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Analysis Of The Aerospace & Defense Industry – Tata Consultancy Services

Contents

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We would like to express our deepest gratitude to our Supervisor, Prof. John Colley for his excellent guidance, practical approach, patience, and undying support while he provided us with an excellent atmosphere for carrying out the management project.

We would like to thank Mr Amitkumar Shah who presented us with this opportunity to work for Tata Consulting Services (TCS) where we have learnt about the company's work culture & procedures that are carried out in the United Kingdom. We appreciate his full involvement in the project and his willingness to constantly review and make suggestions in our best interest of achieving a detailed and meaningful report. He installed confidence in us in commencing this vast project.

Mr Shah's contribution has been remarkable as he has provided us with exposure to the current Aerospace and Defence industry through meetings with Professionals such as Mr Paul Ferguson, The Business development Manager at TCS from whom we have acquired valuable suggestion and insight about the global aerospace and defence market.

We are highly indebted to Nottingham University Business School that served as a platform and the staff for their guidance and constant supervision in providing necessary information regarding the project & also for their support in completing the project. We would like to extend our sincere thanks to all of them.

Introduction – Objectives

This is a group management project which will fulfil the objective proposed by Tata Consultancy Services (TCS) - Strategic Analysis of Aerospace and Defence Industry.

TCS wants to offer its services to the Aerospace and Defence sector (A&D) particularly in the UK and European markets. To achieve this objective TCS wanted to conduct a detailed analysis of the Aerospace and Defence sector and some of the major players in this sector. The companies that TCS wanted to study are -Rolls Royce, Meggitt, Cobham, QinetiQ, GKN, Finmeccanica, Babcock, and Bombardier. TCS wanted to analyse each of these companies on various perspectives such as strategic and financial (R&D, investment plans, Mergers and Acquisition plans).

Analysis of these companies in the backdrop of trends in the A&D industry would ultimately enable us to advise TCS on various opportunities that available in the A&D industry space in Europe, particularly the UK. This in turn would enable TCS to formulate a strategy to enter the European A&D market where currently it has no presence. Furthermore, we would also advise TCS on any cross selling opportunities that are available in the A&D space within Europe.

Overall, once we perform the above analysis, we would be able to recommend and suggest TCS on the following

- Identifying the challenging factors and opportunities that are present in aerospace and defence sector.
- Evaluating and identifying various business challenges faced by the companies, where TCS can offer services and solutions.
- Analysing the company in terms of future strategy and drivers will enable us to understand the outlook of the company in the near term.
- After evaluating all the above points, a strategy for TCS to enhance its business solutions offerings within the A&D market in Europe and the UK.

For literature review we have chosen Resource Based view (RBV) as a tool to analyse the following : 'In the light of defence cuts that are impacting global aerospace and defence market; can a company sustain its competitive advantage solely based on its resources? - An RBV perspective''.

As part of the study we will analyse two companies Rolls Royce vs. Meggitt (emerging player) in aerospace and defence sector through the specs of RBV.

The main objective of this literature review is to see can these players sustain their competitive advantage in the face of budget cut. Currently Rolls Royce is one of the leading players with 2.67% of Global aerospace and defence market as of March 2012. (PWC, 2012) Meggit is an emerging player currently holding 0.34% of Global aerospace and defence market. (PWC, 2012)

Reasons for choosing the topic

Global economies are experiencing budget cuts and austerity measures in various sectors (including defence) due to unemployment and general lull in business. Under such condition it becomes a challenge for all the firms to sustain competitiveness. Some companies consider such economic period as a time when revenue of the firm will go down and wait for right time to act. Some companies consider this as a suitable time to implement developmental and restructuring plans to prepare them for economic upturn.

This attracted our attention where we could relate our company project as a live example of this economic movement. Our team is performing the analysis of Aerospace and defence sector for Tata Consultancy Services. We decided to consider Rolls Royce, the second largest service provider in defence sector and Meggitt the emerging player of this sector. The reason behind selection of these two firms is to compare the major player and emerging player in terms of their core competencies and strengths and to analyse their strategies by which they are planning to bring about growth and profit under such unfavourable condition.

In order to continue with the analysis and derive the conclusion from it we have used Resource Based View framework where our focus is to find out the main resources and capabilities each firm has and how it is helping them to compete and sustain in the present economic condition. We have taken into consideration the financial, technical, human skills and operational aspects for both of the companies and created VRIN framework which indicates the unique strength each firm enjoys and how company has used it till now to develop its business. The main purpose of this analysis is to find and compare how a big firm and a relatively small firm gets affected by unfavourable changes in their industry sector and what are the factors that helps a big company and emerging company to sustain and increase the profit. This is more about researching how much of a company's competitiveness is driven by sheer scale and how much by its core competence, innovation, R&D spending etc.

Further we have taken into consideration the limitations of RBV analysis and have used Strategic Performance framework where we have suggested future development scope for each firm. Under

this section we have searched for future trends that would be beneficial for industries in aerospace and defence industry to increase their revenue and market size. Thus we arrived at some trends and scope for development in future which these companies can focus on and exploit them using the resources and investment plans which the companies already possess.

Methodology

Overall Project Approach

The study would be conducted on the basis of qualitative data (secondary sources). We would go about gathering the data through various publically available information and university subscribed websites.

In order to go about providing TCS with the needed insights on possible opportunities to enter the European A&D market, research through secondary sources was the appropriate route. The scope for primary research was limited due to the following reasons,

- The project scope with TCS did not entail contacting European A&D companies
- Neither the University of Nottingham nor any of the members of the group had any contact with these companies.

Approach to formulate a strategy for TCS

Before venturing into advising TCS on possible business strategy, basic understanding of the external factors that could impact the A&D industry as a whole was necessary. This entailed a detailed understanding of the Aerospace & Defence industry, through various strategic tools for analysis such as PESTLE and Porter's Five Forces model.

