

“KROK” UNIVERSITY
Educational and Scientific Institute of Management and Adult Education
Department of Management Technologies

Famara Fofana

UDC: 00.334

THESIS

On the Topic: **«Risk Management Systems in Tesla Inc»**

Specialty: 073 Management

Educational program: Management

Applied for bachelor's degree

Thesis contains the results of individual work. The use of ideas, results and texts of other authors have references to the relevant source

_____ Famara Fofana

(signature, initials and surname of the applicant)

Scientific Supervisor (consultant) **Bielova Olena Ihorivna**

PhD (in Economics), associate professor

(full name, scientific degree, academic title)

Kyiv – 2021

TABLE OF CONTENTS

INTRODUCTION.....	3
SECTION 1. THEORETICAL ASPECT OF RISK MANGEMENT SYSTEMS.....	14
1.1 Essence of risk management systems.....	14
1.2 Features of risk management systems.....	20
1.3 Methodological approach to risk management systems.....	26
SECTION 2. PRACTICAL ASPECTS OF RISK MANAGEMENT SYSTEMS AT TESLA INC.....	34
2.1 Organisational and economic characteristics of Tesla Inc.....	34
2.2 Analysis of risk management systems at Tesla Inc.....	43
2.3 Evaluating the effectiveness of risk management systems at Tesla Inc.....	57
SECTION 3. IMPROVEMENT OF RISKMAGEMENT SYSTEMS IN TESLA INC.....	61
3.1 Ways to overcome weaknesses of risk management systems at Tesla Inc..	61
3.2 Rationale for the improvement program of risk management systems at Tesla Inc.....	68
3.3. Effectiveness of the improvement program implementation of risk management systems at Tesla Inc.....	72
CONCLUSION.....	77
REFERENCES.....	81
ANNEXES.....	84

INTRODUCTION

In many other fields, each organization is liable to risk: operational, market, legal, environmental, brand-name, liability, financial and property loss. Every municipality can influence (positive or negative) any of these. Naturally, most of the regime organizations primarily deal with the kind of risks that are particularly averse to them.

This paper examines the fundamental components of risk management, including the benefits of risk management, risk evaluation, priority setting, and the adoption of risk management response strategies.

Definition of risk management

Risk management helps a company to identify, assess, assess, analyze and alleviate the risks which risk in a disciplined and systematic way in achieving its strategic goals (note the words "disciplined" and "systematic").

Intentionally, risk management is proactive and not reactive. It will be as simple together skilled worker mentioning that a co-worker has to wear her safety glasses, or it should involve something as complex as a full asset allocation modelling of all of your organization's capital assets. In events as wide and varied as the loss of a severe employer within the community, risk management can even be practiced.

Different situations and events can lead to both good and bad consequences at the same time. A separate risk management strategy can be required for each effect. Let's say, for example, that your community has a brand new 300-home subdivision. On the positive side, an opportunity such as this may be welcome, because more tax revenue is required, more people will support local enterprises and more vitality for the community. On the negative side, it will also lead to an increase in trafficking and additional demands for the police and firing services, and will upset the unwilling neighbours. Each issue would force a separate risk management strategy.

The benefits of risk management

There are mainly four chief benefits of adopting a risk management system in an organisation.

In the first place, risk management improves management, both daily and long-term. You are able to control the result by knowing what might fail and the way to pander to a situation.

The second is the streamlining of daily operations by risk management systems. Employees who know how to do their job safely are better prepared for their work.

Thirdly, financial management is improved. Losses, legal proceedings and wounds all cost an organization money and risk management helps an organization avoid those costs.

Finally, it helps to deliver consistent and improved services. Any loss or breakdown of properties occurs, reports must be made, depositions taken, etc., activities which take time far from the ability of an employee to provide services to the general public.

Ways of managing a risk

If you have a designated "risk manager" in your Agency, it is often a useful resource. However, most of the organizations do not have a risk manager, whether full or partial, so it is up to all within the organization to become a risk manager, using a technique or another one. Anyway, it is a responsibility of all department directors, employees, volunteers, and elected officials to implement the risk management strategies of your organization particularly.

Try to remain focused on the risks your organization controls over when evaluating risks. It is possible to light someone in a public spot and injure them, but there is no control over this event from occurring. You don't control lightning strikes, but the likelihood of an injury can be controlled by posting signs informing people to travel in if they hear a thunder.

Don't confuse an inability to regulate the chance with an unwillingness to handle it.

Knowing risk assessment

There are five steps during a risk assessment.

- Identify Risks – If you'll think about it, you'll be able to prevent it.
- Prioritize Risks
- Analyze Risk Response Strategies
- Plan Risk Response

- Monitor and Control Risks

Risk assessment could be a subjective exercise. It's common for two different groups to judge a risk and find yourself with a distinct assessment. The ability of the chance assessment doesn't come from creating the "right" assessment or operating under the idea that each one risks are going to be eliminated; actuality value comes from gathering together those individuals committed the program or activity, having group discussions about risk, and determining what may be done to deal with risks. Eventually, it's not about an organisation having "no risks," it's about managing the risks.

Probability and Severity Matrix

One useful tool may be a matrix of probability and severity when prioritizing risk, developing policies or starting a brand-new task. The array helps to determine whether there is a risk of a selected event or whether changes are required. This tool helps your organization to focus on the probability of a selected event and to determine the results, if no action is taken.

There are several models but as the following Risk Assessment Matrix in Gantt shows, the tool's principal objective is to live the likelihood (i.e., the frequency) and gravity of the potential risk, in order to determine where the risk is based on the model and how it should be prioritized.

		SCALE OF SEVERITY		
		ACCEPTABLE	TOLERABLE	GENERALLY UNACCEPTABLE
SCALE OF LIKELIHOOD	NOT LIKELY	LOW	MEDIUM	MEDIUM
	POSSIBLE	LOW	MEDIUM	HIGH
	PROBABLE	MEDIUM	HIGH	HIGH

Figure 1.1: [Gantt Risk Assessment Matrix](https://www.teamgantt.com/risk-assessment-matrix-and-risk-management-tips)

Source: <https://www.teamgantt.com/risk-assessment-matrix-and-risk-management-tips>

If there is nothing at work to stop a risk and there is still no negative event there, this is simply luck. If there is a 25 per cent likelihood of a car accident when a police officer pursues a suspected criminal, it suggests that the officer will not take part in an accident 75 per cent of the time. This does not mean that vehicle pursuits are less risky when no accidents occur: you were just lucky.

Risk Management Response Strategies

You can only use three strategies to manage risks: reducing risk, preventing / controlling risk, and avoiding risk. Your risk evaluation matrix will help guide your decisions about which strategy is best suited.

Reputational risk management

The reputation is an important asset of every enterprise, but it is also very fragile and difficult to redeem once it has been completely lost. Reputational risk is defined as the risk that stakeholders' performance and performance expectations will not be met.

(Fitzsimmons & Atkins, 2017)

Reputational risk may arise from other risks as a by-product, but reputational damage could go far beyond tissue loss. The reputation of an organization in many cases does not reflect the important situation and even a small event can easily turn into a serious reputational crisis.

It will examine key components that limit the exposures of a company to reputational harm. The research article will discuss reputational risk management practices at Tesla Inc. Few companies receive the maximum attention of the media and public as Tesla during times of business and technology.

But the Tesla hype is not always caused by positive news, which means that during its rather short, turbulent history, the company has had to face several reputational crises. The explanation why the reputational risk management approach of Tesla is worth considering is that the company has succeeded in overcoming and even making opportunities for any crisis. This article seeks to investigate what is behind the effective reputational risk management of Tesla.

In the first chapter, in relation to strategic management, I will be able to present the theoretical and conceptual background on danger management. I will be able to analyze Tesla's organizational structure, the mechanisms of risk management, company culture and leadership within the second chapter. The main focus within the third chapter is to analyze the reputational crisis of a series

of fire-related Tesla incidents. We will analyze how the company has seen the crisis and managed reputational risk successfully.

Theoretical background

What is reputation and why it's important

Everybody knows the term reputation so much that a definition is not even necessary. Our everyday decisions are driven to an excess by reputational concerns. We avoid meeting people with a bad reputation and we care almost as well to maintain our reputation (Vance, 2015). Lotus Elise's body was supported by the company's thought of creating a high-performance electric sports car with (Ibidem). Tesla joined Tesla in 2004 with the entrepreneur and visionary Elon Musk, who was the company's leading investor and eventually replaced Eberhard in 2007 as CEO (Ibidem).

One year before, Musk revealed his vision of the future of Tesla, which is known as the program in an online blog article. He pointed out in that report that Tesla Roadster, the construction of expensive sports cars, is the first step in the process of reworking the entire hydrocarbon automobile industry into the brand new green electric era. The strategy he presented was that customers would be willing to pay a bonus, make use of the profit to create a cheap family automobile, and use the money to create a more cost effective, mass-produced automobile (Musk, 2006). In doing so, he also committed to producing options for zero emission of electric power (Ibidem). After Tesla Roadster's main model was launched in 2008, it launched its five-door rear-lift model S in 2012, followed by a luxury SUV model X in 2015 and finally a cheaper model 3.

Corporate structure and risk management in Tesla Inc

Tesla Inc.'s organizational structure is not very different from other similar companies' structures. Tesla Inc has a U-form system which uses the main factor to determine the organizational function. Up on the top is Elon Musk, the military president and chief officer. The hierarchy also comprises functional units divided between finance, technology, worldwide repair and sales, engineering, legal and geographical areas (Ibidem). The Tesla structure is highly centralized, indicating that regional units have minimal autonomy and the majority are elected by the headquarters (Ibidem).

In 2012, Tesla launched the Supercharger free and fast charging network. In 2015, Tesla introduced Powerwall – home battery for alternative energy storage (Tesla, 2017).

In 2016, SolarCity, a solar panel manufacturer, became Tesla Inc owner.

Under the Finance Unit, the Department for Global Risk Management has been led by Brad Young since November 2016. The global risk management team is, in keeping with information available, primarily responsible for managing corporate financial risks and dealing, for example, with asset insurance (LinkedIn, 2018).

The World Security Unit led by Jeff Jones manages physical and cyber risks. Among the tasks of the unit are the physical protection of Tesla's facilities around the world and cyber-attack protection, such as the one in 2015, which hijacked the company Web site and Twitter account for several hours (Lambert, 2015).

The organizing structure of Tesla Inc demonstrates the decentralization and distribution of risk management skills across functional and geographical units. The Chief Risk Officer, whose responsibility for integrating different risk elements, does not have a specialized role.

While a specific company risk management framework (ERM) is not mentioned in situ, the information provided is supported, Tesla is likely to conduct an annual risk analysis in accordance with the COSO framework.

The Board and its committees, namely the Audit Committee and the Corporate Governance Committee, shall conduct general oversight over company governance and risk management. This latter includes the responsibility to support the management of risk management of the company, including data confidentiality and security (Tesla, 2017). The Audit Committee competences with regard to risk management are defined as follows and the reputational risk management is not explicitly mentioned. 'Discuss risk and risk management policy guidelines for the Company and the management of financial risk exposures, including financial and investment monitoring of the Company, integrity of financial statements of the Company, accounting matters, internal financial reports control, independence of the independent financial auditing of the Company's Annual corporate risk assessment of the company, the internal audit function, incorporating the review of the initial risks faced by the company and the risk mitigation measures associated with the company.

The Audit Committee's Annual Business Risk Assessment states that Tesla uses the framework of COSO based on the knowledge that Price water house Coopers, who created this framework, also provides external assessment services to Tesla.

(Tesla, 2017: 3)

The audit committee is further responsible for examining and discussing policies and practices with respect to data protection, risk safety exposures and legal compliance with management (Tesla, 2017). Although these aspects of risk management are briefly mentioned, the main goal is to manage the financial risk unbelievable, and there is no evidence that either the Audit Board or the annual corporate risk assessment considers a reputational risk. Compared with other big car manufacturers, we will come up with similar and entirely different approaches across the market when we compile organizational and risk management structures.

Toyota, the world's largest manufacturer of corporate governance meetings, has appointed Chief Risk Officers at the management level (Toyota, 2018). The roles at Honda Motor Com. Ltd. are assigned to one person, including VP and Chief Operating Officer, Risk Management Officer, Corporate Brand Officer and Representative Director (Reuters, 2018). Fiat Chrysler Automobiles has adopted other approaches that have applied COSO ERM to the extent of individual business units with Group CFO for coordinating their activities (FCA Group, 2014).

Apparently rigid and centralized Tesla organizational structure does not provide the most effective foundation for effective reputational risk management with little regard to strategic risk management. I can conclude this chapter by concluding that reputational risk management is not a problem of paramount importance for Tesla if we supported the fact that the company provides little or no information on company administration and risk management mechanisms. However, the downside of the organizational structure is reduced by the particular culture of the company which allows for close collaboration between units and teams, as shown in the next chapter.

Corporate culture

The corporate culture is the most distinctive element which distances the company from other automotive competitors.

Tesla's corporate culture stems from his CEO Elon Musk's personality but also from its roots. Founded in a geographical region as a technological start-up, the main cultural principle has always been "move quickly and break things" in common with start-up enterprises. However, as they grow, few companies are in a position to continue the agile principles of start-up culture. Tesla has approximately 33,000. As an innovative automotive and energy-solutions business Tesla Inc. (formerly Tesla Motors, Inc.) is a successful company. This SWOT analysis demonstrates the strength of the company to maintain long-term

profitability. Despite the challenges of expanding the business, this positive perspective holds true. The results of the SWOT analysis also suggest strategic reforms in the global automotive and renewable market, in order to demonstrate Tesla's competitiveness and long-term success. Such a change in the approach to the color force of competition in the Porter's five Forces analysis by Tesla Inc. should increase strategic efficiency. As an innovative automotive and energy-solutions business Tesla Inc. (formerly Tesla Motors, Inc.) is a successful company. This SWOT analysis demonstrates the strength of the company to maintain long-term profitability. Despite the challenges of expanding the business, this positive perspective holds true. The results of the SWOT analysis also suggest strategic reforms in the global automotive and removable market, in order to demonstrate Tesla's competitiveness and long-term success. Such a change in the approach to the color force of competition in the Porter's five Forces analysis by Tesla Inc. should increase strategic efficiency. In the course of this SWOT analysis, Tesla, Inc. shall undertake reforms that cover internal policy factors (forces and weaknesses) and external strategic factors (opportunities and threats). The environment in which the company operates and develops these factors. These strategic factors can increase business performance and resilience on the global electric car market and related transport and energy solutions. When addressing the identified SWOT factors, the management of the company can expect better performance.

Tesla's Strengths (Internal Strategic Factors)

This aspect of Tesla's SWOT Analysis addresses the strengths of the company that result in corporate growth and progress. Business strengths are internal factors that enable the company to compete against other companies and, in particular, to ensure profitability in the longer term as an example, a strong brand can sustain the global market strategic expansion. The following strengths shape the capacity of the business as a competing actor within the automotive industry during this case of company analysis on Tesla:

1. Highly innovative processes
2. Strong brand
3. Strong control on production processes

Tesla, Inc. is believed to be the first fully electric sports car in the world because of its high innovation rate. This internal strategic factor can help the

company develop competitive and profitable products. In line with CEO Elon Musk's business goals, the Tesla brand can also be considered in this SWOT analysis as the strong symbol of renewable energy solutions and innovation. Such a strong brand improves the ability of the company to attract new clients and retain them. Integration, additionally as the centralization and hierarchy within Tesla's organizational structure, is the inner factor of strong control of production processes. The company produces cars and many of its components, for example. This factor could be a force that minimizes problems associated with third-party involvement. In general, this aspect of Tesla's SWOT analysis points to innovation and the brand image as the corporate strengths.

