly increase the threat of entry, since the buyer can shop around the globe for the best deal.

In the US, the clientele base for LT equipment has decreased as new industry trends put more emphasis on building more specialized warehouses that are served by WE equipment market. The declining customer base in LT brings extra bargaining power to the remaining customers.

In summary, the global economy and globalization processes change the bargaining power of buyers in the industry, affecting the LT segment and easing competition in WE.

2.2.1.3 Long product life cycles and relationship management:

The equipment is purchased on a regular basis. An average product life cycle in the industry is in the 5- to 15-year range. Within this period the equipment is serviced by the equipment vendor. During that time, the equipment vendor usually provides customer and service support to the equipment user. Customer support usually involves a wide range of activities: dealing with complaints, gathering a customer's preferences for the next purchase, consulting, and providing technical expertise. As the equipment is purchased on a repeated basis, relationships become important, especially when the time comes to make another sale. Such relationships need to include several decision making layers; customer relationship management becomes very complex and more important.

WE segment: In the WE market with its different and complex products, the need to maintain and even develop a new level of relationships becomes essential for business.

LT segment: In the LT equipment market with its commodity-like products and significant price pressure, the need to maintain relationships with the client becomes less

and less obvious, since the relationships comes for a price. The equipment cross-servicing also reduces the need for a relationship with the buyer.

In general, while the customer relationship becomes one of the crucial factors in dealing with the buyers in WE, the specificity of the LT market makes the need for such relationships less obvious.

2.2.1.4 Summary of buyer's power:

The buyer's bargaining power in the material equipment industry is very high, with a tendency to become even higher in the LT segment. Factors that affect a buyer's decision are different for both industry segments.

WE segment: In the WE segment, the most important factors are price, product brand, the dealer's reputation, the ability of the equipment vendor to provide adequate service, and the customer relationship. The importance of these factors, especially the customer relationship, becomes more important as the customer's knowledge base is quite limited.

LT segment: In LT segment, the most important factor is the price, followed by brand; other factors are relatively low in importance.

2.2.2 Threat of entry: (Low-WE; Strong-LT)

The Number and size of potential entrants depends in large part on the size and nature of barriers to entry. The analysis of barriers to entry is important in projecting competitive intensity and profitability levels in the future. Existing differences in the WE

and LT markets result in different entry threat levels. The maximum threat of entry appears in the LT segment, while the WE segment is able to maintain the threat at a minimum level that limits potential entrants.

The export and import of equipment within US and Canada market is regulated by the NAFTA agreement, which allows free movement of products between both countries. Imports from outside of the US and Canada are under the supervision of the US Department of Commerce, which ensures that fair competition is taking place. On January 26, 2006, the commission removed all import restrictions. The removal of the import restrictions will most likely lead to increased imports to the US and Canada from Japan and other countries in the South Pacific area, and therefore raise the general threat of entry from those countries.

WE segment: The removal of import restriction will affect the WE segment less, as most WE equipment is manufactured in high labour cost areas such as Europe and North America.

LT segment: The market is likely be affected by the removal of import restrictions, as most LT products enter the US from Japan, China, Korea and other countries in the East and Southeast Asia . With the globalization process, this threat will greatly increase.

2.2.2.1 Brand:

Brand is important for both industry segments.

WE segment: The WE market in US and Canada is represented by a few companies, with Crown Equipment and Johnston Equipment sharing approximately 80 per cent of the entire market. Crown Equipment is represented in BC by ARPAC, and the equipment manufacturer Raymond Equipment is represented by Johnston Equipment. These two leading brands have such a close brand identity in the WE segment that in most cases when the user faces the decision of what warehousing equipment to purchase, the answer is almost by default Crown or Raymond. Due to their sheer market presence, these two brands are strong enough to discourage potential entrants.

LT segment: The wide presence of many manufacturing brands in the LT segment and the fact that most of this equipment is cross-manufactured creates "white noise" brand perception; thus the brand factor in LT will not stop potential entrants.

2.2.2.2 Product complexity & simplicity:

WE segment: The WE segment, with its complex product applications and greater product modifications, necessitates a more careful matching of the equipment with existing storage configurations. Existing differences between pallet sizes, which are detrimental for equipment selection, and different measurement systems in America and the rest of the world, brings some scepticism towards import of new brands into the highly specialized WE segment.

LT segment: The products in general use in the LT equipment market segment are simpler than those in the WE segment; thus there is less need for complex product configurations. Equipment in this market segment can easily handle all pallet sizes. The difference in measurement systems does not affect the equipment user. The user can locate the equipment anywhere in the world and bring it to the local market without concern for compatibility. In these regards, significant price advantages for the imports from low labour cost countries will encourage potential entrants to this market. The industry doesn't have proprietary technologies that could discourage the entrants, and thus, with the globalization process, the threat of entry is likely to increase.

2.2.2.3 Economies of scale

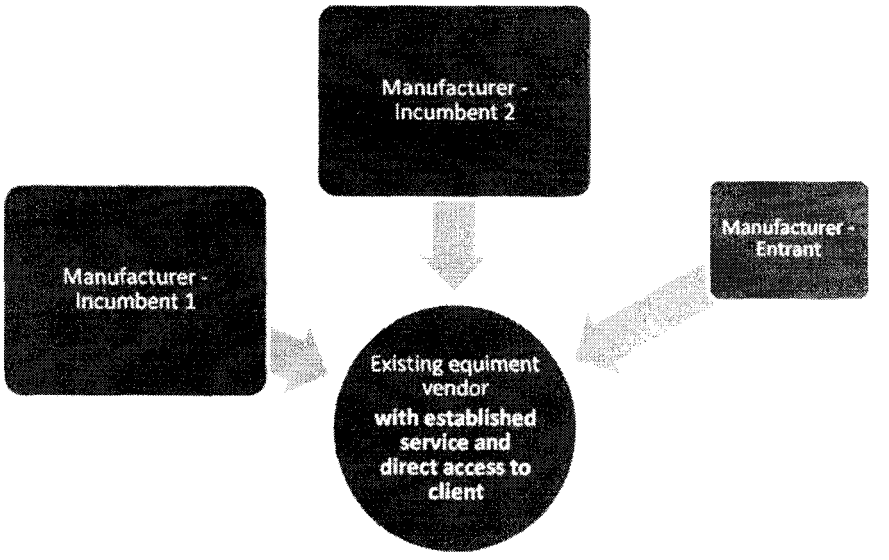
Economies of scale for equipment distributors entail selling enough equipment. The Minimum Efficiency Scale (MES) for equipment vendors varies greatly depending on size and structure of the local markets, as well as the size and amount of services provided by a particular equipment dealer.

WE segment: There are no industry statistics on minimum efficiency level, but it is safe to say that MES for an average equipment dealer in the WE segment is approximately 150 "average" units of equipment sold annually. Even though different brands within the WE segment might have different minimum efficiency scales, the difference most likely is insignificant. Volume discounts from a supplier generally vary by only a few percent, and are unlikely to drastically change efficiency scales. It is unlikely that new entrants without previous market presence will have significant sales in the first few years; thus WE's MES will repel new potential equipment dealers from entering the BC market, as it requires significant time investments.

LT segment: The LT market segment has less complex products and basic service requirements. The MES is much lower than the MES in the WE segment. Some dealers can survive in this market by selling only half of what is needed in WE. Due to the commoditized nature of the LT market, new entrants, even without any previous market presence, will not find it difficult to sell equipment even in the first years.

The threat of entry, especially in LT, is likely to increase because of the existing distribution system in the LT segment that allows dealers to sell multiple brands within one dealership, which is a common situation. Existing equipment vendors that have in place service capabilities and infrastructure, could easily add new product brands, especially those that are imported from low cost labour countries. In these regards, for entrants into the LT market, MES is less relevant. As there is no need for MES, the possibility for market entry increases, as the uncertainty period related to a new product's adoption is less than that in WE. The current distribution model (Figure 7) decreases the need for capital investment by the entrants, and thus market entry becomes easier. The existing distribution systems do not "burden" existing dealers, either, as the dealers can sell the new products incrementally, and therefore the need for a long period of time to build up sufficient sales level becomes less obvious.

Figure 7 Market Entry Using Current Distribution Channels



2.2.2.4 Access to client

WE segment: Access to the client is very important due to the complexity of equipment and the greater need for product customization.

LT segment: In the general-use LT equipment market segment, the need for direct and constant access is less obvious; therefore, the potential entrant will not be discouraged by lack of previous contact with the client. The most common ways to reach the client in the general LT segment are through e-commerce, web sites and direct advertising in newspapers or Yellow Pages.

2.2.2.5 Summary of threat of entry:

The recent revocation of import anti-dumping orders that affect the LT market most and the lower importance of brands, along with the absence of MES and the lower need for capital and time requirements, bring the threat of entry in the LT segment to a

high level. The WE segment is able to keep threat of entry at a low level due to product complexity and the need to have constant access and a relationship with a client. In addition, the wide dominance of two biggest players' brands in the WE segment further discourages potential entrants to the WE market segment.

2.2.3 Supplier's power: (Low-WE; Strong-LT)

The supplier's power is an important factor in industry analysis, as the industry suppliers represent a direct cost that will be further transferred to end users, and therefore have a direct influence on profit level in the industry. In the material handling industry there are three major sides in market interactions: manufacturers, equipment vendors, and users. The supplier's analysis will be performed from the equipment vendor's perspective. Economies of scale and scope for equipment manufacturers differ between the two segments:

WE segment: In the WE segment, due to its high fragmentation and higher dependency on customized equipment, economies of scope become prevalent. The economies of scope dictate higher dependence of manufacturers on the distribution network and vice versa.

LT segment: The equipment in the commoditized LT segment is less complex, and there is lesser need for product customization and for direct access to the client; thus economies of scale become prevalent. The economies of scale for equipment manufacturers involve being able to drive cost and price down, which is likely key to

competing in an industry dominated by cost. It would be especially important in LT and gives such manufacturers more power.