Once the industry analysis is completed it will enable us to find the challenges, threats within the industry. Then we will look at possible opportunities that exist within the industry. Upon completion of the industry analysis we will recommend the opportunities within the industry where TCS can possibly offer its solutions.

After analysing the industry, we would evaluate the eight companies in light of the current trends in the industry. The purpose of that is to analyse these companies to understand their weaknesses and problems in the long haul. We aim to build a business case around the problems of the company after carefully evaluating the current, future strategies, financial performance etc. Furthermore, we

seek to understand from publically available sources if the entity has an existing relationship with Tata Group. Any previous business or existing relationship could be leveraged by TCS to evaluate cross selling opportunities within the A&D space.

Scanning the Environment

Evaluating and scanning the external environment in the context of the Aerospace & Defence (A&D) industry is essential in understanding the changes in the competitive environment. (Henry A., 2008). There are various tools available to monitor the external environment, to enable an organisation to understand the trends within an industry and forecast the future direction of these trends. Ginter and Duncan (1990) suggest that the macro analysis acts as an early warning system to predict opportunities and threats, to develop possible responses.

PESTEL analysis is a widely used tool to understand the general environment (cited in Walsh et al, 2005). PESTEL refers to Political, Economic, Social, Technological, Legal and Environmental factors. This tool can be used by organisations to understand the trends in general environment that will ultimately impact a company's competitive environment (Henry A., 2008)

Political factor evaluates the impact of changes in government policy which might impact the industry. This includes government regulation, taxation policy. Economic factors are interest rates, disposable income, inflation and unemployment. Social factors are generally the cultural changes within the environment that shape consumer behaviour. Advent of new technology, obsolescence can change industry dynamics by allowing new competitors to enter the market and gain market share. Environmental factors have come into the picture only recently, this factor covers environmental issues, regulations as well as stakeholder values.

Legal factors consist of legal factors that impact the industry. These factors include health and safety, equal opportunities, advertising standards, consumer rights and laws, and product safety. (professionalacademy.com,2012)

Porter's five forces

This framework analyses the industry from the point of view of an incumbent to determine if a new player should enter the industry (Henry A., 2008).Understanding the competitive forces reveals industry's current profitability and anticipating competition and profitability over time. (Porter,

2008). The five forces that share competition in the industry are entry barriers, power of suppliers, power of buyers, threat of substitutes, and rivalry among existing players. (Henry A, 2008)

According to Porter a competitive strategy within an organisation should aim to find a competitive position within an industry that an organisation can defend against competitive forces. Their ability to change the industry structure will be in direct proportion to the five forces.

Threat of entry - New entrants come in and desire to gain market share and in turn put pressure on prices, and costs. Low entry barriers restrict the profit potential of an industry. (Porter, 2008)

Threat of substitutes – The industry profitability takes a hit when the threat of substitutes is high (Porter, 2008)

Bargaining Power of Buyers – Powerful customers can change the industry dynamics by negotiating for lower prices, demanding better quality of services (thus driving the costs up). Buyers are said to have negotiating leverage if, (Porter, 2008)

- Only few buyers exist, Purchase volumes required by buyers are large relative to the size of single vendor
- If industry's products are standardized
- Low switching cost to change suppliers
- Buyers can integrate backwards, if vendors are profitable

Bargaining Power of Suppliers - Suppliers can benefit by charging higher prices and passing on the costs to industry participants. Suppliers are powerful if, (Porter, 2008)

- Supplier group is more concentrated than the industry
- Low dependency on the industry for revenue
- High switching costs to change suppliers
- Products are differentiated (Porter, 2008)

Rivalry among existing competitors - If there is high rivalry among the incumbents then the industry profitability is again limited. Particularly the rivalry can be destructive if it is solely based on price. This is the case when the products are identical products.

Findings

Industry Analysis

(For details on PESTEL analysis and Porter's Five Forces, please refer to the appendix no. 1 and 2)

Defence Market Current Scenario

The defence sector remained soft largely on account of defence cuts announced by the US. The industry is challenged by the prospect of sequestration in the US, which could trigger further cuts in defence spending. As the president's budget forecasted a 1.0% decline in fiscal budget for 2013 and over $500 billion reduced budget spend in the next decade. (PwC, 2012)

The US defence spend accounts for about 53.9% of the global spend. This in turn means that the non-American A&D companies' business may remain the same or go a little lower. Particularly, cutbacks in some programs could disproportionately affect European companies (Deiloite, 2012). This entails higher competition between European and US companies as they plan to tap emerging markets.

European Markets

The European A&D market has slowed down considerably in terms of growth, with just 0.6% increase in value in 2010-11 (Datamonitor, 2011).

The UK

Given the challenging market environment in the UK, the MoD (The Ministry of Defence) has been encouraging reduced cost base and single source procurement. In the UK the focus of various programmes is focused on maintaining the existing military capabilities at a lower cost. The defence support services market in the UK is estimated to be worth GBP 16 billion per year by 2020, as service led capabilities present future growth opportunities.

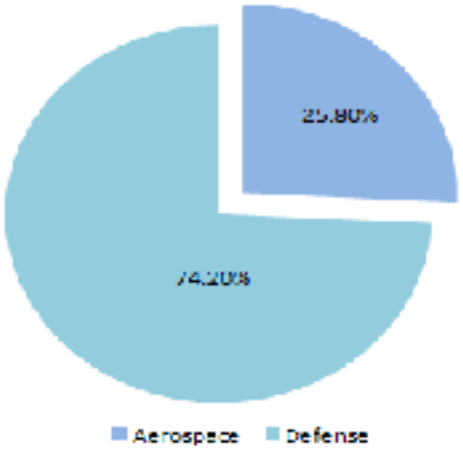
The current industry events include the following (PwC, 2012)

- Increased focus on border security and intelligence
- Focus on lower cost base and operational efficiencies to survive in a challenging market
- Onus on securing more contracts with the UK MOD (MOD, 2012 - "National Security Through Technology: Technology, Equipment, and Support for Defence and Security," February 2012)
- Enhanced focus on M&A (Mergers & Acquisitions) activity
- Enhanced data collection and knowledge to negotiate better with procurement agencies

Market Size and Sub-sectors

Aerospace and Defence market was valued at $1066 billion in 2010 (Datamonitor, 2011). By 2015 the market is expected to grow at 12.9% from 2010 levels to reach $1204.2 billion.

