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Industrial Plan and Voluntary Disclosure. Empirical Analysis of Financial Data Communication Models

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1. Introduction

The term Investor Relation refers to the responsibility that companies' management has for the integration and the disclosure of different types of communication tools. Financial communication, marketing and law compliance are just some example of what can be published and transmitted towards the market, the financial community, investors and other stakeholders. As a result, it is easy to find a lot of public documents and reports that can be downloaded for free. Actually, it is suitable to make a distinction. In fact, although most of information is provided due to the law enforcement, some of it is voluntary.

Many factors drive the choice of publish voluntary documents: shareholders' request, managers' will, market conditions, investors' necessity, competition, etc. Furthermore, there are many ways of doing it as well: dedicated documentation, annual reports, presentations, annual meetings, press releases, websites, social networks, etc. This analysis takes into consideration two types of disclosure: the strategic plan and the presentation for the investors day. The focus is on the aerospace and defence industry. The companies taken into consideration are among the world's top one hundred (see Figure 1) in terms of online presence and website quality according with Defence News[1] and they are all listed (except one).

Figure 1

Defence News Top 100 for 2015/2016		
Company Name	**Country of Origin**	**Website Grade**
AAR	U.S.	51%
Accenture	Ireland	57%
Airbus Group	Netherlands	47%
Alion Science and Technology	U.S.	42%
Almaz-Antey	Russia	38%
Aselsan	Turkey	71%
ATK	U.S.	51%

[1] http://www.defensenews.com/

Aviation Holding Co	Russia	45%
Babcock International	U.K.	37%
BAE Systems	U.K.	72%
Ball Aerospace & Technologies	U.S.	58%
Battelle	U.S.	63%
Bechtel	U.S.	54%
Bharat Electronics	India	30%
Boeing	U.S.	82%
Booz Allen Hamilton	U.S.	81%
CACI International	U.S.	49%
CAE	Canada	55%
Chemring	U.K.	45%
Cobham	U.K.	69%
Concern Radio-Electronic Technologies	Russia	43%
CSC	U.S.	58%
Cubic	U.S.	47%
Curtiss-Wright	U.S.	38%
Dassault Aviation	France	78%
Day & Zimmermann	U.S.	49%
DCNS	France	56%
Diehl Defence Group	Germany	70%
DynCorp	U.S.	76%
Elbit Systems	Israel	36%

Embraer	Brazil	51%
Exelis	U.S.	56%
Fincantieri	Italy	47%
Finmeccanica	Italy	48%
FLIR	U.S.	50%
Fluor	U.S.	51%
GE	U.S.	75%
GenCorp	U.S.	36%
General Atomics	U.S.	51%
General Dynamics	U.S.	49%
GKN Aerospace	U.K.	59%
Griffon	U.S.	27%
Harris	U.S.	48%
Hewlett-Packard	U.S.	91%
Hindustan Aeronautics	India	42%
Honeywell	U.S.	53%
Huntington Ingalls	U.S.	46%
IHI	Japan	41%
Indra	Spain	57%
Irkut	Russia	38%
Israel Aerospace Industries	Israel	40%
Israel Military Industries	Israel	41%
Jacobs Engineering	U.S.	38%

Kawasaki Heavy Industries	Japan	51%
Kongsberg	Norway	46%
Korea Aerospace Industries	South Korea	61%
Krauss-Maffei Wegmann	Germany	17%
L-3 Communications	U.S.	49%
Leidos	U.S.	58%
LIG Nex1	South Korea	34%
Lockheed Martin	U.S.	75%
Mantech	U.S.	52%
Meggitt	U.K.	39%
Mission Essential	U.S.	44%
Mitsubishi Electric	Japan	58%
Mitsubishi Heavy Industries	Japan	39%
Moog	U.S.	47%
Nammo	Norway	43%
Navistar	U.S.	44%
NEC	Japan	56%
Nexter	France	50%
Northrop Grumman	U.S.	73%
Oshkosh	U.S.	47%
PAE	U.S.	32%
Patria	Finland	46%
QinetiQ	U.K.	82%

Rafael Advanced Defence Systems	Israel	31%
Raytheon	U.S.	48%
Rheinmetall	Germany	44%
Rockwell Collins	U.S.	48%
Rolls-Royce	U.K.	81%
RSK MiG	Russia	38%
RTI Sistema	Russia	42%
RUAG	Switzerland	40%
Russian Helicopters	Russia	41%
Saab	Sweden	50%
Safran	France	51%
SAIC	U.S.	62%
Samsung Techwin	South Korea	62%
Serco	U.K.	40%
ST Engineering	Singapore	40%
Textron	U.S.	78%
Thales	France	63%
Turkish Aerospace Industries	Turkey	61%
Ultra-Electronics	U.K.	45%
United Engine Building	Russia	29%
United Technologies	U.S.	64%
URS	U.S.	47%
ViaSat	U.S.	59%

Wyle	U.S.	46%

The table shows the top 100 companies in the aerospace and defence industry in terms of on line presence and website quality. The ranking is based on these two elements: the higher the percentage, the the better is the evaluation. The companies are in alphabetical order. Source: www.defensenews.com

This study is amid to compere how the voluntary disclosure is provided in the aerospace and defence industry, what are the differences between documents. Moreover, the results will show the main characteristics of these two types of document. It will be possible to grasp the differences in terms of quality, quantity, utility and also the differences between countries.

In particular, in this study the disclosure is about companies' strategy, operation and financial data. The research focuses on the characteristics of the information presented in these documentation in terms of content quality, tools used, clearness and affinity with the theoretical framework[2]. The choice of these four elements is driven by the goals of understanding what are the main topics treated in the aerospace and defence industry during the redaction of the strategic plan and what are the differences with the investors day presentation.

It is relevant to understand what are the forces guiding the agents operating in a specific market because stakeholders (in particular investors) need information. Since they are those who foster the development of companies, they should know how to interpret and how to use what is published. The stakeholders should be prepared to read and understand for example an annual report. They have to know what are the most important items and topics on where to pay attention. Usually this process is facilitated by the law that provide frameworks and rules that must be followed. It helps readers to have a fair disclosure about certain useful content. But, what about voluntary disclosure? In this case the content and the framework is not determined by norms or any kind of regimentations. Companies are free to publish voluntarily strategic plans for instance and they are free to do that in the way they prefer. Or, they can choose not to disclosure. That is why this research is so important. Stakeholders have no to be misled by voluntary disclosure, they have to be ready to understand what the most important elements of a strategic plan are, where to pay attention, what count the most for the company that is publishing, etc. Furthermore, the relevance of this study is due to the chosen industry. The

[2] The theoretical framework refers to Professional Accountant in Business Committee, 2006. It is presented in chapter four.

aerospace and defence is one of the most impacting industries in the global market. The strong effects that it produces on societies and the high level of risk connected make it one of the industries that require the large amount of information. As a result, become extremely important to fully understand the logic behind the voluntary disclosure of A&D companies.

The purpose is to evaluate and test two main hypothesises:

- Companies in the aerospace and defence industry focus on decision making drivers, products and financial forecast, rather than marketing and organization.
- Presentations for investors day are written with less details and accuracy than the strategic plan
- USA documentation is mainly composed by presentation rather than strategic plan. So, they have a lower final evaluation.

The starting concept is that companies with high level of capital invested, with a rigid cost structure, with complex products that require high educated personnel, and finally, companies operating in the B2B market, are expected to focus on technical parts of the plan, investments, financial forecasts and decision making aspects. The stakeholders, in particular investors, should be interested in what is critical for the business performances. Besides, parts as organisational structure, marketing, HR and accounting might be considered less important for this A&D companies. As a result, they are expected to receive a lower evaluation in these areas given the lower quality of the tools and the contents.

Moreover, the different logic guiding strategic plans and presentations are expected to result in terms of different level of final evaluation. The companies are assumed to attribute different weight to these documents. The plan is more detailed and usually covers a longer time period than the presentation. Correspondingly, since the presentation is for investors only, the information should be less detailed (the goal is to persuade the audience) but focus just on the essentials like financials and objectives. Finally, following the theory, the American companies are expected to work on presentation mainly. As a result, the final evaluation of USA is expected to be lower than the other countries.

2. The Theoretical Scope of Voluntary Disclosure

Voluntary disclosure is the act of intentionally publish information. Since it is voluntary, there are not constraints on the form or on the content. There are as many ways to define disclosure as fields to which it belongs.

Therefore, voluntary disclosures can take several forms: press releases, conversations with financial analysts, letters to shareholders and the provision of additional information in annual reports, being just a few examples[3].

The voluntary disclosure topic is not widely studied due to the big effort needed in order to define it. It is usually associated to the level of agreement about the information disclosure. Basically, it is the willingness of a company (or an institution, a person, an organisation, a government, etc.) to communicate or not a given amount of information other than the normal level determined by the law.

Although the concept of voluntary disclosure entails a large part of the financial and legal documentation usually provided by companies, not always it refers strictly to that. In fact, the voluntary disclosure is often considered as a distinctive element that determines differences in the development of an economic agent. In other words, it seems the disclosure of certain documents is linked with some particular situations that might occur in the lifecycle of a business. For instance, the rate at which a company disclose can increase during stressed macroeconomic conditions or during an M&A transaction. On the contrary, the rate can decrease in some other situations. The point is, the voluntary disclosure is a communication tool that allows economic agents to spread information into the community and its occurrence depends on several elements that affect companies.

2.1 The Strategic Plan

Defining voluntary disclosure has always been difficult due to the wide scope it has and the variety of forms it can take. Even though some researchers did a lot of work on this topic, the lack of material is considerable. It is simply the case that voluntary, comprehensive, integrated, and structured strategic plan disclosure events do not occur in the U.S.[4]

[3] Watson, Shrives and Marston, 2002 (p. 290)
[4] P. Baginski, Bozzolan, Marra and Mazzola, 2014 (p. 2 - 3)

The researches tend to look at it as a communication tool that can assume several forms. It can be seen as a plan that reveals supplementary information in particular about a firm's present and future strategies and it represents a tool to influence outsiders and for announcing, selling, negotiating, rationalizing and legitimizing strategic visions[5].

Some authors tried to figure out what a voluntary disclosure should contain (see Figure 2). However, it is still difficult to find a way to properly define voluntary disclosure documents. It is easier to narrow down the long list of documents that could be taken into consideration for the analysis and focus on one or two of them.

Figure 2

Voluntary Disclosure Items List
General corporate characteristics
Organisational structure
Physical output and capacity utilization
Corporate strategy
Statement of strategy and objectives-general
Statement of strategy and objectives-financial
Statement of strategy and objectives-marketing
Statement of strategy and objectives-social
Description of marketing network-domestic
Description of marketing network-foreign
Acquisitions and disposals
Reasons for acquisitions
Financing details of acquisitions
Reasons for disposals

[5] P. Baginski, Bozzolan, Marra and Mazzola, 2014 (p. 2)

Considerations received on disposal
Discussion of future business opportunity of disposal
Future capital expenditures
Research and development
Corporate policy on R&D
Number employed in R&D
Forecast of R&D expenses
Discussion of new product development
Future prospects
Qualitative forecast of sales
Quantitative forecast of sales
Qualitative forecast of profits
Quantitative forecast of profits
Qualitative forecast of cash flows
Quantitative forecast of cash flows
Assumptions underlying forecasts
Factors affecting future business-political
Factors affecting future business-economical
Factors affecting future business-technological
Rate of return expected on projects
Employee information
Geographical distribution of employees
Categories of employees by gender

Recruitment information
Reasons for changes in employee numbers or categories
Policy on employee training
Amount spent on training
Number of employees trained
Employee appreciation
Data on accidents
Cost of safety measures
Discussion of employee welfare
Equal opportunity policy statement
Effects of Employment Contract Act
Social responsibility and value-added disclosures
Environment protection programs-quantitative
Environment protection programs-qualitative
Charitable donations (amount)
Community programs (general)
Segment information
Competitor analysis
Market share analysis-qualitative
Discussion of industry trends-prior
Discussion of industry trends-future
Proportion of raw materials purchase-local
Financial review information

Cash flow ratios

Liquidity ratios

Gearing ratios

Return on capital employed

Other ratios

Aging of receivables (debtors)

Breakdown and analysis of operating expenses

Breakdown and analysis of administrative expense

Breakdown of operating expenses into fixed/variable

Index of selling prices

Index of sales volume

Index of raw materials prices

Disclosure in intangible valuations (except goodwill and brands)

Dividend pay-out policy

Financial history or summary-six or more yea

Off-balance sheet financing information

Advertising information-qualitative

Advertising information-quantitative

Effects of interest rates on results

Effects of interest rates on future operations

Foreign currency information

Effects of foreign currency fluctuations on future operations-qualitative

Major exchange rates used in the accounts

Effect of exchange rates on current performance
Effect of exchange rates on future performance
Foreign currency exposure management description
Stock/price information
Market capitalization at year end
Market capitalization trend
Geographic distribution of shareholders

The table shows all the items composing a voluntary disclosure document. The authors wanted to collect a group of elements divided by areas that describe what should be covered by any kind of voluntary disclosed document. Source: "Determinants and consequences of voluntary disclosure in an emerging market: evidence from China" (Wang, O and Claiborne, 2008)

In this research, for instance, the focus is on the strategic plan and on the presentations made for the investors days. So, what is a strategic plan? What kind of voluntary disclosure is it? Moreover, what about presentations? What are they?

The strategic plan is a written document that describes the current state and the presupposed future of an organization[6].

So, it is a document that provide solutions for the organisation in terms of competitive advantage and future profitability. It is a step by step plan about strategy, goals and how to achieve them.

The strategic plan is the document that illustrates the strategic aims of management relating to the company's competitive strategies, the action that will be carried out for the achievement of the strategic objectives, the evolution of the key value drivers and the expected results[7].

[6] Honig and Karlsson, 2004 (p. 29)
[7] Borsa Italiana, 2003 (p. 7)

Nevertheless, the strategic plan should not be confused with the business plan. Even though they could seem similar, they are prepared for two different reasons and they have different structures.

While the strategic plan is designed for creating financial consensus among stockholders and creditors, the business plan is usually written by entrepreneurs willing to launch new venture and looking for start-up liquidity.

Furthermore, other than the purpose, what changes is the structure. The strategic plan is focused on growth solutions and on the net financial position. It gives an outlook to the current situation and from there it starts to plan. The structure of the plan provides a clear delineation among disclosures of environmental conditions, general strategy, action plans, targets, and achievements of those targets and facilitates a measurement of the precision of each disclosure[8]. On the other side, the business plan concentrates on the debt/equity ratio, on the possibility to have new partners and on the scalability of the business.

Therefore, these documents belong to distinct moments of the business lifecycle. The strategic plan is written ones in three/five years or when companies have to face an extraordinary event. The business plan instead, is usually written in the start-up phase. After the first three/five years it is no longer required.

The strategic plan is a document about the future achievements of a company and its profitability. It describes how the business work and thanks to what the business is going to reach a sustainable growth.

The public disclosure of the plan in Europe is encouraged by institutions, it is not compulsory though. The disclosure in U.S. instead, is considered such as a one-time-event. Thus, disclosure and disclosure timing are companies' initiatives.

Since strategic plans potentially cause significant disclosure costs because of the revelation of proprietary data, the firms that choose to provide such plan expect substantial disclosure benefits[9]. These benefits are strictly related with stakeholders, in particular with investors and analysts. The plan should be reliable and well designed, otherwise the capital market might negatively react.

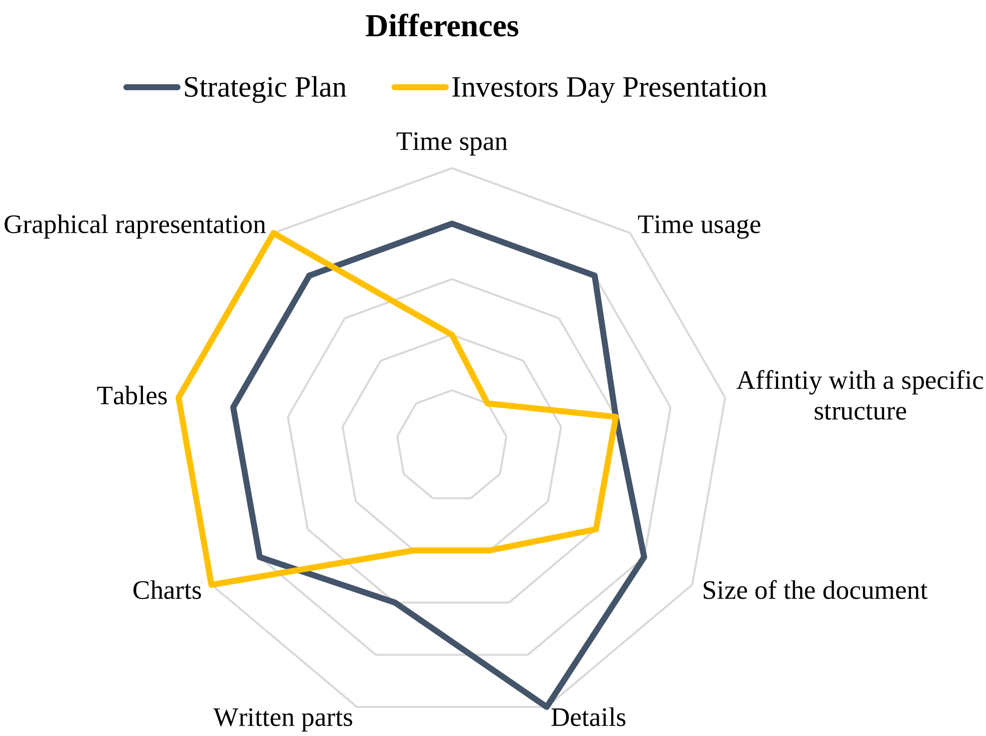
[8] P. Baginski, Bozzolan, Marra and Mazzola, 2014 (p. 4)
[9] P. Baginski, Bozzolan, Marra and Mazzola, 2014 (p. 4)

2.2 The Presentation for the Investors Day

The second type of voluntary disclosure taken into consideration in this study is the corporate presentation for the investors days (or investors day presentation). Mostly it is a U.S. phenomenon, but nowadays it is possible to observe it even in other developed countries as Europe, China, Japan, etc.

During the corporate presentations, companies provide information disclosure about strategy, objectives, goals, forward looking statements and expected results. Actually, these presentations are structured on the same template of the strategic plan. They are just shorter and the information is presented with less details than in a strategic plan (see Figure 3).

Figure 3



The chart shows the differences between the presentation and the strategic plan form a theoretical point of view. Each element is a distinctive characteristic of these types of communication tools. The higher is the rate, the more the related element is present in the document. Source: personal elaboration

On the other hand, the content is quite the same and the purpose too. Indeed, find out the differences is one of the goals of this study.

Furthermore, presentations and strategic plans are both powerful documents used to influence the market and to inform stakeholders

Firm strategy is one of the pieces of information that analysts value the most. The strategic management literature considers the disclosure of strategy to be an integrative communication tool that provides information regarding a firm’s strategic intentions, action plans and expected results. Through the strategic plan or the presentations, managers are able to influence analysts’ perceptions of the firm and its competitive context and align analysts’ expectations regarding future results with their own[10].

2.3 Balance Sheet and Earnings Announcement

Some researches focus on the balance sheet information announcements. They tried to understand when the balance sheet additional information occurs and for what reasons. In particular, they pay attention on the earnings disclosure rather than the entire disclosure (see Figure 4).

[10] P. Baginski, Bozzolan, Marra and Mazzola, 2014 (p. 11)

Figure 4

Descriptive analysis of the number of earnings announcements and the proportion that includes voluntary balance sheet disclosures

			Panel A: analysis of entire sample		***Panel B: analysis of high-tech firms***	
			n° of earnings announcements	% that discloses balance sheets	n° of high-tech firms 'earnings announcements	% of high-tech firms that discloses balance sheets
Total Firms			**2.551**	**57**	**764**	**63**
Observations			**23.086**	**37**	**6.669**	**55**
Observations / firms per quarter	1992	Q4	165	31	488	47
	1993	Q1	173	33	513	49
		Q2	18	34	527	51
		Q3	185	32	541	49
		Q4	192	34	554	51
	1994	Q1	195	36	583	53
		Q2	204	37	585	56
		Q3	202	38	579	58
		Q4	204	40	579	58
	1995	Q1	206	42	581	61
		Q2	203	44	572	64
		Q3	2	46	567	64

The table shows the differences in amount of disclosure (relatively with the earnings announcements and the balance sheet) of general companies and high-tech firms. Source: "Voluntary disclosure of balance sheet information in quarterly earnings announcements" (Chen, L. DeFond and W. Park, 2002)

What they discovered (see Figure 5, Figure 6 and Figure7) is that the disclosure of this type of information is more frequent when the usual documentation is less accurate and the earnings forecasts more uncertain. Specifically, balance sheet disclosures are more likely among firms: in high technology industries; reporting losses; with larger forecast errors; engaging in mergers or acquisitions; that are younger; and with more volatile stock returns[11] (see Figure 5, Figure 6 and Figure 7).

[11] Chen, L. DeFond and W. Park, 2002 (p. 248)

For instance, firms in high-tech industry tend to make large investments in intangibles such as R&D, human capital and brand identity. Furthermore, they operate in rapidly changing environments that make their future operations and future earnings, relatively more uncertain[12].

Figure 5

Distribution of the balance sheet disclosure ratio, computed by dividing each firm's frequency of balance sheet disclosure by the frequency of its quarterly reports over the sample period (N = 2.551)				
Mean	Standard Deviation	Median	Upper Quartile	Lower Quartile
73%	43%	9%	88%	0%

The table examines the likelihood that a given firm will disclose balance sheet information by presenting the distribution of the ratio of each firm's total balance sheet disclosures divided by its total earnings announcements. Source: "Voluntary disclosure of balance sheet information in quarterly earnings announcements" (Chen, L. DeFond and W. Park, 2002)

Figure 6

Number of breaks in disclosure after disclosing balance sheet for at least one quarter		
n° of breaks	n° of firms	% of firms
0	863	65
1	341	25,6
2	95	7,2
3	25	1,9
4	3	0,2
5	1	0,1
	1328	**100**

The table shows the 'breaks'' in the disclosure. A break in disclosure occurs when a firm reports an earnings announcement that does not include a balance sheet, in a quarter immediately following a quarter that does include a balance sheet. Source: "Voluntary disclosure of balance sheet information in quarterly earnings announcements" (Chen, L. DeFond and W. Park, 2002)

[12] Chen, L. DeFond and W. Park, 2002 (p. 230)

Figure 7

Mean coefficients of 12 logistic regressions by quarter: dependent variable = 1 if firm discloses balance sheet, and 0 otherwise				
Independent variables	**Predicted Sign**	**Mean coefficients**	**n° of positive coefficients**	**t-statistics**
Panel A: total sample				
High-Tech Dummy	+	1,02	12	35,9***
Loss Dummy	+	0,21	10	3,4***
Absolute Forecast Error Dummy	+	0,16	10	3,6***
Merger & Acquisition Dummy	+	0,17	11	4,6***
Age	-	-0,01	0	-10,6***
Return Volatility	+	27,49	12	8,51***
Log (Market Value)	?	0,21	12	11,55***
Analyst Coverage	?	0,01	8	2,5**
Market-To-Book	?	-0,04	0	-5,3***
Panel B: initiation sample				
High-Tech Dummy	+	0,56	11	5,8***
Loss Dummy	+	0,35	8	2,2**
Absolute Forecast Error Dummy	+	0,06	5	0,9
Merger & Acquisition Dummy	+	-0,92	7	-0,9
Age	-	-0,01	1	-3,2***
Return Volatility	+	32,32	11	5,6***
Log (Market Value)	?	0,35	10	5,6***
Analyst Coverage	?	-0,01	2	-0,8
Market-To-Book	?	-0,06	3	-2,7***

*** = p < 0,01 (two-tailed)
** = p < 0,05 (two-tailed)
* = p < 0,10 (two-tailed)

Logit model:
Balance sheet disclosure Indicator

$$
\begin{aligned}
&= \alpha_0 + \alpha_1(\text{High-Tech Dummy}) + \alpha_2(\text{Loss Dummy}) \\
&\quad + \alpha_3(\text{Absolute Forecast Error Dummy}) \\
&\quad + \alpha_4(\text{Mergers \& Acquisitions Dummy}) \\
&\quad + \alpha_5(\text{Age}) + \alpha_6(\text{Return Volatility}) \\
&\quad + \alpha_7(\log(\text{Market Value})) + \alpha_8(\text{Analyst Coverage}) \\
&\quad + \alpha_9(\text{Market-to-Book Ratio}) + \varepsilon.
\end{aligned}
$$

Panel A shows the analysis of the mean coefficients after dropping log (Market Value), and again after dropping Market-to-Book, and again after dropping both log (Market Value) and Market-to-Book. Panel B presents the means of the coefficients from the 11 regressions estimated for the initiation sample. The initiation sample consists of all balance sheet disclosure observations immediately preceded by a non-disclosure quarter, and control firms in the same year and quarter that never disclose balance sheet information. Source: "Voluntary disclosure of balance sheet information in quarterly earnings announcements" (Chen, L. DeFond and W. Park, 2002)

Given these results could be interesting start to analyse the characteristics of the documentation published by certain companies in order to better understand what are the specific elements that brings them to disclose more and in a given way. Industries like the aerospace and defence that have a high level of technology, that are engaging in M&A and that are riskier than others, are the perfect starting point for such analysis.

2.4 Signalling Theory, Agency Theory and Type of Ratios

The relation between the voluntary disclosure of ratios in the corporate annual report and the agency and signalling theory is another aspect the literature deals with. First of all, what are the agency and the signalling theory?