In summary, the supplier's power is low in the WE segment and high in the LT equipment segment, due to the latter's commodity-like products.

2.2.3.1 The globalization process:

The globalization process discussed earlier in the Threat of Entry section makes it easier for an equipment user to locate products from overseas, especially in the LT segment where the product is perceived as a commodity. Viewed from the other side, it becomes easier for manufacturers to reach users by using internet tools, such as e-commerce, and by selling the product directly. The manufacturer has the ability to by-pass existing distributor networks by offering low prices that will attract buyers anyway. The products can be cross-serviced (serviced by other brand service providers). As a result, manufacturers in LT segment have more power over their equipment distributors. The globalization process doesn't affect the WE segment directly because of the power of the brand, the need for customization, relationships and specialized service.

2.2.3.2 Aging personnel and supply of labour:

Service is an important part of any equipment business. In the material handling equipment business, a service technician, once trained as a forklift engineer, will be an expert in electrical and hydraulic systems, diesel and gas powered engines and much more. Forklift service technicians may use laptop or palmtop computers to diagnose problems or fine-tune forklift truck performance. However, unlike in the car industry, most forklift servicing is done on-site, which means engineers typically spend much of

their day on the road taking a mobile workshop to the customer. The working conditions for LT service technicians are usually worse than for their WE colleagues, as LT applications are usually outdoor areas compared to the relatively more comfortable warehouse centres serviced by WE technicians. ARPAC's service coverage usually depends on the ability of the service technician to cover certain territories. In this context, the company's ability to provide service depends directly on a sufficient quantity of an available service force.

The average age of the personnel in the forklift businesses appears to be in the 35-to-45-year-old age group. In the US economy, a shortage of labour in some areas is causing a problem in the equipment service industry. A short supply of labour represents extra costs for businesses, as companies compete to recruit from a dwindling pool of talent.

Wages in material handling equipment industry have fallen behind wages in other new economies,[6] making the industry less attractive and further contributing to a labour shortage in the industry. From the company's perspective, finding sufficient service technicians becomes an issue.

LT segment: From the service point of view, the most significant rival to the LT industry is the automotive market, with higher wages and much easier working conditions.

WE segment: The warehousing segment of the industry usually requires a higher level of service due to the "high capacity storage level and fast product turnover" profile

[6] Drolet, Marie. 2002 "Better jobs in the new economy". Statistics Canada, Autumn 2002, vol. 14 no. 3

of the clients that requires an appropriate level of service. The higher service requirements of the WE customers necessitate higher skills and qualifications, resulting in higher wages paid to those personnel. The higher wages paid in WE ease the potential labour shortage in the WE market segment, as the WE market seems to be attractive to LT service personnel.

Applicability to ARPAC: The underpayment of WE-skilled service personnel resulting from using pay rates that are relevant for the LT market segment could cut ARPAC's labour supply. Thus, even though in general the WE segment should not normally have a labour shortage, the inappropriate strategy could artificially trigger the shortage.

2.2.3.3 Summary of supplier's power:

In the WE equipment segment of the material handling equipment industry, the supplier's power is limited, as the equipment manufacturers depend on the equipment vendors. A potential service labour shortage is overcome by pay rates higher than in LT. More comfortable working conditions for service technicians in WE also attract labour from the LT segment.

The supplier's power in the general-use LT equipment segment is higher, mostly due to the commodity-like nature of the products and the better ability of the lift truck manufacturers to bypass equipment distributors. Lower wages and uncomfortable conditions for service personnel may contribute to supplier's higher relative power.

2.2.4 Threat of substitute: (Low - WE, High - LT)

A threat from substitutes exists if there are alternative products or services with lower prices or better performance parameters for the same purpose. The presence of product and business substitutes limits the price levels and the firms in the industry are likely to suffer lower average profitability.

2.2.4.1 Product substitute:

Palletized product storage, at the moment, has no real substitute. The only potential threat comes from continuous or bulk transporting, in which pallets are not required to carry the products, and therefore doesn't require equipment to handle the pallets. However, at the moment there are no industrial scale models available which are able to provide end users with the products they need without previously storing the products on the pallet. Thus from a product substitutes point of view, the potential threat to MH equipment industry is very low.

2.2.4.2 Business substitute:

Equipment rental companies offer small customers the possibility to rent forklifts or other equipment as an alternative to buying. The big companies, like United Rentals and Nations Rent, rent limited lines of popular forklifts along with other types of industrial and construction equipment.

WE segment: The need for a high level of equipment customization makes the threat from rental companies irrelevant, as it becomes too costly for rental companies to have all possible equipment modifications available for rent.

LT segment: The LT segment is characterized by a greater number of small clients. Small clients usually don't require deep technical expertise from a dealer, and in more cases have less use of the equipment. The lower equipment usage and the very basic product specifications required allow users to switch easily between equipment dealers and the rental company. As the cost factor is dominant in the LT segment, the possibility of the equipment user's renting equipment increases.

2.2.4.3 Summary of threat of substitution:

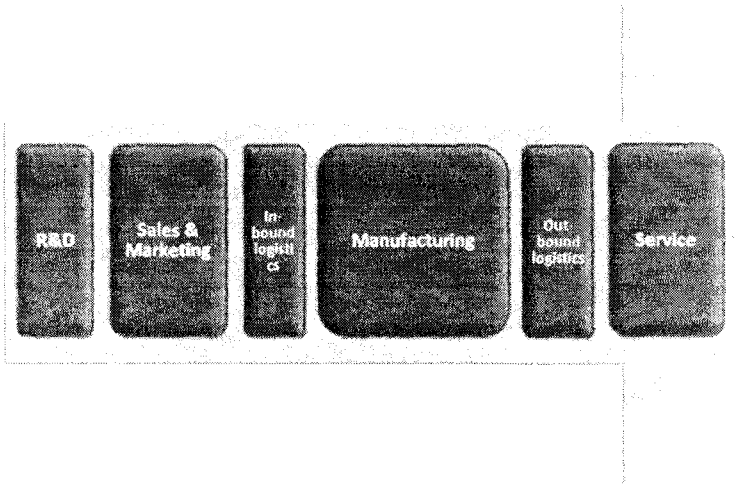
The threat of substitution in WE segment of the industry is low, due to a higher dependency on product customization and a greater need for sales expertise to select the proper equipment. In the LT equipment segment, the threat of substitution is significantly higher because of the presence of nationwide rental companies that can offer low rental rates resulting from economies of scale, and commoditized working applications that allow the use of a wide range of equipment.

2.3 INDUSTRY VALUE CHAIN analysis

2.3.1 Overview

Briefly, the value chain for the material handling equipment industry looks as follows: Development of new models, sales and marketing, inbound logistics, manufacturing, followed by outbound logistics and after-sales support (Figure 8).

Figure 8 Material Handling Equipment Value Chain



Different intensity market forces suggest possible differences between the two industry segments in regards to how these activities are performed within the industry's value chain.

2.3.2 R&D

R&D in the material handling equipment industry is performed by equipment manufacturers only. The major R&D within the industry addresses lowering costs and improving efficiency and performance, and most importantly, improving ergonomic design. In the WE segment of the market, the last factors become extremely important due to increased industry demand for ergonomic equipment, as more companies use it to improve productivity, increase quality, and enhance safety. Ergonomically designed material handling equipment drastically improves ease of operation, enables more efficient use, and decreases on-the-job injuries. The new designs, based on a careful consideration of human factors, are expected to enable operators to work for a minimum of eight hours without injuries or fatigue. Seats, tires, control configuration, and steering

in forklift trucks are being improved for a high degree of manoeuvrability.[7] In the LT segment, even though all factors are considered, the major emphasis is given to lowering the cost, which is logical based on the extreme price pressure in this segment.

R&D activities are very important to the industry, because a new model will have several years of life cycle; thus "thoroughness" of the new model is considered to be a vital asset. This long life cycle, coupled with a certain degree of inertia in customers' perceptions, drives lift truck manufacturers to take a conservative approach, selecting and accepting only proven technologies. The Material Equipment market is highly fragmented and as a result, most of the manufacturers have several models in several classes of the equipment in their product portfolio, which results in the need to have a steady pipeline of new models. The long development cycle and need for a pipeline of new developments put financial pressure on manufacturers.

The two industry segments have different approaches to R&D.

WE segment: Most of the R&D in the WE segment is performed in-house. In-house R&D creates a competitive advantage for warehousing equipment manufacturers, as all the equipment is highly fragmented. R&D is mostly aimed at further differentiation and keeping the brand identity, even though it comes at a high price. To maintain a competitive edge and to keep "know-how" from the competition, most of the WE manufacturers usually perform R&D in house.

[7] Interindustry Economic Research Fund Inc. (IERF), Industry Research Paper, https://www.firstreseach.com/industryprofiles/ss/reports/. Accessed: June 18, 2006

LT segment: R&D is designed mostly to minimize the costs of the equipment. The homogenization of the products and market cost pressure force manufacturers to outsource R&D. The most common outsourcing is "cross-brand" outsourcing, when one manufacturer develops a new model that will be brought to market by several manufacturers. For instance, a new forklift model launched by Nissan in 2004 has almost identical "copycat" copies produced by Caterpillar and Mitsubishi; another example is a new model of forklift that is shared by Yale and Hyster. Jointly performed R&D usually contributes to further market commoditization and further lowers the importance of brands. The buyers' preferences in market analysis seem to confirm this observation. [8]

Summary of R&D section: In the material handling equipment industry, activities performed in the R&D sector are definitely where the value is created. The relative weight of this activity is different for the two industry segments. Generally, R&D in the WE business is designed to further differentiate and support the key factors addressed in the market analysis: price, brand and service. R&D in LT is relatively low in importance, designed primarily to lower the cost of the equipment and mostly addressing the price factor.