Sub-sectors

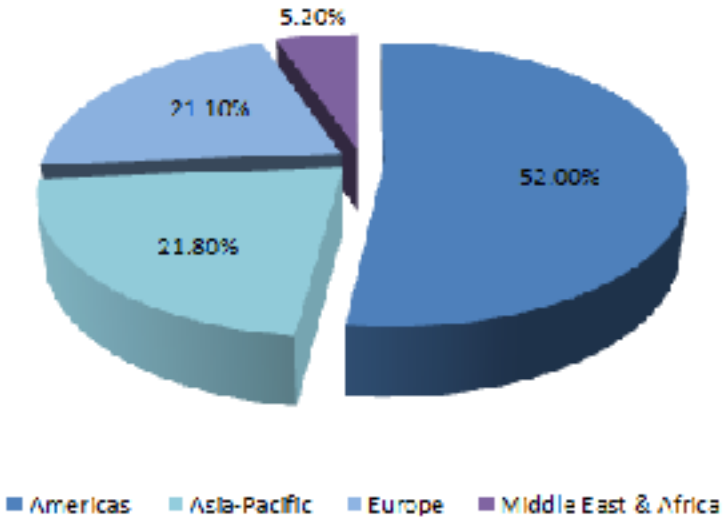


The global aerospace industry can further be sub-divided into commercial aircraft and defence.

Within the industry defence accounts for about 74.2% of the overall market. (Datamonitor, 2011)

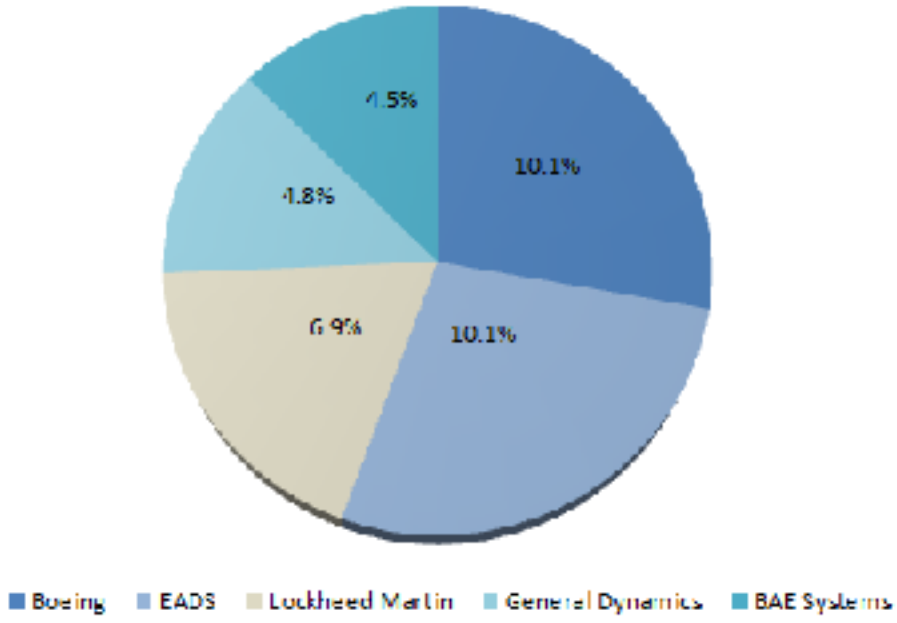
Major world markets for Aerospace and Defence

Countries in the US and Europe are the dominant markets. America accounts for little more than half of the global market revenue. Developing nations like China, India, Mexico and Brazil are emerging as leading markets. (Wordpress, 2012)



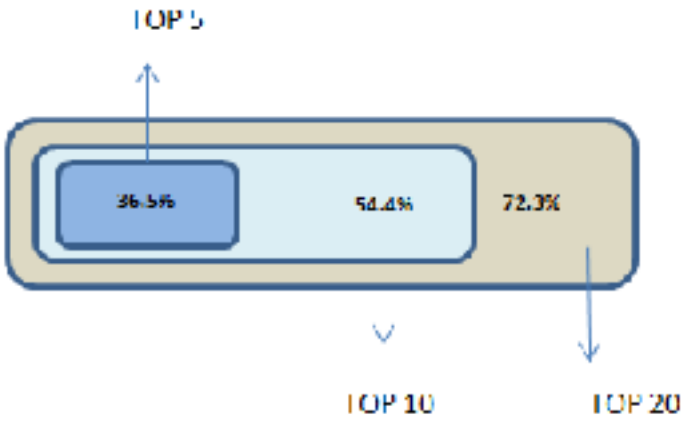
Defence Market size and Markets Share of Major players

Defences market (excluding maintenance revenue) was valued at about $677 billion in 2011. (PwC, 2012). According to PWC the Market Share of top-5 players in the market is as follows



Industry Concentration

Market Share of Top-5 players alone represents 36.5% showing a rather concentrated share among few industry giants.