The first theory is about the relationship between "agents" and "principals" in business. In this case the agents are the managers and the principals are the shareholders. The theory is concerned with resolving the problems that can exist in the relations between the two sides. Usually these problems are: the discrepancy between the goals of the principal and the action of the agents that might not be overseen; and the differences in risk acceptance. Given these elements, it is easy understandable how the disclosure of ratios can reduce the agency costs. Basically, this kind of disclosure allows users to have financial information that they may not find elsewhere. Therefore, managers in the knowledge that shareholders will seek to control their behaviour through bonding and monitoring activities, may have an incentive to try and convince shareholders they are acting optimally. Voluntary disclosure may be a means of achieving this[13]. As a result, the more managers disclose, the lower the agency costs.

The second theory is about the communication between agents and principals. The theory was developed by Spence (1973) trying to explain the information flows in the labour market. Today the signalling theory shows how agents, due to the informational asymmetry, try to fill the gap by convey reliable information. In other words, it is about agents that try to reduce the distance and improve the transparency between them and the principals through disclosure. Furthermore, following the signalling theory, managers of higher quality firms will wish to distinguish themselves from lower quality firms through voluntary disclosures[14]. As a consequence, the

[13] Watson, Shrives and Marston, 2002 (p. 290)
[14] Watson, Shirves and Marston, 2002 (p. 291)

quality of ratios and the reliability of the information provided must be very high in order to achieve better results in terms of credibility in the eyes of the market.

Disclosure of ratios can assist the analysis of the financial statements, either by highlighting and disseminating information contained within the report, or by providing additional information and enhancing the quality[15]. The tables below show the result of the research.

Figure 8

The number of companies disclosing different types of ratio						
Years	Sample size	Type of ratios				
		Investment	Profit	Efficiency	Gearing	Liquidity
1989	216	160	99	29	95	48
1990	235	177	105	28	110	50
1991	239	187	95	22	132	54
1992	255	209	110	35	150	65
1993	223	192	96	27	147	74

The table shows the number of companies that, year by year, disclosed certain type of ratios. Source: "Voluntary disclosure of accounting ratios in the UK" (Watson, Shirves and Marston, 2002)

Figure 9

The count and the percentage of companies disclosing ratios			
Years	Sample size	n° disclosing	Percent
1989	216	168	77,8
1990	235	184	78,3
1991	239	188	78,7
1992	255	213	83,5
1993	223	193	86,5

The table shows the number of companies that, year by year, disclosed ratios. Source: "Voluntary disclosure of accounting ratios in the UK" (Watson, Shirves and Marston, 2002)

[15] Watson, Shirves and Marston, 2002 (p. 292)

Figure 10

The descriptive statistics for the independent variables (mean and standard deviation shown)					
Variable	1989	1990	1991	1992	1993
Operating profit margin (%)					
Mean	*9,93*	*9,90*	*8,55*	*8,34*	*8,63*
Standard deviation	*6,48*	*7,69*	*7,64*	*7,91*	*8,16*
ROCE (%)					
Mean	*23,55*	*15,50*	*18,25*	*18,27*	*17,93*
Standard deviation	*53,41*	*116,18*	*20,01*	*19,38*	*23,35*
Dividend per share					
Mean	*9,15*	*9,58*	*9,56*	*9,32*	*9,64*
Standard deviation	*8,08*	*7,45*	*6,07*	*6,58*	*7,10*
Gearing					
Mean	*1,42*	*0,65*	*0,60*	*0,67*	*0,80*
Standard deviation	*13,15*	*1,55*	*1,08*	*1,74*	*4,18*
Current ratio					
Mean	*1,38*	*1,35*	*1,36*	*1,36*	*1,37*
Standard deviation	*0,66*	*0,59*	*0,59*	*0,60*	*0,61*
Sales per employee					
Mean	*101,97*	*106,04*	*111,23*	*117,29*	*129,73*
Standard deviation	*123,41*	*135,22*	*128,15*	*139,43*	*157,27*
Total assets					
Mean	*969.839*	*1.083.679*	*1.175.955*	*1.275.912*	*1.357.015*
Standard deviation	*2.229.742*	*2.480.502*	*2.697.834*	*3.009.613*	*3.259.835*

The table shows the mean and the standard deviation of the independent variables, year by year. Source: "Voluntary disclosure of accounting ratios in the UK" (Watson, Shirves and Marston, 2002)

Figure 11

A summary of the stepwise model								
Year	Variable entered	Beta	Signifi.	R sq.	% correctly classified	Proportion disclo.	Chi-square	Signific.
1989	Dividend per share	0,0992	0,0113					
	Dummy 6 (retail)	1,9144	0,068					
	Dummy 10 (media)	-1,4094	0,0328					
	Constant	0,5404	0,1333	0,119	81,12	77,8	15,354	0,002
1990	Dummy 2 (utility)	-1,7072	0,0126					
	Dummy 10 (media)	-1,5235	0,0229					
	Size (total assets)	0	0,0322					
	Constant	1,2173	0	0,133	80,65	78,3	18,968	0
1991	Dummy 2 (utility)	-1,7855	0,013					
	Size (total assets)	0	0,006					
	Constant	0,7222	0,004	0,23	79,48	78,7	35,207	0
1992	Dummy 2 (utility)	-1,5707	0,0026					
	Size (total assets)	0	0,0142					
	Gearing	-0,2184	0,0996					
	Constant	1,5381	0	0,153	85,77	83,5	22,553	0
1993	Dummy 10 (media)	-1,6618	0,0782					
	ROCE	0,0391	0,0826					
	Constant	1,4332	0,0001	0,057	87,26	86,5	9,129	0,01

The table reports the results from the logistic regression of the disclosure of ratios on industry, performance and size. The model is estimated using stepwise logistic regression, using a forward selection process. The independent variables were as follows: return on capital employed, dividend per share, debt/equity ratio, current assets to current liabilities ratio, total assets, and dummy variables to indicate the industry in which the company operated, namely, mineral extraction, utility, manufacturer, engineering, consumer goods, retail, leisure, media, support services and other services. Source: "Voluntary disclosure of accounting ratios in the UK" (Watson, Shirves and Marston, 2002)

Figure 12

A summary of the stepwise model								
Year	**Variable entered**	**Beta**	**Signifi.**	**R sq.**	**% correctly classified**	**Proportion disclo.**	**Chi-square**	**Signific.**
Panel A: investment ratios								
1989	Dividend per share	0,099	0,011					
	Dummy 6 (retail)	1,914	0,068					
	Dummy 10 (media)	-1,409	0,038					
	Constant	0,540	0,133	0,119	81,1	74,4	15,354	0,002
1990	Dummy 2 (utility)	-1,707	0,013					
	Dummy 10 (media)	-1,523	0,023					
	Size (total assets)	0,000	0,032					
	Constant	1,217	0,000	0,133	80,6	75,6	18,968	0,000
1991	Dummy 2 (utility)	-1,590	0,003					
	Size (total assets)	-0,000	0,001					
	Constant	0,806	0,001	0,198	79,0	78,6	30,229	0,000
1992	Dummy 2 (utility)	-1,755	0,001					
	Dummy 10 (media)	-1,729	0,008					
	Dividend per share	0,100	0,004					
	Gearing	-0,812	0,114					
	Constant	1,263	0,000	0,147	83,3	82,2	22,434	0,000
1993	Dummy 2 (utility)	-1,873	0,008					
	Dummy 5 (service)	-1,704	0,003					
	Dummy 7 (engineering)	-1,785	0,010					
	ROCE	0,048	0,059					
	Constant	2,341	0,000	0,167	87,3	86,4	20,149	0,010
Panel B: profitability ratios								
1989	Dummy 2 (utility)	1,942	0,079					
	Constant	-0,333	0,027	0,030	59,0	54,2	4,271	0,039
1990	Constant	-0,335	0,016		58,3	55,3	n/a	n/a
1991	Dividend per share	0,064	0,007					
	Constant	-1,035	0,000	0,044	59,6	60,3	7,510	0,006
1992	Dividend per share	0,047	0,022					
	Constant	-0,728	0,002	0,030	58,8	56,9	5,415	0,020
1993	Constant	-0,305	0,031		57,6	57,0	n/a	n/a
Panel C: gearing ratios								
1989	OPM	-0,073	0,009					
	Dummy 2 (utility)	2,448	0,032					
	Constant	0,316	0,292	0,840	6,2	56,0	12,136	0,002
1990	Dummy 6 (retail)	1,487	0,003					
	Size	0,000	0,054					
	Constant	-0,494	0,003	0,090	62,1	53,2	14,703	0,001
1991	Constant	0,211	0,113		55,3	44,8	n/a	
1992	ROCE	-0,020	0,038					
	Constant	0,717	0,001	0,153	85,8	83,5	22,553	0,000
1993	Constant	0,656	0,000		65,9	34,1	n/a	
Panel D: liquidity ratios								
1989	Dummy 6 (retail)	1,162	0,012					
	Constant	-1,425	0,000	0,047	77,7	77,8	5,910	0,015
1990	Dummy 6 (retail)	0,127	0,027					
	ROCE	-0,002	0,318					

	Constant	-1,481	0,000	0,053	80,1	78,7	7,245	0,027
1991	Dummy 2 (utility)	-1,923	0,063					
	Constant	-1,208	0,000	0,042	79,0	77,4	6,122	0,013
1992	Dummy 4 (consumer)	0,814	0,047					
	Constant	-1,162	0,000	0,023	74,1	74,5	3,763	0,052
1993	Constant	-0,679	0,000		66,3	66,8	n/a	
Panel E: efficiency ratios								
1989	Dummy 2 (utility)	2,140	0,012					
	Dummy 8 (distribution)	1,447	0,054					
	Constant	-2,140	0,000	0,080	87,1	86,6	8,913	0,017
1990	Constant	-2,096	0,000		89,0	88,1	n/a	n/a
1991	Dummy 6 (retail)	1,367	0,038					
	Dividend per share	0,101	0,007					
	Constant	-3,616	0,000	0,084	91,2	90,8	8,711	0,013
1992	Dummy 6 (retail)	1,141	0,034					
	Dividend per share	0,074	0,010					
	Constant	-2,736	0,000	0,067	86,3	86,3	9,059	0,011
1993	Dummy 12 (transport)	2,305	0,028					
	Dividend per share	0,064	0,031					
	Constant	-2,798	0,000	0,077	88,1	87,9	8,212	0,016

The table reports the results of the logistic regression of different types of ratio disclosure on industry, performance and size. Panel A shows the results for the disclosure of investment ratios; Panel B, profitability ratios; Panel C, gearing ratios; Panel D, liquidity ratios; Panel E, efficiency ratios. Source: "Voluntary disclosure of accounting ratios in the UK" (Watson, Shirves and Marston, 2002)

The tables show the existing differences among industries and the impact of the size of the company on the level of disclosure. In other words, large companies are more likely to disclose ratios and the level of disclosure shrinks in the utility and in the media industry. The related insight is that the amount of information published depends on the characteristics of the industry. The more is regulated, the more the level of disclosure. Actually, other elements influence the willingness to disclose. Companies in risky sectors where the level of investment is extremely high and the dependence from external forces determines the trend of the sector itself, will disclose more than companies in other sectors. The aerospace and defence industry is a perfect example in which organisations should disclose a considerable amount of information. In particular it would be interesting to understand the type of disclosure these companies make and what the most relevant areas are.

2.5 Influences and Determinants in the Voluntary Disclosure Process

A subsequent topic in the voluntary disclosure analysis is the influence in the choice of developing a strategic plan.

One of the strongest forces could be the law of the country in which a company operates. But, normative measure was not found to significantly influence the organization's propensity to write strategic plans. Other evidences instead were found as concern the competition and survival of the company. These are the principal reasons why companies are interested in publish documentation, in particular if they are new in the market[16].

Another point that should be considered is the determinants of voluntary disclosure in the annual reports of listed firms that issue both domestic and foreign shares and determine if the cost of debt capital is related to the extent of voluntary disclosure[17].

They find the level of voluntary disclosure is positively related to the firm performance measured by return on equity, and reputation of the engaged auditor: employing a "Big 4" auditor substantially increases the amount of corporate information disclosed to the public [18] (see Figure 13, Figure 14 and Figure 15).

Figure 13

Industry representation and auditor engagement of the sample firms

Industry description	Number of firms	% of the sample
Panel A: industry representation of the sample firms		
Agriculture	2	1,83
Chemicals and allied products	3	2,75
Conglomerates	2	1,83
Construction	2	1,83
Electronics	9	8,26
Food and beverages	4	3,67
Industrial and commercial machinery	30	27,52
IT	4	3,67
Mining and metal productions	7	6,42
Paper and printing	3	2,75

[16] Honig and Karlsson, 2004 (p. 43)
[17] Wang, O, Claiborne, 2008 (p. 14)
[18] Wang, O, Claiborne, 2008 (p. 15)

Pharmaceuticals		3		2,75
Real estate		8		7,34
Social services		5		4,59
Textiles and apparel		10		9,17
Transportation		9		8,26
Utilities		4		3,67
Wholesales and retails		4		3,67
Total sample IPOs		**109**		100,00
Audit firms	# of domestic appointments	%	# of foreign appointments	%
Panel B: Auditor engagement of the sample firms				
Ernest & Young	1	0,93	5	4,67
Deloitte & Touche	7	6,48	5	4,67
KPMG Peat Marwick	2	1,85	6	5,61
Price Waterhouse & Coopers	11	10,19	21	19,63
BDO	5	4,63	17	15,89
Horwath International	19	17,59	24	22,43
Morison	-	-	5	4,67
Grant Thornton	-	-	2	1,87
Others local CPA firms	63	58,33	22	20,56
Total sample IPOs	*108*	*100,00*	*107*	*100,00*

The table divides the sample by industry. the panel A is about the companies analysed and the panel B is about the auditor engaged by the sample firms. Source: "Determinants and consequences of voluntary disclosure in an emerging market: evidence from China" (Chen, L. DeFond and W. Park, 2002)

Figure 14

Explanations of dependent and independent variable	
Panel A: the voluntary disclosure regression	
Dependent variables	
DRAW	Number of actual disclosure items
DSCORE	Proportion of the actual score allocated to a company to the maximum possible score applied
SSCORE	Proportion of the actual strategic disclosure score allocated to a company to the maximum possible score applied
NFSCORE	Proportion of the actual non-financial disclosure score allocated to a company to the maximum possible score applied
FSSCORE	Proportion of the actual financial disclosure score allocated to a company to the maximum possible score applied
Test variable	
State ownership (STATESH)	Percentage of state-owned shares of a company
Foreign ownership (FOREIGN)	Percentage of foreign investors' shares of a company
Return on equity (ROE)	Net income divided by the shareholders' equity
Type of auditor (AUDITOR)	A binary variable which took the value of 1 for Big 4 audit firms and 0 for non-Big 4 audit firms
Control variables	
Firm size (MKTVAL)	Log of the companies' market value
Leverage (LEV)	Ratio of total debt to owners' equity

The table describes the variables used in the research. Source: "Determinants and consequences of voluntary disclosure in an emerging market: evidence from China" (Chen, L. DeFond and W. Park, 2002)

Figure 15

Regression results of the voluntary disclosure model

	Expected signs	Overall disclosure	Strategic information	Financial information
Goodness of fit				
Chi-square		244,72	123,60	25,88
Significance		0,00	0,00	0,00
Intercept	?	1,64	0,91	0,40
		21,06**	3,88**	0,42
Independent variables				
MKTVAL	+	0,05	0,06	0,06
		4,71**	4,54**	2,53
LEV	+	0,005	-0,08	-0,09
		0,00	0,00	0,15
STATESH	+	0,003	0,003	0,0002
		3,95**	4,94**	0,01
FOREIGN	+	0,001	0,009	0,006
		3,59**	6,65*	1,61
ROE	+	0,002	0,001	0,004
		3,13***	0,93	4,09**
BIG4	+	0,11	-0,01	0,33
		3,41***	0,02	10,41*

* = significance at the 0.01
** = significance at the 0.05
*** = significance at the 0.10

The first number is the coefficient estimate,
the second is the Chi-square of significance
of the coefficient estimate

The table describes the regression results of the voluntary disclosure model. Source: "Determinants and consequences of voluntary disclosure in an emerging market: evidence from China" (Chen, L. DeFond and W. Park, 2002)

Firms that use voluntary disclosure are usually trying to obtain a greater competitive advantage and they usually do that by increase the level of information in the annual reports or by publishing other documents like strategic plans, presentations, etc.

Basically, the theory indicates that voluntary disclosure can be used to reduce informational asymmetry problems (see agency and signalling theory), including moral hazard and adverse selection. But, the disclosure is also a strategy to avoid deep discounting of share prices or to influence the market opinion. The choices related with disclosure are linked with the market condition, the competition level and the managers' willingness to prove better results.

Thereafter, it is noticeable that even if researchers have been focused on the same topic, they have analysed documents that are very different between them. This is in accordance to what is written at the very beginning, outline the boundaries of business voluntary disclosure is not that easy.

2.6 The Market Point of View

The last step is to understand voluntary disclosure form the market point of view. A starting point is the choice of managers to disclosure information or not. Usually that decision is based on the expected market reactions and on the investors demand for additional information. Managers have incentives to make voluntary accounting disclosures when market participants find the disclosures useful in assessing firm value[19].

The market is an active participant in determine the corporate voluntary disclosure. It determines the means and the extent of the information. Companies are reaching greater and greater levels of disclosure quality and the competition pushes them to increase the level of transparency and the quantity of information required be the law.

Obviously, the market will request a greater amount of information, if the current documentation is not enough to cover the asymmetry. The result is that a company that do not disclosure might incur in negative market reactions. On the other hand, when information disclosure turns into costs for the company, the market is likely to interpret the non-disclosure with less suspicion because the costs of disclosure can exceed the benefits for shareholders[20].

Therefore, how do companies communicate and disclose to the market? One of the easiest and more direct way to communicate information towards the market is through the investors days. They are structured events where managers have the opportunity to communicate towards the market about the on-going business. Usually the investors days are organized for analysts and investors and they have not a specific format. Suppliers, customers and company insiders often participate to these days.

[19] Chen, L. DeFond and W. Park, 2002 (p. 231)
[20] Chen, L. DeFond and W. Park, 2002 (p. 233 - 234)

The aim is not only to rise capital, companies want to deliver a message to the market in order to have security price reactions and to stabilize opinions about them. The documentations used in order to disclose is a fundamental element. The extent of prices reactions and analysts' revisions is among the strongest in the market if compared with other similar events.

However, similar to the investors day presentations, the strategic plans that contain narrative strategy-related disclosure and longer-run performance targets appear to be a disclosure choice that is as much as useful to investors and analysts[21].

As a result, this research becomes fundamental because it is trying to understand the value of these two communication instruments and how they are used given specific industry conditions. In line with the theory, this study will explain the drivers of voluntary disclosure (strategic plan and presentation for investor day) and on which parts companies pay more attention. It will be possible to define a common path that describes the manager behaviour in terms of voluntary disclosure under specific market conditions.

[21] P. Baginski, Bozzolan, Marra and Mazzola, 2014 (p. 7)

3. The Industry

It has already been said this study focuses on the aerospace and defence industry. The choice has been influenced by the relatively ease in finding documentation and in particular what concern the strategic plans. Even if companies develop a strategic plan on a regular base, not all of them actually publish it. Indeed, a few number of companies have a dedicated section in the corporate website and share this kind of document.

Despite that, the rate at which companies voluntarily publish documents is higher in the aerospace and defence than in other industries. Usually, firms tend to disclose more if they are in a sector where the required investment is high and where the cost structure is characterized by a strong presence of fix costs. Basically, as long as investors risk more, they want more guarantees and transparency from the partner in order to operate safe. Since this is something the normal level of disclosure cannot do, the management have to do fix the lack of information and satisfy the market needs.

Moreover, firms use the strategic plan as a tool to perform better and to measure the trends of themselves. In the aerospace and defence industry the necessity of evaluate and keep track of the evolution of the companies is high due to the above-average level of risk and investment.

Additionally, the plan performs an essential role with regards to the management of the companies since it is useful for the portrayal of their business outlook. It is also useful to the members of the board of directors, they need it in order to fully perform their role for guiding and overseeing the company[22].

So, the aerospace and defence industry is the chosen one. All the analysed companies operate in A&D at different levels. Most of them cover several segments of the industry due to the fact they are big companies. All of them are listed (except one) and do business in more than one country.

3.1 Industry Outlook

The world economy seems to be at the beginning of a long-term growing period. The potential for a sustainable growth is high due to factors as the low oil price and the diffusion of

[22] Borsa Italiana, 2003 (p. 7)

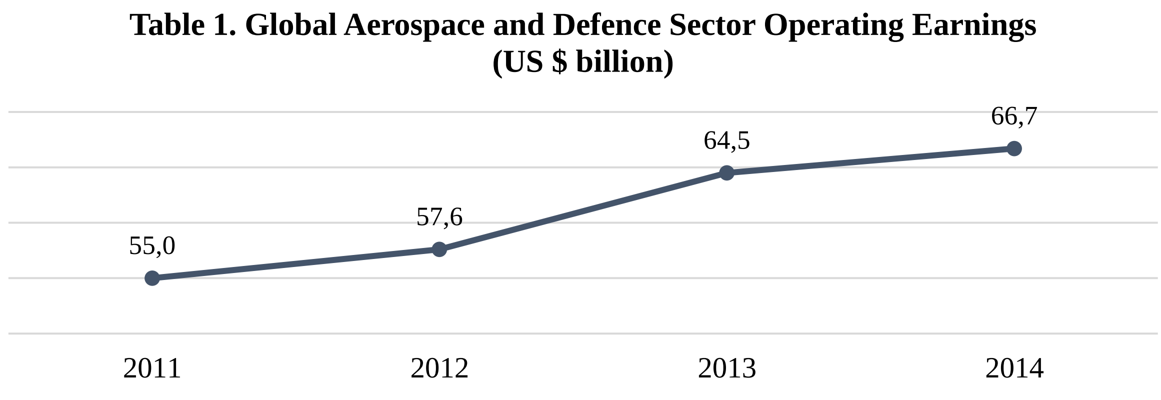
technologies. Furthermore, the increasing levels of consumption and the available production capacity are guarantees for a longer upside economic cycle. However, countries need economic and social reforms in order to exploit these elements and obtain sustainable growth.

Clearly, the effects differ from country to country. For instance, the United States will be the most affected country given the stronger dependency on oil price. Meanwhile, Europe and Japan will have a slower recovery but they will benefit from the monetary stimulus that the central banks have been giving since the 2008 financial crisis.

Industries strongly related to technology, oil prices and countries development will be highly influenced in the next thirty years. Obviously the aerospace and defence is one of them.

In the next twenty years the revenue growth for the global A&D industry is expected to take a positive turn[23]. The constant GDP growth of almost all the countries, the lower oil price and the increasing demand for aerospace travels are the determinants for the expansion of this industry. Further, the resurgence of global security threats and growth in defence budgets in many countries are all likely to promote global defence subsector revenue growth over the next few years[24].

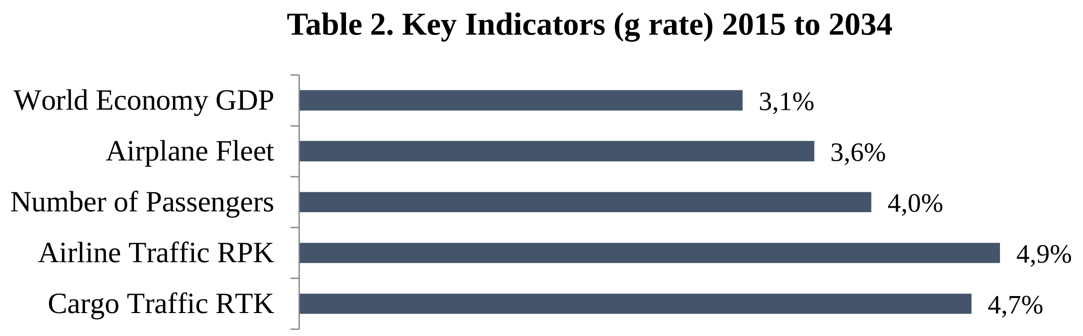
Figure 16



The chart shows the trend, year by year (from 2011 to 2014), of the levels of operating earnings in the aerospace and defence industry. Source: Deloitte Touche Tohmatsu Limited (DTTL) Global Consumer & Industrial Products Industry group's 2015 Global aerospace and defense sector financial performance study, June 2015

[23] Deloitte, 2016 (p. 3)
[24] Deloitte, 2016 (p. 3)

Figure 17



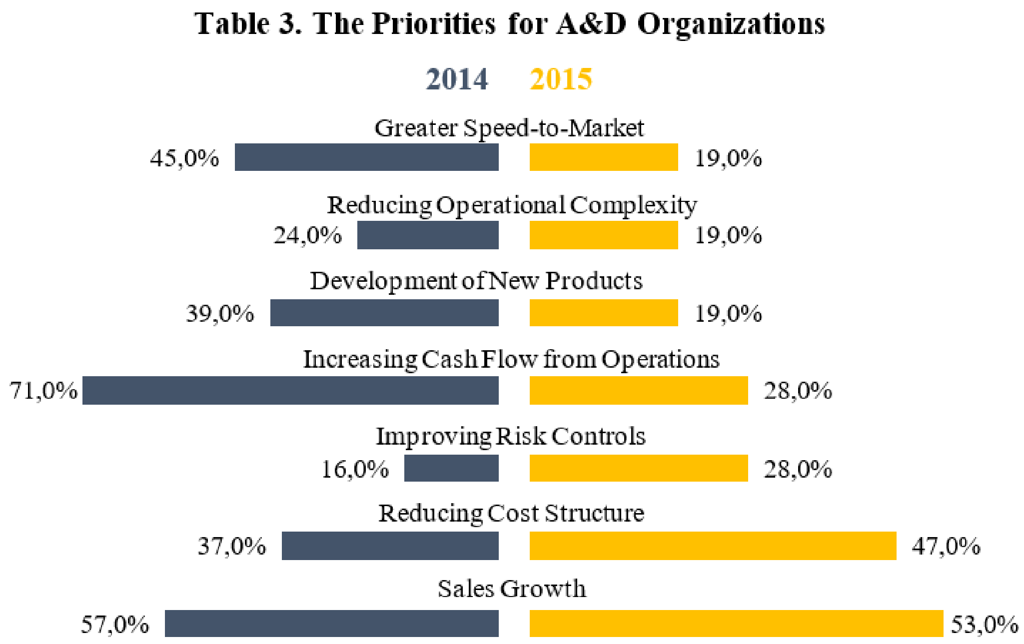
The chart shows the growth rate of the key indicators characterising the global aviation market. The rates are a prediction of the trends from 2015 to 2034 and they are expressed as the compound annual growth rate. RTK, or Revenues Passenger Kilometers, is a measure of traffic for an airline flight, bus, or train calculated by multiplying the number of revenue-paying passengers aboard the vehicle by the distance traveled. Source: Current Market Outlook 2015–2034, Boeing, 2015

Another aspect that contributes to the industry growth is the required level of technology. Adding to the market forces affecting the aerospace and defence industry there are significant developments in digital technologies that are exerting an increasingly decisive influence on the future shape of all industries[25].