Tesla's Weaknesses (Internal Strategic Factors)

During the SWOT Analysis this aspect identifies the internal factors that limit organizational performance. In the context of this business analysis, these internal elements are weaknesses that can reduce Tesla's competitiveness and growth, and weaknesses are problems that the company must overcome through policies, reforms and initiatives. Tesla, Inc.'s performance and potential future growth are affected by the following major weaknesses despite its strong brand as the manufacturer of electric vehicles:

- Limited market presence
- Limited supply chain
- High prices

Tesla has a limited presence on the market. For example, the company generates the majority of its income within the U.S. and has a small presence in China and thus in the developing world. This internal strategic factor can be a weakness that limits corporate growth that supports the rapid evolution of the foreign markets. This SWOT analysis also determines the associated weakness of the limited supply chain of the company, which prevents it from expanding quickly on these markets. Furthermore, Tesla products are relatively more expensive than competing cars, particularly those with combustion motors. The company cannot rapidly increase its client base and market share at such high prices. The weaknesses identified by Tesla during the SWOT analysis reflect his strategies for global growth and expansion.

Opportunities for Tesla, Inc. (External Strategic Factors)

This section of the SWOT Analysis highlights the external factors that represent potential business growth and growth. These external factors are opportunities for Tesla to improve business performance, efficiency of management and strategic growth. In the global automotive market, for example, the Company can expand to promote further business growth. Tesla, Inc. has great opportunities in the global automotive and energy market for its financial status and competitiveness as follows:

- Global sales expansion
- Global supply chain expansion
- Business diversification

Tesla needs to consider the opportunity for global sales expansion in relation to its weaknesses. This opportunity is based on the many economic processes of countries in which the company has little market presence. For example, the company can increase its revenues by expanding its automotive and renewable energy markets in Asia. Another possibility is to broaden Tesla's supply chain to help to expand worldwide production and sales operations during the course of this SWOT analysis. This external factor focuses on the small amount of business of the company, which is similar to larger companies such as General Motors. The company can also improve its performance by diversifying. This external strategic factor involves creation or acquisition of new companies, in order to reduce business exposure to automotive risks. The benefits of international expansion are indicated in this aspect of Tesla's SWOT analysis.

Threats Facing Tesla, Inc. (External Strategic Factors)

During this aspect of the SWOT analysis, the external factors limiting or reducing Tesla's organizational performance are covered. These external factors threaten companies, so that their strengths and opportunities do not maximize the advantages. Competitive forces, for example, limit the company's potential revenues from the global electric vehicle, battery and solar panel markets. Tesla must address the subsequent threats to maintain resilience despite changing conditions in the automotive industry, even though the business has demonstrated considerable profitability:

- Aggressive competition
- Fluctuations in material prices
- Dealership regulations

Car manufacturers compete each other aggressively. Tesla, citing the current attempts of other companies to produce electric vehicles, threatens this external strategic problem. During this SWOT analysis, fluctuations in material prices are another threat. This external aspect highlights especially the fluctuating and usually growing cost of lithium, which is a cloth used in the energy storage products of the company. The company also faces a threat to the regulations on dealership. Today, Tesla directly sells its products to clients without the involvement of dealers, which increases prices for sale.

However, some states like Virginia and Texas prohibits direct sales of the company's products, requiring that such sales must bear dealership supported this aspect of the SWOT analysis, Tesla must maintain competitive advantage to stay profitable despite aggressive competition from large automotive firms.

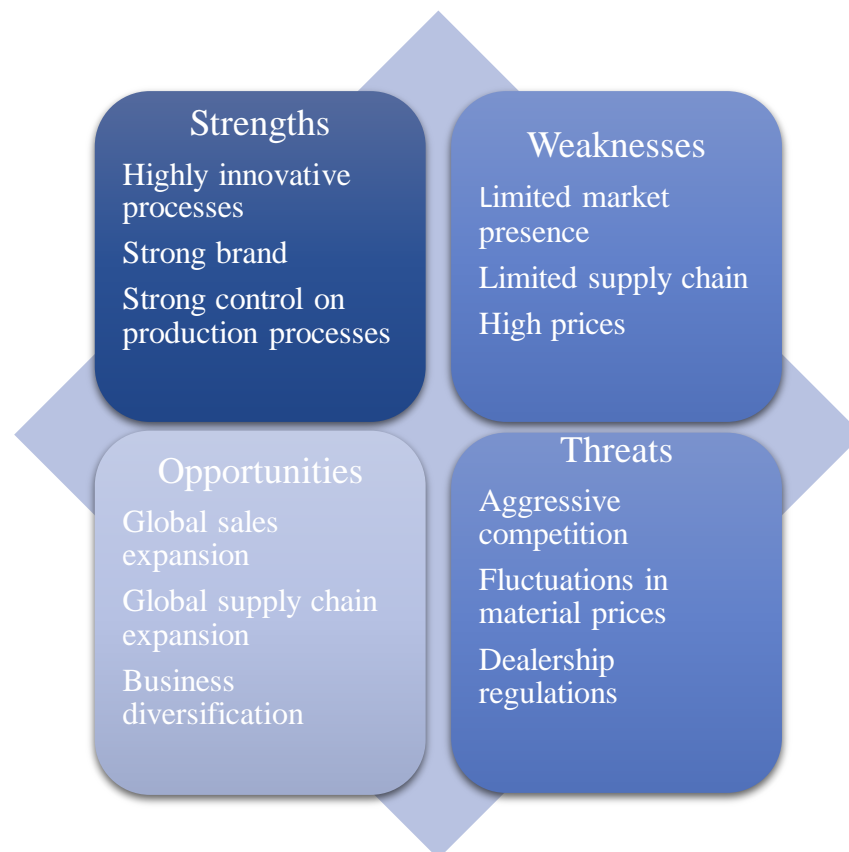


Figure 1.2: *SWOT analyses of Tesla Inc*

SWOT Analysis of Tesla Inc. – Recommendations

In the next few years, Tesla, Inc. will be able to remain successful. In order to remain competitive and improve its profitability, however, the problems

which the company must face are identified in the SWOT analysis. It is necessary to improve Tesla's multinational presence. For example, new sales and facilities in potentially developing countries can improve business growth, fulfil Tesla's mission and vision. The company should also continue to invest heavily in research and development to deliver competitively advanced technological products (R&D).

SWOT analysis demonstrates that Tesla has the potential to grow on an international automotive market, although there is aggressive competition.

In light of the results of this analytic SWOT, Tesla Inc. recommended that competitiveness, growth and development should be improved:

- Spread international operations for the use of the renewable energy industry's planetary growth.
- Continue or increase product innovation investment.
- Diversify the supply chain to eliminate the risks from supply.

1.1 ESSENCE OF RISK MANAGEMENT SYSTEMS

Risk management is usually a way to identify, evaluate and manage threats that could cost the capital and income of an organization. These risks or threats may be due to a fairly decent source of financial ambiguity, legal liability, strategic management errors, accidents and natural disasters. IT safety threats and data-related risks have become a top priority for digital companies, and thus the opportunity management strategies to alleviate them. A risk management plan progressively involves the processes used by companies in identifying and monitoring threats to their digital assets, including proprietary company data, personally identifiable customer information (PII) and items.

All companies and organizations face unforeseen, damaging events that can cost the company money or cause the company to close permanently. Risk management enables organisations, before they happen, to rearrange the unintended by minimizing risks and additional costs.

Importance

A risk management plan can help an organization save money and protect the future by taking into account the numerous potential risks or events. It may in fact be because a robust risk management plan can help an organization to identify and minimize potential threats and to address the results. This ability to

grasp and control risk enables businesses to become more confident. In addition, the organization achieves its goals through strong corporate governance principles, with a focus on risk management. Other important benefits of risk management include:

- Creates a secure and secure work environment for all staff and customers.
- Increases the soundness of business operations while also decreasing legal liability.
- Provides protection from events that are detrimental to both the company and also the environment.
- Protects all involved people and assets from potential harm.
- Helps establish the organization's insurance needs so on avoid wasting on unnecessary premiums.

It has also been shown the importance of combining risk management and patient safety. The management of prospects and patient safety departments are divided in most hospitals and agencies. They include various leadership, objectives and scope. Some hospitals, however, acknowledge that safe, high-quality patient care is essential to the safeguarding of financial assets, which should therefore be integrated into risk management.

Risk management strategies and processes

All risk management plans follow the identical steps that combine to make up the chance management process:

- Establish context. Understand the circumstances during which the rest of the tactic will happen. the factors which will be accustomed evaluate risk should even be established and also the structure of the analysis should be defined.
- Risk identification. This is basically when the company identifies and defines potential risks that may negatively affect a selected company process or project.
- Risk analysis. Once particular types of risk are identified, the company then determines the chances of them occurring, additionally as their consequences. the target of risk analysis is to further comprehend each specific instance of risk, and therefore the way it could have an effect on the company's projects and objectives.
- Risk assessment and evaluation. A stage in risk management where the is further evaluated after determining the risk's

overall possibility of occurrence joint with its overall consequence. The company can then lay down decisions on whether the possibility is appropriate and whether the company is eager to want it on supported its risk appetite.

- **Risk mitigation.** In this step, organisations assess their highest-ranked risks and develop an idea to lessen them using specific risk control mechanisms. These plans include risk mitigation processes, risk prevention tactics and contingency plans within the event the danger involves fruition.
- **Risk monitoring.** part of the mitigation plan includes following informed both the risks and thus the try and continuously monitor and track new and existing risks. the danger management process should even be reviewed and updated accordingly.
- **Communicate and consult.** Internal and external shareholders should be included in communication and consultation at each appropriate step of the possibility management process and with relevancy the tactic as a whole.

Questions risk management strategies should attempt to answer:

1. What can go wrong. Consider both the workplace as a full and individual work.
2. How will it affect the organization. Consider the probability of the event and whether it'll have an oversized or small impact.
3. What is also done. What steps are going to be taken to prevent the loss. what's going to be done recover if a loss does occur.
4. How will the organization get it if something happens.

Risk management approaches

After the company's specific risks are identified and also the risk management process has been implemented, there are several different strategies companies can absorb relation to differing types of risk:

- **Risk avoidance.** While the entire elimination of all risk isn't possible, a risk avoidance strategy is meant to deflect as

many threats as possible so as to avoid the costly and disruptive consequences of a harmful event.

- **Risk reduction.** Companies are sometimes able to reduce the number of injury certain risks can wear company processes. this is often achieved by adjusting certain aspects of an overall project plan or company process, or by reducing its scope.
- **Risk sharing.** The results of a risk are sometimes shared, or distributed among several of the project's participants or business departments. the chance could even be shared with a 3rd party, like a vendor or business partner.
- **Risk retaining.** Sometimes, companies decide a risk is worthwhile from a business standpoint, and judge to stay the chance and pander to any potential fallout. Companies will often retain a particular level of risk if a project's anticipated profit is larger than the prices of its potential risk.

Limitations

Although risk management is often a very useful practice for organizations, its limitations must even be taken into account. Many techniques of risk analysis - such as modelling or simulation - require a large number of knowledges to be collected. This comprehensive collection of data is usually expensive and is not safe.

Furthermore, the utilization of knowledge when making a decision processes may have poor outcomes if simple indicators are used to reflect the far more complex realities of things. Equally, adopting a choice throughout the total project that was proposed for one small facet can cause unpredicted results.

The lack of study expertise and time is another limit. The software of computers is designed and developed to simulate activities that can have negative effects on the company. These complex programs require trained staff with extensive know-how to understand the results obtained accurately, while cost-effective. Highly experienced staff are also needed to analyze past data in order to detect risks. Whether these people are or not, the project is not always assigned to them, there is often not enough time to gather all their findings, which leads to conflicts.

Other limitations include:

- A false sense of stability. Value-at-risk measures target the past instead of the long run. Therefore, the longer things go

smoothly, the upper true looks. Unfortunately, this makes a downturn more likely.

- The illusion of control. Risk models can give organizations the misunderstanding that they're going to quantify and regulate every potential risk. this might cause a company to neglect the possibility of novel or unexpected risks. Furthermore, there isn't any historical data for fresh products, so there is not any experience to base models on.
- Failure to figure out the massive picture. It's difficult to figure out and understand the full picture of cumulative risk.
- Risk management is immature. A company's risk management strategies are underdeveloped and lack the data to make precise evaluations.

Risk management standards

Several businesses and government agencies have since the early 2000s expanded regulatory compliance rules to examine risk management plans, policies and procedures of companies. Management boards should review and report on the adequacy of business risk management processes in the growing number of industries. This led to a major business strategy component of the Risk Analysis, internal auditing and other risk assessment methods.

Risk management standards are developed by several organizations, including the National Institute of Standards and Technology (NIST) and also the globe organisation for Standardization (ISO). These standards are designed to help organizations identify specific threats, assess unique vulnerabilities to figure out their risk, identify ways to reduce these risks and then implement risk reduction efforts in line with organizational strategy.

The ideologies ISO 31 000 provide for example frameworks for the improvement of risk management processes that companies can use, irrespective of the size or target segment of the organization. According to ISO 31000, "the likelihood of achieving goals is increased, opportunities and threats are identified better, risk resources are effectively allocated, and resource is used" While ISO 31000 cannot be used for certification, it may contribute to guidance for internal or external audit risks and allow organizations to use internationally recognized benchmarks to test their risk management practices.

The ISO recommends the next target areas, or principles, should be a component of the final risk management process:

- The process should create value for the organization.

- It should be an integral a component of the organizational process.
- It should factor into the company's overall decision-making process.
- It must explicitly address any uncertainty.
- It should be systematic and structured.
- It should be supported the foremost effective available information.
- It should be tailored to the project.
- It must take into account human factors, including potential errors.
- It should be transparent and all-inclusive.
- It should be adaptable to vary.
- It should be continuously monitored and improved upon.

ISO standards, etc. prefer to be global in the implementation of best practices for organizations. For these standards, the ultimate word objective is to establish joint frameworks and processes for the effective implementation of risk management strategies.

Those standards are often recognized by international regulatory bodies or target groups in industry. They are also regularly updated to reflect changing business risk sources. Although these standards are often voluntary, compliance by industry regulators or by enterprise contracts is additionally required.

Risk management examples

A business that identifies different risks associated with opening an alternative location could be an example of risk management. By choosing traffic locations and low competition within the realm from similar enterprises, they will mitigate the risk. Another example may be external ordinary people that recognize that their business is totally dependent on the weather. In order to mitigate the risk of an outsize financial hit whenever the fuck is going on, the park could value it better to spend less and build up cash reserves consistently.

Another example is an investor who buys stock in an exciting new company of high value even if they know that the stock might drop substantially. During this situation, risk acceptance is shown because, despite the threat, the investor acquires the feeling that the potential for massive recompense outweighs the opportunity.

1.2 FEATURES RISK MANAGEMENT SYSTEMS IN TESLA INC

Risk management generally means the identification and mitigation of losses. it's a scientific process by which a company identifies, analyzes, prepares and reduces losses.

It also put emphases on helping a business find lucrative opportunities. Every business concern faces an unavoidable influence from its external and internal environments.