Opportunities in the global A&D market

Information Technology and Cyber security

- Although the military budgets are cut worldwide, the military is investing heavily on information technology. There is scope for information systems to store information and enemy tactics. IT solutions for real time information processing and management for strategic decision making.
- Cyber security is another area where governments around the world are investing into. Cyber security market was about USD 63.70 billion in 2011, Market is expected to grow at a CAGR of 11.3% to reach USD 120.10 billion by 2017. UK Support Services Market is estimated to be 16 billion by 2020.
- Unmanned Aerial Vehicles (UAV) demand is high; the global market is expected to grow exponentially to USD 86.50 billion in next decade. Globally the market is expected to grow 4.28% till 2015 (7.26 billion). The US budget allocated USD 2.50 billion for additional UAV Key Players will be AeroVironment Inc., BAE Systems plc. Israel Aerospace Industries Ltd., The Boeing Co., etc.
- Other defence segments that are in demand for national security priorities are cyber-security, satellites, missiles and nuclear defence. With China leading the way, Informatized war" is an integral component of defense tactics. (qfinance.com,2012)

Emerging Markets

Defence companies have started to focus on growth markets of India, Brazil, Middle East and South East Asia. Although, the entry barriers in these countries are tricky. Frost and Sullivan (2012) predict that Asia's overall budget will account for 32% of the defence spending worldwide by 2016, up 24% from 2007. On the other hand North American share is expected to fall from 39% to 29%.

Exports lead the way/ Major Deals

- Much of the increase in defence exports has been supported by growing military power in Asia as China is enhancing its military power as tension between North Korea and South Korea escalates. In 2011, the defence export deals increased to $327 billion, in terms of backlog. With growth of emerging economies, the opportunity for defence exports has more than doubled from 2006 till 2010. Some of the major industry deals include,

    - Saudi Arabia has orders on 84 F-15s and 70 upgrades, worth $30 billion (PwC, 2012)
    - Dassault Rafale fighters valued at $10 billion were selected by India (PwC, 2012)
    - Next generation fighter F-35 was selected by Japan, for about $8 billion (PwC, 2012)
    - Taiwan has order to upgrade F-16 fleet, $6 billion (PwC, 2012)
    - The United Arab Emirates bought $3.5 billion worth of THAAD missiles (PwC, 2012)
    - 10 C-17s were bought by India for $2 billion (PwC, 2012)
    - Turkey confirmed orders for 100 F-35s valued at $16 billion(PwC, 2012)

India particularly remains a growth market, as the country is expected to spend $100 billion on its military in the next decade. Boeing is one of the leading companies that will provide new system to replace India's old fleet of MiG-21 fighter jets made in Russia. The fighter jets F-18 of Boeing compete with F-16 made by Lockheed Martin, the Russian MiG-35 fighter, the French Rafale (Dassault Aviation), JAS-39 Gripen (SAAB) from Sweden, and the European Eurofighter Typhoon (EADS). (qfinance.com, 2012)

Other Dominant Trends

M&A deals soar high

2011 saw many strategic transactions within the A&D industry. 341 deals worth $43.70 billion were announced in 2011 compared to 332 deals in 2010. At the beginning of 2011 global A&D companies had a total of $49.50 billion in free cash flow. (Deliloite, 2012)

Defence divestures become more common

As defence cuts loom, most defence companies are forced to focus on being efficient. This in turn reflects a slew of divestures of slow growth defence deals and private equity exits. PwC expects the future M&A activity to grow in 2012. (PwC, 2012). The sector would streamline further as divesture of non -core assets escalates, Deliloite also foresees some strategic acquisitions

Defence M&A is likely to be around large spin offs. Furthermore, as the defence budget is expected to fall further the industry is more than likely to consolidate (PWC, 2012). For more information on large deals of 2011, (refer appendix no. 3).

Challenges in the global A&D market

- The financial performance of industry players is likely to be challenged on account of lower opportunities for revenue growth (Deliloite, 2012)
- Cost pressure to remain profitable in the industry are mounting, as companies face margin pressures.
- As the industry is likely to undergo more stream lining of its cost structure, mergers and acquisitions activity is on the rise.

Other Issues

Industry Risk

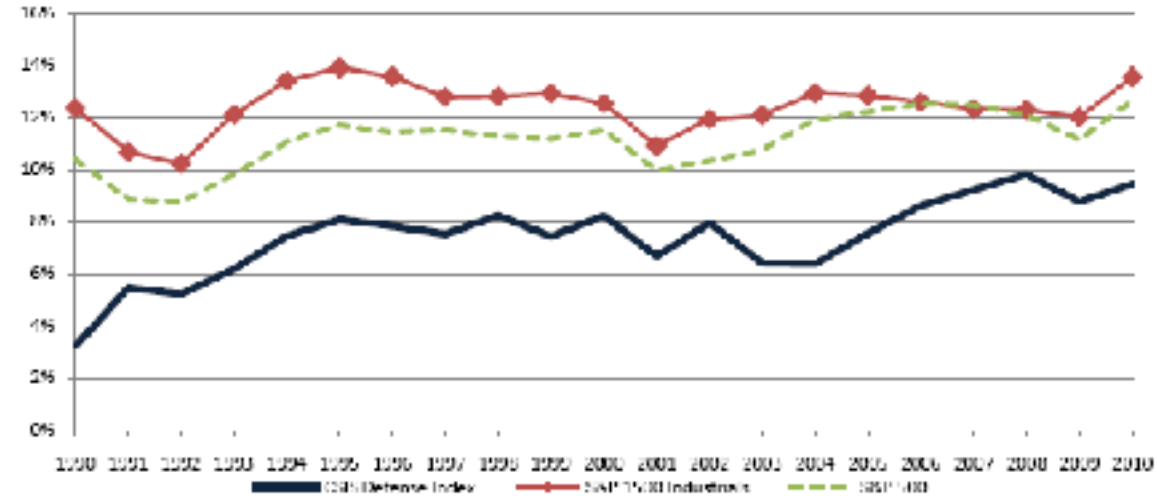
Shortage of Capital and human resource: The risk and obstacles the A&D firms are facing at present scenario is mainly concentrated around capital and human resource.