The A&D has been always characterized by huge technological usage both in the defence and the commercial and public transportation. The increasing level of investment in technologies and R&D has allowed the continuous improvement of productivity and efficiency. The proportion of aerospace and defence organizations that say they will spend more than six percent of revenues on research and development over the next year increase by thirteen percentage points to forty-one percent[26]. As a result, companies will be able to achieve better results in terms of supply chain management, automation process and costs reduction.

[25] Accenture, 2015 (p. 5)
[26] KPMG, 2015 (p. 8)

Figure 18



The chart shows five priorities in terms of strategy, investment and business development that companies in the aerospace and defence industry thought they could have invested during 2014 and 2015. Source: Forbes survey, January 2015

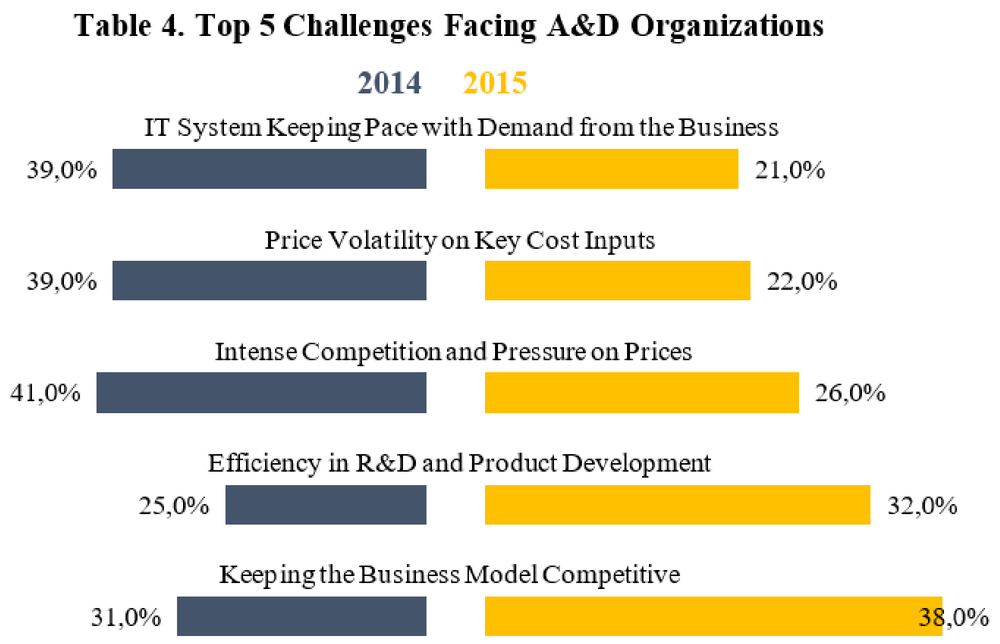
It will be important for A&D organizations to apply more rigorous integrated business planning techniques so that revenue, investment, cost and profit are tightly coupled from both a financial and operational perspective as opportunities will emerge[27].

This integrated approach will help A&D companies to sustain growth avoiding additional costs and ineffective supply chain processes.

Therefore, organizations in the aerospace and defence are looking at new ways for managing costs and increase their growth rate. They are seeking to innovate and they are trying to create new business models in order to gain competitive advantage.

[27] KPMG, 2015 (p. 6)

Figure 19



The chart shows five challenges in terms of strategy, investment and business development that companies in the aerospace and defence industry thought they could have encountered during 2014 and 2015. Source: Forbes survey, January 2015

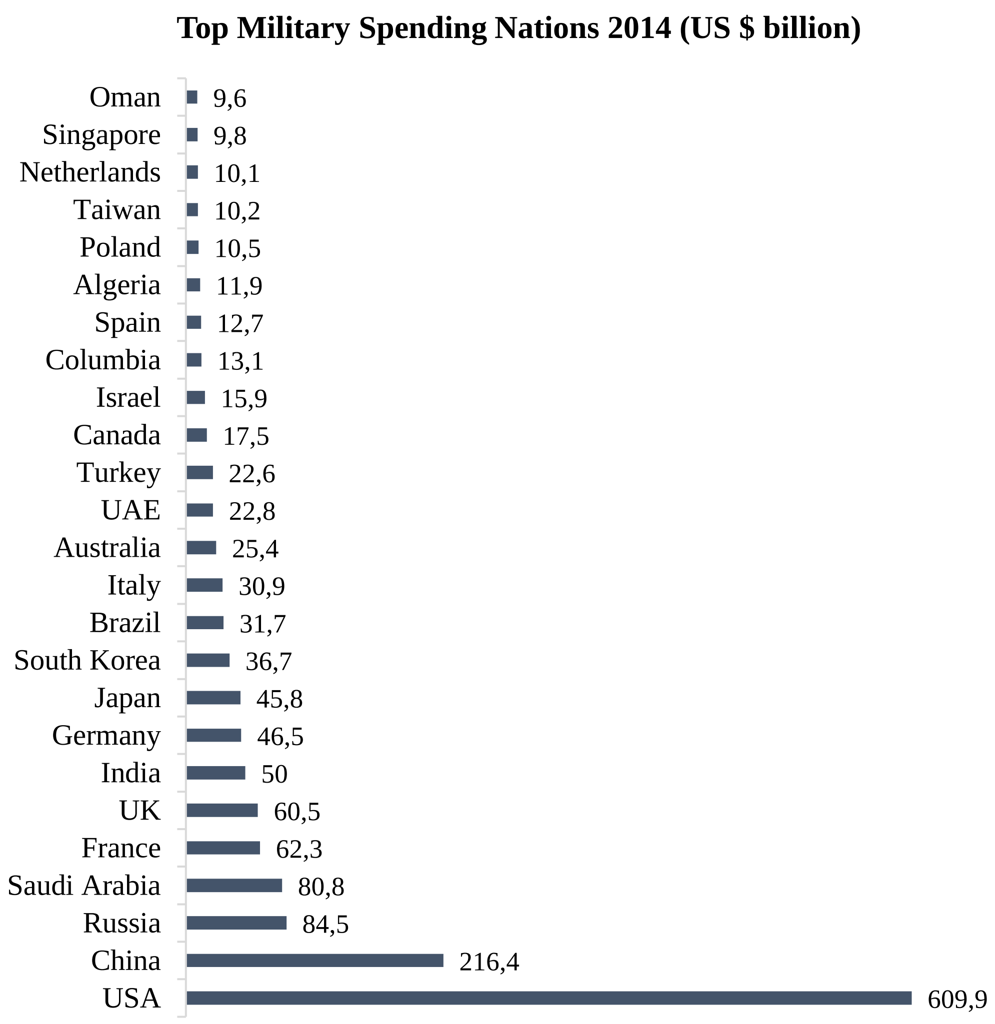
Although research and development investments, technological development and business model innovation are the best tools in order to reshape a company competitive position, they are not enough. In fact, partnering and acquisitions will continue to be important options for companies in the A&D industry. To achieve growth objectives, companies that have recognized that partnering will continue to increase in importance as they work to innovate products and services, execute on market entry strategies and adapt and develop new business models[28]. Mergers and acquisitions activity will continue in the A&D market due to consolidation in certain segments, including aero structures and, more broadly, small to mid-size subcontractors[29].

[28] KPMG, 2015 (p. 17)
[29] Deloitte, 2016 (p. 16)

3.2 The Defence Segment

The defence segment is expected to grow either, despite the 2015 slowdown largely driven by the US cuts in the military expenditure and programs cancellation. The increasing tensions between countries and organizations in areas as Middle East, Eastern Europe, North Korea and South China, will push the demand for military goods. Then, it is expected that defence spending will likely bottom out and enter a new growth cycle starting in 2016[30]. Additionally, countries directly interested in potential conflicts areas are currently intensifying the expenditure in military equipment.

Figure 20

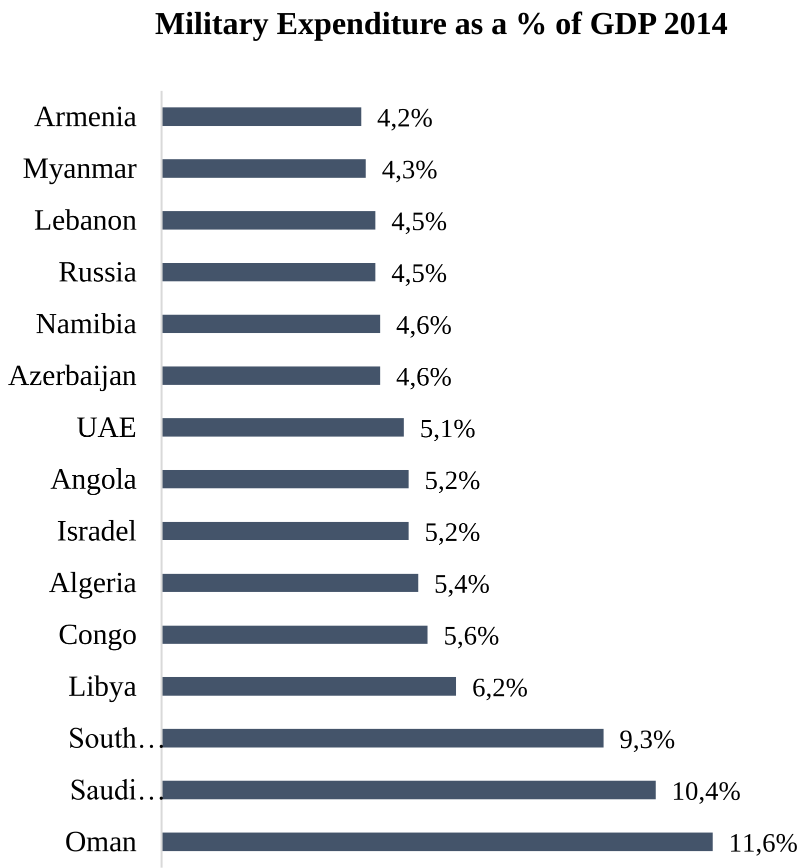


[30] Deloitte, 2016 (p. 9)

The chart shows how much Nations spent in 2014 in defence and military resource. Source: Touche Tohmatsu Limited (DTTL) Global Consumer & Industrial Products Industry group analysis of data from Stockholm International Peace Research Institute (SIPRI) Military Expenditure Database, accessed in November 2015

So, the growing threats (including ISIS, Iran, Russian conflict in Ukraine, North Korea and China's military modernization) are redefining the budgets for the military expenditure all around the world. In Europe for instance, while the military budgets were reduced after the financial crisis, the States are now reviewing the defence expenditure due to the Eastern Europe and terroristic incidents.

Figure 21



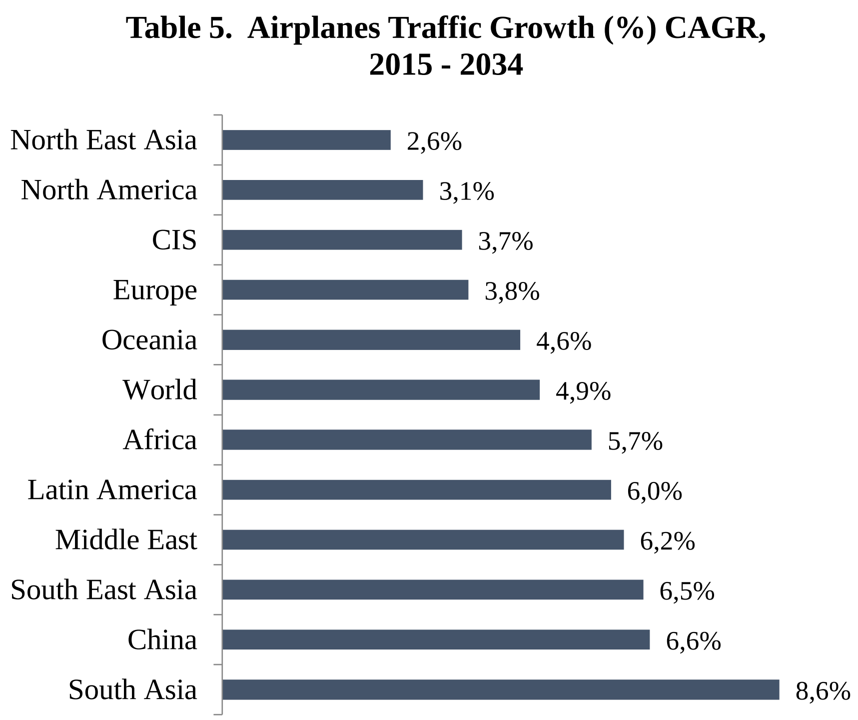
The chart shows the 2014 percentage of military expenditure on the gross domestic product of fifteen Nations. Source: Deloitte Touche Tohmatsu Limited (DTTL) Global Consumer & Industrial Products Industry group analysis of data from Stockholm International Peace Research Institute (SIPRI) Military Expenditure Database, accessed in November 2015

The European Commission (EC) has recognized the need for a more effective, multilateral approach with the Common Security and Defence Policy (CSDP). In June 2014, the EC announced a detailed roadmap to strengthen defence. The plan includes initiatives to increase the efficiency of procuring war materiel for defence purposes and the development of synergies between civil and military research[31].

3.3 The Aviation Segment

During the last years the aviation segment was characterized by growing trends. Commercial aerospace now plays the most important role in the global infrastructures and it is expected to grow at a rate higher than the world's economy in the near future (see Figure 22 and Figure 23). Furthermore, the demand for aviation related services is becoming increasingly inelastic[32].

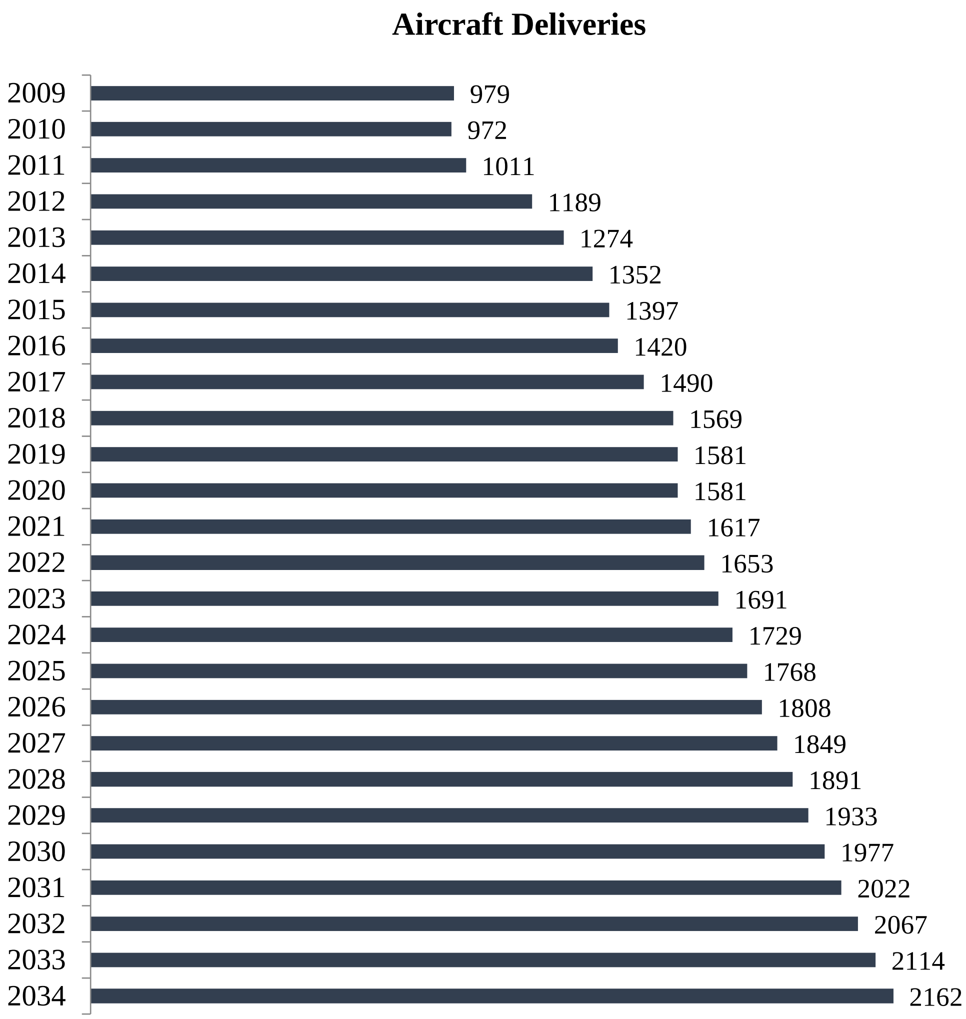
Figure 22



The chart shows the growth rate of the global airplane traffic from the 2015 to 2034. The rate is expressed as the compound annual growth rate. Source: Current Market Outlook 2015–2034, Boeing, 2015

[31] PwC, 2014 (p. 12)
[32] PwC, 2014 (p. 18)

Figure 23



The chart shows the current and expected number of aircraft deliveries, year by year, from 2009 to 2033Source: Deloitte Touche Tohmatsu Limited (DTTL) Global Consumer & Industrial Products Industry group analysis of the following data. The Boeing Company, Current Market Outlook (2015–2034), November 2015

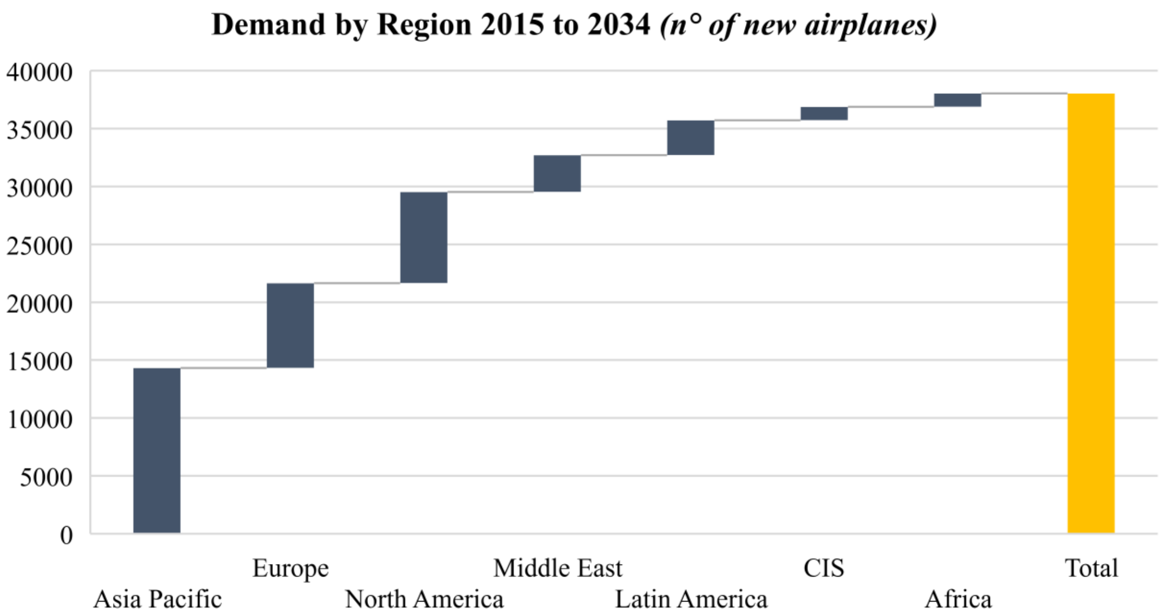
All the industry key indicators demonstrate a positive trend. The load factors in 2014 are around eighty percent worldwide[33], which undoubtedly increase the efficiency of airlines. A fall in the oil prices allowed the industry to save billions of dollars in a year. Because of lower oil prices and various increased efficiencies, airlines had profits of US$20 billion during 2014, which was also a record year for airplane manufacturers such as Boeing and Airbus[34].

[33] PwC, 2014 (p. 6)
[34] Boeing, 2015 (p. 7)

Among other factors influencing the industry, there is the strength of the US dollar that affects the purchasing power of passengers but not only. Indeed, a strong US dollar may negatively influence costs and other payments. Companies adopt different hedging strategies in order to cope with the exchange rate volatility aiming to guarantee stable profit and reduce risk exposition.

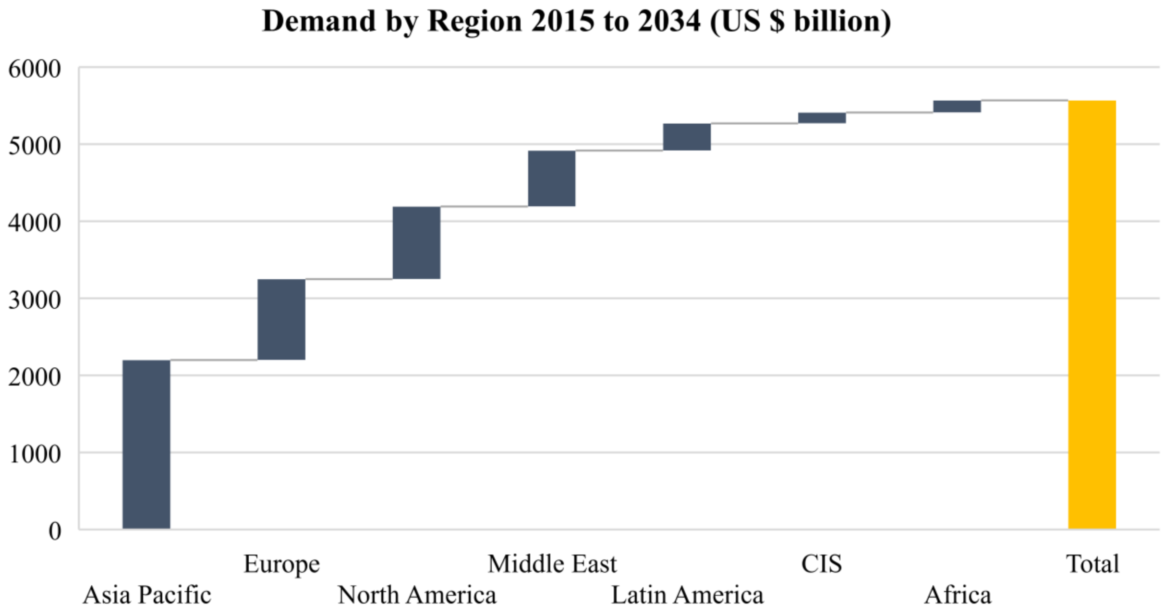
Eventually, the forecasts of a mid-term development of the sector are likely to be positive (see Figure 24 and Figure 25). However, as time passes aviation companies will pay more attention on the efficiency and environmental issues. The demand for big data capabilities is also expected to grow as the new generations of aircrafts transmit a huge quantity of data to be recorded and memorized.

Figure 24



The chart shows the composition by macro region of the total number of airplanes that is expected to be reached from 2015 to 2034. Source: Current Market Outlook 2015–2034, Boeing, 2015

Figure 25



The chart shows the composition by macro region of the total demand (in US dollar) of airplanes that is expected to be reached from 2015 to 2034. Source: Current Market Outlook 2015–2034, Boeing, 2015

4. The Characteristics of the Research

This research concerns the type of tools and contents used by seventeen selected companies in the strategic plans and in the presentations. Most of them are listed and have over twenty-thousand employees. The analysis follows a specific framework made by forty-three sections, each document is compared to the sections and is evaluated under different point of view.

4.1 The Goals

The object of the study is to detect the differences between the two typologies of documents and to observe how the companies in this specific sector behave when they decide to disclose such amount of information. The assessment is on whether the A&D firms concentrate their communications on technical parts of the plan (products), investments, financial forecasts and decision making aspects rather than focus on organisational structure, marketing, HR and accounting. The differences are analysed in depth following specific criteria. The research looks at the used tools, at the content (the amount and the quality of the information provided), at the affinity with the framework and at the information clearness level. The aim is to understand weather in the aerospace and defence industry there are some characteristics that determine the way in which the companies disclose their financial data. Eventually, the research will test the hypothesis that investors day presentations are less detailed than strategic plan.