Management of risks reduces the probabilities of such factors affecting a company negatively. Managers can either avoid or reduce risk or maybe transfer it to a different entity.

Organizations manage daily risks. One of the most important aspects of each company is the danger management process since it deals with the protection of all the information within the organization. Enhancing the standard, availability, and timeliness of data on risk at 79 percent, and hence improving risk information systems and technology facilities at 68 percent, were the best priority for companies when it comes to risk management.

One can never make sure of the likeliness of any event to occur and also the consequences that may include it. The likelihood of the event occurring and also the impact of the identical event are two factors that determine the magnitude of the danger.

Risk management could be a systematic process that deals with the matter of uncertainty. it's a very important discipline under the broad subject of management.

Secondly, one also can talk to it for responding to undesirable events. during this regard, it helps in preparing for worst-case scenarios.

Lastly, it's also a system that helps in making choices. It provides various alternatives and approaches to assist managers select one that has minimum chances of losses.

It is very common for enterprises to be exposed to risk; rewards are lower without risk. The reverse side of that frequently is that excessive risk can lead to failure of business. Risk management strikes a balance between risk management and risk management.

Effective risk management adds value for any particular organization, with companies in the investment industry heavily relying on risk management as the basis on which they can face market crashes.

An effective risk management framework seeks to safeguard an organization's capital base and earnings without hindering growth. Furthermore, investors are more willing to take a position in companies with good risk management practices. This generally ends up in lower borrowing costs, easier access to capital for the firm, and improved long-term performance.

Need for Risk Management Process

All project managers and team members have to find out how to implement necessary and systematic risk management processes. This can enable the broad organization to run their projects in a very much smoother style within the following ways:

- Improve all resource planning by predicting future costs
- Improve how companies track project costs
- Improve the accuracy of estimates of ROI
- A more flexible response to all or any future challenges

The 5 characteristics or features of risk management framework

There are a minimum of five crucial components that has got to be considered when creating a risk management framework. These comprise of risk identification; risk measurement and assessment; risk mitigation; risk reporting and monitoring; and risk governance.

1. Risk Identification

Before coping with risks, managers must be able to understand and identify them clearly. so as to try and do this, they first have to comprehend the context within which the risks arise.

In other words, managers must figure out what their business environment works in and what risks may arise. Even in the functions, objectives and core activities of their organisation, they should be tuned.

The first step is to identify the dangers facing an organization by defining the universe of risk. The universe of chance is just a list of all possible risks. These

include the following examples: IT risks, operational risks, regulatory, legal, political, strategic and credit risk.

Some of the various varieties of risks include:

- Strategic risk
- Compliance risk
- Market risk
- Regulatory risk
- Operational risk

All the different possible risk styles that the company can face are important. These risks may be noted manually, but the risk identifying process will become much easier if a risk management platform is implemented within the organization. The information collected is transferred to the system directly.

Access to the current information is also much easier, because project managers and other team members do not have to ask for this information by email. Directly log in and see all identified risks into the casualty management system.

After listing all possible risks, the corporate can then select the risks to which it's exposed and categorize them into core and non-core risks. Core risks are people who the corporate must soak up order to drive performance and long-term growth. Non-core risks are often not essential and might be minimized or eliminated completely.

2. Risk Analysis or Measurement

All the possible risks for the organization are identified within the previous step, which can lead the teams to research these risks. the danger analysis should answer the subsequent questions:

- What is that the likelihood of those risks occurring.
- What are going to be the implications of those risks to the organization.

During the danger analysis process, teams estimate the probability of every risk occurring and its fallout to prioritize the identified risks.

The factors that companies consider when prioritizing the risks include:

- Potential loss
- Time lost
- The severity of the impact

- Availability of resources to manage the chance

Risk analysis helps companies to respond to the risks they are faced with. It also helps understand the connection between the hazard and the number of business aspects it affects. Simply putting it into danger, the more business aspects the higher the risk to a company.

This risk analysis takes place manually when companies use a manual risk management process. When an organization-wide risk management solution is used, the responses are analyzed and a framework developed for the next step, which involves the risk assessment, for various documents, policies, processes and procedures.

There are several risk styles for every organization, but in every case the possibilities for them vary. Managers should individually analyze each potential risk and assess its chances. This may be because they need to give more importance than less serious risks to serious risks.

A company frequently spends financially to mitigate risks. Payment, hiring security personnel costs etc. as an example.

The higher the chances that a risk will occur, the higher their mitigation cost. Risk analysis thus helps to understand how costly it is that a risk is to be arranged.

Managers can use a "likelihood scale" to remediate the likelihood of risks. In principle, this scale classifies the risk of losses. In terms of priorities for this purpose they will even classify risks.

Risk measurement provides information on whether a risk exposure or aggregate risk exposure has been selected as well as the likelihood of loss arising from those exposures. It is important to consider the effects of this risk on the organization's general risk profile when measuring specific risk exposures.

Some risks can offer advantages for diversification, while others cannot. The ability to live an exposure is a further important consideration. Some risks are also easier than others to live. Market risk is often measured with the observation of market prices, for example, but both art and science are taken into account in measuring operational risk.

The profits and losses ("P/L") impact is often expected to be determined by specific risk measures if this risk changes slightly. Also, they will inform you of the volatility of P/L. For example, a stock investment equity risk can be measured because of the impact of P/L of the inventory on, e.g., the S&P500 index or the variance of the actual stock as a result of a 1-unit change.

Common risk aggregates include value at risk (VAR), return on risk (EaR) and economic capital. Economic risk measures are also common. These measures may be supplemented by techniques such as scenario analysis and stress testing.

3. Risk Mitigation

After identifying and analyzing risks, managers next must treat them. This process can include avoiding risks altogether. Alternatively, it's also possible to cut back the possible impact of a risk.

For example, a factory can deploy safety measures and equipment to forestall injuries to its workers.

One can even transfer risks to other entities. This process includes the employment of contracts and notices to shift any possible liability on others.

For example, shopping malls often shift the responsibilities of parked vehicles on their owners just in case any damage occurs.

After classification and measurement of its risks, a firm can solve the risks to be eliminated or reduced and the retention of much of its central risks. A clear sale of assets or liabilities, buying insurance, hedging derivatives or diversification, may achieve risk mitigation. risk mitigation.

It is time to take action once the dangers are analyzed and prioritized. Every risk to the company or project must be removed or contained. If the risk treatment is performed manually, team members must contact every stakeholder to discuss the issues. Usually, these discussions get displayed over email chains, various documents, and plenty of phone calls, making the complete process longer and harder.

According to a study drained 2018, it had been found that only 34% of institutions have the desired staff capable of identifying and resolving threats. this is often why employing a risk management platform is even more necessary today.

When companies employ a risk management solution, stakeholders will be notified immediately by the device and all the key decisions will be taken in one go. It is easy to follow the progress of the response in this way.

The effective use of resources without losing the advances made in active projects is one aspect to effectively handle the chance. Over time, organisations, as well as the mitigation process, can create a log of all their projects and risks. In order to proactively address team members in their strategy of risk management, this could help in anticipating risks in the future.

Some common ways of mitigating risk include:

- Accepting the chance of the project, which suggests understanding the danger it poses but realizing that the advantages outweigh the negative outcomes of the danger
- Avoiding the chance within the project, where team members simply don't participate in an activity that might cause potential risk
- Controlling the chance, where team members mitigate the chance by reducing the likelihood of its occurrence to cut back the impact beforehand
- Transferring the chance, where organizations get a 3rd party involved (such as insurance) to require responsibility for the danger just in case it occurs

1. Risk Reporting and Monitoring

Risk monitoring and assessment is an endless process. Managers should continue to monitor the probability of risks. Their risk prevention strategies also need to be monitored regularly. This step is essential because risks are unavoidable and never static.

Specific and aggregate risk measures need to be regularly reported so as to confirm that risk levels remain at the optimal level. Financial institutions producing daily risk reports on business day by day. Such reports may be less frequent in other institutions. Risk reports shall be sent to risk staff authorized to regulate risk exposures (or to direct others to adjust them).

2. Risk Governance

The process of risk governance literally ensures all company employees execute their duties in accordance with the danger management framework. Risk governance involves defining the roles of all employees, segregating duties, and assigning authority to individuals, committees, and therefore the board for approval of core risks, risk limits, exceptions to limits, and risk reports, and also for general oversight.

Over time, companies will notice that certain risks are not eliminable and omnipresent. These risks may include external risks such as market risks and risks for the environment. In order to make the mitigation process more practical, they must be continuously monitored.

When companies employ solutions for risk management, the system is responsible for monitoring the whole risk framework of the organization. All

parties concerned will be notified immediately if any changes are made. It guarantees continuity as well. If staff are properly trained during the processes, they will efficiently use the system.

Final Thoughts

The fundamental risk management processes remain the same, regardless of whether it is performed digitally or manually. Every enterprise, irrespective of its size, faces risk, identifying, evaluating, tracking and reducing risk successfully and in order to enhance its processes for its projects in future.

The idea of risk management comes from the insurance company. Over the years this is assumed to be an important management function. It consists essentially of five processes designed to reduce business losses. No organization can eliminate risks completely, but you can certainly organize them.

1.3 METHODOLOGICAL APPROACH TO RISK MANAGEMENT

The ongoing risk assessment accompanies an urgently and efficiently operating organization. Every company, irrespective of size, direction, profits, faces multifaceted risks caused by internal or external factors (sources). It is necessary to have own objective information on risk assessment to confirm effective management of enterprises, make sound economic decisions by decision-makers. The fact that risks depend on the industry, the business style, the business size, the phase of its life cycle and, thus, the like, further exacerbates the complexity of the task. The risk assessment methodology study is therefore relevant. The Author shares the experience gained with the practically learned experience of the international company, as part of the study, and will use risk assessment methods to provide a good (best practice) approach. The systematization of risk assessment approaches will be proposed in the structure of the risk assessment steps (minimum requirements). The idea of the top results of the cyclical process – the assessment of the risk, namely the risk map, is revealed.

The object of research

The research object is to approach risk assessment methods, which are developed and implemented independently by Tesla Inc. One of the stages of the fortune management cycle is the Risk Assessment Strategy. The idea for risk

evaluation is conceptually explained within the COSO (Committee of Sponsoring Organizations of the Treadway Commission). ERM (Enterprise Risk Management) can be the most widely known and applied document (set of rules) worldwide in the field of risk management. This paper aims to identify potential events that affect the company and the management of these risk events as well as to control the risk appetite of the company. All this can be determined by the reference to the financial performance of the firm, as an example of EBITDA, Cash Flow, ROI, and so on. in step with the Risk Management System of the company.

- Setting goals.
- Determination of events.
- Risk assessment.
- answer risk

Concerning the business challenges of the 21st century, the COSO model describes the methods by which executives in new and changing industries are more reliable in addressing the needs for rapid innovation and increased regulatory attention. An integral part of risk management is the effective implementation of risk assessment approaches.

Model risk management is an organisation's asset. Aggressive competitive environment, business complications, the spread of the law & rules, the legal system, safety requirements (life, fire, environmental, economic, etc.) and other factors are making the risk and methods of assessment considered in the context of a business plan by investors (owners, shareholders, employees). Only after certain steps is possible to select risk assessment methods:

- part of corporate governance – determination of the mission and objectives of the organization.
- Establishment of an enclosed system and management risk – the creation of policies and procedures.
- Appointment of the responsible (division, position) for risk assessment and risk management normally.

In addition, risk assessment methods will be used by those responsible for the option evaluation function. Each risk must be identified according to the zone of responsibility with the owner of the strategy. The results of the processing are that for each risk calculation, the number of influences in the whole organization as well as the probability of an event in accordance with the selected method of risk assessment. All calculations received are accustomed to prioritizing the risks. to secure risk evaluation and risk management efficiency It is usually necessary,

in view of its goals and type of activity, to identify and fulfil the needs of a company with reasonable assurances that the company's objectives are fulfilled. This will ensure the successful business of the company and attract reliable partners. COSO ERM as an example for a research object. The above-mentioned aspects underscore the prospects of research on the choice of methods for assessing and forecasting these risks, and also the corresponding risk-forming factors, taking into account the dynamics of changes in their list and so the likelihood of occurrence.

Methods of research

The next scientific research methods are used during the research: – method of comparison – for seeing similarities and differences in risk assessment techniques and looking at a common, component approach; method of interviewing 'interview method' employees who are responsible for the risk assessment function and determining the risk assessment structure and stages. - method of assessment of expert (internal consulting companies) is used to encourage conclusions as to whether the expert evaluation is in line with the data obtained during the «interview method» interviewing employees and managers.

Research results

An effective enterprise management system must necessarily include a risk assessment procedure. the possibility assessment is administrated in step with the stages.

Risk management process may be cyclical; risk monitoring and control will be the final and permanent phase. Next, each risk is given as "new," "no change," or "delete" in all statuses.

A mix of quantitative and qualitative methods could also form the basis of the methodological approach to risk assessment of the organisation.

The quantitative method is primarily presented as an overview of the danger by means of indications of "likeliness" and "effects."

The indicator «probability» expresses a particular percentage of the probability of an occasion. The indicator «consequences» expresses the burden of the influence that an occurrence can cause. Qualitative methods are utilized within the case when it's impossible to urge quantitative indicators, that is, when it's impossible to assess the danger mathematically. This method is easier to use, but less accurate and reliable.

In many instances, the qualitative method depends on the experience gained and therefore, on the objective judgment of the person who assesses the possibility. In practice, a method of qualitative assessment covers such aspects as: – risk analysis related to fraudulent activities; – lack of efficiency in inventory management, assets (premises, land, vehicles, etc.). Data identification – the "red flags" in the company shows the impact of posts monitoring and analyzing the full functioning of the company.

The evaluation methods are often complementary in quantity and quality, and are therefore used jointly.

The main reason for auditing is that the use of a combined risk assessment methodology which combines the benefits of both qualitative and quantitative risk assessments, based on the risks-oriented approach. This approach will enable an unreasonable audit price overestimation of the risk to be avoided in line with the quantitative evaluation model. And it also enables the auditor to use professional judgment, an intuitive approach to assessment of the economic element, and the responsibility for research on other factors.

In practice, many methods often dispense with a qualitative risk assessment. Let's dwell on various of them in more detail.

A comparative analysis is used in this paper for evaluating a selected risk as regards likelihood and influence in cases where management seeks further justification. Comparative analytical data can provide information to management regarding risk probability or impact, and support other organizations' experience.

In addition, a comparative analysis is used to identify opportunities to optimize this process in the relationship of different activities in the single business process.

Scenario analytics are used to estimate the impact on the achievement of a goal of 1 or more events. Often it is a tired planning of the company's continuity, or it is an ass that can have an impact on the company if a system or network failure. In strategic planning, scenario analysis is frequently carried out, where the management connects growth, risk and return.

The sensitivity analysis is conducted to assess the impact of normal changes in potential events, which is employed for operational indicators (such as because the impact of changes in sales volume and delivery time, response time/customer order execution).

Relating risks and capital involves conducting an economic capital assessment to point the quantity of capital required to hedge financial risks. It's employed by management when determining the strategy, allocating resources and assessing performance indicators. This method is principally utilized by financial institutions.

Another method is «If analysis». «What will happen if. » This question relates to what can happen wrong, that is, what's going to happen if a particular event occurs. This method of research includes brainstorming and is applied by experts who have sufficient experience and knowledge, knowledge of operational processes, experts who can suffer the impact of dangerous events under certain conditions.