Long time lag exists between the manufacturing and final sales. Thus, there is an inherent risk of order cancellation and a consequent sales backlog that could arise in an economic downturn. Further, few factors that aggravate the risk are the huge amount of capital required for Research

and Development (R&D) activity as well as the time to develop new product and technologies to satisfy the future market. The R&D activity is considered as sunk cost and profits are uncertain and do not materialize quickly. Thus R&D program puts pressure on profitability and creates additional risk regarding expected cash flow.

Profitability: Higher the operating margin lowers the risk company will default on its interest and tax obligation. Although the margin for CSIS Index is higher today than past decades, it has been constantly lower to those of commercial indices.

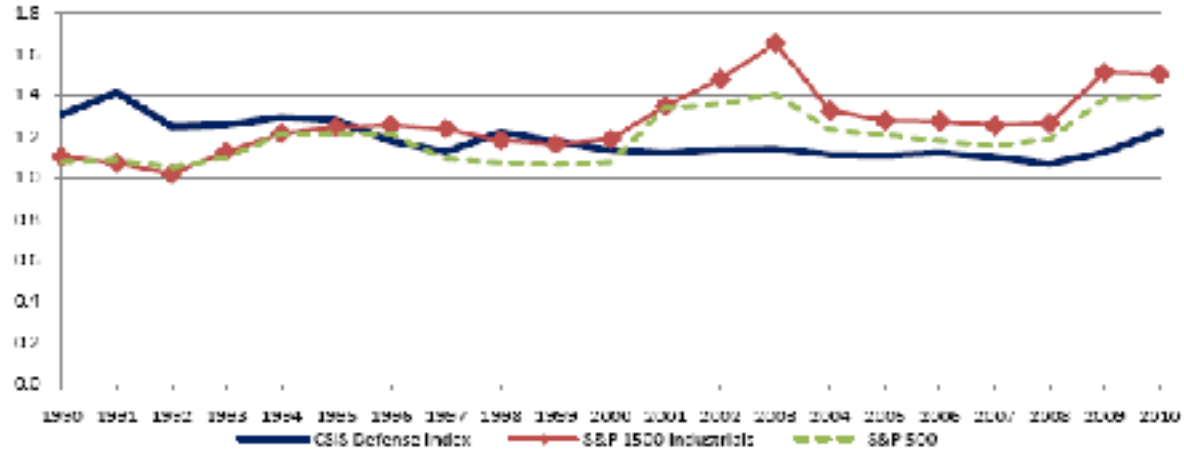
Operating Margin comparison, CSIS Defence Index and Commercial Benchmarks, 1990-2010



Source. Bloomberg, analysis by CSIS Defense-Industrial Initiatives Group.

Liquidity: Current Ratio is the ratio of current assets to current liabilities. Higher ratio implies that the company is capable of meeting its current obligation with current assets. Current ratio for CSIS index is constant but slightly lower than other commercial indices.

Current Ratio Comparison , CSIS Defence Index and Commercial Benchmarks, 1990-2010

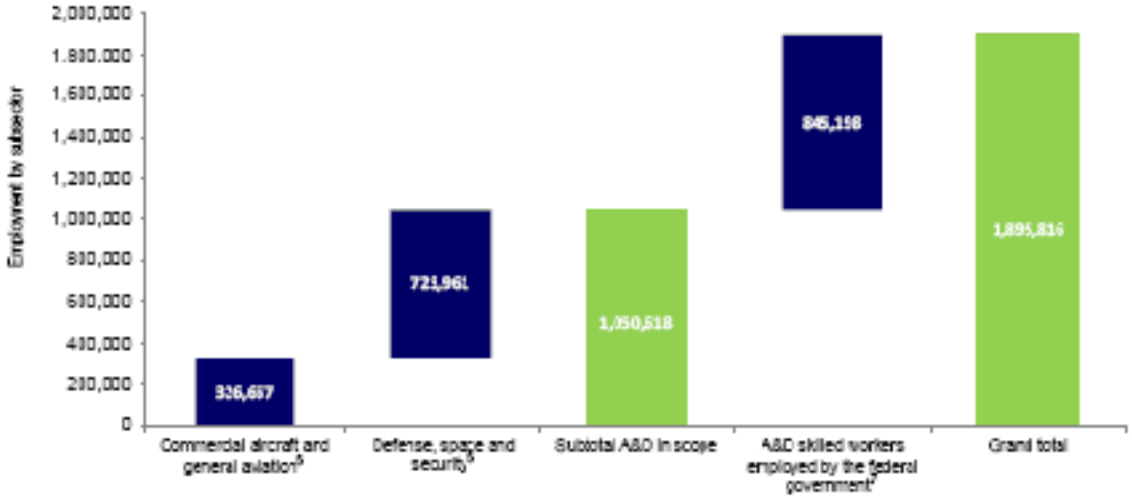


Source. Bloomberg, analysis by CSIS Defense-Industrial Initiatives Group.

Intellectual Capital Loss

The risk of intellectual capital loss from both retirees and new entrants has heightened due to the fact that fewer students are obtaining degrees in science, technology, engineering and mathematics. The graduates from these fields have decreased from 32% in 1995 to 27% in 2004. This could raise question on ability of the industry to create new products and satisfy demand. **(As on 12 July, 2012).** **Refer appendix ii for more details**

Figure 3: 2010 employment by subsector



Pension Cost

One more challenge for A&D defence firms today is the pension cost. As pension plans return are directly linked to the stock market return the drop in stock markets affected the pension liabilities as company cash flow decline. So firms are facing the financial cost arising from scare liquidity and volatility in the capital markets and economic policy measures like decreasing the defence budget. (Deiloite, 2012)

Conclusions/ Recommendations

As the defense industry gets more competitive, the aerospace and defense companies are focused on product innovations, and services. Furthermore, taking on a hybrid approach the companies aim to maintain a lean operating model. In addition, the companies will look for ways to identify new market opportunities and partners for collaboration.