Applicability of industry R&D for ARPAC: As the R&D activities in the industry are performed by manufacturers; these activities are outside of the equipment vendor's control. However, understanding the driving forces behind the R&D becomes important, as the dealers need to address the "compatibility" issue by matching selected brands and company strategies as it is hard to change later.

[8] The relatively low importance of brand identity in the general use lift truck segment does not necessarily mean that there is no need for brand management and in-house R&D. In fact, Toyota Forklift doesn't share its R&D products and uses brand management strategy to further differentiate existing differences in the technical design; however, this approach is not systematic and is done on a case-by-case basis.

The "right choice" needs to provide a closer match between the dealer's business model and the business model of the equipment manufacturer. The sales of the equipment built by manufacturer-differentiator will suffer if sold by a dealer with a low-cost business model that is short of expertise and unable to provide quality service. The opposite is also true. The dealer-differentiator who sells low-cost products damages its "differentiator" reputation and wastes the company's limited resources by applying premium services to low-cost products.

2.3.3 Sales and marketing

2.3.3.1 Marketing:

Marketing is an activity that addresses the brand success factor that was identified in the previous market analysis section.

WE segment: Two dominant brands, Crown Equipment and Raymond Equipment, have strong brand identities. Both products are at the above-average or the premium price level. Raymond positions itself as the industry innovator. Most industry innovations were implemented by Raymond first. Crown Equipment positions itself as a highly reliable and durable product in the industry. Crown Equipment is usually a bit slower in regard to innovations, as it prefers to adopt a new design only after this innovation has gained industry acceptance and proves to be reliable. Both companies actively employ marketing as a tool to create market positioning and therefore maintain their current level of differentiation. The majority of users in WE are large accounts the nature of whose operations requires high customization and performance. Raymond

addresses these points by innovative design, and Crown stresses reliability. Performance is addressed by the marketing of both brands.

LT segment: The wide presence of many brands (Toyota, Caterpillar, Nissan, Mitsubishi, Komatsu, TCM, Daewoo, Yale, Hyster, Linde and others) seems to create "white noise" brand perceptions, and therefore contributes to further commoditization of the industry segment as mentioned in the market analysis section. The dealer or manufacturer has fewer tools to withstand price pressure from a price-sensitive customer by applying brand management. The expensive LT products have very little leverage in facing extremely price conscious customers, who therefore pay less attention to the brand. Most of the industry players in LT segment don't actively use brand management. Toyota is one of the few exceptions in its active use of brand management. The fact that Toyota has one of the biggest market presences, combined with its moderate price, suggests that to some extent, strong "brand" performance combined with a competitive price could compete on the price-dominated market.

The value chain analysis findings support the conclusion from Porter's market forces analysis that suggests price, brand and dealer's expertise are important factors in the WE segment, and that price and to some extent brand dominate the LT segment. The analysis of the LT market also suggests that from the dealer's equipment perspective, choosing the right brand with a balanced price becomes one of the successful factors that will allow competing in the very cost-sensitive market.

2.3.3.2 Sales

The nature of sales in the material handling industry is a consultative process to ensure that the selected equipment matches the client's working application and requirements. The following considerations are important in a successful sales approach:

- The consultations usually require "face to face" interactions between sales and the users; thus, to be efficient, the sales force needs to be located as close to the customer's site as possible.

- The sales process usually requires certain time; therefore the sales force needs to have constant access to the potential customers.

- E-commerce still accounts for only 2 to 3 percent of total sales, despite its fast growth; thus human involvement is still a crucial factor in making the sale.

- The sales force needs to stay with the customer long enough to preserve and build the relationship, which imposes a time factor on sales activities.

The need to have a sufficient sales force, maintaining a long-time presence close to end users, makes the sales process for equipment manufacturers extremely expensive and forces them to outsource sales activities to equipment vendors that have constant and quick access to clients. Only about 10 percent of all sales activities are performed by manufacturers "in-house"; the remainder is outsourced to equipment vendors.

A small fraction of sales activities is still performed by manufacturers, as they need direct access to some strategic or key accounts. Three major reasons for "in-house" sales activities exist:

- Scale of repeat businesses: Accounts like Coca-Cola, Wal-Mart, Costco and other multinational retail and distribution chains require special attention from equipment manufacturers. These accounts become too important for manufacturers to leave them with dealers only.

- Direct access to market: As manufacturers have direct access to the market through serving key accounts directly, these key accounts provide vital market information directly to manufacturers; thus market information and customer feedback will directly impact development of new products and services. Most material equipment manufacturers have their factory's personnel overseeing such accounts.

- Training and market feedback: Other reasons why equipment manufacturers need to have at least some part of sales activities performed in house is that manufacturers employ regional managers to supervise, consult and provide sales expertise to the personnel of regional dealers and distributors. This manufacturer's sales channel is used also to collect market and competitive information from dealers and to have indirect access to local markets.

WE segment: In the WE segment, the sales process is usually performed before manufacturing. Since most equipment requires physical configuration and customization, the process of manufacturing actually takes place only after the sale is performed and all the technical details and specifications are clear. In addition, the customization process requires more skilled sales personnel, since they need to be experts in the business. The 5- to 15-year repurchasing cycle dictates deeper and longer relationships with the customer, who prefers to deal with the same personnel as it reduces the customer's uncertainty.

LT segment: The commodity-type equipment in the LT segment doesn't require the sales person to be an expert. Maintaining customer relationships becomes too expensive in the price-dominated market. Sales in the LT segment are usually performed after the manufacturing process as there is a lesser need for product customization; as a result, the equipment can be sold from stock. The manufacturer can thus enjoy benefits of economies of scale by producing large quantities of equipment in advance for stock purposes.

In summary: The sales activities are one of the biggest segments in the chain where value is created; these activities are performed in most cases by equipment vendors. The WE market requires the sales process to address the need for expertise and customer relationships. Sales activities in the LT industry segment seem to have different approach and scope. As the market is homogenized and dominated by price, an increase in sales expertise will not create a competitive advantage. The dealer cannot rely upon creating customer relationships, either, as this factor is also not very important. Thus, to facilitate the sale, the dealer's only option is to put more commoditized sales force. To

match the price pressure, the dealer's option is limited to taking advantage of the "economies of scale" effect by applying a more "commoditized" sales force to push commodity-style products. The pay structure for sales personnel in WE should place more emphasis on the base salaries; the sales job is to provide a base for consequent sales. The pay structure in LT needs to include lower salary base and higher commission, as there is no guarantee of future sales in commodity-like market.

Applicability to ARPAC: by applying a similar strategy to serve two different segments, the extremely skilled sales force in the WE market operates inefficiently while selling in LT, and the less-skilled sales personnel from LT can't provide the expertise level needed in the WE segment. The unified strategy that has resulted from applying two opposite strategies within one company leads to lower pay for the WE sales specialists, who will eventually leave. The replacement sales force with lack of industry tacit knowledge will further deteriorate the existing differentiation.

Porter's 5 market forces and value chain analysis of the industry segments are completely correlated. The customer relationship and sales expertise level is one of the crucial factors to succeed in the WE segment. The LT segment relies less on these factors, as it is mainly dominated by price.

2.3.4 Inbound and outbound logistics:

In the material handling equipment industry, logistics activities cannot create a competitive advantage and create the least value within the industry value chain. For these reasons, they are largely outsourced. The freight component accounts for less than two percent in the price, and thus excellence in logistics will not bring any competitive advantage. There is a possibility that with a further commoditization of the LT segment, logistics will play a bigger role. In this case, the ability to produce and ship bulk quantities of the product will create an advantage.

2.3.5 Manufacturing:

LT segment: Manufacturing in the material handling equipment industry is similar to that in the automotive industry. The trend towards homogenization of the product brings price pressure on manufacturers. To withstand the pressure, most manufacturers have gone through consolidations. The result is cross-manufacturing, in which one manufacturing brand produces lift trucks for other brands and acquires products from other brands.[9] Industry consolidation seems to have brought more brand confusion to the industry, which has led to a further commoditization of the products.

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[9] Toyota makes their Class I products in Indiana and at Cesab in Italy. Their Class II products are built by Prime Mover (also known as BT Prime Mover) and Raymond Corp (owned by BT, which is owned by Toyota). Toyota's Class III products are built by Raymond Corp and by Prime Mover. Linde North America (NA) - Class I and II are built by Linde in South Carolina and Germany. The Class III product is built in the old Baker facility in South Carolina. Jungheinrich North America (NA) - Class I & II products are built in Germany. The Class III products are built by Multiton/MIC in Germany and France which is owned by Jungheinrich. Hyster/Yale (NACCO) - Class I, II, & III products are built by NACCO at various locations. Mitsubishi/Caterpillar (MCFA) - Class I products are built by MCFA. Class II products are built by either Raymond (stockpickers) or Rocla & Lift Tech (reach trucks) and assembled by MCFA. Class III products are currently built by Raymond and soon to be built by Jungheinrich/ Multiton. Nissan – Class I sit-down products are built by Nissan and the stand-up counterbalance built by Schaeff. Class II products are built by BT Prime Mover. Class III products are built by Barrett which is owned by Nissan.

WE segment: the segment experiences fewer cases of cross-manufacturing. Crown Equipment is an example of a "pure play" manufacturer. Crown Equipment still produces 85 percent of its trucks in-house, which seems to be the highest vertical integration in the industry. By building most of its products in-house, Crown Equipment has full control of the quality (brand and service factors).

In summary, the WE segment manufacturing process is a crucial activity where most of the value is created. The manufacturing process directly addresses the factors most important to the customer: price and brand (though these are important to a lesser degree than in LT).