The result «If the analysis» may be «Evaluation list». A special checklist of known threats and hazards is employed to spot the relevant risks. The worth of this kind of research depends on the standard of the checklist and also the testing experience.

Highly-paying experts manage the method of audits (external or internal). During each case, this is the most effective method, since it enables the organisation, within a relatively short period, to boost the interior system and to establish a risk assessment and risk management system from scratch. A cost-effective part could be the lack of utilization of this integrated risk evaluation approach.

Organizations use different methods for presenting results, including the development of a risk map and a numerical presentation of information, to visualize and present risks.

The Helicopter View method is that the ability, or the flexibility to determine the business and also the business processes of a corporation separately, as one system, further because the display of this technique in a lucid way (graphically). This method doesn't require significant resources, it's both simple, relatively perceptive and difficult to implement. The complexity is explained by the very fact that a specialist who uses this method must have plenty of experience and understanding of the mechanics of building all business processes, and know the management principles. As a rule, the Helicopter View method is employed by internal auditors in its work.

A very effective risk management tool could be a risk map – it's a graphical representation, usually the probability and magnitude of the impact of 1 or more risks. The chance map can take the shape of warmth maps (using color coding: red, yellow, green) or graphs of individual processes, which give quantitative and qualitative estimates of the probability and impact of risks. Risks are presented with the allocation of more significant and fewer significant risks in terms of probability or impact.

The creation of a table or risk matrix involves the presentation, within an array of matrix tables, of all risks for the company. The risk table is divided into categories: – the method owner. Components: area of liability, assigned risk number, risk name, short description of risk, risk factor, control measures selected; – specialist / team / department appointed to take responsibility for risk control. Components: Number of controls based on the number of risks, frequency of risk testing, method of testing, chance assessment, risk response.

The mandatory preconditions for risk assessment are: – determination of the mission of the organization and its objectives, because the risk assessment is aimed toward achieving the set goals; – selected period of your time that the chance assessment is distributed should be in accordance with the strategy and objectives of the organization.

It can be noted that a risk assessment and risk-forming elements (components) can be a necessary condition for a future management of risks by a company. With risk assessment approaches still to be changed in the future, keeping up the course of mission and objectives of the organization, as risks assessment is a process in progress and external and internal risk factors are constantly changing.

Risk management can be an integral component of an internal system that collects and processes all information on the operations of the organization and its risk analysis.

Risk assessment methods provide new opportunities for the organization to work out to what extent potential events can affect the achievement of its objectives.

The positive and negative impact of potential events should be analyzed separately by zones of responsibility (in the context of the organization's directions), and also at the extent of the whole organization.

Each organization is asked the questions «How to assess the chance and where to start. » «Who within the organization should engage in risk assessment. »

Thus, each risk assessment method must have:- structure (the experts responsible for the chance-assessment function), procedure of the chance-assessment, method of the system's reflection, state-of-the-art analysis of the selected measures, supporting system);– visualization and presentation (Risk map, table, or Risk Matrix);- measurement of risk assessment methods; (chosen by the organization because the basis for the foremost common methods: nominal measurement, ordinal measurement, interval, proportional). During this case, nominal and ordinal measurements are considered as qualitative, and interval and proportional – as quantitative methods; – rules and conventions.

The risk map should reflect all risk assessment results. If there are different directions and activities within one organization or group of companies then it is advisable to create, as a general risk map for all of the organization or group of companies, an adequate number of risk maps (by each direction). It is advisable to maintain a separate risk map for giant projects (e.g., the vertical combination of a brand-new business line, large investments, acquired or absorption in other organisations). The danger map contains a number of features and a very important purpose within the corporate governance structure, in particular: – risk matrix, or visualization for the highest management of the organization; – table of risks, or a working tool for risk management.

SWOT analysis of research results

Strengths. The structural approach to risk assessment allows the organization to make additional value for the corporate. Timely detection and prevention of risks ends up in a discount in capital and operating costs.

Weaknesses. within the risk assessment process, it's difficult to decide on a quantitative, qualitative or mixed risk assessment method, which may cause additional costs. Absolute control generates absolute costs arising from a violation of the balance between the prices of risk assessment and therefore the impact of such risks on the organization.

Opportunities. Opportunities for further studies of risk assessment techniques are the flexibility to systematize every type of risks in accordance with all risk methodologies. Effectively chosen risk assessment methods create reasonable guarantees for the organization, which help to attain the company's goals.

Threats. the speed of the event and its impact level the time and result, which may be spent on risk assessment

Final thoughts

The most effective of all risk assessment methods is the involvement of pros in the case with sufficient level of information and techniques. These are external or internal controls carried out by highly paid experts (or audit firms). This is the most efficient way to enhance the internal system and make a risk assessment system. This method is one in every way possible. The drawback of the integrated approach to risk assessment can be high costs.

It is determined that the results of risk assessment are that the «Risk Map», which consists of: – «risk matrix» – visualization of the results of the danger assessment, risk diversification by the zones of criticality of risks. The presentation is employed in reporting «company risks» for top management; – «risk tables» – a risk management tool. it's used for detailed study of risks (categories, responsible, methods).

2.1 ORGANISATIONAL AND ECONOMIC CHARACTERISTICS OF TESLA INC

The structure of a company or company is that of the design and the system that defines the models of interactions between the components of the company. The organisation's structure, considering the management focal point for and control of the company and a limited operational expansion in the global market, takes a standard form in this business analysis case for Tesla. Tesla Inc., for example, uses its corporate structure to facilitate comprehensive control of the organization as manufacturer of electrical automobiles, batteries, solar panels and related transportation and energy solutions. The effectiveness of management in Elon Musk is dependent on the ability of the company structure to disseminate and support the implementation of recent growth and improvement strategies. The Corporation maximizes its ability, through its organizational structure, to implement new strategies and manage its business activities and objectives. The management of operations by Tesla depends on the business structure's effectiveness in supporting strategic change.

The organizational structure of Tesla Inc. creates capabilities which, despite its increasing international operations, enable strong management control of the business. The complexity and challenges of development are being increased. In order to achieve the implementation of Tesla's generic competitive advantage strategy and intensive growth strategies, global expansion, for example, requires a broader range of considerations. The structural features of the

company help maximize the information of top managers on these challenges and enable them to respond accordingly.

Thus, this corporate structure supports Tesla's corporate mission and vision statements, which emphasize global leadership within the automotive and energy solutions markets.

Tesla Inc.'s Organizational Structure Type & Features

Tesla includes an organizational structure that is functional or sub form. Due to its main defining factor, the unitary structure (U-form) has organizational functions. For example, a group of engineering staff and another for sales and repair is included in the company. There are also certain structural features of other types of corporate structure, but to a lesser degree in Tesla. The grouping supported business function stands for the most vital feature during this case of company analysis. In Tesla's organizational structure, the following characteristics are significant:

- Function-based hierarchy (most important)
- Centralization
- Divisions

Function-Based Hierarchy. The foremost significant characteristic of Tesla's corporate structure is that the function-based hierarchy in its alinement. This hierarchy involves functional teams or offices that oversee domestic and international operations. This is usually observed in traditional enterprise structures, where enterprises want to maintain strict management control. The following functional offices direct and represent worldwide hierarchy during this business analysis case of the organizational structure of Tesla:

- Chairman & Chief officer
- Finance
- Technology
- Global Sales and repair
- Engineering
- Legal

Below is the look of the functional-base organisational structure of Tesla Inc.

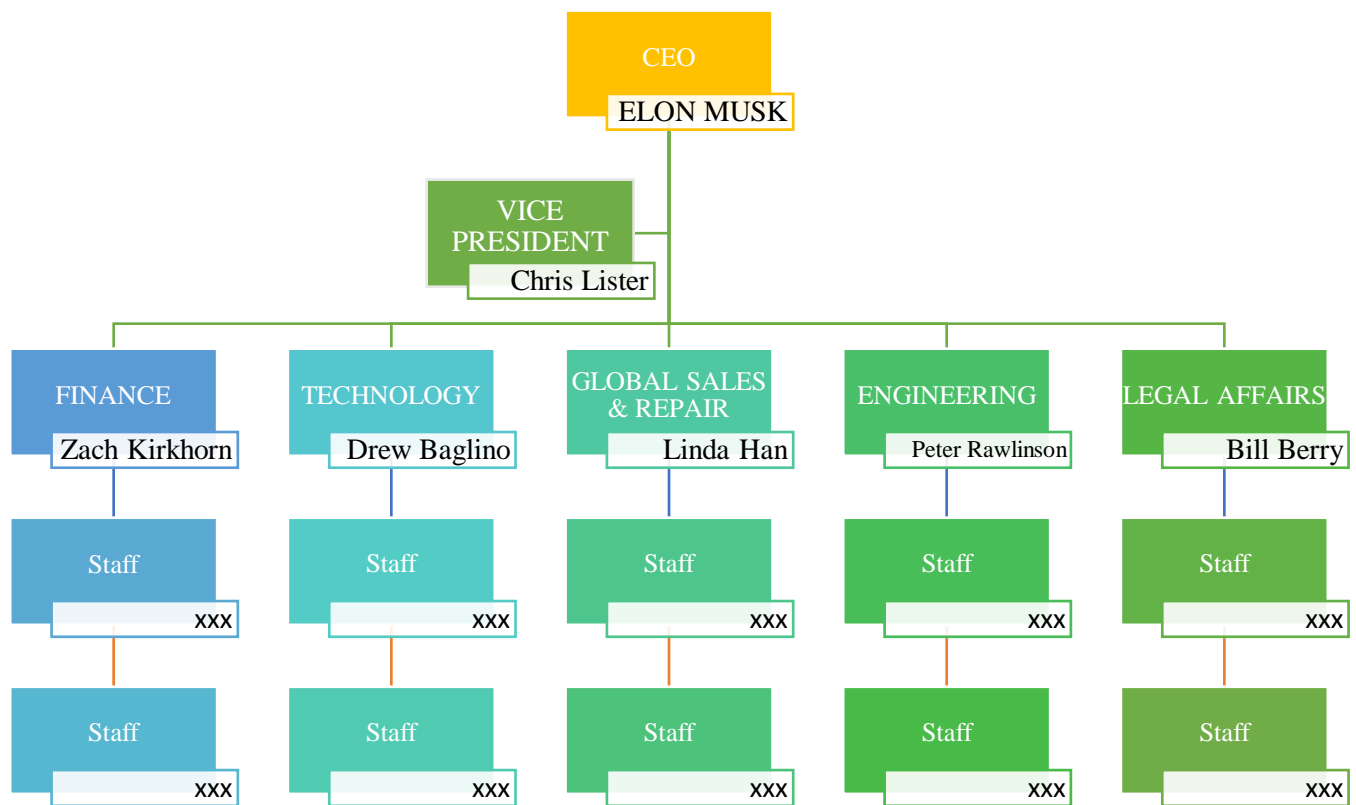


Figure 2.1: *Organisational Structure of Tesla Inc*

Centralization. Tesla, Inc. uses centralization in its corporate structure. the stress of centralization is managerial control on the complete organization through decisions that a central group or team generates. during this case, the heads of the offices of the world hierarchy form the corporation’s central headquarters, which directly control all operations. during this organizational structure, Tesla minimally supports the autonomy of its regional or overseas offices. The company’s headquarters make most of the choices for overseas operations.

Divisions. This characteristic of the corporate structure focuses on the extent of geographical or other kinds of divisions in Tesla Inc.’s automotive business. These divisions are accustomed implement different strategies and marketing campaigns, and to arrange financial records and reports. Tesla’s main divisions in its organisational structure are

1. Automotive and
2. Energy Generation and Storage.

These divisions are minor compared to the function-based hierarchy of the organization. Also, Tesla's organizational structure has the next geographical divisions mainly used for financial reporting: (

1. U.S.
2. China,
3. Norway, and
4. Other

Tesla's Corporate Structure: Implications, Advantages & Disadvantages

In terms of efficient management control of multinational operations, Tesla Inc. profits of its organizational structure. The easy implementation of new strategies throughout the organization is also an advantage. The regional divisions also support financial reporting and analysis and provide the muse for future regionalisation in automotive international strategies and tactics. These advantages empower Tesla to use its organizational structure for further international growth and to form competitiveness against Toyota Motor Corporation, Honda Motor Company, Nissan Motor Company, General Motors Company, Volkswagen, Bavarian Motor Works (BMW), and the other car producers. The organizational structure enables the company to centrally control the event of competitive advantages.

The disadvantage of Tesla's corporate structure is the inflexibility that limits rapid change in the company. For example, global centralization may be a structural feature limiting the autonomous capacity of foreign offices to respond to their regional market problems readily. Tesla Inc. should reform its organizational structure in order to increase the autonomy of overseas offices in order to address this disadvantage. A more decentralized corporate structure tends to be simpler for creating competitiveness in overseas markets against local businesses.

Organizational Culture & Its Characteristics (Analysis)

Tesla, Inc.'s (formerly Tesla Motors, Inc.) organizational culture creates human resource competence necessary for innovative products within the worldwide automotive business. A firm's organizational culture signifies the customs and values that outline workers' behaviors and decisions. Tesla's organizational culture empowers its workforce to travel trying to find ideal solutions that make the business stand are available in the automotive industry and so the energy generation and storage industry. The corporation inspires

employees to innovate to support continuous enhancement of the business. As an example, through its corporate culture, Tesla maintains the human resource capabilities important in its continuing growth within the worldwide marketplace for electric automobiles, batteries, solar panels, and related products. In this manner, the corporation's cultural traits function as a channel for adding to strategic effectiveness in enhancing the business. The management of Tesla Inc. optimizes employees' knowledge of creative and innovative behaviours, through its corporate culture. These conducts are vital for maintaining the technological innovation that is part of the foundation of the company.

Tesla's corporate culture creates innovation opportunities that keep electric cars competitive. The characteristics of this business culture promote new ideas and solutions for employees. During this company analysis case, such behavioral factors contribute to Tesla Inc.'s competitiveness in facing automobile manufacturing firms like General Motors Company, Toyota Motor Corporation, Honda Motor Company, Nissan Motor Company, Bavarian Motor Works (BMW), Volkswagen, and others.

Tesla's Organizational Culture Type & Features

Tesla, Inc. has an innovative organizational culture that solves problems. The corporate culture of this type encourages employees to develop cost-effective solutions to current and emerging issues on the target market. For example, in developing cutting-edge electric vehicles, the company employs its corporate culture to solve environmental issues relating to cars with fuelling engines. It reflects the advantages of the company's culture to keep introducing advanced electric vehicles. In its corporate culture Tesla Inc. identifies six major characteristics:

- Move Fast
- Do the Impossible
- Constantly Innovate
- Reason from "First Principles"
- Think Like Owners
- We are beat

1. **Move Fast.** Speed affects Tesla Inc.'s competitive advantage. This particular characteristic of the organizational culture highlights the essence of employees' capability to rapidly respond to trends and changes within the international market. For example, the corporation's human

resources provide the potential to develop cutting-edge products that match or exceed those from competing automotive firms. during this fashion, Tesla's corporate culture facilitates business resilience through speedy responses to current issues and challenges within the world automotive industry.