4.2 The Companies Analysed

Figure 26

Company Name	ID	Type
AECOM Technology Corporation	I.D.P.1	Public - NYSE: ACM
Bombardier Inc.	S.P.1	Public - TSX: BDD.A, BBD.B; OTC QX: BDRBF; S&P/TSX 60
CACI International Inc.	I.D.P.2	Public - NYSE: CACI
CAE Inc.	I.D.P.3	Public - TSX: CAE; NYSE: CAE
DynCorp International	I.D.P.4	Private
General Electric Aviation	I.D.P.5	Subsidiary of GE Group
Kawasaki Heavy Industries	S.P.2	Public - TYO: 7012; OTC Pink: KWHIY
Kawasaki Heavy Industries	S.P.3	Public - TYO: 7012; OTC Pink: KWHIY
Kawasaki Heavy Industries	S.P.4	Public - TYO: 7012; OTC Pink: KWHIY
Leidos	I.D.P.6	Public - NYSE: LDOS
Leonardo - Finmeccanica	S.P.5	Public - BIT: FNC
ManTech International Corporation	S.P.6	Public - NASDAQ: MANT
Mitsubishi Heavy Idustries Ldt.	S.P.7	Public - TYO: 7011
Mitsubishi Heavy Idustries Ldt.	S.P.8	Public - TYO: 7011
Mitsubishi Heavy Idustries Ldt.	S.P.9	Public - TYO: 7011
NATS Plc.	S.P.10	Public-Private Partnership
NEC Corporation	S.P.11	Public - TYO: 6701; OSE: 6701; NSE: 6701; FSE: 6701
Orbital ATK	I.D.P.7	Public - NYSE: OA
Safran Group	I.D.P.8	Société Anonyme - Euronext: SAF
Safran Group	S.P.12	Société Anonyme - Euronext: SAF
SAIC	I.Ds.P.9	Public - NYSE: SAIC
SAIC	I.D.P.10	Public - NYSE: SAIC
Serco Group Plc.	I.D.P.11	Public Limited Company - LSE: SRP

The table shows the list of the companies analysed. If for each of them there is a strategic plan (SP) or an investor day presentation (ID). If each company is public or not, if each company is listed and where it is listed. Source: personal elaboration

Figure 27

Company Name	Founded	Headquarter	Website
AECOM Technology Corporation	1990, USA	Los Angeles, California	www.aecom.com
Bombardier Inc.	1942, Canada	Montreal, Canada	www.bombardier.com
CACI International Inc.	1962, USA	Arlington, Virginia	www.caci.com
CAE Inc.	1947, Canada	Montreal, Canada	www.cae.com
DynCorp International	1946, USA	McLean, Virginia	www.Dyn-intl.com
General Electric Aviation	1917, USA	Evendale, Ohio	www.geaviation.com
Kawasaki Heavy Industries	1896, Japan	Minato, Tokyo	www.khi.co.jp
Kawasaki Heavy Industries	1896, Japan	Minato, Tokyo	www.khi.co.jp
Kawasaki Heavy Industries	1896, Japan	Minato, Tokyo	www.khi.co.jp
Leidos	1969, USA	Reston, Virginia	www.leidos.com
Leonardo - Finmeccanica	1948, Italy	Rome, Italy	www.leonardocompany.com
ManTech International Corporation	1968, USA	Faifax, Virginia	www.Mantech.com
Mitsubishi Heavy Idustries Ldt.	1934, Japan	Minato, Tokyo	www.mhi-global.com
Mitsubishi Heavy Idustries Ldt.	1934, Japan	Minato, Tokyo	www.mhi-global.com
Mitsubishi Heavy Idustries Ldt.	1934, Japan	Minato, Tokyo	www.mhi-global.com
NATS Plc.	1962, UK	Whiteley, England	www.nats.aero
NEC Corporation	1899, Japan	Minato, Tokyo	www.nec.com
Orbital ATK	2015, USA	Dulles, Virginia	www.orbitalatk.com
Safran Group	2005, France	Paris, France	www.safran-group.com
Safran Group	2005, France	Paris, France	www.safran-group.com
SAIC	1969, USA	Tysons Corner, Virginia	www.saic.com
SAIC	1969, USA	Tysons Corner, Virginia	www.saic.com
Serco Group Plc.	1929, UK	Hook, England	www.serco.com

The table shows for each company the year and where it was founded, where the current headquarter is and the link for the corporate website. Source: personal elaboration

Figure 28

Company Name	Revenues (l.a.d.) (ml $)	EBIT (l.d.a.) (ml $)	Net Income (l.d.a.) (ml $)	Number of Employees (l.d.a.)
AECOM Technology Corporation	19200,0	535,2	154,9	95000
Bombardier Inc.	18200,0	-4838,0	-5340,0	66950
CACI International Inc.	3300,0	236,4	126,2	20000
CAE Inc.	1740,0	202,8	158,6	8000
DynCorp International	3047,0	120,0	48,0	16800
General Electric Aviation	18700,0	22129,0	16353,0	26800
Kawasaki Heavy Industries	15031,4	936,3	449,1	34010
Kawasaki Heavy Industries	15032,4	936,3	449,1	34010
Kawasaki Heavy Industries	15033,4	936.32	449,1	34010
Leidos	5090,0	298,0	254,0	19000
Leonardo - Finmeccanica	14471,2	984,4	586,9	47000
ManTech International Corporation	2582,0	171,0	95,0	10000
Mitsubishi Heavy Idustries Ldt.	39470,0	3020,0	620,0	81845
Mitsubishi Heavy Idustries Ldt.	39470,0	3020,0	620,0	81845
Mitsubishi Heavy Idustries Ldt.	39470,0	3020,0	620,0	81845
NATS Plc.	1224,3	335,5	240,5	4400
NEC Corporation	28632,2	1249,3	558,9	102375
Orbital ATK	4515,0	501,5	299,9	15000
Safran Group	19390,0	2710,0	1650,0	70000
Safran Group	19390,0	2710,0	1650,0	70000
SAIC	3835,0	240,0	141,0	15000
SAIC	3835,0	240,0	141,0	15000
Serco Group Plc.	4214,8	-4,9	-203,1	100000

The table shows for each company the revenues, the earnings before taxes, the net income and the number of employees. Source: personal elaboration

The tables (Figure 26, Figure 27 and Figure 28) show the list of the companies analysed. Seventeen companies and a total of twenty-three documents (eleven investors day presentations and twelve strategic plans).

They show the ID (that is the code determines the type of document), where the companies are listed, where and when they were founded, the website and finally some financial data.

It is possible to see that the majority of them are American companies. Four instead are European (Leonardo from Italy, NATS and Serco from the UK and Safran from France). Mitsubishi, Kawasaki and NEC are Japanese, and eventually, two are Canadian (Bombardier and CAE).

The type of the companies is another important aspect. Almost all of them are public and listed, only DynCorp International is a not listed private company. It is important to remember that the presentations and the strategic plans are part of the voluntary disclosure documents published by firms. Even if in this research most of the subjects are forced by the law to publish, for instance, the 10-K for the SEC (US case), or the annual report for the shareholders, no one of the selected companies, listed or not, have to publish the documents analysed in this research.

The table below (Figure 29) highlights the differences between documents in terms of number of years and number of slides.

Figure 29

n°	ID	Name	Time Span	N° of Years	N° of Slides
1	I.D.P.1	AECOM Technology Corporation	From 2014 to 2017	3	20
2	I.D.P.2	CACI International Inc.	From 2015 to 2016	1	39
3	I.D.P.3	CAE Inc.	From 2015 to 2016	1	40
4	I.D.P.4	DynCorp International	From 2015 to 2016	1	27
5	I.D.P.5	General Electric Aviation	From 2014 to 2016	2	46
6	I.D.P.6	Leidos	From 2013 to 2014	1	105
7	I.D.P.7	Orbital ATK	From 2015 to 2016	1	14
8	I.D.P.8	Safran Group	From 2015 to 2020	5	34
9	I.D.P.9	SAIC	From 2015 to 2016	1	44
10	I.D.P.10	SAIC	From 2013 to 2014	1	50
11	I.D.P.11	Serco Group Plc.	From 2014 to 2015	1	16
12	S.P.1	Bombardier Inc.	From 2014 to 2016	2	76
13	S.P.2	Kawasaki Heavy Industries	From 2012 to 2015	3	41
14	S.P.3	Kawasaki Heavy Industries	From 2009 to 2012	3	55
15	S.P.4	Kawasaki Heavy Industries	From 2005 to 2010	5	41
16	S.P.5	Leonardo - Finmeccanica	From 2014 to 2019	5	64
17	S.P.6	ManTech International Corporation	From 2012 to 2015	3	124
18	S.P.7	Mitsubishi Heavy Idustries Ldt.	From 2014 to 2017	3	37
19	S.P.8	Mitsubishi Heavy Idustries Ldt.	From 2014 to 2017	3	34
20	S.P.9	Mitsubishi Heavy Idustries Ldt.	From 2011 to 2014	3	59
21	S.P.10	NATS Plc.	From 2010 to 2020	10	50
22	S.P.11	NEC Corporation	From 2012 to 2015	3	37
23	S.P.12	Safran Group	From 2015 to 2010	5	128

The table shows for each companies whether the document analysed is a presentation (ID) or a strategic plan (SP). Moreover, it shows for each document the time span it covers and the number of pages it is composed of. Source: personal elaboration

Concerning the time span, the investors day presentations tend to cover one year only, just three companies have a presentation about a time span longer than one year. There are AECOM Technology Corporation whit three years, GE Aviation with two and Safran Group with a presentation based on a five years' plan. Conversely, the strategic plans are based on a longer period of years, usually three or five. Then, there is the documents length that works almost the same as the time span. The investors day presentations, in fact, seem to be shorter than the strategic plans. Nevertheless, the differences in this case are not so clear, the presentations go from fourteen pages until fifty (just Leidos has a one hundred five pages' document), while the strategic plans go from thirty-seven until seventy-six (just ManTech International Corporation and Safran Group have respectively one hundred twenty-four and one hundred twenty-eight pages' document).

Finally, although the strategic plan could be drafted as a written document, it is usually presented as a power point or a PowerPoint presentation as the IDP. In this research just ManTech International Corporation and NATS have a written strategic plan.

4.3 The Research Development

After the definition of the theoretical part with the description of what strategic plans and investors day presentations are and how the idea of voluntary disclosure is shaped by the scholars, the next step was to find the proper documentation in order to start with the practical part.

The starting point was the website "defensenews.com". It provided the list of the top one hundred companies in the aerospace and defence industry in terms of online presence and website quality[35]. Today these two elements are much more important than ever. Communicate with the socio-economic environment is a key factor for a successful company. The first one (the online presence) is about how much a firm is developing itself on the internet. The vehicles in this case could be social media, search engines, articles, conferences, videos, blogs, etc. The second aspect (the website quality) is about the clearness of the information published, the easiness in navigating it and the quantity of information. As a result, Defense News created a rank of one hundred firms giving them a grade in percentage. The higher the grade, the better the website and the online presence.

Easily understandable is the connection between the goals of the research and the why behind the choice of this specific list. Even though the study is about strategic plans and presentations, these documents are communication tools and in particular they are part of the voluntary disclosure processes. Therefore, the best way to get such information tools related with

[35] See chapter 1

voluntary communication was to search for the companies that pay more attention to publications and other disclosure means as the internet.

The next step was to search website by website the documents for the analysis, given the top one hundred list of A&D firms. The research took almost two months and went through all the one hundred websites looking for strategic plans initially and then also for investor presentations. The extension of the subjects of the analysis was driven by the necessity to include more documents for a higher level of significance and also because investors day presentations are structured in the same way as a strategic plan is. Actually, they seem summaries of a bigger strategic plan. Last but not least, the presentations are undoubtedly a form of voluntary disclosure, so they are part of this analysis as well as the strategic plan.

Thereafter, there was the reading part of all the twenty-three documents in order to have a first idea of the subjects of the comparison. Then, the focus moved on the comparative table that is the fundamental piece of this research, All the comparisons are based on it.

The building process of this tool started with the IFAC (International Federation of Accountants) because they provide a description of all the parts of a business plan and how to practically write such document. Despite this document is about business plan for small medium enterprises, it was chosen because of the common touch between the structure provided by the IFAC and the structures of the strategic plans analysed. It has already been said the differences between the business plan and the strategic plan. The first one is usually used for start-ups companies or companies in the early stages of their life in order to raise capitals for the initial investment. On the other hand, the second one is usually used lately in the lifecycle of a firm, the purpose is to prepare a plan for new investments, new strategies, new products, new markets. Nevertheless, they both are voluntary disclosure documents and who publish them does not follow a compulsory frame. Thus, it was possible to adjust the theoretical model into something easier to manage in order to compare all the twenty-three documents. The table below (Figure 30) shows the base from where this research started.

Figure 30

The Structure of the Business Plan
Executive Summary: Snapshot of Your Business Plan
The Business in Detail
Business Overview

Vision Statement
Mission Statement
Corporate Values
Vision, Mission and Values Statement
Business Goals and Objectives
Business Strategy and Keys to Success
Risk management, Business Continuity and Succession Planning
Scenario Planning
Organisational Structure and Management
How to Put Together an Effective Organisational Structure
Core Organisational Competencies
How to Present Your Management's Capabilities
Presenting Your Business's Operational Plan
Industry Analysis
Methods of Presenting Your Industry Analysis
Presenting your Business's Products or Services
Product Portfolio Analysis: Analysing Your Business's Products or Services
Market Analysis
Identifying Your Target Market
Market Segmentation and Positioning of Your Products or Services
Competitor Analysis
Marketing Strategy
The Four Ps of Marketing Strategy
Business's Financial Position and Projections
Income Statement
Cash Flow
Balance Sheet
Financial Assumptions
Financial Budgeting
Financial Ratios and Key Performance Indicators
Project Financing

The table shows the framework proposed by the international federation of accountants. It is a list of items divided by areas that determine the structure of a business plan and how it should be written. Source: "Business Planning Guide: Practical Application for SMEs" (published by the Professional Accountants in Business Committee, written by IFAC, International Federation of Accountants, 2006)

The main parts are nine, (most of them are broken down into additional parts): the executive summary, the business in detail, the organisational structure and management, the operational plan, the industry analysis, presenting products and services, the market analysis, the marketing plan, and finally the financial position and projections.

The executive summary talks about the whole plan, it describes the main characteristics and the main goals in one or two pages (it should not be longer than two pages). It is a summarized version of the big plan aimed to get the attention of the reader. In this section the information is about the type of business, the main features of the products, the competitive advantage, the investments level, the time span of the strategies described and the main goals. The executive summary may be the first thing investors or stakeholders see about the business, it should contain all the highlights of the plan that will provide a strong positive impact to readers[36].

The business in detail contains the overview of the company and more detailed information about the vision, the mission, the strategy and the objectives. The vision is a clear statement indicating the direction of the business. It is a short forwards looking sentence encapsulating all the reasons why a company is operating. The mission instead is a longer statement about the purpose of a company. It is an explanation of why the company exists in the market and in the society. It is long-term oriented and it gives a snapshot of the business strategies, objectives and activities. The strategies part instead is about the choices a company is going to make in order to accomplish the vision, the mission and the objectives. It covers the range and depth of the business's activities and directs the changing and evolving relationship of the business with its environment[37]. Finally, the objectives, they are specific numerical goals the company wants to achieve. The objectives must be: results-driven, and not activity-driven, specific, measurable, attainable, related to time[38].

Although the organisational structure and management parts could seem less important than others, they usually cover several pages of the plan. They describe the internal structure, the communication patterns, the processes, the roles, the responsibilities and the most relevant members of the top management. A lot of companies in several industries (for instance business services, management consulting, training, etc.) consider these sections fundamental and consequently they pay a lot of attention of them.

[36] International Federation of Accountants, 2006 (p. 8)
[37] International Federation of Accountants, 2006 (p. 14)
[38] International Federation of Accountants, 2006 (p. 14)

The operational plan is the way in which a company works. It provides a defined guide about the internal processes and actions. This section examines the operating plans necessary for the four basic functional areas of business: production and operations management, marketing, human resources, and finance[39]. It is a useful because it helps, not only the external agents, but also internally the mangers and the employees. They can see how the business should work, it is a sort of model to follow. Moreover, it is helpful in order to monitoring the performance and the trend of the ongoing situation.

The industry analysis is based on the review of the forces influencing the environment. For instance: technologies, politics, regulations, social environment, competitors entrance, barriers, suppliers, customers trend, demand, financial environment, etc. Usually companies use tools in order to make the analysis easier (Porter's 5 forces, SWOT analysis, PESTEL analysis, etc.)

Figure 31

Porter's 5 Forces
Degree of Rivalry
Exit barriers
Industry concentration
Fixed costs/Value-added
Industry growth
Intermittent overcapacity
Product differences
Switching costs
Brand identity
Diversity of rivals
Corporate stakes
Barriers to Entry
Absolute cost advantages
Proprietary learning curve
Access to inputs
Government policy
Economies of scale
Capital requirements
Brand identity
Switching costs

[39] International Federation of Accountants, 2006 (p. 26)

Access to distribution
Expected retaliation
Proprietary products
Threats of Substitutes
Switching costs
Buyer inclination to substitute
Price/performance trade-off substitutes
Suppliers Power
Supplier concentration
Importance of volume to supplier
Differentiation of inputs
Impact of inputs on cost or differentiation
Switching costs of firms in the industry
Presence of substitute inputs
Threat of forward integration
Cost relative to total purchases in industry
Buyers Power
Bargaining leverage
Buyer volume
Buyer information
Brand identity
Price sensitivity
Threat of backward integration
Product differentiation
Buyer concentration vs. industry
Substitute available
Buyer’s incentives

The table is a representation of the components of the Porter’s 5 forces model. There are all the five areas with a subset of influencing elements that determine each of the main five forces. “Business Planning Guide: Practical Application for SMEs” (published by the Professional Accountants in Business Committee, written by IFAC, International Federation of Accountants, 2006)

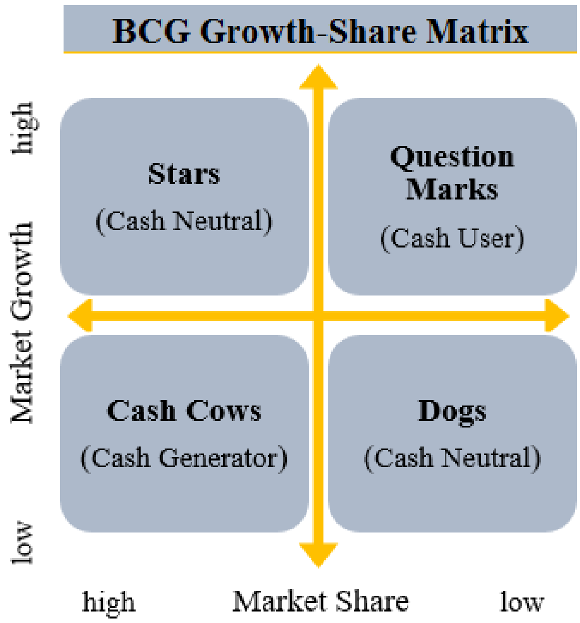
Figure 32

SWOT Analysis	
Strengths	**Weaknesses**
Economies of scale	Lack of marketing expertise
Specialist marketing expertise	Undifferentiated products and service
Exclusive access to natural resources	Poor location of your business
Patents	Weak distribution channels
New, innovative product or service	Poor quality goods or services
Strategic location	Weak brand name and reputation in market
Cost advantages through proprietary know-how	Lack of patent protection
Strong distribution networks	High cost structure
Strong brand names with solid reputation	
Opportunities	**Threats**
Developing and expanding your market	A new competitor in your home market
Mergers, joint ventures or strategic alliances	Price war
Moving into new attractive market segments	Competitor with innovative substitute product or service
A new-found market	New regulations
Loosening of rules and regulations	Increased trade barriers
Removal of international trade barriers	Taxation may be introduced on your product or service
A market led by a weak competitor	
Unfulfilled needs and wants	
New technologies	

The table explains all the four parts of the SWOT analysis. Each section contains the key elements that should be analysed during this kind of analysis. Source: "Business Planning Guide: Practical Application for SMEs" (published by the Professional Accountants in Business Committee, written by IFAC, International Federation of Accountants, 2006)

Then, the products and/or services, a section dedicated to describe the benefits the company is delivering towards customers. The analysis of the products must contain the characteristics that determine the advantage over the competition and a description of what are the needs that are going to be fulfilled. Basically the firm is trying to sell the product and to persuade the reader in buying it. Further, it is fundamental to attach a list of what the company is selling. The list should be made of pictures and details of the offer composition. Equally important is the outline of possible new products and future purposes in terms of new market entrance and new customer segments. A very common tool used by companies in order to analyse their products portfolio is the "BCG Growth-Share Matrix" (Figure 33). It has four sections: cash cows, star, question mark and dog. Each section represents one moment in the lifecycle of the product. If a product (or a business unit) is classifiable as a "cash cow", it will have a large market share in a mature and not growing market. Otherwise, if a product is classifiable as a "star", it will have a large market share in a fast growing industry. However, if a product is classifiable as a "question mark", it will be difficult to understand what the product actually needs. It could require resources to move into the "star" segment or a disinvestment to moves into the "dog" segment. This last section is characterised by a low market share and a low growth potential, usually in this situation the best choice is the liquidation and the exit from the market.

Figure 33



The matrix shows the market growth and the market share (the two elements of the BCG matrix) and the 4 areas in which a product or a business units could be allocated. Source: "Business Planning Guide: Practical Application for SMEs" (published by the Professional Accountants in Business Committee, written by IFAC, International Federation of Accountants, 2006)

The market analysis should not be confused with the previous industry analysis. Here the object is not the environmental situation in which the company is operating but it is more about the specific area in which products or services will be provided. First there is the target market identification or target customers, then the segmentation or the identification of specific groups of customers who respond differently from other groups to competitive strategies [40]. Furthermore, the explanation of how the products are perceived by customers in correlation with other players. The competitor analysis follows this section. Companies usually look at the competitors in order to understand what will be their next move. In the analysis is based on the competitive position, on the key success factors and on the competitive advantage. The aim is to understand how many competitors there are and what kind of competitors they are.

The marketing part is composed by the classic four Ps analysis: product, price, promotion and place. The first refers to the product characteristics and determinants. The second part explains the strategies behind the applied price level. The promotional part is about type and means of communication, discounts, advertising, brand, image, packaging and press release. Eventually, the place or distribution channels. This part describes the way a company is reaching the customers and how the products/services are delivered.

At the end of the structure of the business plan provided by the IFAC there is the financials and projections part. Its sections are: income statement, cash flow, balance sheet, financial assumptions, financial budgeting, financial ratios, key performance indicators and project financing. The first three part consist of the representations of the mentioned documents, usually in a business plan there is the current year plus three to five projected year of all of them. The projections are based on the assumptions (the following section) that are statements together with estimated indexes, rates and quantities. Next, the budgeting, a translation of the business plan into numbers. It is basically a detailed plan of future receipts and expenditures or a projected profit and loss statement[41]. Then the section about performance indicators and financial rations that help the business to understand the trends and the wealth of the company. It consists of indexes and other indicators that highlight the key element of a firm performance (Figure 34). The last part is about choosing the type of financing: debt or equity. Both have advantages and disadvantages and generally a balanced situation between debt and equity is the most recommended. Usually companies tend to use equity financing at the very early stage of business as they have little or no real assets to use as collateral, while more established

[40] International Federation of Accountants, 2006 (p. 34)
[41] International Federation of Accountants, 2006 (p. 46)

companies use debt financing to fund their business as they have proven cash flows and business assets to support the debt[42].

Figure 34

KPIs and Financial Ratios	
Profitability Ratios	are used to compute the degree of the business's profitability and the extent of costs incurred in generating sales
Gross Profit (GP) Margin	Gross Profit / Net Revenue
Net Profit Margin	Net Profit Before Taxation / Net Revenue
Operational Efficiency Ratios	are designed to assist in the evaluation of management performance
Return on Assets	Net Profit After Interest and Tax / Total Assets
Liquidity Ratios	they measure your business's ability to meet short-term debts
Current Ratio	Current Assets / Current Liabilities
Solvency/Risk Ratios	they measure the debt position of a company and the related risk
Debt-to-Equity Ratio	Debt / Equity

It is a list of rations. It explains the usage of each type of ratio and how the single one is calculated. Source: "Business Planning Guide: Practical Application for SMEs" (published by the Professional Accountants in Business Committee, written by IFAC, International Federation of Accountants, 2006)

[42] International Federation of Accountants, 2006 (p. 49)

Here instead is presented the framework used for this research (Figure 35). Even though it is an adjusted form of the previous table, it includes the same sections organized in a different fashion.

Figure 35

Comparative Table
Executive Summary
Industry Outlook
Competitors Analysis
The Business
The Strategy Pursued
Vision
Mission
Objectives
The Strategic Aims
Competitive Advantage
KSFs/KPIs/KVDs
Organisational Structure
Share Capital Structure
Office Location
Shareholding Structure
Management
Directors' Profiles
Management Team
The Action Plan
Customer Segments
Value Proposition
Channels
Customer Relationship
Revenue streams
Key Activities
Key Resources
Key Partners
Cost Structure
4 Ps
Brand

Budget	
Action Plan	
The Operational Plan	
Purchase Plan	
Production Plan	
HR Plan	
R&D Plan	
Capital Budgeting	
Cost Analysis	
Financials	
Forecasts and Projections	
Balance Sheet	
Income Statement	
Cash Flow	
Assumptions	
Financial Ratios	
Company Evaluation	
Sensitivity Analysis	

The table is the framework used for this research. It is a personal elaboration of the previous framework (Figure 17. It is structured almost in the same way. There are some adjustments in order to use it with the presentations and the strategic plans. Source: personal elaboration

One of the biggest changes is the breakdown of the operational plan into the "action plan" and again the "operational plan". Moreover, some sections moved in the beginning of the table and vice versa. Finally, the table integrates the Business Model Canvas framework (Figure 36) in order to better analysed customers, products, channels and other aspects of the operational plan.