In light of these events, the businesses are likely to focus on updating their databases, IT systems and systems to enhance customer relationships (KPMG, Business Pulse Survey, 2012)

Possible Business and IT solutions that can be offered

- Customized business intelligence platforms to track right mix of products and markets
- Enhanced IT systems, databases to track costs and lean operations
- Platforms and services in social computing (This solution is offered by Infosys at the moment to Aerospace). (Infosys.com, 2012) Advanced offerings in Product Life Cycle Management (PLM) and Enterprise Resource Planning(ERP) offerings.
- Supply chain solutions as companies seek agile supply chains (Mc Kinzey, 2012) by deploying end to end visibility of inventory, and improving the process of asset tracking, logistics communications.

Possible Engineering Services

- Design Services in satellite and missiles – these are the possible products that are going to be high in demand
- Particularly with its Avionics Solutions offerings TCS can focus on offering avionic systems integrated with hardware and software solutions in the cyber security, safety and mission critical military systems.
- TCS can further enhance its end-to-end engineering solutions to offer better quality services through its offshore centers. Company directors/C.E.Os. have cited cost reduction initiatives as key area in 2012 (Refer appendix no.4), KPMG 2012.
- TCS can also invest in building on communication platforms to facilitate real time information exchange as 'Informatised war' escalates (qfinance, 2012)

Limitations of PESTEL and Porter's Five Forces

Critiques on PESTEL Analysis

By comparing various views on PEST analysis from various authors (Burt et al) we find that there are arguments that challenge the usefulness of PEST analysis. The factors considered in PEST analysis are of limited help to an organization in exploring and understanding the total business scenario, because they bring up generic factors, fail in delivering understanding of the interrelationships and interdependences among variables, and provide incomplete understanding of the (potential) External drivers of change. (BURT et al,2006)

In our case this argument holds good. Aerospace and Defense sector is very volatile in terms of political, economic, technological and social. The environment in which this industry sector works in dependent on various other factors. The change in oil price, emplacement, CO2 emission, defense budget allocation, market competitiveness and various other factors can affect the A&D sector.

In order to have complete analysis we think that only PESTEL analysis is not enough. It must be combined with various other analysis and frameworks where more in-depth information is available to the managers so that decision making process can be done with full information and confidence. The same indication is given in journals by (Philip Walsh and Burt et al) where they stress on combining PEST analysis with scenario planning and internal resource analysis. The combination of both the traditional approaches and the scenario approach will help the firm in constructing the future strategy in a changing environment

Critiques of Porter's 5 forces

Porter's 5 forces only cover the macro analysis, i.e. at the industry level, as opposed to the analysis of more specific product-market segments at a micro level. As in aerospace and defense industry the overall structure of all the companies in this sector are nearly same it is the product and service segment that differentiates them from their competitors. So this model does not provide all tools to analyze competitors. The model does not provide full analysis of complex market structure. The only focus on particular segments of such industries, however, bears the risk of missing important elements. For example our analysis about the companies in A&D sector reveals the complex network in procurement sector for every company. As each component is integration of numbers of parts

supplied by various suppliers. It is very difficult to analyze the relation or dependency of supplier and buyer. (Grundy,2006)

The model takes into consideration relatively static market structures. This is not the case in A&D sector. In present fast paced markets technological breakthroughs and dynamic market entrants from start-ups or other industries completely change business competition, entry barriers and relationships along the supply chain within short times. The live example is before us where Tata Consultancy Service is planning to enter and develop their business in A&D sector. Looking at the profile of TATA group one can cast less doubt on this plan. (TCS services and offering description in Appendix no.4)

The model revolves around the idea of competition. It assumes that companies try to achieve competitive advantages over other players in the markets as well as over suppliers or customers. With this focus, it neglects other strategies like strategic alliances, electronic linking of information systems of all companies along a value chain, virtual enterprise-networks or others.(TheManager.org,2012). In specific to our project we have found that companies in A&D sector have undergone consolidation where companies on both sides have certain advantages, as conditions affecting the sector are changing rapidly.

But 5 forces model be more effective and applied 'systems thinking'[1]. This helped us to determine the industry attractiveness. It is not limited to simplistic focus on relative market growth rates. This helped us to find out the factors, which should be considered while comparing companies operating and competing on different product platform. The model also provided initial and start point to start the industry and company analysis. (Grundy et al, 2006)

Literature Review

Research methodology is systematic approach to solving a research problem. There are two approaches to research –(1) qualitative research (2) quantitative research (www.bignerds.com,2012)

The research for the above topic is conducted through qualitative research. Qualitative research is "an inquiry process of understanding" where the researcher develops a "complex, holistic picture,

[1] Its essence is seeing inter-relationships rather than linear cause-and-effect chains, and in seeing processes of change rather than snapshots (Senge) Systems thinking is a way of interpreting the universe as a series of interconnected and inter-related wholes. It is a way of identifying the inherent organisation within a complex situation and has been called organised complexity-
http://www.reallylearning.com/Free_Resources/Systems_Thinking/systems_thinking.html

analyses words, reports detailed views of informants, and conducts the study in a natural setting" (Creswell, 1998, p. 15). In this method the research is conducted through the lens of constructivist (Guba & Lincoln, 1982) and advocacy perspective (Mertens, 2003)

As part of the study we will evaluate the two companies through the lens of Resource Based View of the firm. For the purposes of the study we use qualitative research – secondary methods. The use of secondary sources data refer to use of existing data to answer a research question that differs from the one in primary study (McArt & McDougal, 1985; McCall et al 1991). The scope for conducting interviews did not make sense simply due to the lack of contacts with the company either by the students or the university.