2. **Do the Impossible.** In developing cutting-edge products, Tesla must confirm that its corporate culture encourages employees to think outside the box. Realistically, this cultural characteristic identifies the importance of latest ideas and solutions, but it also emphasizes the benefits of considering unconventional ways. as an example, human resource managers train employees to travel beyond conventional limits of productivity and creativity in automotive design, leading to the event of latest solutions to energy and transportation needs. This condition opens new opportunities for Tesla Inc. to strategically improve its business performance. This cultural condition also makes the company an influential entity in prompting radical ideas within the international automotive and energy solutions market.

3. **Constantly Innovate.** Tesla, Inc. is the center of innovation. This perspective of corporate culture focuses on the company's ongoing innovation. For instance, the company continually examines and develops solutions that improve current product designs for energy storage. Constant innovation supports develop state-of-the-art electric cars and related products in this context of business analysis. The competitiveness advantage required to deal with the elementary interaction of competition within Tesla Inc's Porter's Five Forces analysis of industry is maintained through continuous innovation

Tesla Inc addresses this need through an organization culture that reward and puts value to constant innovation. Managers encourage employees to contribute to constant innovation in business processes and output.

Target "Principles of First." CEO Elon Musk promotes first-rate thinking. These principles address the identification of root factors in the universe to grasp and resolve problems. For example, one of the solutions to the challenges of using renewable energy and the challenges of improving energy efficiency are Tesla Inc.'s energy storage products. Employees use first principles in the fulfilment of their jobs with the Tesla corporate culture. Tesla's management of human resources includes training programs to orient employees to the current characteristic of Tesla's organisation.

4. **Think Like Owners.** Tesla uses its corporate culture as a tool to ensure an approach that supports the development of business. For example, the company encourages its employees to feel like they own the company. This proprietary approach encourages Tesla to take responsibility and accountability within its jobs and the overall performance of multinational business. Their vision and mission statements are supported. The sense of ownership can be a powerful conduct factor that helps companies in diverse industries grow and strengthen their integrity. The corporate cultural trait aligns workers with the company's strategic aims, thus improving strategic effectiveness.

5. **We are dead.** The corporate culture of Tesla Inc. brings employees together into a team to enhance the business. This cultural feature, for example, helps to minimize conflict by teamwork. This teamwork also builds synergy within the human resources of the company. This maximizes the benefits of the talents and abilities of employees in the corporate culture. Synergistic teamwork contributes to the international automotive market competitiveness of Tesla. The unifying cultural style enables the entire organization to be managed and implemented.

The cultural properties referred to above indicate that Tesla, Inc. focuses on promoting innovation which ends up being useful products for the global market. Progress and growth of the company are driven by technological innovation. Since the establishment of the company, Tesla's organizational culture has remained focused on innovation. The company is, however, expected to gradually change its corporate culture to address new demands, given that its product offerings are expanded and diversified.

Tesla, Inc.'s Corporate Culture Implications, Advantages & Disadvantages

Innovation is the focus of Tesla's organizational culture. This cultural characteristic has been enhanced by allowing the company to develop high-tech products attracting its clients. Tesla cars, for example, have an increasing share of the automotive market combined with the strong branding of the company. This benefit is in line with the generic competitive strategy and strong growth strategies of Tesla. In terms of support for rapid response and problem solving, the culture of the company is also beneficial. This cultural trait keeps the corporate abreast with new technologies while making its products effective and relevant to customers' needs and preferences.

The principal inconvenience of the organizational culture of Tesla is really to constantly innovate the pressure on employees. Innovation helps the company, but puts human resources under pressure. However, this cultural characteristic is appropriately applied to guarantee the competitiveness of businesses in the long term. Tesla's corporate structure also imposes limits on employees' responsiveness and thus counteracts a number of corporate culture effects in facilitating rapid decisions and actions to address issues within the automotive industry.

Tesla, Inc.'s Mission Statement & Vision Statement

Tesla, Inc.'s (formerly Tesla Motors, Inc.) mission and vision statements reflect the character of its prominent all-electric automobile manufacturing and related businesses. Established in 2003, the corporate became profitable in 2013.

In essence, the company mission statement guides Tesla's strategic decisions, like in what the corporate must neutralize order to attain business effectiveness. On the opposite hand, the corresponding corporate vision statement shapes Tesla's direction of organizational growth. With an influential brand image and growing popularity, the corporate is placed to reach the world automobile market. Satisfaction of the company mission together with the company vision is an indicator of Tesla's operational effectiveness and business development.

Tesla, Inc.'s Corporate Vision and Mission Statement focuses on electric cars and related products, such as solar panels and rechargeable batteries for automobiles and other applications. However, recent market changes, and thus the company's corporate mission statement, have led the company to revisit while maintaining its corporate vision in the same way. These changes are reflected in current management strategies and initiatives. The marketing mix (4Ps) of Tesla highlights, for example, the target role of the company as a significant player on the market in renewable energy storage.

Tesla Inc.'s Mission Statement

The mission statement by Tesla was "to accelerate the transition to sustainable transportation around the world." However, the company changed its mission to "accelerate the world transition towards sustainable energy" in mid-2016, under the leadership of Elon Musk. This new statement shows a small but significant change in the business in order to manage the renewable energy market opportunities. In some ways, the new mission of the company recognizes the relevance in the market of electric vehicles for the companies' batteries and related energy storage products.

To note, Tesla Inc.'s mission statement has the following notable components:

- To accelerate
- The world's transition
- To sustainable energy

Tesla's role in pushing industry into cutting edge technologies for sustainable business and products that depend on renewable energy is set by "to accelerate" part of the company's mission statement. The mission of the company also mentions "the world transition," which indicates the expectation that the company would have successfully dominated the global electric vehicle and related products market. This component is directly linked to the emphasis on the global market of the company vision statement.

In addition, the conversion from "sustainable transport" to "sustainable energy" shows that Tesla, Inc. changes its corporate mission statement to match these strategic business goals. For example, the customary company only specializes in electric cars.

This company analysis case however demonstrates that the increasing demand for renewable energy is now reflected within the improved business sphere of the company, which covers long-term products, such as batteries and other renewable energy solutions.

Tesla Inc.'s Vision Statement

Tesla's vision is "to create the leading 21st-century car company, driving the transition to electric vehicles worldwide." This vision of the company highlights the renewable energy thinking of the company. The corporation specifically addresses the market in electric vehicles as an important way of enabling the renewable energy market on the planet to grow. In Tesla Inc.'s vision statement, the following components are significant:

- Most compelling
- Car company
- 21st Century
- The world's transition to electric vehicles

Tesla, Inc. aims to be the leading player in the industry in its corporate vision statement. This component shows management and excellence in the company. This is approached by the company's incorporation in electric cars and related products of advanced technology. On the other hand, Tesla Inc.'s work on design and manufacture of automobiles is focused on the 'car company' aspect of the

corporate vision. The "21st Century" module is pleased with Tesla's leadership in the design and production of EVs. This component means that the company uses the advanced technology to address current issues such as conservation. The fourth module refers to the global objectives of the company. For instance, the company continues to expand its operations by developing Asian regions with planned new factories. The expansion includes major players, such as the Toyota Motor Corporation, the General Motors Company, the Volkswagen, the Nissan Motor Company, the Honda Motor Company and the BMW (Bavarian Motor Works), including consideration of the competitive scenery described in Tesla Inc's Five Forces Analysis. The vision statement of the company thus reveals the company's objective to play the dominant role in the global electric vehicle market during that case of business analysis.

Corporate Mission & Corporate Vision of Tesla – Analysis & Recommendations

Its mission statement is cheap in terms of presenting the company's objectives. It adequately covers the varieties of products that the company sells, the market scope of the business, and so the market position of the company. However, it doesn't provide adequate information about the general direction of Tesla's organizational development. Thus, a recommendation is to spice up the corporate mission by including more details about the company's approaches in fulfilling its corporate vision.

The vision statement of Tesla Inc. describes business objectives effectively. It does not, however, cover current business efforts. For example, even if the mission statement has already changed to take "sustainable" energy into account, "electric vehicles" are still the focus of corporate vision. A recommendation is made in this respect to control the vision statement of Tesla Inc. to reflect the company's increased interest in products with the exception of electric vehicles.

2.2 ANALYSIS OF RISK MANAGEMENT SYSTEMS AT TESLA INC

Tesla Inc. SWOT Analysis & Recommendations

Tesla, Inc. (formerly Tesla Motors, Inc.) thrives as a ground-breaking automotive and energy solutions business. This SWOT analysis shows that the company has the strengths needed to require care of profitability within the long term. This positive viewpoint holds despite challenges in growing the business. The results of the SWOT analysis also suggest strategic reform to form sure Tesla's competitiveness and long-term success within the worldwide automotive and renewable energy markets. Such reform should increase strategic

effectiveness in addressing the interaction of competition shown within the Porter's Five Forces analysis of Tesla Inc. However, despite competitive burdens such as general engine manufacturing, the Toyota Motor Company's, Ford Motor Company, Nissan, Honda Motor Company, Bavarian Motor Works (BMW), and Volkswagen, the company's brand and its innovation support the international growth. In addition, they also promote the development of the automotive industry. As a favored electric vehicle manufacturer, the company is gaining from global growth. Foreign-market expansion, for instance, increases company revenues and stability. But, together with other problems identified in this SWOT analysis, the limited global operations remain a weakness that needs to be addressed to ensure international competitiveness and corresponding business development.

In this SWOT analysis, Tesla, Inc. must carry out reforms that include the internal strategic (strengths and weaknesses) and external strategic factors (opportunities and threats). These factors define the environment in which the company functions and develops. This inclusion of strategic factors in reform can boost business performance and resilience in electric cars and related transport and energy solutions in the world market. Only when the recognized SWOT factors are addressed can the management expect higher performance.

Tesla's Strengths (Internal Strategic Factors)

This aspect of Tesla's SWOT analysis addresses the business strengths that help to grow and improve the company. Business strengths are internal factors that enable the company to compete with other companies and, in particular, ensure profitability in the future. As an example, a strong brand of the company can support the global market for strategic expansion. The following strengths shape the capacity of the business as a competing actor within the automotive industry during this case of company analysis on Tesla:

- Highly innovative processes
- Strong brand
- Strong control on production processes

In particular when introducing the world's first full-electric sports car, Tesla Inc is understood to have a high rate of innovation. This internal strategic factor can help the company develop competitive and profitable products. Tesla brand could also represent a strong symbol of renewable energy solutions and of innovation in line with the business goals of CEO Elon Musk during this SWOT analysis. The company's ability to attract and retain new clients is optimized by this powerful brand. Vertical combinations, also because of centralization and

hierarchy in Tesla's organisation, are the internal factor of strong control in production processes. As an example, the corporate manufactures automobiles and lots of their components. This factor could be a strength that minimizes issues linked to the involvement of third parties. Overall, this aspect of the SWOT analysis of Tesla points to innovation and brand image as major strengths of the corporate.

Tesla's Weaknesses (Internal Strategic Factors)

During the SWOT Analysis this aspect identifies the internal factors that limit organizational performance. These internal factors are weaknesses that can reduce the competitiveness of Tesla and the growth of business. Weaknesses are problems that the company has to address by strategies, reforms and initiatives within the context of this business analysis. Despite its strong brand in the electric vehicle industry, Tesla, Inc. has great weaknesses in performance and potential future growth:

- Limited market presence
- Limited supply chain
- High prices

Tesla has a limited presence on the market. For example, most of its revenues within the U.S. and include a small presence in China, and consequently the developing world are generated by the company. This internal strategic factor may be a weakness that limits entrepreneurial growth that supports the rapid economic growth of international markets. In this SWOT analysis, the company's limited supply chain could also be a related weakness, preventing it from expanding rapidly in those markets. In addition, the products of Tesla are relatively more expensive to compete cars, especially burning motors. Such high prices prevent the corporate from rapidly growing its customer base and market share. The weaknesses identified during this SWOT analysis reflect Tesla's must reform its strategies associated with global expansion and growth.

Opportunities for Tesla, Inc. (External Strategic Factors)

This aspect of the SWOT analysis focuses on the external factors presenting the organization with potential growth and development. These external factors are opportunities for Tesla to improve business performance, efficiency of management and strategic growth. As an example, the enterprise can spread to promote further business growth in the global automobile market.

Tesla, Inc. has great opportunities in the global automotive and energy market for its financial status and competitiveness as follows:

- Global sales expansion
- Global supply chain expansion
- Business diversification

Tesla must consider the opportunity of global sales growth in terms of its weaknesses. This opportunity depends on the numerous economic processes of the countries in which the company has a minor market presence. For example, through expansion on Asian automotive and renewable energy markets, the company could increase its sales. During this SWOT analysis, Tesla's supply chain will also be expanded to support the global expansion of its manufactures and sales activities. In comparison with larger companies, such as General Motors, the external factor emphasizes the relatively small amount of business. The company can also improve its performance by diversifying. This external strategic factor involves establishing or acquiring new businesses to cut back business exposure to risks within the automotive market. This aspect of Tesla's SWOT analysis points to the advantages of international expansion.

Threats Facing Tesla, Inc. (External Strategic Factors)

During this aspect of the SWOT analysis, the external factors limiting or reducing Tesla's organizational performance are covered. These external factors threaten companies, so that their strengths and opportunities do not maximize the advantages. Competitive forces, for example, limit potential revenues from the global electric vehicle, battery and solar panel market placement of a company. Although Tesla's business has demonstrated significant profitability, despite changing conditions in the automotive industry, Tesla must address subsequent threats to maintain resilience:

- Aggressive competition
- Fluctuations in material prices
- Dealership regulations

Car manufacturers compete each other aggressively. Tesla, considering other companies' efforts to produce electric vehicles, is threatened by that external strategic factor. During this SWOT analysis, fluctuations in material prices are another threat. The fluctuation and customary growth in the cost of lithium, a fabric used in energy storage products, is especially evident from this external factor. The company also faces a threat to the regulations on dealership. Currently, without a dealer involvement, Tesla directly sells its products to customers, increasing sales prices. However, some states like Virginia and Texas

prohibits direct sales of the company's products, requiring that such sales must bear dealerships. supported this aspect of the SWOT analysis, Tesla must maintain competitive advantage to stay profitable despite aggressive competition from large automotive firms.

SWOT Analysis of Tesla Inc. – Recommendations

Within the next few years, Tesla, Inc. has the strength to remain successful. However, as this SWOT analysis shows, the company must address a number of issues in order to preserve its competitiveness and improve profits. The multinational presence of Tesla must be improved. In high-potential developing countries, new facilities and sales operations can, for example, increase business growth and meet the corporate mission of Tesla and its vision.

In order to offer technologically advanced products that are competitive, it must also continue to invest significantly in Research and Development (R&D). This SWOT analysis shows that Tesla has the potential to grow within the global automotive market despite aggressive competition.

In considering the results of this SWOT analysis, with the goal of improving business competitiveness, growth, and development, it's recommended that Tesla Inc.

Tesla, Inc. PESTEL/PESTLE Analysis & Recommendations

The challenges associated with the external factors identified during the PESTEL analysis must be overcome by Tesla Inc. (formerly Tesla Motors, Inc.). The PESTEL Analysis could be a tool of strategy for managing the output of the remote or macro environments in the industry on the company. In the case of Tesla, the automobiles industry, the energy generation sector and the energy storage industry are concerned with a remote or macro environment. Other business factors such as customers and community-based organizations are affected by these external factors. As an example, Tesla Inc.'s customer base and market share depend upon factors just like the cost-effectiveness of technologies within the transportation sector. The company can increase its success on a long-term basis by incorporating the results of its PESTEL analysis in strategic formulation with a strong brand image and improved profitability. The business efficiency of Tesla could reflect how well the company addresses the external factors. The remote or macro-environmental conditions change and require the company to vary their strategies accordingly.