Figure 36

Key Partners	Key Activities	Value Proposition	Relationship	Customer Segments
they describe the network of suppliers and partners that make the business model work. Companies forge partnerships for many reasons, and partnerships are becoming a cornerstone. Companies create alliances to optimize their business models, reduce risk, or acquire resources.	they are the most important things a company must do to make its business model work. These are the most important actions a company must take to operate successfully.	it describes the bundle of products and services that create value for a specific Customer Segment. The Value Proposition is the reason why customers turn to one company over another. It solves a customer problem or satisfies a customer need. Each Value Proposition consists of a selected bundle of products and/or services that caters to the requirements of a specific Customer Segment. In this sense, the Value Proposition is an aggregation, or bundle, of benefits that a company offers customers.	it describes the types of relationships a company establishes with specific Customer Segments A company should clarify the type of relationship it wants to establish with each Customer Segment.	it defines the different groups of people or organizations that a company is going to reach. Without (profitable) customers, no company can survive for long.
	Key Resources		**Channels**	
	they are the most important assets required to make a business model work. These resources allow an enterprise to create and offer a Value Proposition, reach markets, maintain relationships with Customer Segments, and earn revenues.		it describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition Communication, distribution, and sales Channels comprise a company's interface with customers.	
Cost Structure			**Revenue Streams**	
this building block describes the most important costs incurred while operating under a particular business model. Creating and delivering value, maintaining Customer Relationships, and generating revenue all incurcosts.			they represent the cash a company generates from each Customer Segment. Each Revenue Stream may have different pricing mechanisms, such as fixed list prices, bargaining, auctioning, market dependent, volume dependent, or yield management.	

The table shows the Business Model Canvas structure. Nine areas with the relative description. Source: "Business Model Generation" (Alexander Osterwalder & Yves Pigneu, 2009)

Once the comparative framework was ready all the parts were fulfilled. The final table is an excel file with forty-three sections dedicated to strategic plans and investors day presentations analysis, plus other fourteen sections about companies' general information[43] and notes about the plans and the presentations.

Therefore, forty-three sections times twenty-three documents is equal to nine hundred eighty-nine boxes. For each box there is a description of the relative section of the company in analysis. Furthermore, there are also other five sections added to each of the boxes above mentioned. In total the table is composed by four thousand nine hundred forty-five boxes. The additional five sections are for the evaluation that consists of four categories and a final value. The table below (Figure 37) shows how the votes were created and to what each vote corresponds.

Figure 37

Categories	**Final Value**
Content quality Tools quality Clearness Framework affinity	the final value is the mean of the votes for each category
Votes	**Meaning**
0	n.a.
1	very low
2	low
3	medium
4	high
5	very high

It is a description of the votes utilised during the evaluation phase. Four categories and how the final value is calculated. Then the six votes and the associated meanings. Source: personal elaboration

Thus, the table results in an extremely complex matrix (Figure 38) of companies and strategic plan or investors day presentation sections with votes, totals and means. Here how it looks like.

[43] See paragraph 4.2

Figure 38

Company Name	Capital Budgeting Analysis (CAPEX & OPEX)	C.Q.	T.Q.	C.	F.A.	F.V.	Cost Analysis (quantity vs costs; fixed vs variable; BEP)	C.Q.	T.Q.	C.	F.A.	F.V.
NATS Plc.	2 written pages with descriptions of where , how and why to invest, table with milestones, some numerical references	4	1	3	2	**2,5**	2 written pages diveded by phase describing the expected efficiencies and costs reduction, descriptive, some numerical references, additional page focused on RUOE (cost efficiencies, KPI, table year by year)	4	1	4	3	**3,0**
Safran Group	1 ber chart in the same slide of R&D, bullet points on initiatives, from FY15 to FY20, CAPEX level, additional slide with a bridge analysis on the expected NFP (form FY15 to FY20) and allocation of capital	4	5	5	5	**4,8**	1 slide, incomprensible charts (area chart and line chart on cost of production and gross margin contribution), bullet points on costs reduction and BEP, learning curve, from FY15 to FY20	4	4	2	5	**3,8**

It is a little part of the whole table used for the analysis. It shows two companies, the written descriptions of the two sections (Capital Budgeting and Cost Analysis) and the relative votes. Source: personal elaboration

This is just a little part of the table but it is useful to understand the logic. In the first column there is the name of two out of twenty-three documents analysed, here there are NATS plc. and Safran Group. The second and the eighth columns are two of the forty-three sections of the main framework. The relative boxes are fulfilled with a description about the contents, the tools used and some other characteristics. Once all the descriptions were ready, their evaluation began. There are the content quality sections (C.Q.) that are about what is written in the document. There are the tools quality sections (T.Q.) that are about what is used for communicate the information (charts, bullet points, tables, etc.). Finally, there are the clearness sections (C.) and the framework affinity sections (F.A.). This last section is about how much the analysed part of the document is in line with the framework presented (is this part in the write place? Is this part talking about the right topics? Is this part presented in the write way?). Therefore, given the descriptions made before and the theoretical references as a benchmark, the votes were given. Thereafter, there are the final value sections (F.V.) that are the result of the mean calculated for each company and for each part of the analysis framework.

After that, the calculations of the general mean by section and the totals by company were generated. Eventually, the results were crossed and organized in other more understandable and more manageable tables and charts.

5. The Results

Before the final evaluation and the results in terms of numbers, there are two considerations that should be done. Both of them are about the notes section (Figure 39).

Figure 39

Company Name	ID	Notes
AECOM Technology Corporation	I.D.P.1	The document is aimed to describe and define the main benefits of the ongoing M&A transaction between AECOM and URS
Bombardier Inc.	S.P.1	This plan is made for the launch of new 3 strategies, the document doesn't follow the table order, the tools and the structure described ahead is repeated in the plan for each BU (BAES, business aircraft, commercial aircraft and transportation)
CACI International Inc.	I.D.P.2	Investors update, large appendix part dedicated to the BUs description (highlights, benefits, offer)
CAE Inc.	I.D.P.3	Investor update, most of the structure described ahead is repeated for each BU
DynCorp International	I.D.P.4	Just 2 slides dedicated to operating and strategic issues, the presentation is extremely focused on the financial part and on the assumptions made for the projections
General Electric Aviation	I.D.P.5	Aimed to describe the strategies and the actions for the next years with focus on the results of FY14 and FY15 (expected), dedicated parts for the acquisition of Alstom and the industrial franchise section, very detailed and comprehensive presentation, they focus on the actions going into details also from a numerical point of view, every step is justify and related with a strategic goal, everything is well liked, the framework is complex but articulated, the actions taken and

		the future steps are always sustained by a description of the investors benefits (EPS, ROI, IRR)
Kawasaki Heavy Industries	S.P.2	Divided in company and BUs sections, the first part is well structured and detailed, it offers a good view of what the company is going to do in the next 2/3 years, it follows the strategic plan structure quite well, it covers all the levels of the company, after the medium term plan (described in the next sections) the presentation continues with 18 slides (BUs sections) that follow the main structure and use the same tools to describe the same things but dividing them by BU (condensate version)
Kawasaki Heavy Industries	S.P.3	Divided in company and BUs sections, it is almost the same as the previous plan, this one lacks a little bit in some parts but it is structured in the same way, after the medium term plan (described in the next sections) the presentation continues with 33 slides (BUs sections) that follow the main structure and use the same tools to describe the same things but dividing them by BU (condensate version)
Kawasaki Heavy Industries	S.P.4	Divided in company and BUs sections, it is almost the same as the previous plan, this one lacks a little bit in some parts but it is structured in the same way, after the medium term plan (described in the next sections) the presentation continues with 17 slides (BUs sections) that follow the main structure and use the same tools to describe the same things but dividing them by BU (condensate version), in this case all the sections are not so detailed as the recent versions

Leidos	I.D.P.6	Quite long, well-structured and detailed (there are summaries in the end of every section), full of chats, tables, flow charts, bar charts, bar chart, graphical representation, easy to understand, matrixes and tables, the first part is about the strategy and the operations, the final part is about the financials, in the middle the presentation is divided by BU, it is a breakdown of the first and third part, it uses more charts and graphical representations than the other parts, most of this middle part is a specification, if there is something more, it is explained in the following sections
Leonardo - Finmeccanica	S.P.5	The document follows the given structure quite well, it is divided in 2 main sections (strengthen and develop), large part dedicated to the agenda, it is easy to understand and it is detailed
ManTech International Corporation	S.P.6	The plan is not a presentation, it is a written report, lack of numerical and data references, just word, few tools, in the annexes part there are the descriptions of 4 programs, they follow the same structure (overview, organization, agency focus, initiatives and investment plan, summary), in the annexes part there are also references and acronyms/abbreviations sections, in the annexes part there are 8 pages for the statutory requirements and the strategic plan construct
Mitsubishi Heavy Idustries Ldt.	S.P.7	This plan and the next one focus on the same time span, this is about the whole company, the next one instead is about the defence and space system BUs, it is very detailed, solid slides full of information, schematic

Mitsubishi Heavy Idustries Ldt.	S.P.8	This plan and the previous one focus on the same time span, this is about the defence and space system BUs, the previous one instead is about the whole company, it is a simpler plan than the previous one, it uses some slides from the previous plan, it seems part of the previous plan, not so detailed, some parts are missing
Mitsubishi Heavy Idustries Ldt.	S.P.9	This is a plan about the whole company, it is not well structured, it does not follow the structure, most of the parts are mixed together, but is very detailed and full of information, some graphical representations are not clear
NATS Plc.	S.P.10	It is a written plan, detailed and well structured, the core business of the company is based on commercial flights, they are focused on customer safety and security, the plan is structured on 2 phases (first 5 years and second 5 years), it contains environmental sections (almost a second plan)
NEC Corporation	S.P.11	It follows the framework, not so detailed but well organized and clear, perhaps too simple, the plan is divided by solution offered (kind of BUs), there is an additional section for the Asian market with dedicated strategies and initiatives (this part is structured as the previous one, the tools are the same, unless one bubble chart for the market outlook)
Orbital ATK	I.D.P.7	Very simple, brief and not detailed
Safran Group	I.D.P.8	Clear presentation, the order is not correct, some charts have no vertical axis, are impossible to understand, large financial part, lack of strategic parts, not clear, it is an extract of the strategic plan

Safran Group	S.P.12	The plan is divided in 3 parts (strategies, BUs, financials), the business units are 3, it is not well structured, the parts don't communicate between them, they are structured in different ways, they don't follow the same path, disconnection, multiple people, the forecast and projection part is very detailed and covers different areas and topics
SAIC	I.Ds.P.9	Large part of the slides is in the appendix, the information provided are not so detailed, the structure is good, in the appendix there is a part dedicated to an acquisition and to the target profile (detailed part)
SAIC	I.D.P.10	The presentation is for a spin-off operation, it is focused on it and some tool are obviously called upon the spin-off, in the presentation there are some slides talk about ongoing projects
Serco Group Plc.	I.D.P.11	Brief and simple, few tools, mostly bullet points

This is the part of the comparative table dedicated to the notes and comments. The first column shows the namen of the company, the second if its document is a strategic plan or an investors day presentation and the third one is dedicated to the notes that usually give a snapshot of what is analysed, how and what the structure is. Source: personal elaboration

The notes are an important part of the research. They explain briefly the characteristics of the corresponding document and thy give a first idea of what the plan is about. Further, they provide a direct view on the whole document structure. The notes tell the reader what the aim the specific document is and how it is composed.

AECOM Technology Corporation is the first company analysed. It is an American company and the relative document is an investors day presentation (I.D.P.). As the note says, the document was written for an M&A transaction. As a result, all the sections of this presentation and the evaluation process as well follow this sort of topic. Although most of the documents were written in order to describe the strategic view and the next steps that the companies were going to make, there are some cases as AECOM in which the aim is a little bit more specific. Another example is NATS, its strategic plan focuses on the customer safety and security. There is a large part dedicated to these two elements and one additional part dedicated to the environmental impact of the business activity. All the plan is based on these topics and on how NATS is going to reach the stated objectives, goals, strategic and financial aims. Another example is SAIC, in this I.D.P. the company talks about the ongoing spin-off transaction and about all the issues and benefits of it. Basically what SAIC, or NATS, or AECOM did, was to use the strategic plan framework, apply tools and knowledge they had and explain to stakeholders what they were doing and what were the reasons and the goals behind that specific situation. The point is, voluntary disclosure gives companies the freedom to communicate in the way they prefer what they are doing. It is a powerful tool that gives the possibility to influence opinions of people, investors, governments, etc. On the other hand, it could be dangerous if a company communicates improperly, or perhaps it discloses some unrealistic situation. The market in any case will react. if it reacts positively or negatively, it depends only on the company communication tools quality.

Another aspect arising out of the notes is the tendency of the companies to repeat parts of their strategic plans of presentations for each business units. In other words, if Leidos has three business units (national security, health and engineering), its plan will be divided in three parts that follow the same structure and use the same tools. It is as Leidos is composed by three different companies that need three different plans (it is what actually is happening). Usually the division is made for the central part of the plan. Looking at the framework used, the business, the organizational structure and the action plan, are the sections that use to be divided by business units. The remaining parts, the executive summary, the industry outlook, competitor analysis, the operational plan and the financials, are those that generally keep a corporate view.

Leidos is just an example, other companies structured the document in the same way. Despite this way of organize a strategic plan or a presentation by business units is an unexpected result, it is important because it highlights that companies in the aerospace and defence industry use to do that. The idea is that corporations in this sector have business units that share elements as R&D, cost structure, manufacturing platforms and technologies, but they are substantially different and they have different customers. For instance, Leidos has the national security units, the health units and the engineering units. Leonardo – Finmeccanica has helicopters, aeronautics, defence and electronics security, defence systems, space and transportation, etc.

5.1 Results by Section

In addition to the results from the notes, there are the average values and the totals calculated by section. It means for each section of the framework used to compare the documents there is a total value and a mean for the content quality, for the tool quality, for the clearness, for the framework affinity and for the final value. The totals are just a sum of the votes by section. The average values instead are calculated considering only the boxes with a vote equal or greater than one.

The table below (Figure 40) shows the total values calculated by section for each category of vote. The colours from green to red point out the several levels of the evaluation. The red areas are those sections that took the less. Vice versa, the green areas are those sections that took higher votes.

Figure 40

n°	Sections	C.Q.	T.Q.	C.	F.A.	**F.V.**
1	Executive Summary	51	41	52	49	**48**
2	Industry Outlook	45	48	53	43	**47**
3	Competitors Analysis	14	16	15	18	**16**
4	The Strategy Pursued	66	51	63	69	**62**
5	Vision	50	40	46	40	**44**
6	Mission	56	46	49	42	**48**
7	Objectives	74	67	60	70	**68**
8	The Strategic Aims	98	78	83	86	**86**
9	Competitive Advantage	62	52	53	57	**56**
10	KSFs/KPIs/KVDs	77	69	75	81	**76**
11	Share Capital Structure	2	3	5	3	**3**
12	Office Location	38	36	41	42	**39**
13	Shareholding Structure	3	6	7	6	**6**
14	Management	26	25	25	26	**26**
15	Directors' Profiles	15	17	18	18	**17**
16	Management Team	11	12	13	13	**12**

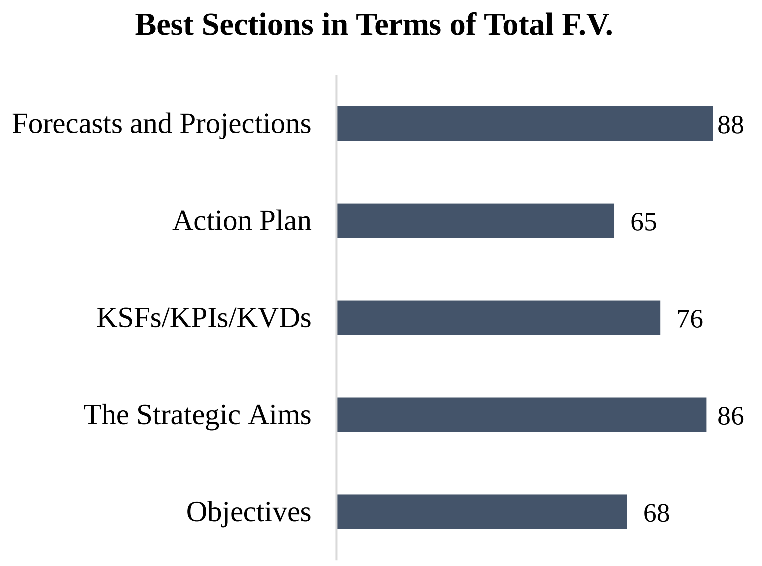
17	Customer Segments	18	21	19	20	**20**
18	Value Proposition	69	60	62	67	**65**
19	Channels	0	0	0	0	**0**
20	Customer Relationship	19	19	19	18	**19**
21	Revenue streams	1	1	1	1	**1**
22	Key Activities	60	53	50	53	**54**
23	Key Resources	40	36	33	37	**37**
24	Key Partners	20	15	19	19	**18**
25	Cost Structure	8	5	7	8	**7**
26	4 Ps	7	6	8	8	**7**
27	Brand	1	1	1	1	**1**
28	Budget	0	0	0	0	**0**
29	Action Plan	72	61	63	63	**65**
30	Purchase Plan	0	0	0	0	**0**
31	Production Plan	9	8	10	10	**9**
32	HR Plan	23	25	26	33	**27**
33	R&D Plan	27	27	28	33	**29**
34	Capital Budgeting	53	44	52	58	**52**
35	Cost Analysis	15	12	11	17	**14**
36	Forecasts and Projections	81	75	93	102	**88**
37	Balance Sheet	18	15	19	18	**18**
38	Income Statement	25	25	26	27	**26**
39	Cash Flow	31	29	30	33	**31**
40	Assumptions	48	44	52	56	**50**
41	Financial Ratios	34	31	35	34	**34**
42	Company Evaluation	1	1	1	3	**2**
43	Sensitivity Analysis	11	10	11	15	**12**

The results table shows all the sections of the framework used to analyse the documents. For each section there are the totals of the votes received in each specific section from all the companies. The colours help the reader to see what areas took the highest and the lowest votes. Source: personal elaboration

As expected, companies in the aerospace and defence industry tend to concentrate on areas like the objectives, the strategic aims, the value proposition, the key activities, the key resources, the action plan, the capital budget and the forecasts and projections. In the charts below there are summarized results in terms of total values and average votes. The mean is calculated on available votes. In other words, it is the mean of the votes from one to five of the related section, the boxes without a direct correspondence in the document (n.a.) were not considered in this calculus otherwise the average votes would be too low and not significant.

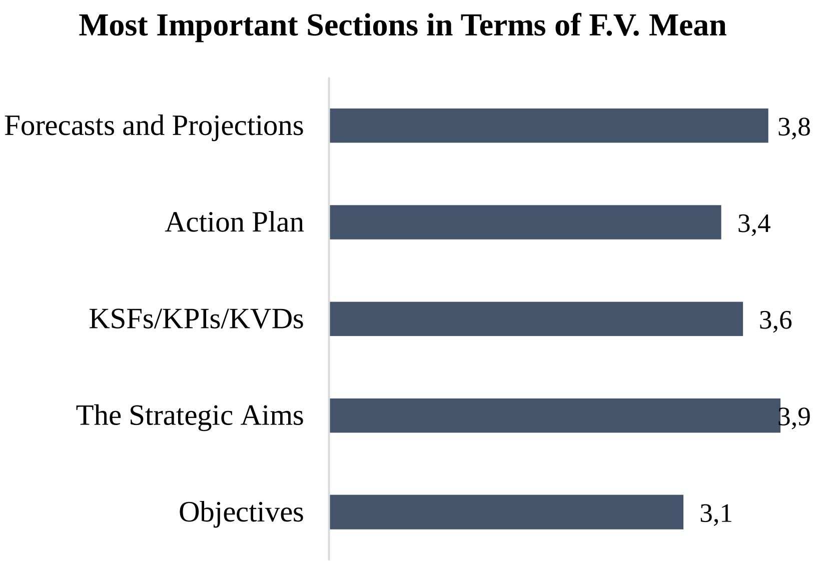
The results are similar (Figure 41 and Figure 42). The charts show the areas that received high votes both as total and mean on available are the same. As a result, the initial hypothesis is confirmed.

Figures 41



The chart shows the sections of the framework that received the most in term of total final value. Source: personal elaboration

Figure 42



The chart shows the sections of the framework that received the least in term of final value average. Source: personal elaboration

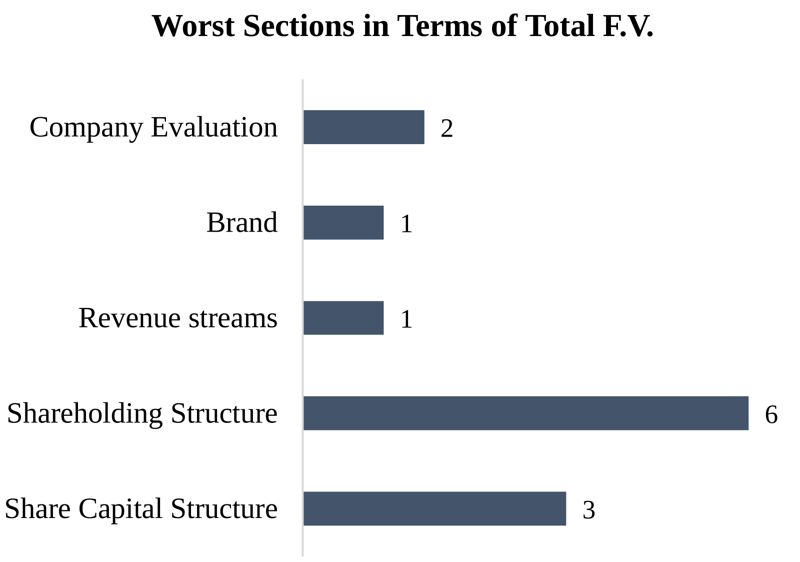
The areas of interest for stakeholders and for companies in the aerospace and defence industry is on what allow them to better present and the business current and forwards situation. Forecasts and projections and strategic aims are the sections that the companies value the most. They are useful in order to detect what are the purpose of the next year and for what reasons they will invest a determined amount of capital. Moreover, what are the projections? Are they feasible? Is the plan based on a solid structure? How far the company wants to go? What are the leverages they are going to use? How are the company going to spend the investors' money? These are some of the questions readers want to know. Equally important, the action plan and the objectives are fundamental in order to deeply understand how the company is going to operate and for what. What are the specific aims? In industry like that details about the operational actions and the drivers of the decision making process (understand perfectly what are the steps and the choices the company is going to make) are essential. The costs of mistakes, the risks people bear, the safety, the security of a country and the investment for launching a satellite are some examples of how dangerous the consequences might be. Investors and other stakeholders want things to be clear.

Value proposition, key activities, key resources are as necessary as the above mentioned sections. They are immediately after the action plan in terms of final vote. The received respectively sixty-five, fifty-four and thirty-seven. They result to be very detailed sections, all the companies evaluated used a large amount of graphical tool and descriptions in order to well define the three items. Actually they use to merge value proposition, activities and resources sections. Most of the firms use three to ten slides with tables, charts, bullet points and pictures in order to describe in details their offers in connection with the key resources and activities that allow them to generate the offer itself. Obviously the reasons of this fashion is rooted in what is stated in the hypothesis. Again the expectations are confirmed. Since the industry is characterised by high levels of complexity, by high levels of specialisation, by high level of risk and has a big impact on society and people, the interest of stakeholders focuses on details and technical issues (products and services related).

In contrast, the sections with the lowest level of vote are: company evaluation, marketing areas, revenues stream, shareholding structure, share capital structure, production plan, key partners, management team and directors profile.

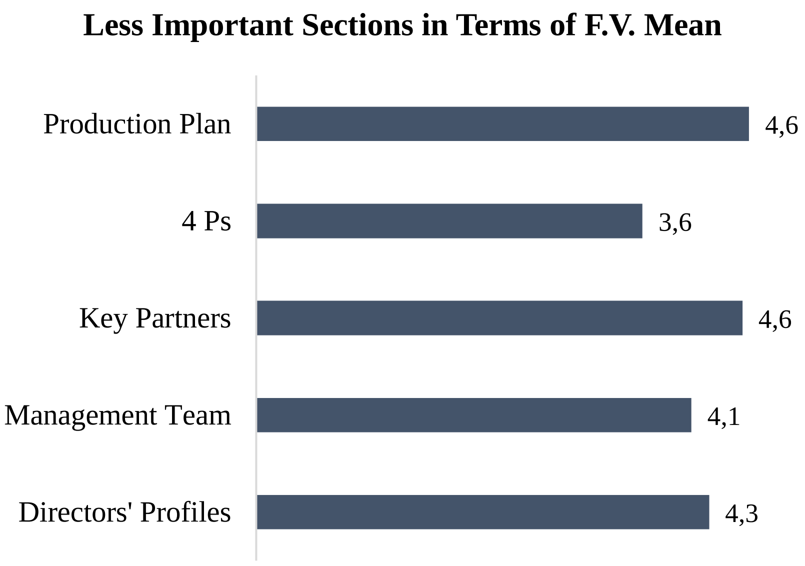
In the charts (Figure 43 and Figure 44) below there are summarized results in terms of total values and average votes. The mean is calculated on available votes. In other word, it is the mean of the votes from one to five of the related section, the boxes without a direct correspondence in the document (n.a.) were not considered in this calculus otherwise the average votes would be too low and not significant.

Figure 43



The chart shows the sections of the framework that received the less in term of total final value. Source: personal elaboration

Figure 44



The chart shows the sections of the framework that received the least in term of final value average. Source: personal elaboration

Actually these results are a little bit deviating from what stated in the beginning. The expectations were about to find the lowest values in marketing, human resources, organisation and accounting. Just marketing and organisation are in line with the initial hypothesis that is: since most of the companies operate in the business to business market and since there are so much attention on forecast, strategies, actions, products and activities, they will focus less on topics that are less effective in the decision making process and do not impact on technical risks.