2.3.6 After-sales service:

Because the end users of equipment are business accounts that are geographically dispersed, service has to be performed by companies located locally to the end users. Predominantly, service is provided by equipment dealers "in-house", as they have knowledge of a customer and his working applications that determines the proper use of equipment. Service is usually done on the customer's site. Service personnel are equipped with mobile service vans. To provide quality service, the equipment vendor needs trained personnel and a parts stock. Having the stock parts could be disadvantageous in periods of low demand for service that generally correlate with low economic activity in the region.

Applicability to ARPAC: The differences existing between WE and LT segments suggests that the loss of personnel in the WE segment due to lower LT pay rates represent a greater threat to dealer's operation, as most of the much-needed knowledge leaves with

the personnel. In case of ARPAC, the "mix" strategy could lead to replacement of skilled service personnel with less-skilled LT service staff that could, in turn, downgrade the existing differentiation strategy in WE.

2.3.6.1 Efficiencies

WE segment: In the WE segment, parts stock is a source of differentiation, as parts can't easily and speedy be acquired from other sources. Because of the product complexity and more demanding customer's applications (such as high-performance warehouses and high-storage applications), the typical service technician has to be better trained and equipped with more sophisticated equipment.

LT segment: In the LT segment, parts are widely available from other sources, such as Lordco and other automotive parts suppliers. As the equipment can be easily cross-serviced, and there is a risk that the customer will change suppliers, the equipment distributors usually carry only minimum parts in stock. As an example, none of the service providers in LT segment have equipment tires in stock, since they can be easily purchased and delivered from other sources

Applicability to ARPAC: The majority of equipment vendors, including ARPAC, usually compete in all segments of the industry. This "all-market presence" has an adverse effect on service efficiency. The typical service technician covers all clients within his assigned territory. This "geographical principle" requires the service tech to service all equipment within area, without segregating the WE and LT industry segments. Even though there is some sort of specialization among the service people, in general the

service tech has to deal with all sorts of equipment. Not differentiating between the clients in WE and LT represents an immediate loss of efficiency. Any time the service personnel who is trained for WE market, with its higher skills and higher overheads, has to service the LT segment, characterized by lower skills and less overhead, the service provider loses money. The opposite is also true. Lower-skilled LT service could undermine the company's "differentiator" reputation and relationships with a customer in the WE segment.

The next problem arises when, by maintaining a pay structure that supports the LT market, the company loses the most qualified personnel that is one of the KSF (service factor) in WE. The lost personnel also, in turn, brings about the loss of the customer relationships (dealer's reputation factor) with the client, which is another important factor in WE.

2.3.6.2 Service outsourcing

The segments in the equipment industry have some differences in service activities. The WE market segment, due to its complexity, significant differences in design and technical components, is serviced predominantly by original equipment authorized dealers. A developed service network allows the equipment vendor to charge higher premiums to price-sensitive customers, since service in the WE segment is one of the important factors.

Service in the LT market with its simpler, commodity-like equipment and more price-sensitive clients is perceived as being of less importance to customers. The lower importance of service doesn't allow dealers to use outstanding service to justify the price;

as a result, some services are outsourced to third parties - low-cost service providers. Low-cost service providers usually do not sell new equipment; their personnel consist of ex-employees of OEM vendors. Low-cost service providers do not usually have parts in stock, their response time is usually longer than that of original equipment dealers, and the quality of their service personnel is usually low as their personnel do not receive up-to-date factory training.

2.3.6.3 Summary of Service:

In summary, service in the material handling equipment industry is one of the activities where most of the value is created. The revenue from sales is comparable to the service revenue. In the WE segment, a highly developed service network allows addressing the customer's demand for quality services (service factor). Service is one of the factors that are important to the customer, and is one of the major industry activities where value is created.

In the general LT segment, the importance of service is far less because the service is perceived as significantly less important than price.

From the dealer's point of view, the separation of the industry segments while performing service activities becomes an important factor. By allowing mixing of the market segments, first, the company can't retain the most skilled personnel needed in WE, and second, the use of lower skilled LT service personnel applied to WE undermines most of the factors crucial for WE.

2.3.7 Summary of industry value chain

Major contributors to the value chain in the WE segment are R&D, sales and marketing, manufacturing and service activities; these represent major activities where most value is created and shape all the key success factors. The R&D and marketing activities address the brand factor, while sales and service address the dealer's reputation and service factors. These three factors have extreme importance, as they allow countering price pressure from price-sensitive customers. Sales activity involving a high degree of customization takes place before the manufacturing process begins.

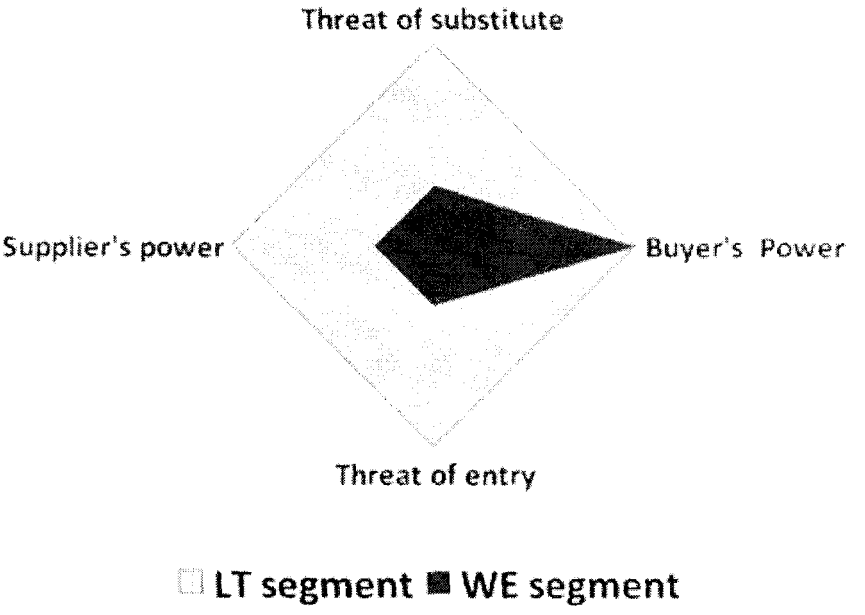
Major contributors to the value chain in the LT segment are sales, manufacturing and service. Sales activities to push commodity-like products are still a very important contributor to the value chain. The most value is created in the manufacturing, as it addresses the cost factor. The importance of manufacturing activities to lower the costs is greater than any other activities, and as a result manufacturing priorities (economies of scale) dictate that some of the sales activities take place after manufacturing. From the dealer's perspective, the proper selection of manufacturers on the price-versus-quality continuum becomes extremely important.

2.3.8 Summary of rivalry:

The two segments in the industry have different market forces (Figure 9). The WE segment is the more attractive industry as it has low intensity, except of buyer's power forces. The LT segment is the less attractive industry as it has strong levels of threats in

all market forces. The less attractive LT industry suggests lower profit margins compared to those of the WE segment.

Figure 9: Market Forces



2.4 Key success factors

Different market forces necessitate different key successful factors in the industry that are necessary for the company to achieve. As a result of the high fragmentation and differentiation in the WE segment, in addition to the price factor, all other factors, such as brand, customer relationships, sales expertise, service skills and project management, are important for success. In the LT segment, the existing market homogenization causes high importance to be placed on the price factor. The weak performance of some very

cheap brands suggests that the brand is also relevant to the market. All other factors, such as the dealer's reputation, customer relationships, sales and service skills level are far less important.

2.4.1 Key success factor analysis of competition

The key success factor analysis will be performed based on industry and value chain analysis. Two different segments that have significant differences in both market forces and structure of the value chain will be analysed separately. Every factor relevant to the industry segment KSF will be given a relative importance index using a scale from one to five, with one being the least important and five being most important. Both industry segments will be analysed among the three direct competitors, including ARPAC. Within every KSF, the competitors will be analysed by using the same five point scale, with one being the worst performance and five being the best. The total rivalry within the WE and LT segments will be summarized by using an aggregated rivalry index. The rivalry index is a multiple of the importance index and the performance index. Every competitor will get a total score indicating how the company is doing against its competition.

2.4.2 Warehousing Equipment segment

The competition within the WE segment of the industry is of medium intensity. There are only two major players in the province - ARPAC (Crown Equipment) and Johnston Equipment (Raymond Equipment). Together they share more than 80 percent of the market. Other companies have only a nominal presence. The structure of ownership varies from corporate to family-owned. Most of the companies operate in both industry segments.

This section will look at two of major ARPAC's competitors and will identify any visible strengths or weaknesses. The direct competitors for ARPAC in the WE segment are Johnston Equipment (Raymond Equipment Corp.) and Harding Equipment (Yale).

Johnston Equipment is chosen as the company that is the major competitor to ARPAC. Johnston Equipment is a "pure play" company that operates in the WE segment only. Harding Equipment is chosen as the third biggest WE equipment vendor operating in BC.

The analysis of the buyer's power suggests price, equipment brand, equipment vendor's reputation (customer relationships, expertise, and financial stability) and service, followed by the ability to supply complementary products (storage systems), as the most important factors. Relationship and brand factors appear also in the barriers to entry section. The value chain suggests customer relationships and expertise (skills) level as being crucial in sales and service activities.

Summaries of KSF and rivalry indexes are indicated in Table 1, which follows. Maximum importance is marked with 5 points and given to price factor. The remaining factors are at the 4-point level. The best performance is marked by 5 points on a 5-point scale. The best price factor performance is understood as the ability of the company to offer products with the lowest price (low price = high score). The list of weaknesses or strengths will help to propose alternative strategies to improve performance.