Despite competition with large companies like General Motor Company, Honda Motor Company, Toyota Motor Corporation, Volkswagen, Nissan Motor Company and BMW, Tesla Inc. sales revenues from motor vehicles, batteries, and solar systems increase. Sales revenue (Bavarian Motor Works). The condition shows that external factors in the remote or macroenvironment of the company are effectively addressed. The external environment is different due to the varying product types and target markets of the company, as shown in the analysis of Tesla from PESTEL. Such variety must correspond to strategic management solutions. Thus, it's imperative to spot and address the foremost significant of the external factors from these business environments.

Political Factors Affecting Tesla's Business

This component of Tesla Inc.'s Porter's 5 Analysis identifies governmental impacts on companies and their remote or macro-surroundings. Government bodies are among the largest corporate groups affecting companies and industries. For example, trade policies may limit the performance of the industry and thus the company's revenues. For Tesla, and also for the automotive and energy solutions industries, the political external factors that follow are important in this case of external analysis:

- Electric car government incentives (opportunity)
- New global trade treaties (opportunity)
- In the majority of major markets political stability (opportunity)

Tesla, Inc. has the chance to strengthen its financial performance through incentives from governments. This external factor directly relates with the minimized carbon emissions of the company's operations and products. Additionally, this PESTLE analysis determines that expanding trade agreements open opportunities for the corporate to expand its operations internationally. On the contrary, Tesla's broad-range competitiveness strategy and intensive growth strategies, including penetration, benefit the remote or macro-environment due to the political stability of major markets. This part of Tesla's PESTLE analysis presents opportunities for political external factors to expand the automotive business.

Economic Factors

The effects of economic conditions on the distant or macro environments are taken into account in this part of the PESTLE analysis of Tesla Inc. These include market growth, trade level, currencies and other variables affecting the automotive industry. The growth rate of the alternative energy market, for

example, determines the expansion of the company's solar array business. Tesla must address the following external economic factors that influence car markets:

- Decreasing battery costs (opportunity)
- Decreasing renewable energy costs (opportunity)
- Economic stability issues (threat)

Tesla's business performance benefits from lower battery costs. as an example, this external factor translates to affordability of the company's machine products. This PESTLE analysis also considers decreasing renewable energy costs as an external factor that creates Tesla's products more attractive. The business progresses as renewable energy solutions emerged more popular. However, economic stability issues threaten the company's financial performance, especially in Europe and Asia. This a part of the PESTLE analysis of Tesla, Inc. highlights major opportunities for growth, despite the threat of economic instability within the remote or macro-environment of the automotive industry.

Social/Sociocultural Factors Influencing Tesla Inc.'s Business Environment

Employees, customers and investors affect social conditions and trends in the remote or macro environment of a business. This section of Tesla's PESTLE analysis examines the way the company aligns its target markets with social trends. The managers of the company must ensure that strategies are implemented to maximize the business benefits of external factors. Some of Tesla's socio-cultural external factors are the following:

- Increasingly popularity of low-carbon lifestyles (opportunity)
- Increasing preference for renewable energy (opportunity)
- Improving wealth distribution in developing markets (opportunity)

The analyzes by this company show that the multinational car industry is growing. For example, Tesla Inc. has increased opportunities to support a growing popularity within the PESTEL/PESTLE analytical agenda of low carbon lifestyles and increasing the prime importance of renewable energy, boosting market demand in electric vehicles and the related products of the company.

Tesla also has the possibility of enhancing its financial performance in developing markets by supporting the growing distribution of wealth. The trend towards wealth distribution increases the population of potential buyers of the relatively costly cars of the company. During this a part of the PESTLE analysis,

Tesla Inc. can grow its business internationally, supported sociocultural opportunities in its remote or macro-environment.

Technological factors

This a part of the PESTLE Analysis determines how technologies influence the company's remote or macro-environment. The sheer development of Tesla's automotive and energy solutions business rest on on accessible technologies. as an example, materials engineering technology determines the efficiency and cost-effectiveness of the company's batteries. the subsequent technological external factors are significant in Tesla, Inc.'s automotive business:

- High rate of technological change (opportunity & threat)
- Increasing automation in business (opportunity)
- Increasing popularity of online mobile systems (opportunity)

The high rate of technological change is a chance and threat during this business analysis. The high rate presents opportunity for Tesla to reinforce its products' technologies. However, the identical external factor threatens the corporate in terms of the potential rapid obsolescence of technologies employed in its products. Nonetheless, increasing business automation may be a trend that makes opportunities during this PESTEL analysis case. for instance, Tesla has growth opportunities through further automation of its business processes. additionally, the increasing popularity of online mobile systems should prompt the corporate to increasingly integrate these systems in its automobiles. The technological condition of the remote or macro-environment, as shown during this a part of the PESTEL analysis of Tesla, Inc. emphasizes opportunities for growth supported technological enhancement.

Ecological/Environmental Factors

The remote or macro-environment of the world business is subject to the consequences of ecological conditions covered during this a part of the PESTLE Analysis of Tesla, Inc. as an example, ecological trends determine the supply of materials utilized in the company's production processes. during this case, the subsequent ecological external factors affect Tesla's market:

- global climate change (opportunity)
- Expanding environmental programs (opportunity)
- Rising standards on waste disposal (opportunity)

PESTLE analysis considers ecological factors as significant forces on Tesla, Inc.'s industry environment. as an example, the corporate has opportunities to push its electric vehicles supported concerns on global climate change,

expanding environmental programs, and rising standards on waste disposal. the corporate's electric vehicles, batteries and solar panels are considered suitable in directly addressing these external factors linked to business sustainability and environmentally friendly products. This a part of the PESTEL/PESTLE analysis shows that Tesla has significant growth opportunities supported the character of its products.

Legal Factors

In this a part of the PESTLE Analysis, the results of regulatory factors on the remote or macro-environment are determined. Laws and legal systems shape managerial decisions and business development. as an example, Tesla's marketing mix or 4P are implemented within legal constraints. The company's human resource management and business partnerships also are within legal constraints. during this case of Tesla, Inc., corporate strategies must include the subsequent legal external factors:

- Expanding international patent protection (opportunity)
- Energy consumption regulations (opportunity)
- Dealership sales regulation within the U.S. (opportunity & threat)

In view of expanding international patent protection, Tesla has opportunities to expand securely its business in foreign countries. Furthermore, the analysis from PESTLE identifies the opportunity of marketing company electric vehicles and products, the energy consumption regulations supported by customer organizations. The company also has a chance of growing through direct sales that are permitted in many countries in the United States. However, this external factor is supported by Tesla, Inc. SWOT analysis, because other countries do not allow direct sales and require dealers to deal with clients inside the automotive market. This external factor is also a threat. The legal conditions of the remote or macro-environment shown during this a part of the PESTEL/PESTLE analysis indicate that Tesla can expect growth opportunities.

PESTLE Analysis of Tesla Inc. – Recommendations

Over time Tesla, Inc. improves profitability. Factor behind this performance are leadership and recognition of Elon Musk. Finding a competitive landscape as determined by Tesla Inc's Five Forces analytics, this corporation is furthermore in an extremely good position for improved operations in the global automotive market. However, in this PESTEL analysis, the company must

continue to evolve to reflect the trends showed. All automotive, battery/energy and electricity industries are affected by these trends. Thus, the corporation must also consider its business condition relative to other automakers and energy solutions providers.

There are a number of opportunities for further growth of Tesla Inc., as shown during this PESTEL analysis. Trade agreements, for example, facilitate international expansion. The company therefore recommends that its operations be expanded globally. The company also recommends increased its marketing aggressivity, in particular in countries other than the United States, to expand its market share. This move may reduce market-based risk, as Tesla has limited sales operations abroad.

Tesla Inc. Five Forces Analysis (Porter's Model) & Recommendations

Tesla Inc.'s success as an innovative manufacturer of electrical vehicles is partly supported its strategies that tackle the external factors within the automotive industry environment and therefore the energy storage and solutions market. This Five Forces analysis (Porter's model) shows that Tesla must prioritize competitive rivalry because the most vital of the forces in its multinational business environment. Pressures from substitutes, suppliers and buyers are considered during this business analysis.

Summary & Recommendations: Porter's Five Forces Analysis of Tesla, Inc.

Firms within the international automotive industry environment experience a range of external factors, including material availability and technology-based firm competitiveness. Tesla's resilience may be a reflection of strategic effectiveness. This company analysis shows that the business manages to grow in spite of competitive challenges. However, Tesla must make sure that it addresses external factors per the intensity of the forces impacting the business, as shown during this Five Forces analysis:

1. Competitive rivalry or competition (Strong Force)
2. Bargaining power of buyers or customers (Moderate Force)
3. Bargaining power of suppliers (Moderate Force)
4. Threat of substitutes or substitution (Moderate Force)
5. Threat of latest entrants or new entry (Weak Force)

In the figure below, I constructed the Porter's 5 model for Tesla Inc

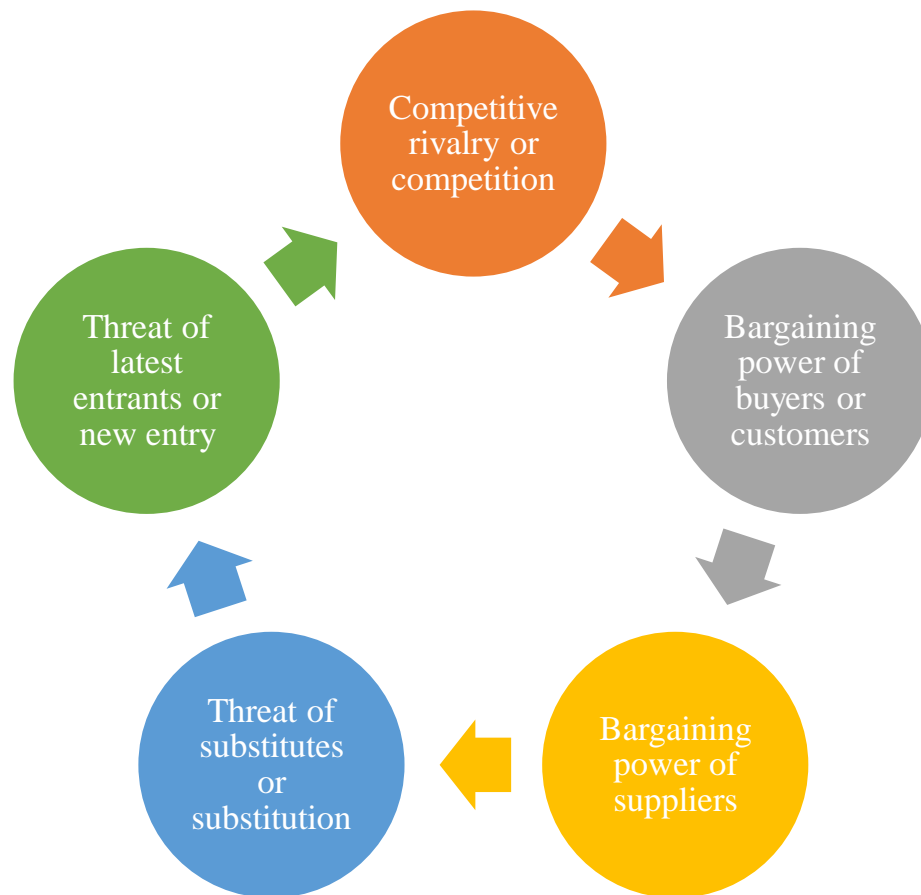


Figure 2.2.1: *Porter's 5 model for Tesla Inc*

Recommendations. After a close analysis, the findings of the Five Forces analysis by Tesla, Inc. shows that competition is the most significant factor in the company. Therefore, the company must give priority to this force in its strategic formulation. One recommendation is to further increase Tesla's competitiveness: Innovation and increased presence on the markets can achieve a stronger competitive advantage. For example, in terms of innovation, companies can boost investments in R&D to overcome their competitors' innovation energy storage rates. In order to accelerate market presence, aggressive marketing campaigns support Tesla's vision and mission declarations. The opposite forces described during Porter's 5 Forces' analysis have even significant intensities, but to a lesser degree than competition. Management initiatives must address these forces by their intensity.

Competitive Rivalry or Competition with Tesla, Inc. (Strong Force)

Tesla, Inc. operates in a very competitive market. The Five Forces Analysis discusses how competition in the automotive and energy solutions

sector affects the environment. In this case, the external factors of Tesla and its intensity, which lead to strong competition interaction, are:

- Small number of companies (weak force)
- High aggressiveness of companies (strong force)
- Low costs of change (strong force)

Only a meagre line of companies operates on the car market. This external factor limits competition effects on companies like Tesla, Inc in Porter's Five Forces analysis framework. However, these companies generally innovate and promote their products aggressively. Large car companies have aggressive marketing campaigns, for example. The marketing mix from Tesla or 4Ps partially satisfies these attacks, which reinforce the results of competitors against the company. Furthermore, small barriers (low switching costs) for buyers in the shopping of cars by other manufacturers further increase competitiveness. This aspect of the Five Forces analysis of Tesla Inc. points to competitive rivalry as a high-priority strategic management consideration within the automotive and energy solutions industry environment.

Bargaining Power of Tesla's Customers/Buyers (Moderate Force)

In this aspect of the Five Forces Analysis, shoppers have an influence on businesses and therefore the environment in the automotive, battery and electricity industry. The clients of Tesla are a factor determining the sales revenues of the company on-the-spot. The following external factors and their intensities maintain a moderate negotiating strength on the company by shoppers:

- Low switching costs (strong force)
- Moderate substitute availability (moderate force)
- Low volume of purchases (weak force)

Low switching costs reduce obstacles to buying cars from other suppliers by Tesla customers. This external factor imposes a powerful force on companies and other players in the automotive industry environment within the scope of the Porter Five Forces analysis. In many cases, however, replacement provision is only moderate and therefore restricts the negotiating power of customers against Tesla Inc. In suburban areas, for example, many shoppers have limited access to public transportation, making driving their own car more convenient. Furthermore, low purchasing volumes (every customer buy and maintains only one or more automobiles) reduce shoppers' influence in Tesla. Thus, the intensities of the external factors during this aspect of the Five Forces analysis reflect the bargaining power of shoppers as a moderate force and a secondary management

priority. This prioritization is reflected in Tesla Inc.'s generic strategy and intensive strategies.

Bargaining Power of Tesla's Suppliers (Moderate Force)

Tesla Inc.'s business depends on the reliability of suppliers. This aspect of the Five Forces Analysis shows how suppliers shape the industry environment by influencing the provision of materials that firms need. The intensities of the external factors that make the moderate force of the bargaining power of Tesla's suppliers are as follows:

- Moderate forward integration (moderate force)
- Moderate size of suppliers (moderate force)
- Moderate supply level (moderate force)

The suppliers of Tesla Inc. are occasionally integrated to the future. This external factor refers to the limited control by suppliers when their products are distributed and sold. Some suppliers, for example, use third parties to sell Tesla their material, while others deal directly with the company. This external factor imposes moderate force on the company under the Porter's Five Forces analysis. Moreover, the majority of these suppliers are moderately large and have a limited impact on the environment for the car industry. Another external factor is that the moderate level of supply, which empowers suppliers to affect Tesla, but only to a limited degree. This aspect of this Porter's Five Forces analysis of Tesla Inc. indicates the bargaining power of suppliers as a secondary strategic management priority.