Design of the study

(1) Data Collection

The qualitative approach to the study entails that the data be collected on both companies – Rolls Royce and Meggitt PLC to understand the competitive advantages, competence of the firm as well as firm resources. Here most of the data for the study is taken from respective company websites, conference calls and investor presentations.

(2) Data Analysis

As pointed out by Merriam (1998), in qualitative analysis collection of data as well as analysis are taken up simultaneously. Data Analysis involves application of logical or statistical techniques to evaluate the data. Here we have relied on prevalent management research to support our analysis and findings. According to Shamoo and Resnik (2003), these analytical procedures "provide a way of drawing inductive inferences from data and distinguishing the signal (the phenomenon of interest) from the noise (statistical fluctuations) present in the data".

The steps in data analysis include,

- Primary evaluation of data
- Analysis of data using Resource Based View (RBV) framework to identify the core competence, and resources of the companies

(3) Inference and Analysis

Analysis of the data to answer and evaluate the research question. It needs to be pointed out here that the analysis of qualitative data is subjective and suffer from lack of consensus. (Mittman et al, 2001)

As the study is conducted solely based on information that has been published on the public domain, the limitations are that the data may not be validated. Although there is a wide ranging argument by researchers that validity is not applicable to qualitative research. Creswell & Miller (2000) argue that researcher's perception of validity affects the validity itself. (Jandagh et al, 2010)

Furthermore, there is scope for bias given the interpretative nature of the research. (Ivankova, 2002)

Resource Based View (RBV)

The resource based view of the firm was introduced in 1991 where resources and capabilities of an organisation were used to understand the sustained competitive advantage of a firm (Barney,1991). The basic ideas of the concept were established nearly two decades ago- (e.g., Barney 1991; Henderson & Cockburn, 1994). Each firm has its unique resources and this heterogeneous element confers differences in competitive advantage and thus performance (Hammel et al, 1990; Reed at al, 1990). It is important to note that not all resources can be source of competitive advantage. The resources that are valuable, rare, inimitable and non-substitutable create a sustained competitive advantage. Firstly, the resource ought be valuable (Barney, 1986, 1991,1997). Second, the resource be rare (Barney, 1986, 1991, 1997).Third, the resource must be hard to imitate (Barney, 1991, Collis et al, 1995). Fourth, there should not be an available substitute for the resource (Barney, 1991, 1997; Collis and Montgomery, 1995; Dierickx and Cool, 1989). Lastly the resource should not be easily tradable (Dierickx et al, 1989 and Peteraf, 1993).

Strategic capability of a company is derived by both resources and its competencies. "Strategy is likely to be expressed in broad statements both about the direction that the organisation should be taking and the types of action required to achieve objectives".(Johnson, Scholes, & Whittington, 2009). The strategic capabilities enable an organisation create value by "seek to build competitive advantage" (Johnson, Scholes, & Whittington, 2009).

With the Resource based view of the firm the competitive advantages and performance of the firm is explained, as the resources are distinct. (Johnson, Scholes, & Whittington, 2009). Resources of the firm are said to be valuable in a market and it can act as an entry barrier. Economies of scale with the use of resource are prime example of entry barrier. If the resource is a position barrier then it

may be irrational for a new entrant to buy the resource. Overall, RBV of the firm explains better performance of firms and thus the competitive edge. Superior performance is measured in terms of increased profits, sales and market share.

Core Competence of a firm came to the forefront with the recognition of intellectual capital/property as source of differentiation. This was largely a criticism of Porter's five forces as it failed to identify resources through which companies can enhance their competitive edge. (Hafeez et al, 2002). Prahalad and Hamel's influential use of the term core competence was more so to refer to collective learning and resources that are difficult to imitate. Core competence by definition should provide access to a range of markets. (Hamel, 1993)

The competence view of the firm brings out the fact that core competence is not discrete assets. Rather core competence offers a unified framework for diversification and unique resources and learning. Core competence is an integrated, collective learning of the whole organisation (Prahalad and Hamel, 1990). Integral to the concept of core competence is core technologies. Also, the ability of the organisation to unify multiple technologies is what differentiates the firm. 'Creative Bundling' of many technologies and customer knowledge is what creates a competitive advantage.

Test of Core Competence is three staged.

- Is it offering competitive differentiation
- Is this spread, diversified across business?
- Is it difficult for the competitors to imitate

As RBV evolved, a new perspective of capabilities was added to overcome shortcomings within RBV. Dynamic capabilities defined as (Eisenhardt and Martin, 2000; Teece et al., 1997). " the capacity to renew competencies so as to achieve congruence with the changing business environment" by "adapting, integrating, and reconfiguring internal and external organizational skills, resources, and functional competencies". Basically these dynamic capabilities are built than acquired in most cases (Makadok, 2001). Therefore learning is at the heart of dynamic capabilities (Zollo and Winter, 2002)

The Dynamic capabilities perspective has been proved essential to understand how firm has acquired and resources, renewed and reconfigured for the firm to survive (Danneels, 2002). Firm can also enhance capabilities by getting rid of some redundant resources or bringing together resources in new ways (Simon and Hitt, 2003).

Other important concept that has evolved from RBV is the distinctiveness of organisation's resources that confer competitive advantages Kay (1993). These distinctive capabilities are classified into three

areas – architecture, reputation and innovation. Architecture refers to a company's relationships and contacts that exist inside and outside the firm.