Table 1: Summary of rivalry intensity and companies' performance

KSF	Importance	Harding Forklift. (10 percent of market)	ARPAC (30 percent of market)	Johnston Equip. (50 percent of market)
Price	5	5	2	3
Brand	4	3	5	5
Customer relationship	4	1	4	5
Sales expertise level	4	I	4	5
Service skills level	4	I	5	4
TOTAL: (importance index X performance index)		49	82	91

2.4.2.1 Analysis of WE segment:

Johnston Equipment is the overall leader in the segment and represents approximately 50 per cent of all equipment sold in BC. The company offers medium-

priced products, and has a solid brand reputation, extensive sales expertise and experience level. Johnston also possesses the most effective customer relationships in BC, as the personnel (likely because of higher pay rates) seem to stay with a company in the industry for a longer period of time, the assumption being that the longer the sales or service personnel are in touch with the client, the deeper the relationship level is. The company is a subsidiary of Raymond Equipment; thus financially the company appears to be stronger than the rest of the companies. The only weak point is the service personnel skills level of Johnston Equipment. The relatively low level of Johnston's service personnel skills, compared to ARPAC's, is mostly attributed to the Raymond brand. Raymond Equipment is highly reputable in the industry for its innovations. Innovations usually come at the cost of service, as the innovative design usually suffers in reliability in the initial stage. The higher rate of incidents requiring service by Raymond at the initial product implementation stage are perceived as a lower service personnel skill level compared to that of ARPAC-Crown. The Crown brand is highly reputable in the industry for its reliability; thus its service level is perceived to be higher.

The worst performer, Harding Forklift, has the lowest-priced products and services. Harding's lift truck manufacturer, Yale, has an average industry brand rating. The level of sales force expertise, customer relationship and service coverage is considered to be the worst among all competitors as a result of high employee turnover. Harding Forklift is the only family-owned company among all three rivals and seems to be the weakest, as its access to external financial resources is limited.

At first glance, ARPAC's major threat appears to be the cost factor. The price level of ARPAC is higher that Johnston's, as products represented by ARPAC – Crown

Equipment is usually pricier than those of Raymond Equipment[10], and therefore are outside of the company's control. The only competitive option available to ARPAC is to maintain needed differentiation, not allowing differentiating factors to be eroded. The real challenge could be when the WE operation are mixed in with lower-cost LT operations, so that the differentiation needed in WE can be easily eroded. The relatively weaker performance of ARPAC in these factors suggests the presence of this adverse effect. The strong performance of the "pure play" company, Johnston Equipment, seems further to bolster this observation. Every activity ARPAC performs worse than its major rival-differentiator Johnston Equipment becomes a potential threat to the business. Those potential weaknesses are the customer relationship level and the sales expertise level. ARPAC's strength against competition is the quality of its service.

Analysis of the table suggests that the total company score is directly correlated with size of market share. ARPAC's missing differentiation costs the company approximately 20 percent of market share (compared to Johnston Equipment's share). By improving differentiation, ARPAC is likely to increase its market size. By lowering differentiation, ARPAC will lose market presence. Thus, the only available option for ARPAC in the WE segment is to follow a differentiation strategy. This differentiation can be enhanced by following one of two alternatives:

Alternative 1: To increase differentiation by unbundling the WE and LT operations, so that WE will not be affected by the cost pressures associated with LT.

[10] The price difference between two brands is likely due to the fact that most (80 percent) of the CROWN equipment is assembled in-house, and these in-house operations are performed in high labour cost countries such as USA and Ireland. Only 20 percent of Raymond Equipment's products are built in-house; the rest are outsourced around the world, thus giving the Raymond company a clear advantage in pricing.

Alternative 2: To further differentiation by adopting similar differentiation strategies in both the WE and LT segments within one company. The possibility of applying the differentiation strategy to the LT segment will be explored in the following LT market rivalry analysis.

The only available course for ARPAC is to differentiate. Differentiation in WE could be achieved by either separating from the LT division or by adopting similar differentiation strategies for both market segments within the one company

2.4.3 General use LT equipment segment

The competition in LT industry segment is relatively intense. In addition to ARPAC (Nissan, Heli) there are eight major players - Mason Lift (Toyota), Williams Machinery (Linde, Clark, Daewoo), Leavitt Machinery (Mitsubishi, Caterpillar, Jungheinrich), Wajax (Hyster), Harding (Yale), BC Conveying (Komatsu), Attica Equipment (Kalmar) and several small service companies operating in BC. Except for Wajax, all the companies are private. All the companies, except for ARPAC, can be described as "pure play" companies, as their existing WE product lines represent probably less than 5 to 10 percent of total sales revenue. ARPAC is also the "youngest" company as it entered the LT market only in the mid-1990s.

The direct competitors for ARPAC are Mason Lift (Toyota) and Williams Machinery (Linde, Clark, Daewoo). Williams Machinery is a company that applies a cost

strategy to the cost-dominated market. Williams Machinery's market share is approximately 15 percent for all its equipment lines together. Mason Lift is a company that applies differentiation, represents one brand, and also has approximately 15 percent of the market. ARPAC, with its Nissan and Heli brands, holds approximately 8 percent of the market share.

An analysis of the buyer's power suggests price, equipment brand, equipment vendor's reputation (customer relationships, expertise) and service as the most important factors. Maximum importance, marked with 5 points, is given to the price factor. The relative importance of the brand factor is 2 points. The remaining factors are at the minimum (one point) level.

Summaries of KSF and rivalry indexes are indicated **Table 2**, which follows. The best performance in marked by 5 points on the 5-point scale. The best price factor performance is understood as the ability of the company to offer products with the lowest price (low price = high score).

2.4.3.1 Analysis of LT segment:

As the market tends to be cost-oriented, the company that offers the lowest price is usually the winner. This tendency is demonstrated by Williams Machinery, one of the best overall performers. The ability to provide low-cost products[11] allows the company to pay less attention to other factors. As a result of its cost strategy, Williams Machinery has high employee turnover and relatively low sales and service expertise. The widespread presence of different brands creates a chaotic brand perception.

[11] Williams Machinery does have some high-priced products in its portfolio; however, the sales revenue from those products is extremely low and can be considered as irrelevant.

Table 2: Summary of rivalry intensity and companies' performance

KSF	Importance	Williams Machinery (15 percent of market)	ARPAC (8 percent of market)	Mason Lift (15 percent of market)
Price	5	5	1	2
Brand	2	2	3	5
Customer relationship	1	3	4	5
Sales expertise level	1	1	3	5
Service skills level	1	2	5	4
TOTAL: (importance index X performance index)		35	23	34

The second performer in the segment is Mason Lift. The company demonstrates that the differentiation model can work in LT cost markets if it is associated with reasonable costs. Mason Lift offers equipment at moderate prices. Most of its success is attributed to Toyota's promotional efforts and a public groundswell of favourable word-of-mouth publicity, which allows offsetting the price at least to some extent. Mason Lift is able to maintain the best performance in the brand factor because of its association with the Toyota brand. Mason Lift's sales expertise and customer relationship levels are the highest, due to its longest-established presence in the LT segment and its relatively low employee turnover. In summary, moderately priced products, supported by strong

performance in brand and other activities, allows Mason Lift to compete effectively against the cost leaders in the segment.

ARPAC's major disadvantage is the high price of its products in a very cost-sensitive market. Its price disadvantage comes as a result of Nissan's LT products. Nissan lift trucks tend to be very close to Toyota's in regard to overall quality and reliability; however, Nissan's prices are higher. Toyota has a much wider presence in the US and likely benefits from economies of scale while producing larger quantities of equipment. The "lean" manufacturing system developed by Toyota likely contributes further to Toyota's low prices. Nissan Forklift sells less equipment and has a smaller manufacturing base; thus economies of scale are limited. Some Nissan products and parts are still imported from Japan; therefore, shipping costs are likely to further contribute to prices. The latest developments by Nissan Forklift (a new factory, new products, R&D and parts supply shared with other manufacturers) suggests that the cost situation will be improving in the near future.

ARPAC's performance in other activities is average level. Nissan's overall brand perception seems to be lower than Toyota's, a perception that is likely affected by Nissan's automotive image vs. Toyota's. ARPAC's second product line, Heli, which was added to enable the company to provide low-cost products, is regarded as a highly unreliable product, and therefore has led to sales problems. The poor performance of the Heli product line serves as a warning that low-cost products which are not accepted by the market, when added to the product line, can not improve the cost factor, but because of poor quality, can compromise the brands of by-products. Heli's low brand value further contributes to lowering ARPAC's average brand performance. In summary,

ARPAC's high product prices, combined with average brand performance, makes it impossible to compete with the leaders.

Two interesting findings are revealed by the performance comparison table. By applying a cost strategy similar to that of Williams Machinery, ARPAC could double its market presence. By applying a differentiation approach similar to that of Mason Lift, ARPAC could grow its market by the same size as by using the low cost strategy. Even though ARPAC might not be able to match Toyota's prices, the improved differentiation could lead to higher market share, meaning more sales and increased revenue.

Two alternatives are available to ARPAC:

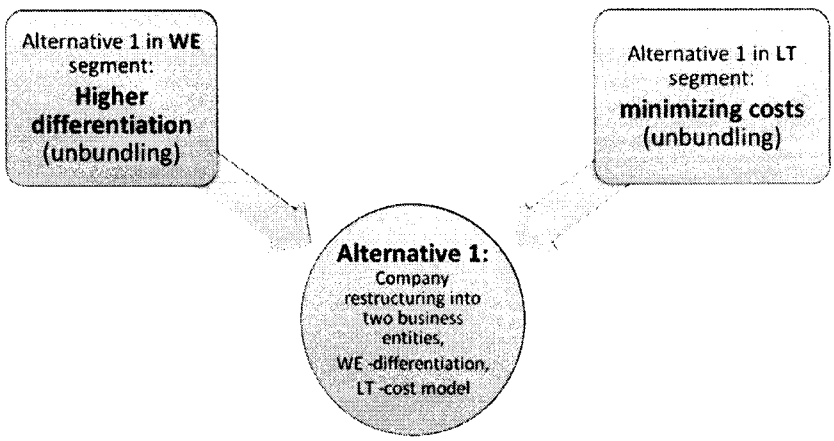
Alternative 1: Applying a cost strategy within the LT segment. Adopting a low cost strategy requires launching more low-cost products and reducing sales, service and the customer relationship level. This alternative suggests unbundling the WE and LT operations into separate business entities.