Threat of Substitutes or Substitution (Moderate Force)

Tesla, Inc. experiences the impact of substitutes on the automotive and energy solutions industry environment. during this aspect of the Five Forces Analysis, the intensities of the external factors that cause the moderate force of the threat of substitution against the corporate are considered, as follows:

- Low switching costs (strong force)
- Moderate substitute availability (moderate force)
- Moderate performance of substitutes (moderate force)

As can be seen in the other aspects of the Tesla Inc. analysis by Porter's Five Forces, low switching costs enable competition. Low switching costs allow substitutes, like public transport, to simply attract customers during this external analytical case. This external factor imposes a strong force on the industry environment of Tesla. The moderate availability of alternatives however limits the influence of suppliers. For example, only a moderate number of alternatives

within the market are available to customers. In relation, many substitutes have only a moderate level of performance in satisfying customers' practical needs. as an example, public transportation isn't as versatile as a personal car. This condition further limits substitutes' force against Tesla. during this aspect of the Five Forces analysis of Tesla, Inc., the external factors point to the threat of substitution as a secondary management consideration within the company's strategies.

Threat of latest Entrants or New Entry (Weak Force)

New entrants are new firms, which impact the industry environment and determine the performance of companies like Tesla Inc. This aspect of the Five Forces analysis identifies the intensities of the external factors that make the fundamental interaction of the threat of recent entry, as follows:

- High cost of name development (weak force)
- High cost of doing business (weak force)
- High economies of scale (weak force)

Tesla's business, especially because of the high development cost of name and the recognition of Elon Musk, is difficult to compete with. It is, for example, difficult to match brand new entries with a strong brand of the company, one of all the strengths listed in the Tesla Inc.'s SWOT analysis. In the context of Porter's Five Forces analysis, the external factor is an entrance barrier. Furthermore, car making is expensive, and this imposes a barrier on new companies. In the Five Forces Analysis, the threat of the recent admission is simply a minute strategic management concern in the Tesla industry environment, and established players like Tesla enjoy growing economies of scale which new entrants can achieve only when the production threshold is exceeded, which have supported external factors.

2.3 EVALUATING THE EFFECTIVENESS OF RISK MANAGEMENT AT TESLA INC

Tesla Inc. formerly known as Tesla Motors Inc. is responsible for the design, construction, production and sale of electric vehicles and storage products. It mainly operates within us, China, Norway and worldwide. Headquartered in the city of California, the company.

The mission of Tesla is to accelerate the development of the world towards sustainable energy. Founded in 2003, Tesla breaks new barriers in developing high-performance cars that deliver the best and best-selling pure, long-distance and absolute no-transmission pipe electric vehicles in the world. It's also the world's safest, most high-rated on the road.

Apart from the flagship Model S, Tesla offers a smaller and simpler, cheaper mid-size sedan, Model 3, which it expects will really propel electric vehicles into mainstream. In addition to the flagship door, the company expects.

Tesla now offers a complete suite of energy products with solar, storage and grid services, with the launch of the Gigafactory and consequently the acquisition of SolarCity. Tesla has been at the forefront of the world's inevitable shift towards a sustainable energy platform because it is only a fully integrated sustainable energy company worldwide.

Mergers and Acquisitions

There's no brand-new thing to show interest in the takeover of Tesla shares. But let us study the places in which Tesla has acquired and fused over the last few years. Recently, over a 9-month period, Tesla has confirmed a number of purchases of US\$ 96 million. In its 10-Q SEC filing, the company released the statement. Tesla has not, in particular, revealed the company names it has acquired.

Earlier reports indicate that Tesla acquired the synthetic Intelligence (AI) start-up Hibar Systems, a small Canadian engineering company with a specialty in battery production. These two companies will henceforth be required to capture entire acquisition costs announced by Tesla in 2019. Deep Scale seems to be mostly what people refer to as 'acquire,' and probably the people joining Tesla have a lot.

Apart from these two companies, Maxwell Technologies was another acquisition that produced news headlines. Tesla was awarded an all-stock deal worth USD 218 million to the energy storage company. The deal was geared toward helping the electrical automaker improve its batteries and lower costs as more competitors are moving into the market. The offer values each of Maxwell's 45.9 million shares at \$4.75. and was expected to shut within the second quarter of 2019. Maxwell Technologies focuses primarily on ultracapacitors such as storage equipment that can quickly charge and discharge, perform with a wider

temperature angle, high power density and long service life. Maxwell's dry electrode technology, which is used to create ultracapacitors, is another reason for its acquisition. The company says this dry electrode technology is enhanced performance and less costly than the most commonly used wet electrode technology, which could be applied for batteries of varying chemistries. That app could provide Tesla with a lift in a more competitive market for electric vehicles.

In 2016, SolarCity had been the previous notable acquisition by Tesla. The US\$2.6 billion deal brings together two Elon Musk companies, enabling the billionaires, under one corporate brand, to sell their customers both electric cars and solar roofs. The German Grohmann Engineering company also took on an acquisition in 2016, developing automated battery and fuel-cell production systems. The number is not clear, but SEC submissions suggest it was about 150 million US\$ absolutely. The deal was designed to help Tesla manufacture machines.

Research and Development

Driven by increasing revenues and improved cost management, Tesla saw a strong price rise by nearly 35 percent in 2019. Research and development expenditures for the company grew from \$0.7 billion in 2015 to approximately \$1.5 billion in 2018. Tesla's expenditure on R&D, however, dropped to US\$1.34 billion by about 8% in 2019. The R&D revenues of the company focus on strengthening electronic battery quality and battery range. In two primary categories, Tesla's 2020 development strategy comes under: Headline-grabbing moves like launching the cybertruck or the Roadster 2.0, which the corporate claims that it accelerates faster than any production car ever made and massive bets are being made on its core vehicles, the Models S, X, 3 and Y.

In 2019, Tesla reported that the company progresses in transforming a building that is now used for warehousing in Fremont into a serious new R&D laboratory for vehicles, a 'Future energy reliability lab.' About 250 staff have been assigned to be at the new location. A smaller 8,500 square feet with a test chamber, workshop as well as alternative energy product testing equipment was planned for the "Future Energy Reliability Lab." The vehicle testing facility was to require a bulk space of 165,500 square feet with a crash track, a crash sledge, test chamber, vehicle lifts and labs. The automaker planned to assign 146 engineers and technicians, and 100 employees at the ability.

New development

In August 2020 Tesla CEO Elon Musk announced that the company will focus on new development and scaling of products and not Formula E competition. Tesla Roadster, a high-performance electric sporting car, was the first product of the company. The long-term plan, though, is to produce many models, including family cars that are affordably priced. The primary goal of Tesla can be because it is to help speed up the transition from a hydrocarbon and combustion economy to a solar electric economy. Tesla Roadster was designed to beat a gasoline sports car sort of a Porsche or Ferrari. the corporate plans to scale the assembly of affordable models like Model 3 and Model Y. After the corporate has established robust production of all available models, Tesla will begin developing new models that ought to be even cheaper.

Tesla had a successful year in 2019 with a big increase in production and a number of other new product launches. In 2020, Tesla is bringing to promote a number of those products and more.

Tesla Model Y- the disclosing of Model Y befell in March 2019. the degree production for the electrical crossover was planned for mid-2020 which was likely to start out in early 2020.

Tesla Model S and Model X refresh – Tesla announced that Model S and Model X interior would be refreshed during the summer of 2018. The firm ended up with the Model 3-ramp-up and the production of Model Y. The automaker is currently working to introduce its new 'Tri-motor Plaid' motor train, because both the performance improvements and the new interior can be delivered at the same time.

Tesla Semi- Tesla has announced in 2017 that it will be released for all electric heavy-duty trucks, the Tesla Semi. But since then, the corporate has delayed all-electric trucks despite having taken thousands of reservations with deposits worth between US\$5,000 and US\$20,000 each. However, in 2020, Tesla said that the corporate is getting to start the assembly of an electrical truck with limited volumes in 2020.

New Tesla Battery- Elon Musk incorporates announced that Tesla has a new battery turning out next year, which will last 1,000,000 miles.

Geographic Expansion

In the U.S., Tesla generates the majority of revenues (up to 60 percent in 2016, in line with Thomson Reuters). The domestic market of the company has increased efforts to increase international demand for electric vehicles (EVs).

Tesla aims to diversify its revenue streams on European and Asian markets. Tesla now has around 438 Tesla Motors stores and nearly 100 service centers around the world.

The new giga Fabrik in Tesla was built in just 168 days. It has been built. It is anticipated that approximately 150,000 models will be machined annually. Despite an increasing fear of slowdown in the industry, China is the world's biggest automobile market. By 2019, China had to converge foreign automakers with domestic car makers to manufacture in the country, making Tesla the primary company, while avoiding the 25% tariff. Moreover, in August, China announced its exemption from its proposed tariff of Tesla Model 3, Model S and Model X cars which can be resumed in December if the U.S.-China deal does not meet. While production in Shanghai may not need to do so, the willingness of the Chinese Government to join Tesla and even help is highlighted. With Tesla sales in China up to quite 175% on last year, it's as if Musk is during a good position to hold up the company's status within the much-sought-after market of China.

Tesla constructed a factory in Germany. instead of simply buying an existing factory in Europe, Musk has opted to make a different one in an already saturated market; an act that may take Tesla's competitors on directly and value the corporate \$4 billion.

Elon Musk, CEO of Tesla Motors, revealed its commitment in 2018 to expand its market beyond North America, China, and Europe. Tesla's CEO, in a very tweet following that, expressed the hope of expanding his presence by the end of 2019 to include regions such as India, Africa, and South America. In 2017, however, the electric car manufacturer checked out the Indian market, but plans were advanced. Indian customers reportedly made Tesla Model 3 reservations when it was advertised.

Tesla CEO Elon Musk had announced a two-year plan for the corporate. Constructing a mega factory in Shanghai, China was planned in 2017. the corporate aims to start producing its cars in a very new factory within the country. Tesla also planned to shift production of its solar roof to its new Gigafactory 2 plant in Buffalo, New York, during the fourth quarter of 2017, which is able to help the corporate increase installations significantly in 2018. Tesla started 2017 with about 5,000 superchargers round the world which spiked to 7,000 by September the identical year.

Outlook

The exponential crisis that shook the world has left Tesla unscratched. This pandemic is Covid-19. However, somehow Tesla's plan for the longer term was pushed by the lockdown and world economic backlash. Tesla reported its worst quarter in solar plants, but its battery business was growing significantly. However, CEO Elon Musk predicted that the power business will somehow compete with its automotive segment. The bottom line, however, is Tesla's all about electric vehicles and also the temporary halt of operations at the Fremont plant in Tesla was not much of a dent for vehicle production and delivery because of local health orders. Elon Musk has diverse ideas for the longer-term sort of a million “robotaxis” on the roads by the tip of the year, ‘feature complete’ self driving software, a network of underground roads to avoid traffic, hyperloop, zero-emission solar roofs, online platform to sell Tesla cars, Tesla’s child-sized submarines, opening a design and engineering center in China, small and cheap Tesla Model 2, advanced Tesla battery, etc.

3.1 WAYS to beat WEAKNESSES OF RISK MANGEMENT AT TESLA INC

With an awareness of common shortcomings, internal auditors can help their organization better meet stakeholder expectations and ensure business objectives are achieved.

Why do risk management implementations and functions often fail to deliver what's expected. And what causes senior management to feel that its investments in risk management systems aren't delivering the expected returns. Many factors, potentially, are guilty, stemming from various parts of the organization and its systems. But most frequently, the culprits come right down to some of common dysfunctions.

Ten key practices, specifically, are regularly neglected in organizations across industries and geographies, and in both large and little business settings. Successfully addressing these areas can help enhance the organization’s ability to accommodate the uncertain future, improve decision-making, and increase the reliability of periodic forecasts. Accordingly, these measures will augment the “predictive power” of the organization, leading to greater stakeholder confidence. Understanding the pitfalls, and recommending solutions to them, can provide internal auditors with a solid basis for helping to enhance risk management in their organization.

Observation: Risk management discussions typically don't evolve round the question, "How can we better manage stakeholder expectations." after all, the external customer perspective is usually absent entirely. Questions like, "To what extent will our customers like our control measures." don't seem to be asked, while customers are key stakeholders and also the organization is predicted to form and preserve value for them.

Recommendation: "To stay under control," in a predictable world, may be a relative concept. There are no risk-free or error-free organizations. Senior management should recognize that the long term is inherently not sure which of their never-ending opportunities is too complex for anybody to predict very accurately. When presenting strategies and plans. Instantly, the senior management should be courageous and honest when updating key stakeholders supported the latest forecasts instead of maintaining the illusion that the long term is being comprehensive or controlled.

1. Create the correct culture

Observation: The Company is led by a dominant person with little concern for opposing views or tolerance. When negative events occur, instead of trying to be told about errors, the main reaction of the leader is to hunt the blame. As a result, managers and staff decide to remain calm as long as possible and create a culture in which learning is not valued and self-preservation is the dominant mode of action. In addition, with regard to acceptable risk exposures, the board does not clearly report its expectations. As much as possible, it is the prevailing mode for creating a culture in which learning is not valued and self-preserved. Moreover, the board doesn't clearly communicate its expectations with relevance acceptable risk exposures.

Recommendation: The culture of the organization will be clear about what managers and employees are expecting. Clear communication of what constitutes and does not constitute acceptable behavior because the acceptable bandwidths of variations from specified targets (i.e. hazard tolerances) are required. The Board should open discussions on the extent of control required to administer key expectations of stakeholders, and senior management should encourage the study of company errors rather than merely destroying those in charge. In particular, the executive and the board should lead by example – which is a prerequisite for effective risk management.

2. Clarify responsibilities and rules

Observation: The responsibility to achieve the business goals, including those related to the compliance requirements, has not been clearly defined by senior management. There is uncertainty about who is responsible for developing broad policies and procedures for which organisation. Senior management relies more on detailed policies and procedures than on experienced perspicacity managers, and line managers are "in check" to follow detailed guidelines and protocols as per the central support functions—whether the required results are achieved or not. In addition, business managers are responsible only to a specific extent for their results. Their supervisors rarely ask the easy, core question, “How sure are you that you just are visiting achieve the agreed-upon objectives which there won’t be unpleasant surprises within the upcoming period.”

Recommendation: The organization will want to develop a structured management process for its charters, protocols, instructions and other key documentation on policy and procedures. Senior managers should refrain from empowering them to issue these House "rules" independently without much coordination and coherence of approaches, with too many separated internal regulators and specialized personnel. They also must explain, in contrast with what is left to discretion of local management, what is agreed at the level of a company (e.g., central procurement). Moreover, when designing and implementing new rules on the organisation, top management should arrange "reality checks" from managers to avoid "obesity rules" proliferation. Efficient policy management, which effectively is his business control framework, removes lacunae, overlaps and incoherencies within house rules of the organization, are widely accepted. It allows internal auditors, on the other hand, to use this framework as a transparent reference to conduct their audits.

3. Use suitable reward systems

Observation: Business managers are under undue pressure to attain goals that are unrealistic. additionally, senior management promotes excessive risk-taking by rewarding it paying attention, bonuses, promotions, and other sorts of compensation.