Furthermore, the vision and the mission have a quite high evaluation. This is probably due to the relatively easiness of thinking about these two sections, even though they actually are very important elements for all the plan, they are a sort of guideline to follow. In other words, big companies that have been in the market for years and sometime for decades, already know what their mission and vision are. They have no problem to define themselves and to decide what is the direction to take. They have been doing it since they were founded.

Other unexpected results come from the industry outlook, the strategies pursued, the competitive advantage, the office location and the cost structure. Almost all of them end up with a quite high evaluations and of course they were not expected to be such relevant sections. Probably the historical data is an element influencing the investors in any case. No matter the industry, past performances are always a good way to persuade readers. Likewise, the competitive advantage allows organisations to put themselves against the average market agents. This section tells the reader why the business is better than the others and what are the elements composing the success formula. Nobody in every industry should miss this step.

Meanwhile, what seems to be relevant and it was not considered in the hypothesis is the industry outlook. Some companies dedicate up to five slides to describe the economic situation in the A&D sector. The slides are usually organised with charts and graphical representations. The information is always about the current and the future directions. The curious thing is that these industry analyses are kind of restricted to specific niche trends (for instance they talk about the terrorism threats, about conflicts in specific areas, about laws, regulations, commercial flights, externalisations, government expenditures, defence departments, specific space missions, etc.). Therefore, the influence of those trends described in the outlook must be extremely powerful. As a result, they determine the shape of the aerospace and defence industry and the choices of companies.

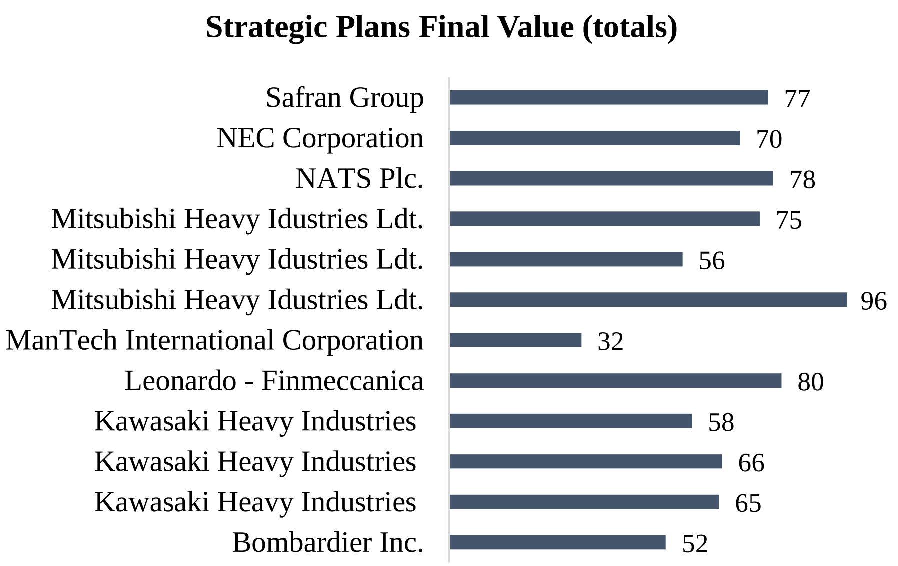
The other unexpected high valued section is the office location. Apparently companies in the A&D industry attribute relevance to the localization of their facilities. This could be lead back to the manufacturing process and to the type of products these firms produce. The location might be a cardinal element for costs, resources and personnel. Eventually, the cost structure was expected to receive high votes since aerospace and defence organisations typically have a large amount of fix costs and investment, conversely it received seven as a total final value.

The remaining sections received an average evaluation, they stand in the white areas of the tables. They are the management part, the human resources plan, the research and development plan, the income statement, the cash flow, the assumptions and finally the financial rations.

5.2 Results by Company

Through the organisation if results by company is possible to get the differences between type of document (strategic plan and invertors day presentation) and to get what are the relations between the several firms analysed. The charts below (Figure 45, Figure 46 and Figure 47) are a summary of the totals values by companies.

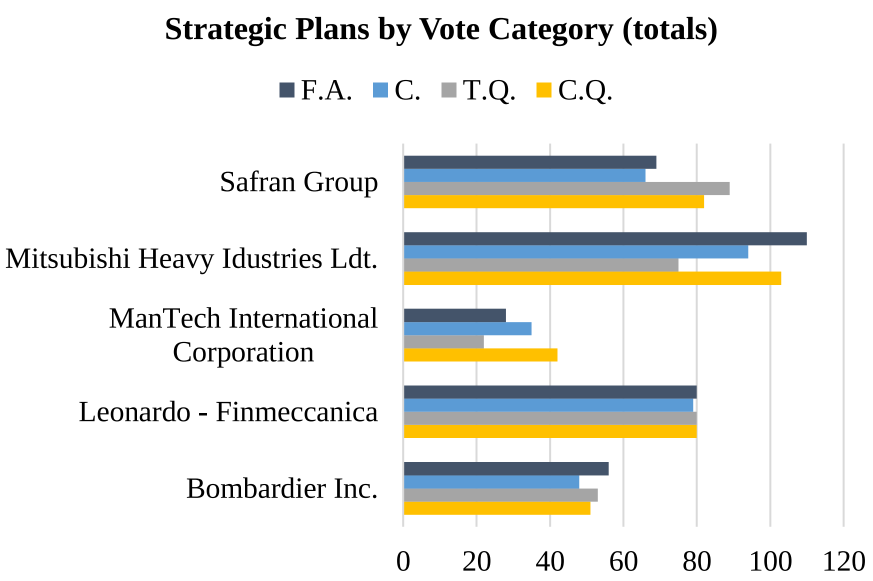
Figure 45



The chart shows the final value received in each section (as a summation) by each company that has a strategic plan. Source: personal elaboration

The first thing that should be noted is the differences between companies. Mitsubishi for instance has a greater variance during the years than Kawasaki that instead is more stable. Leonardo is the second company in terms of final value and ManTech International Corporation instead is the worst with thirty-two points in final value.

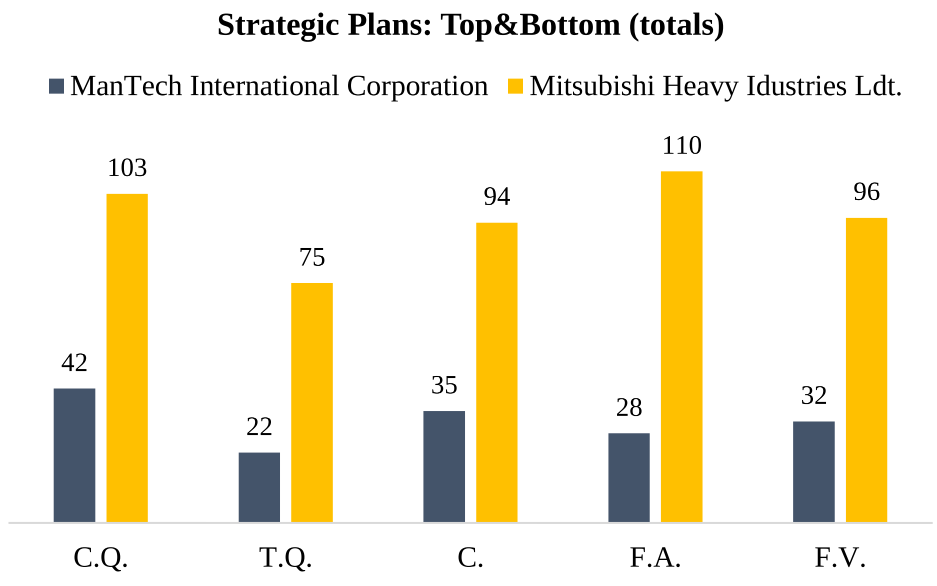
Figure 46



The chart divided the total vote by categories for the three best and two worst companies with the strategic plan. Source: personal elaboration

Afterwards, the chart above shows the three best and two worst strategic plans in details. It is possible to see in which areas they value the most. Mitsubishi for example is very good in framework affinity and content quality. Meanwhile, Leonardo does not move from eighty for each category. At the same time, Safran Group has a good level of tools quality. It means this company enrich its strategic plans with bar charts, pie charts, tables and other graphical representations in order to explain the contents. ManTech International Corporation is the only one that has a clearness factor higher than more than one of the other categories. The strategic plan of ManTech is a written document, very detailed and full of information. Unfortunately, what it gains from the clearness is lost in the tool quality and in the framework affinity.

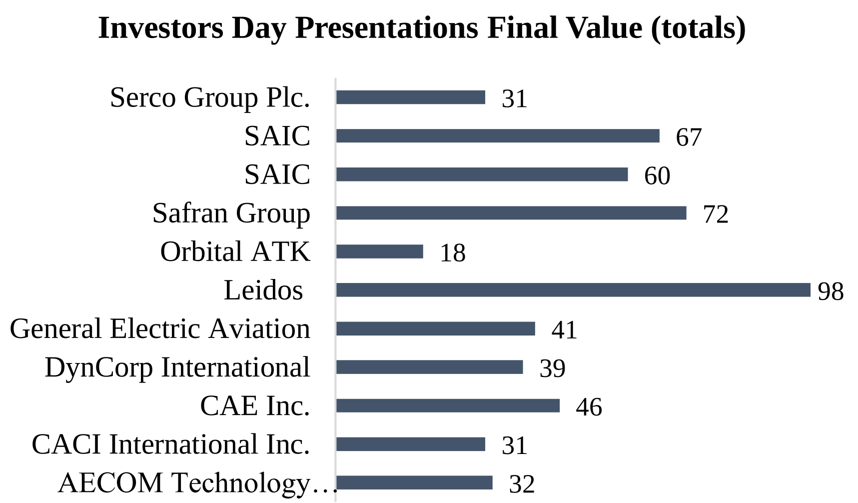
Figure 47



The chart shows the total values divided by categories for the best one and the worst one company that has a strategic plan. Source: personal elaboration

What has been said for the strategic plans can be said for the investors day presentations. The next charts (Figure 48, Figure 49 and Figure 50) express the same type of results but they are about the presentations, the other kind of document object of this research.

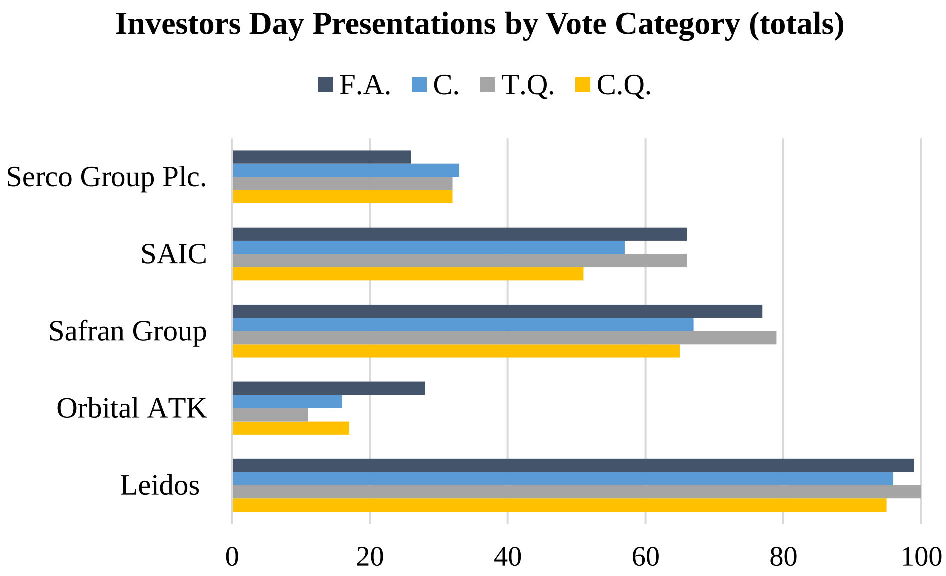
Figure 48



The chart shows the final value received in each section (as a summation) by each company that has an investors day presentation. Source: personal elaboration

The differences here are greater than in the strategic plan. Starting from Leidos and landing on Orbital ATK. Furthermore, there are Serco Group, CACI International and AECOM Technology Corporation with final values that are around thirty and there are SAIC and Safran with final values that are around sixty and seventy.

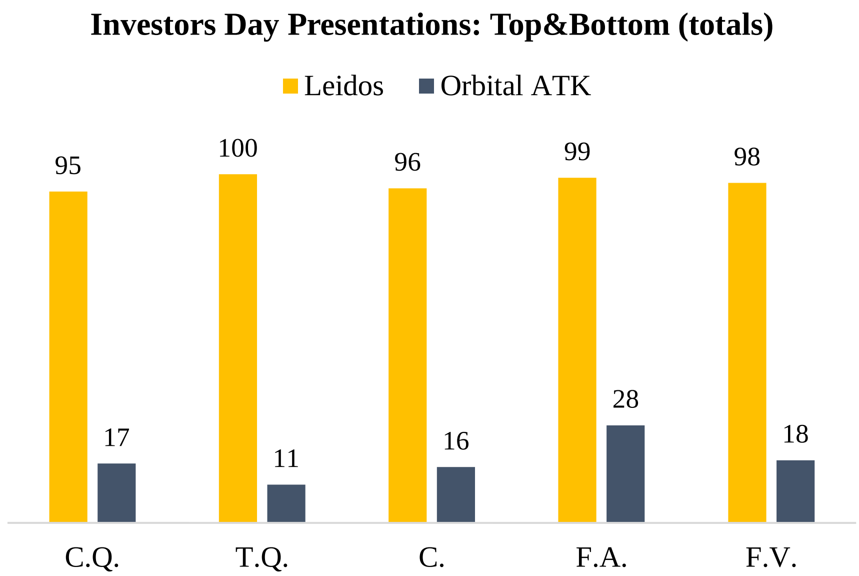
Figure 49



The chart divided the total vote by categories for the three best and two worst companies with the investors day presentation. Source: personal elaboration

Moreover, looking at the details of the three best and two worst investors day presentations there are companies like Safran and SAIC that have a good level of framework affinity and tools quality. On the other hand, Serco is more homogenous among vote categories and Orbital ATK is more heterogeneous. Further, Leidos has amazing values for each category. In the table below is possible to see how far this company arrived. In fact, if there are four categories, six possible votes (from zero to five), forty-three sections of the framework and the final value is calculated as the mean of the four vote categories, the highest total final value achievable for a document is two hundred fifteen. As a result, considering all the sections that in general received a zero and that the highest value is one hundred ten reached by Mitsubishi in framework affinity, the presentation of Leidos with all the four categories above the ninety-five is quite remarkable.

Figure 50



The chart shows the total values divided by categories for the best one and the worst one company that has an investors day presentation. Source: personal elaboration

Afterwards, the difference between the investors day presentation and the strategic plan is the second thing that should be noted. The final values move away from themselves for approximately ten to twenty points. Only Leidos has an evaluation higher enough to be compared with strategic plan. Actually, it is the company that got the highest final value followed by Mitsubishi and Leonardo – Finmeccanica. The other presentations have values around thirty-five, just three of them go from sixty to seventy. However, the strategic plans received values that stay around sixty and at least four them go beyond seventy. The correlation between the characteristics of the documents and the final values might help in explaining why there are these differences. The table below (Figure 51) shows the final values for each companies, the type of document, the length and the time span covered by the plans.

Figure 51

n°	ID	Name	F.V.	N° of Years	N° of Slides
1	I.D.P.1	AECOM Technology Corporation	32	3	20
2	I.D.P.2	CACI International Inc.	31	1	39
3	I.D.P.3	CAE Inc.	46	1	40
4	I.D.P.4	DynCorp International	39	1	27
5	I.D.P.5	General Electric Aviation	41	2	46
6	I.D.P.6	Leidos	98	1	105
7	I.D.P.7	Orbital ATK	18	1	14
8	I.D.P.8	Safran Group	72	5	34
9	I.D.P.9	SAIC	60	1	44
10	I.D.P.10	SAIC	67	1	50
11	I.D.P.11	Serco Group Plc.	31	1	16
12	S.P.1	Bombardier Inc.	52	2	76
13	S.P.2	Kawasaki Heavy Industries	65	3	41
14	S.P.3	Kawasaki Heavy Industries	66	3	55
15	S.P.4	Kawasaki Heavy Industries	58	5	41
16	S.P.5	Leonardo - Finmeccanica	80	5	64
17	S.P.6	ManTech International Corporation	32	3	124
18	S.P.7	Mitsubishi Heavy Idustries Ldt.	96	3	37
19	S.P.8	Mitsubishi Heavy Idustries Ldt.	56	3	34
20	S.P.9	Mitsubishi Heavy Idustries Ldt.	75	3	59
21	S.P.10	NATS Plc.	78	10	50
22	S.P.11	NEC Corporation	70	3	37
23	S.P.12	Safran Group	77	5	128

The table shows the company's names, type of documents, covered years, number of pages and final values (totals). Source: personal elaboration

Therefore, there are the correlations between features. Although the first correlation is not relevant, the third and in particular the second are indeed significant (Figure 52).

Figure 52

Correlations		
Correlation n° of slides and n° of years		0,17226
Correlation n° of years and F.V.		0,42022
Correlation F.V. and n° of slide		0,35535

The table shows the correlation between the number of slides and the years covered. The year and the final value. And finally, the final value and the number of slide. Source: personal elaboration

It means the final values of the documents will be higher, if the number of years is higher. But, what does explain that phenomena? With a lower number of years to cover and to explain, companies are less committed in preparing a plan or at least pay less attention in the way they present information. This could be an explanation and also it fits with the initial hypothesis about the investors day presentations. In fact, they were expected to receive a lower final value than the strategic plans and the reason was expected to be that they are structured on a short-term base and they use to be handled for a shorter period of time that the other type of document. And that is what actually happened. The lower the years, the lower the commitment, the lower the quality of the document, the lower final value.

These differences between the two type of documents were tested also from the variance point of view. In fact, the ANOVA (analysis of variance) helped in understanding the significance of the differences in the final values of strategic plan and presentation. But, what is ANOVA? In statistics it is a collection of models used in order to study the means and the variation from them of two or more groups. It could be seen as a generalisation of the t-test because the ANOVAs usually are used on several groups rather than only two. In the case of strategic plans and presentations the single factor ANOVA test was used. The null hypothesis stated that the differences between the means of the groups was zero, the alpha was settle at 0,05. Figure 53 shows the results.

Figure 53

Anova: single factor						
Summary						
Groups	*Count*	*Sum*	*Average*	*Variance*		
Presentation	11	533	48	540		
Strategic plan	12	802	67	265		
ANOVA						
Source of variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between groups	1934	1	1934	4,885	0,038	4,325
Within groups	8313	21	396			
Total	10247	22				

The table shows the results of the single factor ANOVA test. The analysis focuses on the final values of the strategic plans and the presentations. The two type of documents represent the two group object of the statistical test. Source: personal elaboration

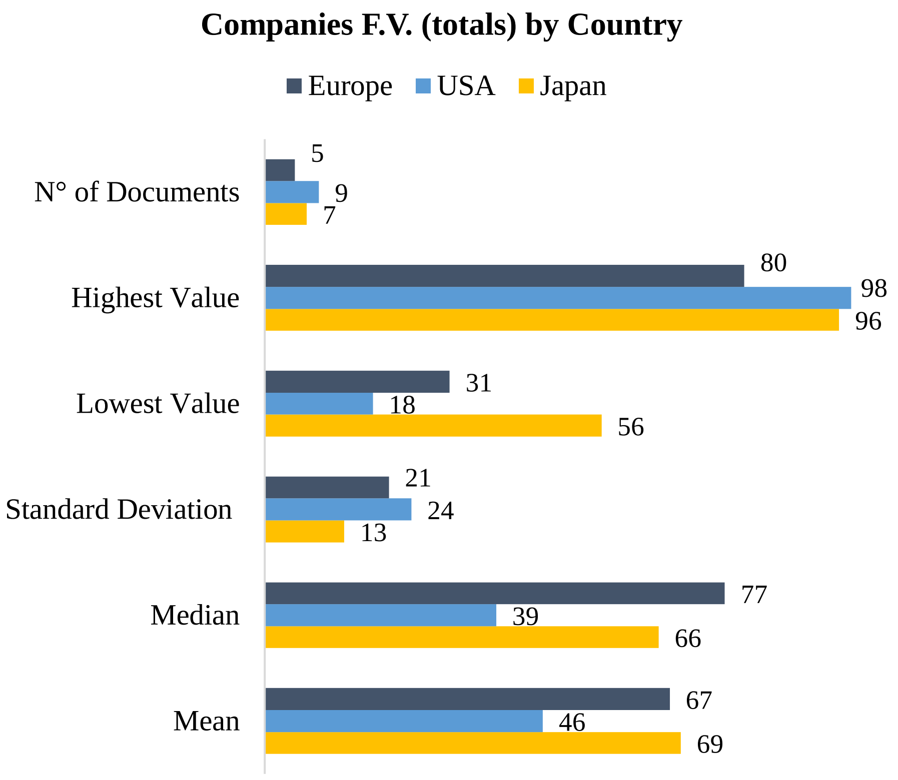
Two are the elements that confirms the hypothesis. First the P-value, it is lower than 0,05 (alpha). It allows the rejection of the null hypothesis. It means the average values of the two sample are significantly different. Second, the F and the F critical. The first one is grater that the second one. Again, it means the null hypothesis is rejected.

So, the difference between strategic plan and presentation are clear and also explained. The next step will be to understand what could be the differences between countries in using these tools.

5.3 Results by Country

Another way to combine the results and to look at them differently is to divide the documents by geographical areas. The chart (Figure 54) below describe the results dividing them between European companies, American companies and Japanese companies.

Figure 54



The chart shows the final values (total) divided by country. There are also the number of documents for each region, the highest and the lowest value, the standard deviation, the median and the mean. Source: personal elaboration

The differences between countries are significant, in particular for what concern the USA. Its mean value is basically the lowest while Europe and Japan have mean values that are around seventy. The reasons are related with the type of document. Almost all the investors day presentations come from an American company and it has already been explained why such presentations got the lowest values. On the other hand, the USA have the greatest number of documents analysed. However, what is interesting is the standard deviation (it explains how much the single values differ from the mean of themselves). In fact, Leidos stands out with its ninety-eight points but on the other side there is Orbital ATK with eighteen points. They both are American companies and they both contribute to generate a USA standard deviation of twenty-four points. It means American companies have the greatest variability in document evaluation. In addition, Europe differs from Japan in terms of lowest value. Japan companies result to be better that European and American in writing a strategic plan. As a result, the standard deviation of Japanese companies is very low, almost half the USA standard deviation.

Anyhow, it is possible to better define the differences observed among countries. As for the final values analysed by company, the final values divided by countries were used to generate an ANOVA test. The difference here is the number of group considered. While the samples previously considered were two (strategic plan and presentation), now Japan, USA and Europe represent the groups. As a result, the analysis of variance is now less significant. In other words, it gives the possibility to say that the means of the group are significantly different but it does not show specifically between what members the difference of the averages is more significant. That is why the ANOVA requires a two-sample assuming unequal variances test (see Figure 55 and Figure 56).

Figure 55

Anova: single factor						
Summary						
Groups	*Count*	*Sum*	*Average*	*Variance*		
Japan	7	521	74	213		
USA	9	409	45	520		
Europe	5	354	71	584		
ANOVA						
Source of variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between groups	3920	2	1960	4,541	0,025	3,555
Within groups	7769	18	432			
Total	11689	20				

The table shows the results of the single factor ANOVA test. The analysis focuses on the final values of the strategic plans and the presentations. The two type of documents represent the two group object of the statistical test. Source: personal elaboration

The ANOVA test shows a P-value lower that the alpha (0,05) and a F that is greater than he F critical. Therefore, the null hypothesis is rejected.

Figure 56

Test t: two sample assuming different variances		
	Japan	USA
Average	74	45
Variance	213	520
Observations	7	9
Expected average difference	0	
df	14	
Stat t	3,087	
P(T<=t)	0,004	
t critical one tail	1,761	
P(T<=t) two tails	0,008	
t critical two tails	2,145	

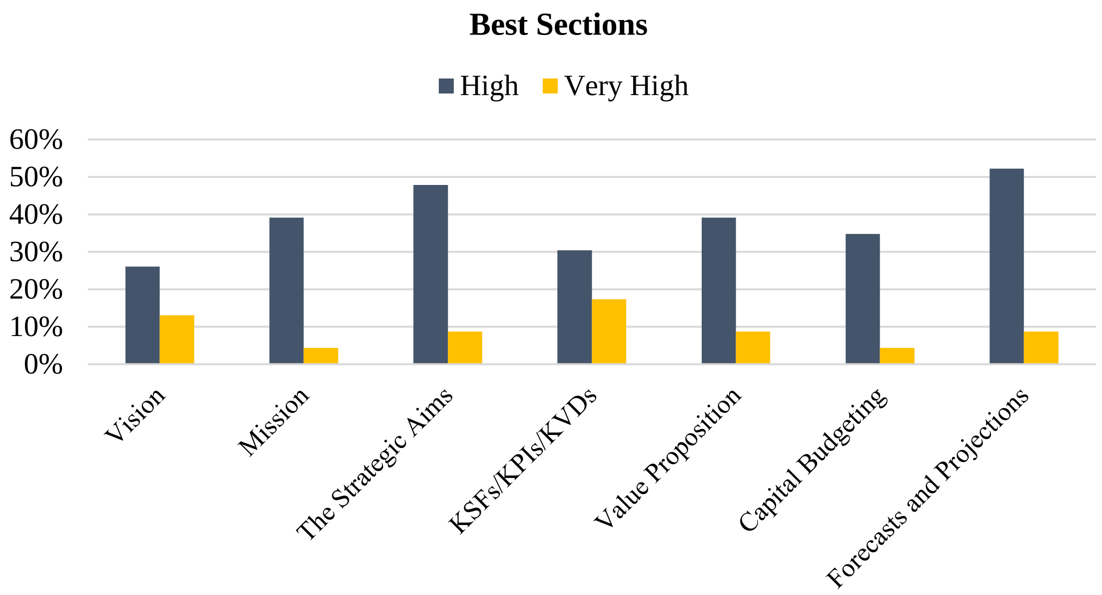
The table shows the results of the two-sample assuming unequal variances test. The analysis focuses on the final values of Japanese companies and USA companies. Source: personal elaboration

The test t proofs where the most significant differences are, between American companies and Japanese companies. As a result, the initial hypothesis is confirmed and the results are in line with the observation discussed above.