Alternative 2: Improving differentiation (brand and other factors) that will allow the company to compete with the leaders. Differentiation could be achieved by dropping "weak" brands and improving sales and customer relationship level. This alternative doesn't suggest a restructuring of the company. The potential challenge with this strategy is the likelihood of brand and other factors improving sufficiently to justify the price level.

2.4.4 Summary of alternatives:

Scenario 1: ARPAC restructures into two independent divisions (Figure 10), so that one spin-off division operates in the WE segment and pursues a differentiation strategy, and the second division operates in the LT segment and follows a pure cost business model. Both divisions will be operating as independent companies and will further be indicated as a company differentiator and company with a cost strategy. In this scenario, the WE segment will be served by the company differentiator, and the LT segment will be served by a low cost company. The WE segment will have greater efficiency due to a "pure play" differentiation strategy, and the LT segment will operate without requiring any hidden cost centres such as "customer relationship level" or premium level of service, which will improve its cost performance.

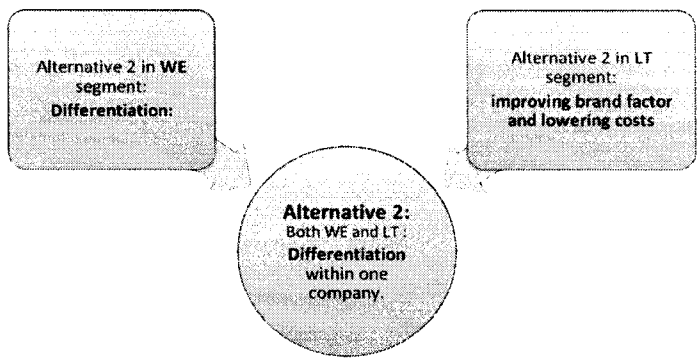
Figure 10: Summary of company's first alternative



Scenario 2: Instead of using cost or differentiation models separately, ARPAC follows a strategy that allows "pure" differentiation in both segments (Figure 11). The WE segment will maintain differentiation that will allow ARPAC to compete against

Johnston Equipment. LT will create differentiation by eliminating bad brands and improving other differentiating factors that will allow ARPAC to compete against low-cost leaders in LT using the Mason Lift approach. The potential threat is that prices will be higher than Toyota's. However, ARPAC has a potential for lowering costs as Nissan's products have recently demonstrated a tendency toward lower prices (discussed above), and because the improved efficiency suggests more sales and consequently better volume discount rates from Nissan. This alternative doesn't require company restructuring. The challenge for the company is finding the right leverage of the differentiation levels needed in both segments. The differentiation in WE could require more effort from the company than the differentiation in LT, and in addition, pay rates in both markets would need to be addressed to avoid compromising the differentiation in WE market.

Figure 11: Summary of company's second alternative.



Executability analysis of both alternatives will be presented in the following Chapter.

3 INTERNAL ANALYSIS:

The purpose of this section is to examine the feasibility of proposed alternatives in terms of the internal capabilities of ARPAC to implement the strategies. The focus will now be directed inward at the characteristics of ARPAC. The chapter will evaluate each of the available strategic alternatives against several criteria, such as managerial preferences, organizational infrastructure (systems, structures, organizational culture) and the company's resources (operational, human and financial). The strengths of ARPAC will be assessed to see how they support alternatives. The gaps between required capabilities and what currently exists will be identified and the analysis will show whether these gaps can be filled to allow one or both alternatives to be achieved. The strategic alternatives will also not only be evaluated based on their feasibility, but also on the ability of the company to acquire additional capabilities, should they be required.

As previously stated in the market analysis, ARPAC has some of the resources and core competences required to compete in the industry. The company has a reputation, sufficient history and market expertise. Over the years, the company has built up beliefs about its competences, the capabilities of its employees, and about the right way to handle strategic issues. Two alternative strategies will be considered in regard to management preferences to find out whether the strategies are likely to be implemented.

3.1 Management preferences

At least one of the proposed alternatives needs to be supported by a company's decision-makers.

ARPAC is a privately owned company. The majority of the company belongs to an investment fund (Seagal Group). The President and Vice President both are minority shareholders. The senior management level in the company consists of the president, vice-president (VP) and general manager (GM). The President and VP reside in BC, while the GM resides in Alberta.

The president and CEO, Art Wushke, has a financial background. He joined the company as an accountant in the mid-1980s, and after that made a career to the top working in accounting, predominantly in the storage division. The president is responsible for the financial aspects of the company's operation. As his previous experience was acquired within accounting and finance, Art prefers to operate using "hard" performance metrics, and is one of the major company "drivers" towards a low cost business model. Art's previous experience in accounting is likely to affect his decision criteria in favour of a low cost strategy with lower uncertainty, higher predictability, and conservative financing. The second alternative, which suggests the company's turn around into differentiation, is less likely to be accepted based on Art's previous experience. The first alternative might get the CEO's approval, as it suggests applying the cost strategy at least in one segment (LT).

The vice-president (VP), Gary McRae, has an extensive experience in the equipment industry "from beneath" with emphasis on the service aspect. In the mid-1980s, Gary ran a company that sold and serviced "no-name" lift truck brands. In the 1980s, ARPAC acquired Gary's company and Gary joined ARPAC. After his arrival, the company moved towards product diversification through the acquisition of different product lines. Gary was involved with adding the Nissan and Heli Forklift brands to the company's previously existing Crown brand. The VP supports current multiple product lines, as he believes it will minimize the risk during an economic downturn. Currently, the vice president is responsible for product selection and all service activities. The vice president's belief is that the job can be done at low cost, and is unlikely to support any differentiation strategy. Out of the two proposed alternatives, the VP is more likely to support the first alternative, as it doesn't require dropping other brands and differentiation.

The General Manager (GM), Rick Palardy, brings approximately fifteen years of experience, with excellent industry expertise and knowledge. His major responsibility is managing sales. The GM has experience in building a brand image. The success of the Crown brand in BC and Alberta proves that he is indeed capable of creating differentiation. The GM has strong support from Crown, which gives him a certain authority in dealing with both the President and VP of the company. The general manager is likely to support a differentiation strategy; however, his authority level is not sufficient to authorize strategy changes. The GM is likely to support both alternatives, as they both require differentiation models.

The current independent and autonomous position of the GM, his residence in Alberta, and his support from Crown could imply that there are certain concerns by the President and VP about retaining control over the company's operations. The current company's structure, with cross-reporting, tight control structure and multiple managerial layers seems to confirm this statement.

3.1.1 Feasibility:

Alternative 1: By following the first alternative, the low-cost strategy in the LT segment seems to be a perfect match for both the CEO's and VP's previous experience and capabilities. ARPAC doesn't need anything that is not already available to run a low-cost LT operation. The potential challenge lies in differentiation in the WE segment. The person that can best run the WE differentiation is the GM, who possesses less authority. To fully execute the first alternative, the company needs first to separate the company into two independent operations. The VP could run the LT business, and the GM could be in charge of the WE company. In this case, the authority levels of both VP and GM need to be equal. In this system, both the VP and the GM (who could become VP2) will report directly to President.

An example of current "pure play" competitors such as Johnston (Raymond), Williams Machinery, and Mason Lift (Toyota)[12], provides solid evidence that independently run operations can be more efficient. Crown and Nissan, in turn, will be likely to support the separation, as in this case they will not have similar and overlapping products within one dealership.

[12] Toyota owns the Raymond brand; however, it prefers to run both brands separately.

Alternative 2: The second alternative doesn't require restructuring and would seem to be less favoured by the President and the VP, as it suggests moving towards differentiation, which is outside the President's and the VP's expertise. The differentiation approach suggests that more authority be given to the GM, which seems to be problematic. Differentiation in the LT division suggests dumping "weak" brands, which is unlikely to be accepted by the VP as it threatens his reputation. Crown Equipment will likely support this initiative, however, as it is consistent with Crown's differentiation strategy. Nissan will likely be indifferent, as a new alternative doesn't change things for Nissan. The performance for a new fully differentiated company is very hard to predict, and there is no current example in BC or Alberta of a company that operates using this differentiation strategy for different brands in different segments.

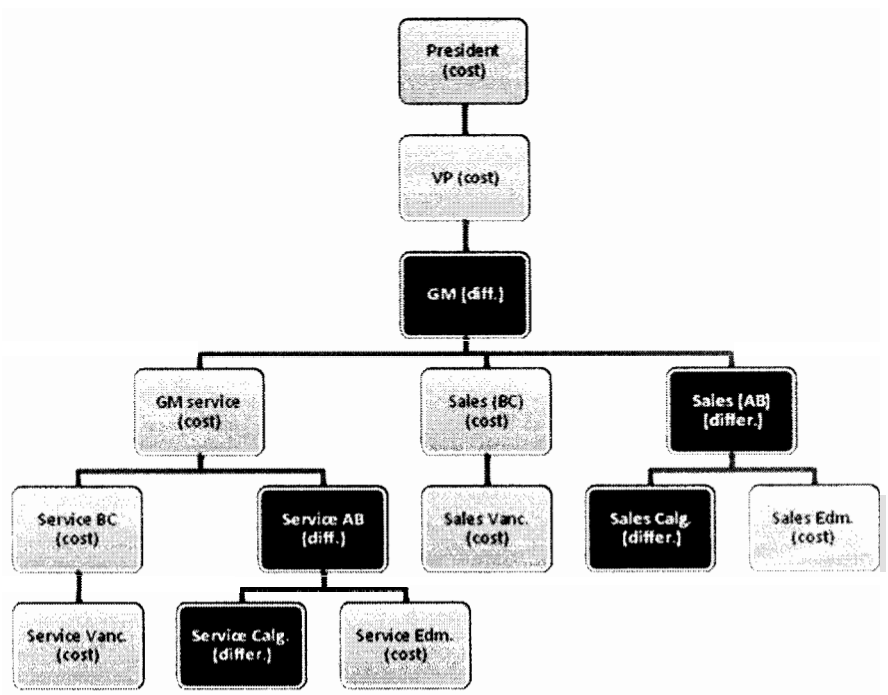
In summary, the President and the VP of the company support a low cost model, while the GM is a supporter of differentiation. From a management preference point of view, the company currently has much strength on the cost and differentiation sides. All three managers have reasons to support the first alternative. The second alternative could be supported by the President and the GM, while the VP is likely to object. Shared ownership in new spin-off companies could provide incentive for management to change things.