Within the framework of RBV various other research have related to resources. These include resources and diversification (Harrison, Hitt, Hoskisson, & Ireland, 1991), organisational identity as a resource (Fiol, 1991), key executives as resources (Castanis & Helfat, 1991)

Key resources include intangible assets that include patents, copyrights and client trust, relationships. Also, the capabilities such as skills and knowledge are intangible resources. (Hall 1993, Barney & Wright 1998; Smart and Wolfe, 2000). Here even competitive advantage is explained by superior customer value that is translated into competitive advantage.

According to (Wernerfelt, 1984; Barney 1986) with the recent development in RBV of the firm, the assumptions that strategy implementation process can be looked into out of the content of content of the firm's strategies is not appropriate. The strategy implementations skills have to be related to particular strategies that implemented by the firm. Resource based view highlights the importance of behavioural and social phenomenon in helping firms to formulate and implement their strategies (Barney 1986b, 1991).

According to Schein (1985), culture is defined as a "pattern of basic assumptions – invented, discovered, or developed by a given group as it learns to cope with the problems of external adaptation and internal integration". Cartwright and Cooper (1992) noticed the significance of organizational culture. According to them organizational cultural contributes in understanding the merger phenomenon both in terms of its impact on organizational performance and on the managers and employees involved.

RBV explains Competitive advantage, from the RBV perspective is achieved by focusing on and exploiting the firm's internal characteristics, specifically its resource pro- file (Rumelt, 1994; Hamel and Prahalad, 1994).

RBV approach identifies human capital, in which the firm invests as the potential source to create superior performance. Thus, the RBV of the firm offers an explanation for possible link between success of the company and HRM (Wright et al., 1994, 1998; Lado and Wilson, 1994; Kamoche, 1996; Mueller, 1996; Boxall, 1996; Guest, 1997; Barney and Wright, 1998)

Competitive advantage is normally created by natural resources, technology, economies of scale, creates value, and may be easy to imitate vis a vis employment systems (Becker and Gerhart, 1996:

781). A good HR system may particularly impart sustained competitive advantage (Lado ae al, 1994; Wright et al., 1994).

Study – Comparison of Rolls Royce and Meggitt PLC

Rolls Royce

Rolls Royce is a leading company that offers power systems and services in civil and defence industry. The company designs, engineers and markets commercial and military aero engines as well as aftermarket services. The company ranks second largest provider of defence and aero engines.

Products/Services to the Government

The Engines that are developed by Rolls Royce are made in a time of about 3-5 years, and an engine could be in service for about 30 years. (rollsroyce.com, 2012)

Rolls Royce is the leading engine provider for military transport aircraft, Rolls Royce provides engines for C-27J, C-130J and V-22 Osprey and supports 2800 fixed and rotary wing aircraft with the US army. Within civil aerospace, Rolls Royce has 34% market share in business jet engines. (rollsroyce.com, 2012)

Rolls Royce derives very small revenue from the UK, with Europe constituting only 30% of its revenue. Emerging economies of Asia and Middle East represent higher chunk of order book.

(Source - Rolls Royce Data pack 2012)

Effect of Defence Cut

Rolls Royce (RR) is not worried about US defence cut of $487billion. With 18000 operational engines globally RR holds solid portfolio of products. Only 20% of RR business resides in defence aerospace and rest in Civil aerospace. Also civil aerospace has project growth for next few years for which services by RR will be required. RR is working on 2 US Air Force engine development projects: the Embedded Turbine Engine and Adaptive Versatile Engine Technology, and see no need to cut jobs in present scenario. (defesenews.com, 2012)

Rolls Royce revenue performance has been good, reflecting higher engine deliveries and services opportunity provided by the installed engine base. Although, the impact of defence cut can be felt by decline in order book. ((Source - Rolls Royce, 2012)

Defence Business

Particulars	2007	2008	2009	2010	2011
Order Book	4.4	5.5	6.5	6.5	6
Growth	38%	25%	18%	0%	7%
Engine Deliveries	495	517	662	710	814

The defence cut in the UK has mainly been in personnel rather than equipment. The UK defence spending is currently around $21.8 billion. Defence cut in the UK may not have an impact on Rolls Royce given the fact that it derives more revenue from international markets.(cnbc.com, 2012)

Analysis _Rolls Royce

Values and Culture

Built on trust, driven by performance

- Rolls-Royce has built and maintained its image with integrity, reliability and innovation. Irrespective of country and people, RR gives utmost importance in maintaining good relation with its customers and considers it as a platform on which the reputation is built on and maintained.
- Delivering high performance and making their professional fulfilment a priority are important steps by which RR creates trust and delivers excellence to clients. Rolls-Royce has gained the trust because of its performance. It has created high expectations and unlocked potential ideas. Rolls Royce always recognises exceptional contributions and inspiring others to reach the same heights.

- RR culture has always supported continuous personal and professional development. In 2010, more than 34,000 Rolls-Royce employees, from 55 countries, attended up to 94,439 hours of training. Also provided over 2,400 learning solutions related to health, diversity and ethics, to safety and the environment and corporate and management responsibility.
- Rolls-Royce encourages everyone to create their own tailored development programme ,which includes professional accreditation and support with professional membership. (rollsroyce.com, 2012)

Strategy

Strategy- Due to vision and continuous pursuit for excellence over the past 20 years, RR have secured consistent growth in four long-term markets: marine, energy, and civil and defence aerospace, by following this strategy over the next 20 years, RR is positive that the total business opportunity available in the markets will be over $2 trillion. (Rolls Royce, 2012)

Rolls Royce has a solid revenue stream through aftermarket services, around 2/3 of aftermarket revenues are due to long-term services agreement and 1/3 is from T&M. In Civil about 3/4 is from aftermarket and about 1/4 of it comes from time and materials

Global markets- The 4 Global markets for RR are Civil aerospace. Defence Aerospace, Marine and Energy. As per the business reach RR is catering to large customer base with respect to each of the markets. With large product and service portfolio and presence in more than 100 counties explains the reach of RR.