5.4 Combined Results

Finally, what was done in this research is to combine the results by section with the results by companies. In other words, for each section was calculated the times a single vote (from 0 to 5) had been given. Basically, was calculate how many companies received each vote in each section. Then, the results were divided by the number of documents in order to understand the rate at which a vote was given. The bar charts below (Figure 57) show these percentage of the best and the worst sections.

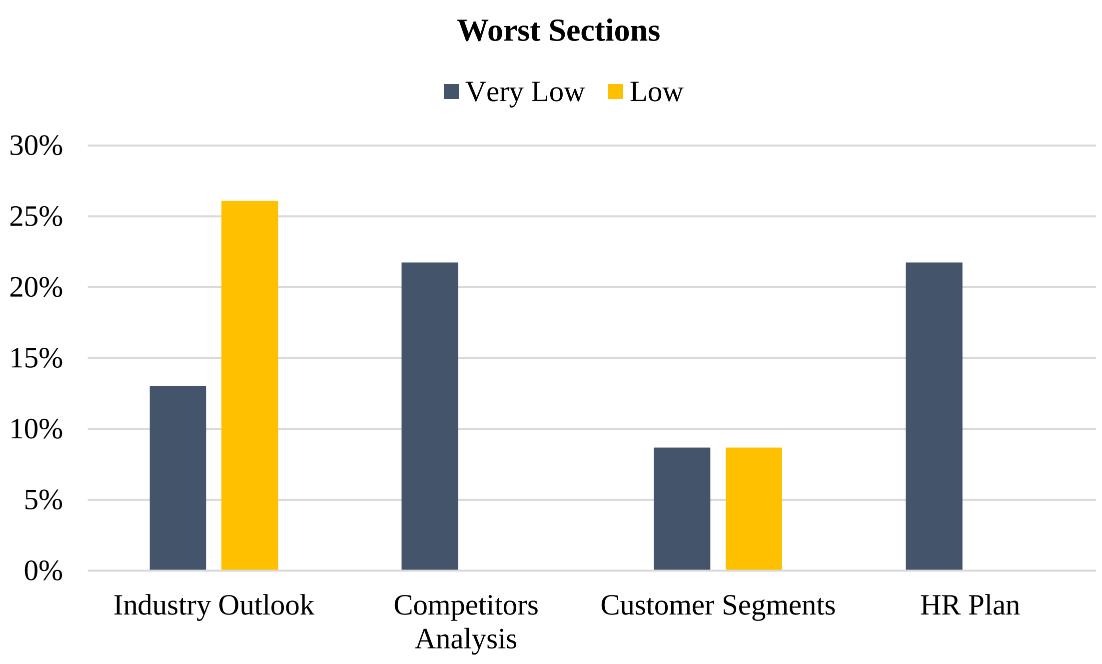
Figure 57



The chart shows the percentage of "high" and "very high" votes over the total possible votes received for seven sections (the best according with this percentage). Source: personal elaboration.

Differently from before, the combined results help to understand what are the sections that were evaluated the most in terms of sample size. The chars are not talking from a quality point of view but form a quantity point of view. For instance, if the industry outlook section gets a twenty-six percent in terms of "low" vote, it means the twenty-six percent of the documents has for the industry outlook section the vote "low" (or two). In this way it is easier to see which are the sections that received the greater number of zero, one, two, three, four or five. In the table the votes are restricted just on one, two, four and five because they are the most relevant. Thus, what is coming out form the charts is that the more than the fifty percent of the documents got a five as a vote in the forecasts and projections section. Obviously, this is in line with the expectations of the research. Again, almost fifty percent of the companies got a very high evaluation in the strategic aims, forty and thirty-five percent in the value proposition and in the capital budgeting respectively. As a result, this important table confirms the discoveries presented before because it gives information also on the frequency of the votes. In other words, since the previous tables and charts are based on final values totals (summations), the frequency of the votes received by documents might be a distorting element. The effects of the frequency are more clear for the worst sections presented in the table below. Here there are the competitor analysis, the customers segment and the human resources plan that are shown in the bar chart below (Figure 58).

Figure 58



The chart shows the percentage of "low" and "very low" votes over the total possible votes received for seven sections (the worst according with this percentage). Source: personal elaboration

It is curious to see the total final values of these three sections. The first one got sixteen, the second one twenty and the third one twenty-seven. Basically they do not result too bad. So, how did they end up in the worst section charts? Well, it is simple. In a first moment they seem to be not too bad because of the total final value but looking at the frequency they appear to be the sections with the most number of negative votes. Actually they are the sections that companies do worse. However, this conclusion does not take into account the fact that if companies do not receive a vote (so they received n.a. in the description and zero I the evaluation) for a specific section, it means they actually do not care at all about this specific section. As a result, what is presented before is confirmed and enriched thanks to these last two bar charts.

Eventually, there are some sections that are not taken into consideration by companies (Figure 59). Basically, channels, budget (marketing) and the purchase plan do not exist in the document analysed. Companies and stakeholders in the aerospace and defence industry are simply not interested in these areas of the strategic plan.

Figure 59

No Data Available					
Channels	**C.Q.**	**T.Q.**	**C.**	**F.A.**	**F.V.**
Means	0,0	0,0	0,0	0,0	0,0
Means on Available	-	-	-	-	-
Variation	-	-	-	-	-
Budget	**C.Q.**	**T.Q.**	**C.**	**F.A.**	**F.V.**
Means	0,0	0,0	0,0	0,0	0,0
Means on Available	-	-	-	-	-
Variation	-	-	-	-	-
Purchase Plan	**C.Q.**	**T.Q.**	**C.**	**F.A.**	**F.V.**
Means	0,0	0,0	0,0	0,0	0,0
Means on Available	-	-	-	-	-
Variation	-	-	-	-	-

The table shows the sections that are not present in each document analysed. No one companies have these three sections. Source: personal elaboration

6. Conclusions

The aerospace and defence is not a common industry to be analysed. Its products are complex and variable. The internal markets could be different between them in terms of clients, services and product. Eventually, it is not so easy to operate in this industry. The capital requirements and the technical skills are above the average and the competition is ferocious.

As a result, stakeholders are asking for more and more information in order to better understand what is going on with the related company. Unfortunately, this information is not always as clear as expected or complete enough to satisfy the stakeholders' wants. Is necessary to find a way to describe better and to clarify what the characteristics of the communication models are in the aerospace and defence industry.

This study is amid to:

- compere how the voluntary disclosure is provided
- what the differences between documents are
- understand the quality, the quantity and the utility of these communication tools
- figure out what the differences between countries (Europe, USA and Japan) are.

In particular, in this study the disclosure is about companies' strategy, operation and financial data. The research focuses on the characteristics of the information presented in the strategic plans and in the investors day presentations in terms of content quality, tools used, clearness and affinity with the theoretical framework[44]. Each of these four element was chosen because of the final goal of understanding the communication models used in the aerospace and defence industry.

The purpose is to evaluate and test three main hypothesises:

- Companies in the aerospace and defence industry focus on decision making drivers, products and financial forecast, rather than marketing and organization.
- Presentations for investors day are written with less details and accuracy than the strategic plan
- USA documentation is mainly composed by presentation rather than strategic plan. So, they have a lower final evaluation.

[44] The theoretical framework refers to Professional Accountant in Business Committee, 2006. It is presented in chapter four.

The idea is that companies with high level of capital invested, with a rigid cost structure, with complex products that require high educated personnel, and finally, companies operating in the B2B market, are expected to focus on technical parts of the plan, investments, financial forecasts and decision making aspects. Investors should be interested in what is critical for the business performances. Besides, parts as organisational structure, marketing, HR and accounting might be considered less important for this A&D companies. As a result, they are expected to receive a lower evaluation in these areas given the lower quality of the tools and the contents.

Moreover, the different logic guiding strategic plans and presentations are expected to result in terms of different level of final evaluation. The companies are assumed to attribute different weight to these documents. The plan is more detailed and usually covers a longer time period than the presentation. Correspondingly, since the presentation is for investors only, the information should be less detailed (the goal is to persuade the audience) but focus just on the essentials like financials and objectives. Finally, following the theory, the American companies are expected to work on presentation mainly. As a result, the final evaluation of USA is expected to be lower than the other countries.

The research was structured as follow:

- First, the website “defensenews.com”. It provided the list of the top one hundred companies in the aerospace and defence industry in terms of online presence and website quality[45].
- The next step was to search website by website the documents for the analysis, given the top one hundred list of A&D firms.
- Thereafter, all the twenty-three documents were read in order to have a first idea of the subjects of the comparison.
- Then, the focus moved on the comparative table and on the components of it. The building process of this tool started with the IFAC (International Federation of Accountants). They provide a description of all the parts of a business plan and how to practically write such document. In spite of the differences between the business plan and the strategic plan (the first one is usually used for start-ups companies or companies in the early stages of their life in order to raise capitals for the initial investment; on the other hand, the second one is usually used lately in the lifecycle of a firm, the purpose

[45] See chapter 1

is to prepare a plan for new investments, new strategies, new products, new markets), they both are voluntary disclosure documents and who publish them does not follow a compulsory frame. Thus, it was possible to adjust the theoretical model into something easier to manage in order to compare all the twenty-three documents.

- Once the comparative framework was ready all the parts were fulfilled. The result is an excel file with four thousand nine hundred forty-five boxes.
- Then, after the descriptive part and after the evaluation (the evaluation phase consist of giving all the specific votes for each section of the framework for each company), the calculations of the general mean by section and the totals by company were generated.
- Eventually, the results were crossed and organized in other more understandable and more manageable tables and charts.

The first part of the results is about the notes section. They explain briefly the characteristics of the corresponding document and thy give a first idea of what the plan is about. Although most of the documents were written in order to describe the strategic view of the company, there are some cases in which the aim is a little bit more specific. The point is, voluntary disclosure gives companies the freedom to communicate in the way they prefer what they are doing.

Another aspect arising out of the notes is the tendency of the companies to repeat parts of their strategic plans of presentations for each business units. Looking at the frameworks used, the business, the organizational structure and the action plan, are the sections that use to be divided by business units. The remaining parts, the executive summary, the industry outlook, competitor analysis, the operational plan and the financials, are those that generally keep a corporate view. Despite this way of organize a strategic plan or a presentation by business units is an unexpected result, it is important because it highlights that companies in the aerospace and defence industry use to do that. The idea is that corporations in this sector have business units that share elements as R&D, cost structure, manufacturing platforms and technologies, but they are substantially different and they have different customers. For instance, Leidos has the national security units, the health units and the engineering units. Leonardo – Finmeccanica has helicopters, aeronautics, defence and electronics security, defence systems, space and transportation, etc.

In addition to the results from the notes, there are the average values and the totals calculated by section. The totals are just a sum of the votes by section. The average values instead are calculated considering only the boxes with a vote equal or greater than one.

Concerning the other type of results, in Figure 60 below is presented a summary of them. The table is just a recap of what is written in chapter four.

Figure 60

Summary

		Expected Results		Unexpected Results
		Positive Results	**Negative Results**	
Results by Section	**What**	Objectives, strategic aims, value proposition, key activities, key resources, action plan, capital budget and forecasts and projections. Value proposition, key activities, key resources are as necessary as the above mentioned sections.	Company evaluation, marketing areas, revenues stream, shareholding structure, share capital structure, production plan, key partners, management team and directors profile.	Industry outlook, strategies pursued, competitive advantage, office location and cost structure.
	Why	They result to be very detailed sections, all the companies evaluated used a large amount of graphical tool and descriptions.	Not detailed areas. The tools and the information provided are not sufficient to explain properly the company situation.	The historical data is an element influencing the investors in any case. Likewise, the competitive advantage. The influence of the industry outlook must be extremely powerful. As a result, they determine the shape of the aerospace and defence industry and the choices of companies. The location might be a cardinal element for costs, resources and personnel.
Results by Company	**What**	Difference between the investors day presentation and the strategic plan.	n.a.	n.a.

	Why	The presentations have values around thirty-five, just three of them go from sixty to seventy. The strategic plans received values that stay around sixty and at least four them go beyond seventy. The results are strengthened by the ANOVA test that confirm the significance of the observations and the related hypothesis.	n.a.	n.a.
Results by Country	**What**	The differences are significant, in particular for what concern the USA. The ANOVA test and the test t highlight these differences and determine the significance of the results	n.a.	n.a.
	Why	Almost all the investors day presentations come from an American company. Concerning the standard deviation: American companies have the greatest variability in document evaluation. In addition, Europe differs from Japan in terms of lowest value. Japan companies result to be better that European and American in writing a strategic plan.	n.a.	n.a.
Combined Results	**What**	n.a	Competitor analysis, customers segment and human resources plan.	Looking at the frequency they appear to be the sections with the most number of negative votes. Actually they are the sections that companies do worse.

	Why	n.a	In a first moment they seem to be not too bad because of the total final value.	If companies do not receive a vote (so they received n.a. in the description and zero I the evaluation) for a specific section, it means they actually do not care at all about this specific section. As a result, what is presented before is confirmed and enriched thanks to these last two bar charts.

The table shows the results presented in chapter four. Source: personal elaboration

Therefore, the research shows what are the main characteristics that companies in this industry recognise as the most relevant for their planning activity. It has already been said investors and stakeholders need guarantees and concrete proofs about organisations. The more articulated the business, the more articulated the information presented. The strategic aims, the value proposition, the forecasts and the other most valuable sections, reflect perfectly as expected the main features of the aerospace and defence industry.

In the same way, the tested documents reflect the characteristics of the industry also in terms of less important sections for companies. The marketing sections, the channels, the purchase plan, the organisation section and the others, are basically considered not determinant for the business evaluation. The risk of this particular industry seems to belong to other features.

Furthermore, the expectations about the quality and the level of details of the two documents have been confirmed. The presentation ad actually less detailed and less accurate than the strategic plans. Additionally, it has been proved that in the USA companies tend to use the investors day presentations rather than the strategic plan, as predicted by the theory.

Eventually, given the unpredictability and the uncertainty that characterise some sectors, companies need to be more and more transparent and clear towards their audience. The market itself is asking for detailed information. The organisations voluntary disclosure is a key tool for the communication, both internal and external, that should be understood better.

The limits of this research are related with the number of documents used and the theoretical framework from where the study start. The observation made are twenty-one divided in two groups, the strategic plan and the investors day presentation. Future research could analyse a greater number of documents companies maybe comparing them among years. The other limit is about the framework. It has already been said the tool is for business plan of small medium enterprise. Since almost all the companies in the analysis are listed and most of them are among the biggest group in the world, seems not appropriate to use this specific framework as a benchmark. In future research could be develop a dedicated framework for business plan and for strategic plan as well that can be used for big group. In any cases, the aerospace and defence industry is not adequately studied and defined. There is the need of enhance the current knowledge and the level of shared information. This research helps in clarify some aspects of the aerospace and defence industry but it is just a starting point. Other fields have to be explained and analysed in order to facilitate the communication and the information sharing process among agents to allow the evolution and the improvement of the global economic system.

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8. Appendixes

Appendix A): abbreviations

Acronym	Meaning
ASEAN	association of south-east Asian nations
BEP	break-even point
BU	business unit
C.	clearness
C.Q.	content quality
CAGR	compound annual growth rate
CF	cash flow
COE	centre of excellence
CTO	chief technology officer
DoD	department of defence
EPS	earnings per share
F.A.	framework affinity
F.V.	final value
FCF	free cash flow
FFS	full flight simulator
I.D.P	investors day presentation
ICF	investment cash flow
ICT	information and communication technology
ID	identification
IDIQ	indefinite delivery/indefinite quantity
KPI	key performance indicator
KSF	key success factor
KVD	key value driver
l.a.d.	last available data
MoD	ministry of defence
MoED	ministry of economic development
n.a.	not available
O&M	operating and maintenance
OCF	operating cash flow
OCO	overseas contingency operations
ODASD	office of the deputy assistant secretary of defence
OFCF	operating free cash flow

RDT&E	research, development, test and evaluation
ROCE	return on capital employed
ROIC	return on invested capital
RUOE	real unit operating expenditure
S&P	standard and poor's
S.P.	strategic plan
SG&A	selling, general and administrative
SOI	internal index (unknown meaning)
SSE	safety significant event
T.Q.	tools quality

The table shows the acronym used in these research. Source: personal elaboration

Date	Currency	Exchange Rate
03/07/2016	C$ 1	$ 0,77
03/07/2016	¥ 1	$ 0,01
03/07/2016	€ 1	$ 1,11
03/07/2016	£ 1	$ 1,33

The table shows the exchange rates used in these research. Source: Google

Appendix B): results tables, personal elaboration

		C.Q.	T.Q.	C.	F.A.	F.V.
1	Executive Summary	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	2,2	1,8	2,3	2,1	**2,1**
	Means on Available	3,6	2,9	3,7	3,5	**3,4**
	Variation	1,4	1,1	1,5	1,4	**1,3**
2	Industry Outlook	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	2,0	2,1	2,3	1,9	**2,1**
	Means on Available	2,8	3,0	3,3	2,7	**3,0**
	Variation	0,9	0,9	1,0	0,8	**0,9**
3	Competitors Analysis	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,6	0,7	0,7	0,8	**0,7**
	Means on Available	2,0	2,3	2,1	2,6	**2,3**
	Variation	1,4	1,6	1,5	1,8	**1,6**
4	The Strategy Pursued	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	2,9	2,2	2,7	3,0	**2,7**
	Means on Available	3,5	2,7	3,3	3,6	**3,3**
	Variation	0,6	0,5	0,6	0,6	**0,6**
5	Vision	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	2,2	1,7	2,0	1,7	**1,9**
	Means on Available	5,0	4,0	4,6	4,0	**4,4**
	Variation	2,8	2,3	2,6	2,3	**2,5**
6	Mission	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	2,4	2,0	2,1	1,8	**2,1**
	Means on Available	4,3	3,5	3,8	3,2	**3,7**
	Variation	1,9	1,5	1,6	1,4	**1,6**
7	Objectives	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	3,2	2,9	2,6	3,0	**2,9**
	Means on Available	3,4	3,0	2,7	3,2	**3,1**
	Variation	0,1	0,1	0,1	0,1	**0,1**
8	The Strategic Aims	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	4,3	3,4	3,6	3,7	**3,8**
	Means on Available	4,5	3,5	3,8	3,9	**3,9**
	Variation	0,2	0,2	0,2	0,2	**0,2**
9	Competitive Advantage	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	2,7	2,3	2,3	2,5	**2,4**
	Means on Available	3,4	2,9	2,9	3,2	**3,1**
	Variation	0,7	0,6	0,6	0,7	**0,7**
10	KSFs/KPIs/KVDs	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	3,3	3,0	3,3	3,5	**3,3**
	Means on Available	3,7	3,3	3,6	3,9	**3,6**
	Variation	0,3	0,3	0,3	0,3	**0,3**
11	Share Capital Structure	C.Q.	T.Q.	C.	F.A.	**F.V.**

	Means	0,1	0,1	0,2	0,1	**0,1**
	Means on Available	2,0	3,0	5,0	3,0	**3,3**
	Variation	1,9	2,9	4,8	2,9	**3,1**
12	Office Location	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	1,7	1,6	1,8	1,8	**1,7**
	Means on Available	4,2	4,0	4,6	4,7	**4,4**
	Variation	2,6	2,4	2,8	2,8	**2,7**
13	Shareholding Structure	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,1	0,3	0,3	0,3	**0,2**
	Means on Available	1,5	3,0	3,5	3,0	**2,8**
	Variation	1,4	2,7	3,2	2,7	**2,5**
14	Management	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	1,1	1,1	1,1	1,1	**1,1**
	Means on Available	3,3	3,1	3,1	3,3	**3,2**
	Variation	2,1	2,0	2,0	2,1	**2,1**
15	Directors' Profiles	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,7	0,7	0,8	0,8	**0,7**
	Means on Available	3,8	4,3	4,5	4,5	**4,3**
	Variation	3,1	3,5	3,7	3,7	**3,5**
16	Management Team	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,5	0,5	0,6	0,6	**0,5**
	Means on Available	3,7	4,0	4,3	4,3	**4,1**
	Variation	3,2	3,5	3,8	3,8	**3,6**
17	Customer Segments	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,8	0,9	0,8	0,9	**0,8**
	Means on Available	2,6	3,0	2,7	2,9	**2,8**
	Variation	1,8	2,1	1,9	2,0	**1,9**
18	Value Proposition	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	3,0	2,6	2,7	2,9	**2,8**
	Means on Available	3,8	3,3	3,4	3,7	**3,6**
	Variation	0,8	0,7	0,7	0,8	**0,8**
19	Channels	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,0	0,0	0,0	0,0	**0,0**
	Means on Available	-	-	-	-	**-**
	Variation	-	-	-	-	**-**
20	Customer Relationship	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,8	0,8	0,8	0,8	**0,8**
	Means on Available	3,8	3,8	3,8	3,6	**3,8**
	Variation	3,0	3,0	3,0	2,8	**2,9**
21	Revenue streams	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,0	0,0	0,0	0,0	**0,0**
	Means on Available	1,0	1,0	1,0	1,0	**1,0**
	Variation	1,0	1,0	1,0	1,0	**1,0**
22	Key Activities	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	2,6	2,3	2,2	2,3	**2,3**

	Means on Available	4,0	3,5	3,3	3,5	**3,6**
	Variation	1,4	1,2	1,2	1,2	**1,3**
23	Key Resources	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	1,7	1,6	1,4	1,6	**1,6**
	Means on Available	4,0	3,6	3,3	3,7	**3,7**
	Variation	2,3	2,0	1,9	2,1	**2,1**
24	Key Partners	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,9	0,7	0,8	0,8	**0,8**
	Means on Available	5,0	3,8	4,8	4,8	**4,6**
	Variation	4,1	3,1	3,9	3,9	**3,8**
25	Cost Structure	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,3	0,2	0,3	0,3	**0,3**
	Means on Available	4,0	2,5	3,5	4,0	**3,5**
	Variation	3,7	2,3	3,2	3,7	**3,2**
26	4 Ps	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,3	0,3	0,3	0,3	**0,3**
	Means on Available	3,5	3,0	4,0	4,0	**3,6**
	Variation	3,2	2,7	3,7	3,7	**3,3**
27	Brand	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,0	0,0	0,0	0,0	**0,0**
	Means on Available	1,0	1,0	1,0	1,0	**1,0**
	Variation	1,0	1,0	1,0	1,0	**1,0**
28	Budget	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,0	0,0	0,0	0,0	**0,0**
	Means on Available	-	-	-	-	**-**
	Variation	-	-	-	-	**-**
29	Action Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	3,1	2,7	2,7	2,7	**2,8**
	Means on Available	3,8	3,2	3,3	3,3	**3,4**
	Variation	0,7	0,6	0,6	0,6	**0,6**
30	Purchase Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,0	0,0	0,0	0,0	**0,0**
	Means on Available	-	-	-	-	**-**
	Variation	-	-	-	-	**-**
31	Production Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,4	0,3	0,4	0,4	**0,4**
	Means on Available	4,5	4,0	5,0	5,0	**4,6**
	Variation	4,1	3,7	4,6	4,6	**4,2**
32	HR Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	1,0	1,1	1,1	1,4	**1,2**
	Means on Available	2,3	2,5	2,6	3,3	**2,7**
	Variation	1,3	1,4	1,5	1,9	**1,5**
33	R&D Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	1,2	1,2	1,2	1,4	**1,3**
	Means on Available	3,4	3,4	3,5	4,1	**3,6**

	Variation	2,2	2,2	2,3	2,7	**2,3**
34	Capital Budgeting	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	2,3	1,9	2,3	2,5	**2,3**
	Means on Available	3,5	2,9	3,5	3,9	**3,5**
	Variation	1,2	1,0	1,2	1,3	**1,2**
35	Cost Analysis	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,7	0,5	0,5	0,7	**0,6**
	Means on Available	3,8	3,0	2,8	4,3	**3,4**
	Variation	3,1	2,5	2,3	3,5	**2,8**
36	Forecasts and Projections	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	3,5	3,3	4,0	4,4	**3,8**
	Means on Available	3,5	3,3	4,0	4,4	**3,8**
	Variation	0,0	0,0	0,0	0,0	**0,0**
37	Balance Sheet	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,8	0,7	0,8	0,8	**0,8**
	Means on Available	3,0	2,5	3,2	3,0	**2,9**
	Variation	2,2	1,8	2,3	2,2	**2,2**
38	Income Statement	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	1,1	1,1	1,1	1,2	**1,1**
	Means on Available	3,6	3,6	3,7	3,9	**3,7**
	Variation	2,5	2,5	2,6	2,7	**2,6**
39	Cash Flow	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	1,3	1,3	1,3	1,4	**1,3**
	Means on Available	3,4	3,2	3,3	3,7	**3,4**
	Variation	2,1	2,0	2,0	2,2	**2,1**
40	Assumptions	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	2,1	1,9	2,3	2,4	**2,2**
	Means on Available	3,4	3,1	3,7	4,0	**3,6**
	Variation	1,3	1,2	1,5	1,6	**1,4**
41	Financial Ratios	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	1,5	1,3	1,5	1,5	**1,5**
	Means on Available	3,1	2,8	3,2	3,1	**3,0**
	Variation	1,6	1,5	1,7	1,6	**1,6**
42	Company Evaluation	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,0	0,0	0,0	0,1	**0,1**
	Means on Available	1,0	1,0	1,0	3,0	**1,5**
	Variation	1,0	1,0	1,0	2,9	**1,4**
43	Sensitivity Analysis	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,5	0,4	0,5	0,7	**0,5**
	Means on Available	2,8	2,5	2,8	3,8	**2,9**
	Variation	2,3	2,1	2,3	3,1	**2,4**