3.2 Organizational infrastructure

3.2.1 Structure

ARPAC is a 30-year-old company. Over this time, the company has developed several layers of hierarchy. The current company structure is indicated in Figure 12, which follows. Darker colours in the diagram suggest more emphasis on differentiation, while lighter colours suggest an emphasis on cost strategy.

Figure 12: ARPAC's company structure (Equipment Side) [13]



[13] Operations with differentiation strategy model are indicated with darker colour.

As both the President and the VP reside in BC, the sales and service operations there seem to have more of a cost approach, regardless of product. The GM (a differentiator) lives in Alberta, and most likely for that reason, Alberta sales and service operations are more differentiated.

ARPAC is an example of a vertically structured company. The company's BC location has five levels of management. The vertical management in BC is structured as follows: president; vice-president; general manager; general manager service; province managers; sales in field; and office personnel. Cross reporting exists between layers of management. For instance, general manager service (with significantly lower authority than GM) reports to both vice-president and general manager.

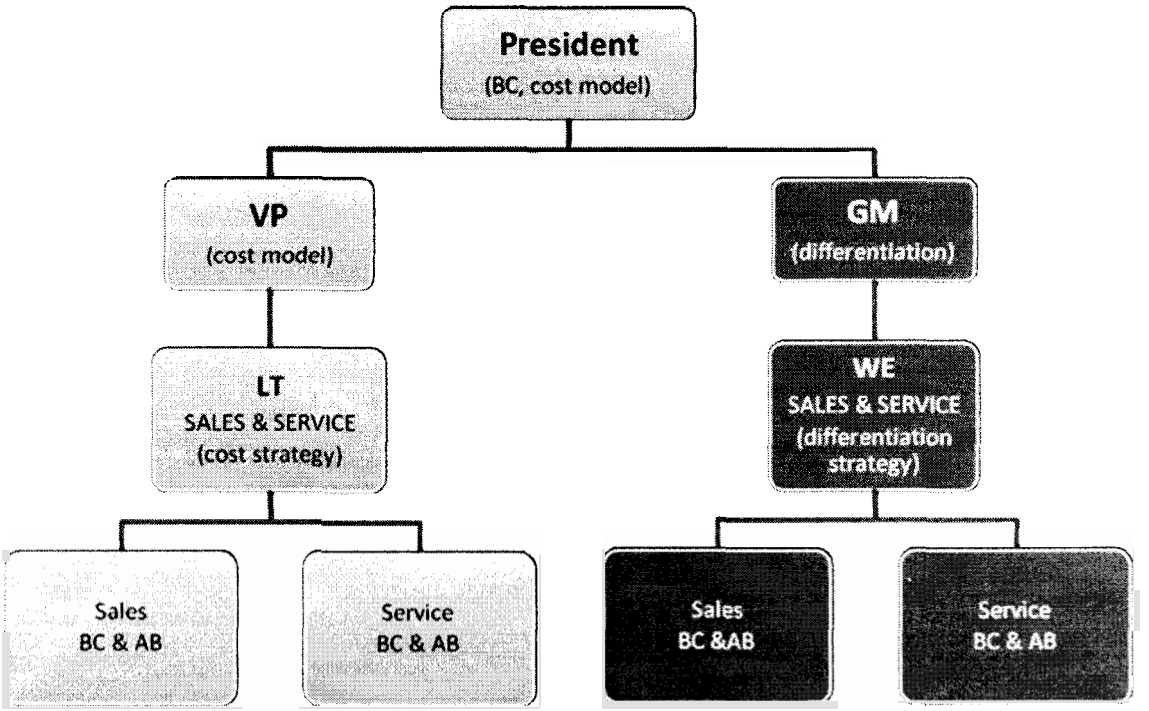
The strength of the current structure best supports the cost model. The structure separates the sales and service activities into independent cost centres. By separating the costs, the company is in a better position to track the costs. The weakness is that it doesn't allow separating activities within cost or differentiation sector. Nor does the existing structure allow close coordination between sales and service, which seems to be a problem as differentiation suggests close coordination of sales and service.

Alternative 1: ARPAC's strength in separating cost centres can be utilized in the first alternative (Figure 13). Both new companies in WE and LT will track costs within separate industry segments, which will make both companies more efficient.

The proposed alternative suggests direct control by the GM over all operations in WE, and control by the VP over all operations in LT markets in both provinces. Sales and service in both segments need to report to one manager, which will allow better synergy

to achieve better differentiation or lowering costs. None of the current managers' reputations will be compromised, and every manager will get the business in the area of his expertise. The president retains control over all business operations. The potential challenge is to find ways to make VP accept the unbundling of the operations. Partial ownership in the company operating in the WE segment could provide an initiative for the VP to agree to this option.

Figure 13: Company's structure using first alternative.



Alternative 2: The second alternative doesn't require any significant changes and can be implemented using the existing company's structure. What is needed is higher

authority for the GM and implementation of the reporting and supervising system to assuage potential fears of losing operational control.

3.2.2 Company culture

As a result of the existence of several hierarchy levels, the corporate culture in BC operations is very formal and includes multiple reporting, approval and confirmation processes. The relationship between sales and service tends to be tense, which results in several unstated rules. Lack of productivity is also a growing problem. The majority of personnel, especially those in the back office, are approaching retirement age, and therefore there is an increase in "survival" mentality, which makes the company very resistant to change. The workforce tends to rely on several layers of decision makers, which can and has caused bottlenecks to happen. The heavy reliance on upper management in everyday operations results in inefficient organization. In summary, the corporate culture is an example of a low cost mentality. The major weakness of the current corporate culture is a lack of independent decision makers. Another weakness is the "rigid" corporate culture.

The Alberta locations, in Calgary and Edmonton, were added at a later stage when ARPAC acquired a local company. The Calgary and Edmonton locations are smaller than the BC operation in Delta. In contrast to BC, Alberta has only two layers of management; therefore the structure is rather flat. The Alberta management vertical comprises only general manager and sales manager.

Every company location in BC and Alberta has a tendency towards either a cost or differentiation model. The business model and culture in both provinces likely depends on the senior manager (cost managers in BC, differentiator in Alberta). The informal culture in Alberta is supported by the GM, who tends to be more inclined towards the differentiation model, while the more formal culture in BC locations is a result of direct supervision by the CEO and the VP. Locations with predominantly low cost structure (Delta, BC and Edmonton, Alberta) sell more Nissan equipment (LT segment). The Calgary location (differentiator) sells more Crowns (WE segment). This observation correlates with industry analysis that suggests that LT markets are best served by low cost companies, whereas the WE market prefers differentiators.

All the company's locations have different corporate cultures. The strength of the current system is the presence of two culture models that support either cost or differentiation and can serve as culture "templates" for future spin-offs.

The first alternative requires creating two companies with contrasting cultures. The current BC culture is a good fit for the company with a low cost strategy, and can serve as a basis for cost strategy in both provinces. The already available personnel with differentiation skills could form the basis for a newly created company differentiator. The Alberta situation is even more straightforward. The Edmonton location, selling predominantly LT products, seems to have a cost mentality, and therefore can become the basis for a company with low cost strategy, while the Calgary location will create a basis for the company differentiator.

The second alternative requires an overall change of the entire company towards differentiation. This seems to be least worrisome for Alberta locations, while the BC branch will require considerable culture reshaping.

The main obstacle to implementation of either alternative is the lack of cooperation between different departments. Both alternatives require changing the mentality of the company. The process of changing mentality and the existing systems can be addressed by acquiring an organisational change consultant and inviting the direct support of the president. To facilitate tighter collaboration between sales and service, the company could implement performance bonuses based on successful cooperation. The existing cross-reporting system needs to be eliminated in order to facilitate initiative and self-confidence.

The second alternative seems to be less challenging and does not require personnel separation. Change management could be addressed by applying similar approaches within one company. The first alternative requires separation of personnel and the creation of two contrasting mentalities, which is a more complex task.

3.2.3 Company systems

The corporate governance: The multiple ARPAC's locations require the presence of an effective control mechanism to ensure the appropriate execution of the company's strategy. The current ARPAC's several managerial layers allow the proper execution of the chosen strategy. The situation that the company's locations despite of several managerial levels and cross reporting system have a tendency towards cost or

differentiation models suggests that the potential challenge hides in the top managerial level; the president, VP and GM are promoting the different types of strategies. Thus, the current control system on the low and middle managerial level is quite effective and represents the ARPAC's strength, while the corporate governance seems to be a company's weakness. By pursuing both alternatives, ARPAC needs to reassess the corporate governance.

Both alternatives suggest more authority given to the GM. In addition, the first alternative goes further to transform WE operations into an independent business entity. The control of the president and the VP over independent WE operations can be executed by creating the Risk Management Policy and reviewing an Audit System that will allow to oversee and monitor the management and the performance of the new business entity in compliance with the corporate risk management policy.

First, the risk management policy needs to include comprehensive reporting system which seeks to identify, at the earliest opportunity, any significant business risks. Secondly, The policy needs to include an executive limitations such as the conditions to avoid and what should not occur.