	Greatest n° of Data Available					
7	Objectives	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	3,2	2,9	2,6	3,0	**2,9**
	Means on Available	3,4	3,0	2,7	3,2	**3,1**
	Variation	0,1	0,1	0,1	0,1	**0,1**
8	The Strategic Aims	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	4,3	3,4	3,6	3,7	**3,8**
	Means on Available	4,5	3,5	3,8	3,9	**3,9**
	Variation	0,2	0,2	0,2	0,2	**0,2**
10	KSFs/KPIs/KVDs	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	3,3	3,0	3,3	3,5	**3,3**
	Means on Available	3,7	3,3	3,6	3,9	**3,6**
	Variation	0,3	0,3	0,3	0,3	**0,3**
29	Action Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	3,1	2,7	2,7	2,7	**2,8**
	Means on Available	3,8	3,2	3,3	3,3	**3,4**
	Variation	0,7	0,6	0,6	0,6	**0,6**
36	Forecasts and Projections	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	3,5	3,3	4,0	4,4	**3,8**
	Means on Available	3,5	3,3	4,0	4,4	**3,8**
	Variation	0,0	0,0	0,0	0,0	**0,0**

	Smallest n° of Data Available					
15	Directors' Profiles	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,7	0,7	0,8	0,8	**0,7**
	Means on Available	3,8	4,3	4,5	4,5	**4,3**
	Variation	3,1	3,5	3,7	3,7	**3,5**
16	Management Team	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,5	0,5	0,6	0,6	**0,5**
	Means on Available	3,7	4,0	4,3	4,3	**4,1**
	Variation	3,2	3,5	3,8	3,8	**3,6**
24	Key Partners	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,9	0,7	0,8	0,8	**0,8**
	Means on Available	5,0	3,8	4,8	4,8	**4,6**
	Variation	4,1	3,1	3,9	3,9	**3,8**
26	4 Ps	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,3	0,3	0,3	0,3	**0,3**
	Means on Available	3,5	3,0	4,0	4,0	**3,6**
	Variation	3,2	2,7	3,7	3,7	**3,3**
31	Production Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,4	0,3	0,4	0,4	**0,4**
	Means on Available	4,5	4,0	5,0	5,0	**4,6**
	Variation	4,1	3,7	4,6	4,6	**4,2**

	No Data Available					
19	Channels	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,0	0,0	0,0	0,0	**0,0**
	Means on Available	-	-	-	-	**-**
	Variation	-	-	-	-	**-**
28	Budget	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,0	0,0	0,0	0,0	**0,0**
	Means on Available	-	-	-	-	**-**
	Variation	-	-	-	-	**-**
30	Purchase Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
	Means	0,0	0,0	0,0	0,0	**0,0**
	Means on Available	-	-	-	-	**-**
	Variation	-	-	-	-	**-**

Totals

n°	ID	Name	C.Q.	T.Q.	C.	F.A.	F.V.	Time Span	N° of Years	N° of Slides
1	I.D.P.1	AECOM Technology Corporation	26	30	39	34	**32**	From 2014 to 2017	3	20
2	I.D.P.2	CACI International Inc.	29	29	35	30	**31**	From 2015 to 2016	1	39
3	I.D.P.3	CAE Inc.	44	51	43	46	**46**	From 2015 to 2016	1	40
4	I.D.P.4	DynCorp International	42	29	42	41	**39**	From 2015 to 2016	1	27
5	I.D.P.5	General Electric Aviation	48	35	37	44	**41**	From 2014 to 2016	2	46
6	I.D.P.6	Leidos	95	100	96	99	**98**	From 2013 to 2014	1	105
7	I.D.P.7	Orbital ATK	17	11	16	28	**18**	From 2015 to 2016	1	14
8	I.D.P.8	Safran Group	65	79	67	77	**72**	From 2015 to 2020	5	34
9	I.D.P.9	SAIC	51	66	57	66	**60**	From 2015 to 2016	1	44
10	I.D.P.10	SAIC	59	65	68	74	**67**	From 2013 to 2014	1	50
11	I.D.P.11	Serco Group Plc.	32	32	33	26	**31**	From 2014 to 2015	1	16
12	S.P.1	Bombardier Inc.	51	53	48	56	**52**	From 2014 to 2016	2	76
13	S.P.2	Kawasaki Heavy Industries	71	52	68	68	**65**	From 2012 to 2015	3	41
14	S.P.3	Kawasaki Heavy Industries	72	53	66	71	**66**	From 2009 to 2012	3	55
15	S.P.4	Kawasaki Heavy Industries	63	45	61	64	**58**	From 2005 to 2010	5	41
16	S.P.5	Leonardo - Finmeccanica	80	80	79	80	**80**	From 2014 to 2019	5	64
17	S.P.6	ManTech International Corporation	42	22	35	28	**32**	From 2012 to 2015	3	124
18	S.P.7	Mitsubishi Heavy Idustries Ldt.	103	75	94	110	**96**	From 2014 to 2017	3	37
19	S.P.8	Mitsubishi Heavy Idustries Ldt.	60	47	59	58	**56**	From 2014 to 2017	3	34
20	S.P.9	Mitsubishi Heavy Idustries Ldt.	83	61	73	81	**75**	From 2011 to 2014	3	59
21	S.P.10	NATS Plc.	95	56	82	78	**78**	From 2010 to 2020	10	50
22	S.P.11	NEC Corporation	69	71	70	69	**70**	From 2012 to 2015	3	37
23	S.P.12	Safran Group	82	89	66	69	**77**	From 2015 to 2010	5	128

n°	ID	Japanese Companies	C.Q.	T.Q.	C.	F.A.	**F.V.**
1	S.P.2	Kawasaki Heavy Industries	71	52	68	68	**65**
2	S.P.3	Kawasaki Heavy Industries	72	53	66	71	**66**
3	S.P.4	Kawasaki Heavy Industries	63	45	61	64	**58**
4	S.P.7	Mitsubishi Heavy Idustries Ldt.	103	75	94	110	**96**
5	S.P.8	Mitsubishi Heavy Idustries Ldt.	60	47	59	58	**56**
6	S.P.9	Mitsubishi Heavy Idustries Ldt.	83	61	73	81	**75**
7	S.P.11	NEC Corporation	69	71	70	69	**70**
n°	ID	USA Companies	C.Q.	T.Q.	C.	F.A.	**F.V.**
1	I.D.P.1	AECOM Technology Corporation	26	30	39	34	**32**
2	I.D.P.2	CACI International Inc.	29	29	35	30	**31**
3	I.D.P.4	DynCorp International	42	29	42	41	**39**
4	I.D.P.5	General Electric Aviation	48	35	37	44	**41**
5	I.D.P.6	Leidos	95	100	96	99	**98**
6	S.P.6	ManTech International Corporation	42	22	35	28	**32**
7	I.D.P.7	Orbital ATK	17	11	16	28	**18**
8	I.Ds.P.9	SAIC	51	66	57	66	**60**
9	I.D.P.10	SAIC	59	65	68	74	**67**
n°	ID	European Companies	C.Q.	T.Q.	C.	F.A.	**F.V.**
1	S.P.5	Leonardo - Finmeccanica	80	80	79	80	**80**
2	S.P.10	NATS Plc.	95	56	82	78	**78**
3	I.D.P.8	Safran Group	65	79	67	77	**72**
4	S.P.12	Safran Group	82	89	66	69	**77**
5	I.D.P.11	Serco Group Plc.	32	32	33	26	**31**

1	Executive Summary	% of companies
	n.a.	39,1%
	Very Low	8,7%
	Low	13,0%
	Medium	8,7%
	High	30,4%
	Very High	0,0%
2	Industry Outlook	% of companies
	n.a.	30,4%
	Very Low	13,0%
	Low	26,1%
	Medium	8,7%
	High	13,0%
	Very High	8,7%
3	Competitors Analysis	% of companies
	n.a.	69,6%
	Very Low	21,7%
	Low	0,0%
	Medium	0,0%
	High	4,3%
	Very High	4,3%
4	The Strategy Pursued	% of companies
	n.a.	17,4%
	Very Low	13,0%
	Low	26,1%
	Medium	4,3%
	High	39,1%
	Very High	0,0%
5	Vision	% of companies
	n.a.	56,5%
	Very Low	0,0%
	Low	0,0%
	Medium	4,3%
	High	26,1%
	Very High	13,0%
6	Mission	% of companies
	n.a.	43,5%
	Very Low	4,3%
	Low	8,7%
	Medium	0,0%
	High	39,1%
	Very High	4,3%
7	Objectives	% of companies
	n.a.	4,3%

	Very Low	17,4%
	Low	21,7%
	Medium	26,1%
	High	30,4%
	Very High	0,0%
8	The Strategic Aims	% of companies
	n.a.	4,3%
	Very Low	4,3%
	Low	13,0%
	Medium	21,7%
	High	47,8%
	Very High	8,7%
9	Competitive Advantage	% of companies
	n.a.	21,7%
	Very Low	30,4%
	Low	0,0%
	Medium	4,3%
	High	34,8%
	Very High	8,7%
10	KSFs/KPIs/KVDs	% of companies
	n.a.	8,7%
	Very Low	8,7%
	Low	13,0%
	Medium	21,7%
	High	30,4%
	Very High	17,4%
11	Share Capital Structure	% of companies
	n.a.	95,7%
	Very Low	0,0%
	Low	0,0%
	Medium	4,3%
	High	0,0%
	Very High	0,0%
12	Office Location	% of companies
	n.a.	60,9%
	Very Low	4,3%
	Low	0,0%
	Medium	0,0%
	High	26,1%
	Very High	8,7%
13	Shareholding Structure	% of companies
	n.a.	91,3%
	Very Low	0,0%
	Low	4,3%
	Medium	4,3%

	High	0,0%
	Very High	0,0%
14	Management	% of companies
	n.a.	65,2%
	Very Low	4,3%
	Low	13,0%
	Medium	4,3%
	High	4,3%
	Very High	8,7%
15	Directors' Profiles	% of companies
	n.a.	82,6%
	Very Low	0,0%
	Low	4,3%
	Medium	0,0%
	High	8,7%
	Very High	4,3%
16	Management Team	% of companies
	n.a.	87,0%
	Very Low	0,0%
	Low	4,3%
	Medium	0,0%
	High	4,3%
	Very High	4,3%
17	Customer Segments	% of companies
	n.a.	69,6%
	Very Low	8,7%
	Low	8,7%
	Medium	4,3%
	High	8,7%
	Very High	0,0%
18	Value Proposition	% of companies
	n.a.	21,7%
	Very Low	8,7%
	Low	13,0%
	Medium	8,7%
	High	39,1%
	Very High	8,7%
19	Channels	% of companies
	n.a.	100,0%
	Very Low	0,0%
	Low	0,0%
	Medium	0,0%
	High	0,0%
	Very High	0,0%
20	Customer Relationship	% of companies

	n.a.	78,3%
	Very Low	4,3%
	Low	0,0%
	Medium	4,3%
	High	8,7%
	Very High	4,3%
21	Revenue streams	% of companies
	n.a.	95,7%
	Very Low	4,3%
	Low	0,0%
	Medium	0,0%
	High	0,0%
	Very High	0,0%
22	Key Activities	% of companies
	n.a.	34,8%
	Very Low	4,3%
	Low	13,0%
	Medium	13,0%
	High	30,4%
	Very High	4,3%
23	Key Resources	% of companies
	n.a.	56,5%
	Very Low	4,3%
	Low	8,7%
	Medium	0,0%
	High	26,1%
	Very High	4,3%
24	Key Partners	% of companies
	n.a.	82,6%
	Very Low	0,0%
	Low	0,0%
	Medium	0,0%
	High	17,4%
	Very High	0,0%
25	Cost Structure	% of companies
	n.a.	91,3%
	Very Low	0,0%
	Low	0,0%
	Medium	8,7%
	High	0,0%
	Very High	0,0%
26	4 Ps	% of companies
	n.a.	91,3%
	Very Low	0,0%

	Low	4,3%
	Medium	0,0%
	High	4,3%
	Very High	0,0%
27	Brand	% of companies
	n.a.	95,7%
	Very Low	4,3%
	Low	0,0%
	Medium	0,0%
	High	0,0%
	Very High	0,0%
28	Budget	% of companies
	n.a.	100,0%
	Very Low	0,0%
	Low	0,0%
	Medium	0,0%
	High	0,0%
	Very High	0,0%
29	Action Plan	% of companies
	n.a.	17,4%
	Very Low	17,4%
	Low	13,0%
	Medium	8,7%
	High	39,1%
	Very High	4,3%
30	Purchase Plan	% of companies
	n.a.	100,0%
	Very Low	0,0%
	Low	0,0%
	Medium	0,0%
	High	0,0%
	Very High	0,0%
31	Production Plan	% of companies
	n.a.	91,3%
	Very Low	0,0%
	Low	0,0%
	Medium	0,0%
	High	8,7%
	Very High	0,0%
32	HR Plan	% of companies
	n.a.	56,5%
	Very Low	21,7%
	Low	0,0%
	Medium	0,0%

	High	21,7%
	Very High	0,0%
33	R&D Plan	% of companies
	n.a.	65,2%
	Very Low	4,3%
	Low	0,0%
	Medium	13,0%
	High	17,4%
	Very High	0,0%
34	Capital Budgeting	% of companies
	n.a.	34,8%
	Very Low	13,0%
	Low	13,0%
	Medium	0,0%
	High	34,8%
	Very High	4,3%
35	Cost Analysis	% of companies
	n.a.	82,6%
	Very Low	0,0%
	Low	0,0%
	Medium	17,4%
	High	0,0%
	Very High	0,0%
36	Forecasts and Projections	% of companies
	n.a.	0,0%
	Very Low	8,7%
	Low	17,4%
	Medium	13,0%
	High	52,2%
	Very High	8,7%
37	Balance Sheet	% of companies
	n.a.	73,9%
	Very Low	8,7%
	Low	4,3%
	Medium	0,0%
	High	13,0%
	Very High	0,0%
38	Income Statement	% of companies
	n.a.	69,6%
	Very Low	8,7%
	Low	0,0%
	Medium	0,0%
	High	21,7%
	Very High	0,0%
39	Cash Flow	% of companies

	n.a.	60,9%
	Very Low	8,7%
	Low	4,3%
	Medium	4,3%
	High	21,7%
	Very High	0,0%
40	Assumptions	% of companies
	n.a.	39,1%
	Very Low	0,0%
	Low	8,7%
	Medium	26,1%
	High	21,7%
	Very High	4,3%
41	Financial Ratios	% of companies
	n.a.	52,2%
	Very Low	4,3%
	Low	26,1%
	Medium	0,0%
	High	8,7%
	Very High	8,7%
42	Company Evaluation	% of companies
	n.a.	95,7%
	Very Low	4,3%
	Low	0,0%
	Medium	0,0%
	High	0,0%
	Very High	0,0%
43	Sensitivity Analysis	% of companies
	n.a.	82,6%
	Very Low	4,3%
	Low	0,0%
	Medium	8,7%
	High	4,3%
	Very High	0,0%

	Best Sections	
5	Vision	% of companies
	High	26,1%
	Very High	13,0%
6	Mission	% of companies
	High	39,1%
	Very High	4,3%
8	The Strategic Aims	% of companies
	High	47,8%
	Very High	8,7%
10	KSFs/KPIs/KVDs	% of companies
	High	30,4%
	Very High	17,4%
18	Value Proposition	% of companies
	High	39,1%
	Very High	8,7%
34	Capital Budgeting	% of companies
	High	34,8%
	Very High	4,3%
36	Forecasts and Projections	% of companies
	High	52,2%
	Very High	8,7%

	Worst Sections	
2	Industry Outlook	% of companies
	Very Low	13,0%
	Low	26,1%
3	Competitors Analysis	% of companies
	Very Low	21,7%
	Low	0,0%
17	Customer Segments	% of companies
	Very Low	8,7%
	Low	8,7%
32	HR Plan	% of companies
	Very Low	21,7%
	Low	0,0%

Appendix C): comparative table, personal elaboration

The tables below are related to one company only. The original table repeats the following framework for each document analysed (23 in total)

Company Name	ID	Type
Leonardo - Finmeccanica	S.P.5	Public - BIT: FNC

Founded	Headquarter	Revenues (l.d.a.) (ml $)	EBIT (l.d.a.) (ml $)
1948, Italy	Rome, Italy	14.471,23	984,42

Net Income (l.d.a.) (ml $)	Number of Employees (l.d.a.)	Website
586,87	47.000,00	www.leonardocompany.com

Time Span (the starting year is the current one)	Time Span (n° of years)	Document Length (n° of slides)
From 2014 to 2019	5	64

Notes
The document follows the given structure quite well, it is divided in 2 main sections (strengthen and develop), lagre part dedicated to the agenda, it is easy to understand and it is detailed

Executive Summary	C.Q.	T.Q.	C.	F.A.	**F.V.**
Almost n.a., it is given in the agenda part and in the strategy purued parts (key messages)	1	3	2	1	**1,8**

Industry Outlook	C.Q.	T.Q.	C.	F.A.	F.V.
4 slides, very detailed and full of information, bullet points (consideration on the macro environment, on the currency and on the industry, worldwide level and European level), bar chart (evolution by macro business sector, billion € and CAGR, from FY14 to FY23), bullet points analysis of the main trends, bar chart on A&D expenditure (USA, EU, India, China, Russia) from FY14 to FY18, 3 bar charts and considerations (Italian, UK and USA defence budget, CAGR, MoD, MoED, procurement, RDT&E, from FY11 to FY18)	5	4	5	5	**4,8**

Competitors Analysis	C.Q.	T.Q.	C.	F.A.	F.V.
7 slides, large detailed part, bar chart comparing Leonardo with 11 competitors in terms of global presence (2013 revenues divided in national and international market presence), another bar chart that works as the previous one (miitary vs. civil 2013 revenues), competitive positioning map (revenues vs. net results, Leonardo and 11 competitors, current and planned positioning), table highlighting the portfolio options by sector (comparison with 11 peers), another table with 11 peers (specification on the LoBs and the current position, follower, leader, weak, key player), bubble chart (EBITDA % vs. EBITDA, Leonardo and 8 peers in Italy), one table with positioning and profitability (the competitive advantage can be detected in this section)	5	5	5	5	**5,0**

The Strategy Pursued	C.Q.	T.Q.	C.	F.A.	F.V.
4 slides, key messages, some results and achievements (bullet points), 4 bar charts with past results (FY06 to FY13, net results before extraordinary transactions, OFCF, equity, group net debt)	5	4	5	5	**4,8**

Vision	C.Q.	T.Q.	C.	F.A.	F.V.
n.a.	0	0	0	0	**0,0**

Mission	C.Q.	T.Q.	C.	F.A.	F.V.
n.a.	0	0	0	0	**0,0**

Objectives	C.Q.	T.Q.	C.	F.A.	F.V.
4 slides, bullet points (detailed with numerical references), flow chart, in the second part (develop) 11 slides with detailed information (bullet points) about action plan, objectives (lack on numerical references), value proposition and key activities, divided by BU with specification on products, services and segment	5	5	3	4	**4,3**

The Strategic Aims	C.Q.	T.Q.	C.	F.A.	F.V.
1 slide with tables and bullet points, general statements, 2 parts (strenghten and develop)	4	5	5	5	**4,8**

Competitive Advantage	C.Q.	T.Q.	C.	F.A.	F.V.
Almost n.a., one table with positioning and profitability (the competitive advantage can be detected in this section)	1	2	1	1	**1,3**

KSFs/KPIs/KVDs	C.Q	T.Q	C.	F.A	F.V
(KVDs) 1 slide, graphical rapresentation, (KPIs) presence in the action plan parts (5 slides), detailed and connected with each part of the plan	5	4	5	5	**4,8**

Share Capital Structure	C.Q.	T.Q.	C.	F.A.	F.V.
n.a.	0	0	0	0	**0,0**

Office Location	C.Q.	T.Q.	C.	F.A.	F.V.
2 slides, map with macro areas consideration and % of revenues by office/country, ring chart, graphical rapresentation of the steps towards the new structure and relative roles	5	5	5	5	**5,0**

Shareholding Structure	C.Q.	T.Q.	C.	F.A.	F.V.
n.a.	0	0	0	0	**0,0**

Management	C.Q.	T.Q.	C.	F.A.	**F.V.**
1 slide, bullet points describing the new group organizational and operating model (divisional model)	4	3	3	2	**3,0**

Directors' Profiles	C.Q.	T.Q.	C.	F.A.	**F.V.**
n.a.	0	0	0	0	**0,0**

Management Team	C.Q.	T.Q.	C.	F.A.	**F.V.**
n.a.	0	0	0	0	**0,0**

Customer Segments	C.	T.	(	F.	**F.**
n.a.	0	0	0	0	**0,0**

Value Proposition	C.	T.	(	F.	**F.**
In the second part (develop) 11 slides with detailed information (bullet points) about action plan, objectives (lack on numerical references), value proposition and key activities, divided by BU with specification on products, services and segment	5	5	4	4	**4,5**

Channels	C.	T.	(	F.	**F.**
n.a.	0	0	0	0	**0,0**

Customer Relationship	C.	T.	(	F.	**F.**
n.a.	0	0	0	0	**0,0**

Revenue streams	C.	T.	(	F.	**F.**
n.a.	0	0	0	0	**0,0**

Key Activities	C.	T.	(	F.	**F.**
In the second part (develop) 11 slides with detailed information (bullet points) about action plan, objectives (lack on numerical references), value proposition and key activities, divided by BU with specification on products, services and segment	5	5	4	4	**4,5**

Key Resources	C.	T.	(	F.	**F.**
n.a.	0	0	0	0	**0,0**

Key Partners	C.	T.	(	F.	**F.**
n.a.	0	0	0	0	**0,0**

Cost Structure	C.	T.	(	F.	**F.**
n.a.	0	0	0	0	**0,0**

4 Ps	C.	T.	(	F.	**F.**
n.a.	0	0	0	0	**0,0**

Brand	C.	T.	(	F.	**F.**
n.a.	0	0	0	0	**0,0**

Budget	C.	T.	(	F.	**F.**
n.a.	0	0	0	0	**0,0**

Action Plan	C.Q	T.Q	C.	F.A	F.V
5 slides, detailed list (bullet points) connected with KPIs, divided in 5 sections, each slide for 1 section, in the second part (develop) 11 slides with detailed information (bullet points) about action plan, objectives (lack on numerical references), value proposition and key activities, divided by BU with specification on products, services and segment	4	4	5	5	**4,5**

Purchase Plan	C.Q.	T.Q.	C.	F.A.	F.V.
n.a.	0	0	0	0	**0,0**

Production Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
n.a.	0	0	0	0	**0,0**

HR Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
n.a.	0	0	0	0	**0,0**

R&D Plan	C.Q.	T.Q.	C.	F.A.	**F.V.**
Little presence int eh CAPEX/OPEX analysis	2	4	3	4	**3,3**

Capital Budgeting Analysis (CAPEX & OPEX)	C.Q.	T.Q.	C.	F.A.	**F.V.**
3 slides with bar charts and flow charts on CAPEX and R&D investment, current and planned, condiderations and expected results, depreciation/net investment index, reduction of net working capital, related with the action plan and the group net debt, laverage ratio	5	5	5	5	**5,0**

Cost Analysis (quantity vs costs; fixed vs variable; BEP)	C.Q	T.Q	C.	F.A	F.V
n.a.	0	0	0	0	**0,0**

Forecasts and Projections	C.Q.	T.Q.	C.	F.A.	F.V.
Presence in the ratios part, bar charts and line charts, current and projected (EBITDA, ROS, SG&A, SG&A/revenues ratio), FY13 to FY19, additional 4 slides (bullet points considerations, new order, revenues, EBITDA, FCF, group net debt, current and projected, FY13 to FY19, by group and A&D) (2 bar charts, specification on new orders and revenues, FY13 to FY19)	5	4	5	5	**4,8**

Balance Sheet (current and projected)	C.Q.	T.Q.	C.I.	F.A.	**F.V.**
n.a.	0	0	0	0	**0,0**

Income Statement (current and projected)	C.Q.	T.Q.	C.I.	F.A.	**F.V.**
n.a.	0	0	0	0	**0,0**

Cash Flow (current and projected)	C.Q.	T.Q.	C.	F.A.	F.V.
1 slide, condensate version, current and projected (FY19), bullet points consideration, bar chart of cash generation	4	4	4	5	**4,3**

Assumptions	C.Q.	T.Q.	C.	F.A.	F.V.
1 dedicated slide, detailed bullet points	5	4	5	5	**4,8**

Financial Ratios	C.Q.	T.Q.	C.	F.A.	**F.V.**
2 slides with bar charts and line charts, current and projected (EBITDA, ROS, SG&A, SG&A/revenues ratio), FY13 to FY19	5	5	5	5	**5,0**

Company Evaluation	C.Q.	T.Q.	C.	F.A.	**F.V.**
n.a.	0	0	0	0	**0,0**

Sensitivity Analysis	C.Q.	T.Q.	C.	E.A.	F.V.
n.a.	0	0	0	0	**0,0**

Totals by Companies				
C.Q.	T.Q.	C.	E.A.	F.V.
80	80	79	80	80