The comprehensive reporting system needs to underpin written certifications given by the GM to the president and VP each half year that the WE's (Alternative 1) or ARPAC's (Alternative 2) financial reports fairly reflect its financial condition and operational results, are in accordance with relevant accounting standards, and that the risk management and internal compliance and control system is operating efficiently and effectively in all material respects.

In summary, the risk management policy and the revised auditing system will ensure the proper execution of the new company's strategy and address the possible arguments and the potential disagreements over the control.

Compensation System: ARPAC's managerial, sales and service compensation system is based on performance. The performance-based compensation system that increases competitiveness represents ARPAC's current strength; however the averaging (WE and LT segments) compensation pay system that doesn't allow the retention of the top paid personnel needed for differentiation, and overpays in the LT segment, which can be served by a cheaper workforce represents the company's weakness.

The first alternative addresses the existing differences between WE and LT markets by separating the activities into independent businesses. By pursuing the second Alternative, ARPAC needs to concentrate on the activities in LT that allows higher pay to the personnel. That could be achieved by dropping the low cost brands and products; and partially by outsourcing the lowest profitable and the lowest value services such as the basic and routine maintenance.

Comparing two alternatives, the first one is easier to implement. The second alternative requires some adjustments (products and services) to make it work.

Summary of the alternatives: The proper execution of both alternatives requires some adjustments on a corporate level. In case of the first alternative, the adjustments

need to emphasis the risk management policies and reporting system. In case of the second alternative, ARPAC needs to reassess its core activities in the LT market that will allow harmonizing the compensation system between WE and LT operations.

3.3 Company Resources

3.3.1 Human resources

HR management in ARPAC is performed internally, as company management believes that the skills required from new employees can be recognized only by industry professionals. The company doesn't have dedicated HR personnel, and most of the HR functions are performed by a member of senior management. As most of the managers are usually fully occupied by their everyday workload, the HR activity likely suffers from lack of attention. The current HR system uses an "averaging" approach that doesn't allow the retention of the top paid personnel needed for differentiation, and overpays in the LT segment, which can be served by a cheaper workforce. In addition, cost or differentiation preferences of senior managers are likely to affect the priorities in hiring and retaining personnel.

The strength of the current HR policy is that it allows the hiring of technical specialists, and it can pinpoint the requirements needed for the LT and WE markets. The weakness of current HR management is that company doesn't address the soft metrics that is needed for change management. To overcome this weakness, the company will require the help of an organizational change specialist, who is needed for both strategies.

Whether the first or the second alternative is adopted, the company will need to separate HR management into a dedicated, stand-alone activity that allows higher priority given to HR; in addition, it must harmonize HR management with the company's strategy, either cost or differentiation. To empower an HR manager to carry out needed implementations and avoid the influence of the operational manager's preferences, the HR position needs to report directly to President and have an authority level equal to the GM's.

3.3.2 Operational resources

Currently, the company's operational resources support all the activities of the company. Most of the routine operations are performed on the customer side. The warehouse space is needed only to store parts supply and inventory stocks. The outside nature of the service-customer or sales-customer relationships suggests a certain independence of key personnel from the company's location. Thus, the major strength of the company's operational resources is that the company could base itself even in remote locations without significantly reducing its operational efficiency. The only difference between the LT and WE segments is that WE service needs to be closer to the users, as service response time is important.

To enable independent cost and differentiation strategies within BC and Alberta locations (alternative 1), the company needs separated facilities. One of the spin-off companies with a low cost strategy could be located in a remote area with low rent costs. WE operations could be left in their current central locations, using smaller premises, as

the WE operations will be smaller than ARPAC's currently. The WE business does not require huge inventories of equipment.

As the second alternative does not require facilities separation, from the company resources point of view, the implementation of the second alternative seems to cause least concern. Adoption of the first alternative requires physical separation of the operations, but location-independent sales and service forces make this separation possible. In addition, by downsizing the current operations in the expensive central areas and moving cost operations to cheaper remote areas, the company will be able to execute the needed separation with minimum financial impact. The smaller central location needed for WE and a more remote location for the company operating in LT will allow reducing the operating costs in both segments. Thus, from the company resources point of view, the first alternative seems to be preferable.

3.3.3 Financial resources

Evaluation of the proposed alternatives is indicated in Table 3, following.

Assumptions: To compare two alternatives, some assumptions are needed. As revenues from LT and WE segments are approximately equal, the two spin-off companies which would result from the first alternative would be similar in size. The current key personnel - sales and service staff - in ARPAC total approximately 50 people. For simplicity, it is assumed that sales and service salary expenses are equal. The new company differentiator will have half of the current key personnel, about 25 people. The differentiation model assumes that wages for personnel will be higher by $15,000 per

person per year. The facilities rental expense of a new "cost" company is likely be offset by the lower rental cost of downsized existing facilities.

The second alternative suggests that company structure stays the same. The second alternative doesn't require a company's relocation. The current key personnel - sales and service staff in ARPAC (50 people) - will stay with the company. All of the key personnel will follow the differentiation model, which assumes higher wages for personnel. In this case, the assumption is that wages will be higher by $8,000 per person per year, due to lesser degree of differentiation as compared to that of the first alternative. The HR and organizational change specialists are needed for both models. In the first alternative, the HR manager can work for two companies; thus his salary will be relatively higher than in Alternative 2.

Benefit Assumptions: All costs and benefits are considered on an incremental basis (compared to status quo). By following Alternative 1, ARPAC could expect to increase its market share by 7 percent in the WE segment and 5 percent in LT, as compared to the status quo. By following Alternative 2, ARPAC could target a 5-percent market share increase in WE (lower than in Alternative 1, due to the lesser degree of differentiation) and 5 percent in LT. The increase in LT is estimated at approximately 5 percent for both alternatives, as performance of both the cost company (Williams Machinery) and the company differentiator (Mason Lift) suggests that the same market size can be achieved by following either alternative. The discount factor used in cost benefit analysis is 15 percent. The targeted market expansion is planned for the fifth year. The revenues in the first, second, third and fourth years are planned as a percentage of targeted. The service revenue is approximately equal to sales revenue.

The resulting table compares the alternatives. The analysis of the alternatives is performed on a net present value, cost benefit ratio and internal rate of return basis.

Table 3: Alternatives investment evaluation

Expected Benefits	ALT 1	ALT 2
Equipment market size, (BC and AB)	3,500	3,501
WE segment size, units (half of total)	1,750	1,751
LT segment size, units (half of total)	1,750	1,751
Planned WE market size acquisition	7%	5%
Planned LT market size acquisition	5%	5%
Sales growth,WE + LT , units	210	175
service revenue (= sales),	210	175
Profit, per unit	$3,000	$3,000
Revenue (sales)	$630,000	$525,150
service revenue (= sales)	$630,000	$525,150
Total revenue	$1,260,000	$1,050,300
Total incremental revenue (after 5 years)	$1,260,000	$1,050,300
after 4 years, (80 percent of target)	$1,008,000	$840,240
after 3 years, (60 percent of target)	$756,000	$630,180
after 2 years, (40 percent of target)	$504,000	$420,120
after 1 years, (20 percent of target)	$252,000	$210,060
Expenditures		
cost relocation	$100,000	
office supplies	$90,000	n/a
labour needed to execute the strategy, person	25	50
incremental cost of labour, per person	$15,000	$8,000
total wages paid	$375,000	$400,000
HR management	$100,000	$80,000
change management, (first year only)	$30,000	$60,000
1st year implementation costs	$605,000	$540,000
2nd and after annual implementation cost	$475,000	$480,000
Cost-benefit analysis		
NPV (net present value)	$683,976	$294,483
BCR (cost benefit ratio)	2.94	0.89
IRR internal rate of return)	42%	20%

Observations and analysis:

The cost benefit analysis suggests that the first alternative is preferable. The better results are achieved mostly by reduced dependency on higher WE pay rates and better market performance, due to "pure" cost and differentiation approaches. The analysis of

the alternatives seems to support the logic that the differentiation for the entire company would prove more expensive than differentiation only in one WE segment.

Summary of Alternatives:

The internal analysis of ARPAC shows that the company possesses most of the resources and capabilities to pursue either alternative. All senior managers have reason to support both alternatives. To proceed with one of the alternatives, however, ARPAC needs to change the current company culture. The major cost-benefits metrics provide an additional incentive for the senior managers to support the proposed alternatives.

4 CONCLUSION AND RECOMMENDATIONS:

The industry analysis performed in this paper shows how opposite market drivers affect both industry segments. The two biggest industry segments have opposite market trends, a fact that poses extra challenges to any company that simultaneously tries to compete in all segments of the market. To address the market forces towards low cost in the lift truck industry segment and the forces towards greater differentiation in the warehousing equipment segment, the company needs to readjust its current strategy. The paper suggests two alternatives. The first alternative considers the company restructuring into two independent companies that operate in different industry segments using contrasting strategies. By adopting this alternative, the company could address the dominant market drivers in both industry segments in the most efficient way. By following this alternative, the entire company will benefit from operating as independent "pure play" companies.

The second alternative proposes a strategy alignment towards differentiation, which will include a higher degree of harmonization between the company's two biggest operations. The differentiation in one industry segment will facilitate differentiation in the second, and vice versa. By following this alternative, the company will benefit from the synergy effect between the company's two major operations.

The major decision criteria for proposed alternatives are increasing the company's market share and providing additional growth for the company, which is operating in a mature industry with very limited growth potential. Both alternatives are consistent with company's internal resources and existing infrastructure. The first alternative seems preferable, as it suggests fewer investments, better benefits, and better utilization of the managerial capabilities. Both alternatives are feasible, depending mostly on the willingness of the company's management to anticipate changes.

By analyzing the two alternatives, I conclude that both the financial projections and management preferences support the first alternative. This being the case, it is entirely reasonable that senior management should implement this choice.

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