Recommendation: Adequate remuneration policies are necessary to steer people’s behaviors within the desired direction. Senior managers should lead by example and only accept compensation packages for themselves that are in keeping with serving the long-term interests of the organization. Doing so will

encourage managers and other employees to embrace the stated objectives and to plan to pursuing them.

4. Target the business objectives

Observation: The risk management activities of the organization do not seem linked to the strategic agenda of the board which generally includes the aspirations of the board with regard to growth, efficiency, innovation, standardization and sustainability. Moreover, confusion exists as to how the organization will produce value for each segment of stakeholder and the corporate objectives do not seem to have been adequate to measure actual progress against targets by SMART (specific, measurable, attainable, relevant and timely). This example is not very motivated by senior managers since it is difficult to control their performance results with mis-defined targets.

Recommendation: the first purpose of all risk management, control, internal audit, and other support functions' activities is to contribute to the conclusion of the organizational objectives. Senior management should emphasize that these objectives, in turn, are geared toward creating and preserving value for key stakeholders. These stakeholders, after all, are essential to the entity's continued existence.

5. Recognize the constraints of risk assessments

Observation: In the DM program, the aim is not to actively manage any uncertainties associated with the achievement of company goals but to identify, sort and weigh all kinds of risks. Because risk profiles, top-10 risk lists and other tools are widely used, the 'end' rather than 'means' chance categories become the "end" category. Further, the senior management believes or claims to be able to quantify risk exposure throughout companies, without considering the fact that it is impossible to establish all-inclusive risk models. In reality, correlations among multiple risk factors are hard to define, essential data often is missing, loss databases are of limited use to assist predict the long run, and past effectiveness of control measures isn't any guarantee for the long run.

Recommendation: Risk assessments lead to mere opinions about the longer term. These analyses are colored significantly by factors like the non-public preferences, knowledge, recent experiences, and character traits of these involved. Moreover, risk assessments shouldn't be one-sided. to see the extent to which the organization is prepared to house the long run, the analyses have to include matters that would help the conclusion of business objectives (the opportunities) additionally to those who potentially hamper the objectives (the risks). In addition, management should treat risk management (subject to

occurring events) and incident management (subject to occurring events) as well. They must ask: 'how well trained is our organization, after they have occurred, to handle serious incidents.' "Is our ongoing cycle of development well established." They must also persuade business managers to maintain the appropriate purpose of a proactive, integrated approach for both risks and incidents.

6. Put business managers within the driver's seat

Observation: The chance management systems mainly include support functions such as risk management, control, quality management, health and safety, security of information, income security and internal auditing. Line managers are obviously missing from the method, which should balance risk and rewards when making business decisions. Usually, a separate risk section should be included in your project plans for the project managers. These functions divide the planet into "defence lines." They therefore speak a different language than their clients who are busy "attacking the market" and "conquering market share." They also speak a different language.

Recommendation: Risk analysis should provide a more balanced view of the longer-term preferences that corporate managers prefer – that is to say, opportunities. Senior managers must avoid risk mitigation because the most important strategy is to avoid the supporting functions. They should explain that there are alternatives to fence business processes by means of many preventive control measures and better ways of dealing with risks than simply additional inspections. Line managers should not feel as follows or a slight distraction from "real job" risk management duties. In order to assess whether the current business system is sufficiently powerful to achieve the stated goals of the organization, the Board should arrange premortem assessments of important strategies, plans and projects. The Board also should ask senior leaders to clarify the extent to which their aims (quality, time and money) are unsure — a key issue for stakeholders. Senior managers should at the same time encourage business management to take advantage of the risk and control expertise of risk managers and internal auditors. These “generalists” must have a seat at the table when acquisitions are prearranged, new products are produced, or new markets are entered. Pursuit of recent business opportunities should go hand in hand with serious discussions of the risks related to the oftentimes crescendo projections of the promised results.

7. Demand integrated management information

Observation: Top-Management reports on performance levels and risk exposure, incidents and trends from numerous support functions are issued

separately. However, it does not produce integrated reports providing a shared view of current and future control effectiveness levels in the organization — screened by company, division, country, baseline, location, etc. Consequently, senior management is left with many separate reports that contradict each other to gain a transparent understanding of the specific situation.

Recommendation: Senior management should require single integrated reports and therefore expect different functions to contain this information. It should aim to provide a shared view of to what extent, and therefore how much it is expected, to achieve the business objectives in the previous period. Senior managers should insist on the use of contemporary tools and technology to research the company data available. The effectiveness of the control framework must not be monitored on the basis of samples, but on the basis of large amounts of transactions. Transaction flows must be continuously monitored to identify timely irregularities and negative trends and to develop robust business intelligence capacity to reduce uncertainties when managing decision-making.

8. confirm rules are enforceable

Observation: The organisation, developed by specialists who are able to draw up the leading technically advanced policies and procedures, is full of complex rules (e.g., on information security). However, for line managers to decode and integrate these rules in their everyday operations, it is too difficult to implement them. In addition, important audit findings do not appear to be taken seriously and managers leave without adequate monitoring of improvement plans, and there are significant gaps in audit coverage by essential controls.

Recommendation: Organizational leaders should enforce clear house rules, which are implemented realistically. The detail of these rules depends on factors such as the philosophy of management, the maturity of business processes, industry practices, regulatory expectations and requirements for certifications. Senior managers should provide support to busy management when translating corporate policies in their business processes for specific control measures. When the basis is required to be taken seriously, the violations must also be shown to have repercussions.

9. Align internal audit with the business

Observation: The risk assessments prepared for the yearly audit plan do not align with the broad risk analysis carried out on behalf of business management by the organisation. Internal audit doubts the power to collectively design and implement adequate internal controls for other support functions. The

internal auditors refrain from opinions regarding planning the control framework because of fear of losing their objectivity. Due to the surprise and irritation of their customers and colleagues from other support functions, they like to use their own standards and perceived best practice in conducting their audits rather than the agreed framework of business control.

Recommendation: In order to achieve the organization's objectives, the Chief Executive Audit should be aware of the contributions he expects internally. Senior administration should include the internal audit function as a trusted adviser to help establish the rules of the house of the organization. The more the principles develop, the more effective the internal audit can be. Internal auditors should show that they understand which risks offer the best competitive advantages to their organization if managed well. They must gladly accept the challenge of actively managing information on how their organization earns the trust, respect, and support of key stakeholders.

Managing expectations through predictive power

Business managers regard risk management as helpful insofar as it allows them to manage their key stakeholders' expectations better. The main step in any risk management process should therefore be intensive stakeholder analysis. Senior management alternatives to the specific value it needs for every stakeholder constituency are to be reflected in the stated business goals. The primary objective of risk assessments should be to estimate the likelihood and extent of the achievement of the stated objectives.

Risk management activities should serve to improve the predictive power of an organization continuously, largely depending on the standard of periodic predictions prepared by the competent management. Reliable forecasts require these managers to remember the opportunities available, the extent of exposure to risk, and also the monitoring quality. The more realistic these predictions are, the greater the level of management control.

Following this approach, management focuses more proactively on the management of stakeholder expectations from the evaluation of actual results (versus the plan, budget, etc.). In the end, the improvement of a company's predictive power results in a reduction in the overall uncertainty the entity has to face. In turn, this leads to greater trust and confidence in its management. That is, the best return management can receive the money invested in risk management in time, effort and time.

3.2 RATIONALE FOR IMPROVEMENT PROGRAM OF RISK MANAGEMENT AT TESLA INC

I have examined discussions with management and managers on company risk management over the net, articles and books (ERM). The debates ranged from what it is to how it should be implemented. In terms of the 'what is this' question, I have always believed that a fundamental objective of ERM is to provide the discipline and control in the course of constantly changing business environments to ensure that risk management capacity is continuously improved. This is a question, "why better risk management." The underlying objective.

I believe there are six fundamental reasons for improving risk management. Each serve to assist elevate risk management to the next level and drive improvement of risk management capabilities in an exceedingly changing business environment I discuss them below.

- **Reduce unacceptable performance variability**

Most businesses are known for long time for specializing in traditional risks. Risk evaluation processes must also adopt a scientific approach to anticipate risks that are unknown and emerging. Management must, therefore, (a) evaluate the likelihood, impact, speed, persistence and readiness to react to major events; and (b) develop responses to prevent or manage the impacts of high-impact events, especially if they are high-speed and high in nature. Too late or ingeniously learn about critical risks leads to a sort of "firefighting" that drains resources, creates new vulnerabilities and erodes brand value.

A key point during this regard is that market capitalizations often exceed historical record values significantly. Furthermore, the market capitalisation of most companies cannot be fully rationalized by historical and prospective future earnings and cash flows. there's a spot as a result of intangible assets supporting business models that impact market valuations. even as potential future events can affect the worth of tangible physical and financial assets (and the related contractual obligations), so, too, can they affect the worth of other sources of enterprise value, like significant customer assets, employee/supplier assets and such organizational assets because the entity's distinctive brands, differentiating strategies, innovative processes and proprietary systems. this is often the essence of what a strategic approach to risk management contributes to the organization – the elevation of risk management to a strategic level by broadening its application to any or all sources valuable, not just physical and financial ones. Thus, the challenge is to elevate the road of sight of the limited traditional risk management focus to a strategic level. With this broadened perspective, effective

risk mitigation and response planning increases the stress on reducing earnings volatility, minimizing the danger of earnings-related surprises and managing key performance indicator (KPI) shortfalls.

- **Align and integrate varying views of risk management**

There are many silos within organizations with some extent of view on managing risk (e.g., treasury, insurable risk, EH&S, IT, and within the varied business units). Silo mentality inhibits efficient allocation of resources and management of common risks across the enterprise. When there are multiple functions managing multiple risks, there's a necessity for a typical framework that:

- Assesses the requirement for a Chief Risk Officer (or equivalent executive), including that individual's role, authority and reporting lines;
- Integrates risk management into critical management activities (e.g., strategy-setting, business planning, cost and performance management processes);
- Links risk management to more efficient capital allocation and risk transfer decisions;
- Focuses on the importance of risk culture on risk-taking behavior and risk management performance;
- Increases transparency by developing quantitative and qualitative measures of risks and risk management performance (KRIs); and
- Aggregates common risk exposures across multiple business units with the target of understanding the profile of the best threats to the enterprise as a full and formulating an integrated enterprise-wide risk response.

- **Build confidence with stakeholders and therefore the investment community**

As institutional investors, rating agencies and regulators grow specialized in the importance of risk management in their company assessments, management is also invented or maybe asked to divulge and investigate the risk understanding and management capabilities of the organization. The purpose of the disclosures is to enable stakeholders to develop informed evaluations of the organization's viability and sustainability and the adequacy of returns as the risks involved are relevant. As companies increase the transparency of their risks and risk management capabilities and improve the maturity of their capabilities around managing critical enterprise risks, management are able to articulate more effectively how well they're handling existing and emerging industry issues.

- **Enhance corporate governance**

Risk management and corporate governance are inextricably linked. Elevating risk management to a policy level strengthens the oversight of the Board, forces assessment of existing supervisory structures at senior management level, clarifies the roles and responsibilities of risk management, establishes risk management authorities and limits and effectively communicates risk responsibilities in support of key business goals. All these activities are aimed at good administration. By the identical token, effective governance sets the tone for (a) understanding risks and risk management capabilities and (b) aligning risk appetite with the entity's opportunity-seeking behavior. Directors often ask, "what are the risks, how are they managed and the way does one know." a good risk management process provides the answers.

- **Successfully answer a changing business environment**

As the business climate changes, the pace of change accelerates and the effects of change also become disruptive, organizations need to identify, prioritize and plan the risk more effectively. Management must (a) understand the critical assumptions underlying the strategy and business model and (b) monitor the vital signs of market trends and developments which render one or more of these key assumptions invalid, within the external environment. This approach provides relevant decision-making information and leads management to identify alternative future scenarios, measure the likelihood and severity of such scenarios, identify priorities and improve organizational risk management capabilities. Since environmental change is emerging, new risks arise, and action and disclosure are escalated very timely to influence how resources across the organization are allocated.

- **Align strategy and company culture**

Management must create awareness of risk and an open, positive risk and risk management culture. Individuals can raise problems in such an environment without payment concerns. A closed environment of this nature requires a lot of work. Centralized policy making in relation to matters of corporate importance:

- Creates greater focus, discipline and control;
- Clarifies the excellence between risk-taking and risk-avoidance behaviors;
- Improves tools for quantifying risk exposures;
- Increases accountability for managing risks across the enterprise; and
- Facilitates timely identification of changes in an entity's risk profile.

Effective alignment of strategy and culture promotes balance in the company's business activities and control activities, so neither one is simply excessively strong in comparison to the other.

The six fundamental reasons for improving risk management offer a perspective on the purpose of management in improving capacity for risk management. Each reason contributes to raising risk management to the next level and improving risk management capabilities in a changing environment. The Ongoing improvement efforts can allow organizations to align risk appetite and strategy, enhance risk response decisions, reduce operational surprises and losses, identify and manage cross-enterprise risks, provide integrated responses to interrelated risks, seize “early mover” opportunities and improve deployment of capital.

As the pace of disorder change accelerates, risk management becomes a root differentiator between merely survivors and pacesetters of the industry. Risk management skills aligned with risk speed and the changing marketplace protect reputation and brand image and create trust for the longer term. Is this sufficient to ensure that risk management continues to improve. We expect more management boards and teams to agree that this can actually be enough.

3.3 EFFECTIVENESS OF THE ADVANCE PROGRAM IMPLEMENTATION AT TESLA INC

The value of enterprise risk management (ERM) within the insurance industry was given a decisive demonstration within the financial crisis. McKinsey research showed that the higher their ERM systems, the higher insurers performed financially in 2008 and 2009.¹ Within the aftermath, much industry attention focused on creating or improving ERM systems, and also the focus has been sustained struggling from regulators, rating agencies, and investors. The starting point for the ERM efforts of the industry was a reactive attitude, perhaps of course, with systems designed to respond to incidents and to ensure compliance with existing and future regulations. However, some insurers are in a position to develop ERM framework supporting strategic decisions and creating real business value. They need, over time, to reduce return volatility and improve the performance of capital—that allows them to take a better view of the risk proposed throughout the company and integrate the ERM into a lively business partner.

Knowing what a good ERM framework is. How can insurers systematically move from defence to the use of ERM for business purposes. The

leaders of a widespread insurance firm revealed during a recent survey that they were puzzling on these issues in a focused manner.

During the process, they identified key areas for improving risk transparency and insight into their company strength (Exhibit 1). Smaller companies also showed deficiencies in risk culture and performance transformation. Most of the Chief Financial Officers and Risk Officers surveyed indicated an improvement in the ERM in the perceived climate of increased risk, defined by an unsure macroeconomic environment, persistent low interest rates, the volatility of the financial market and rising geopolitical instability.

Attaining ERM excellence: A journey to value creation

Taking account of the experiences of leading institutions in corporate risk management, McKinsey developed a framework to help capture best practices. The framework for the ERM"). The Framework integrates the risk management weather during a business strategy reinforcement cycle.

Enterprise Risk-management Framework Illustrates an Integral Cycle of Best Risk Practices.

A best-practice risk function fosters a highly integrated, enterprise-wide risk culture across the organization, managing the chance profile to serve the business strategy. the trail to ERM excellence involves a transformative journey, and most insurers are at its beginning stages. For the bulk of companies, the danger focus is on compliance, a necessary start line. They monitor risk, gauge risk levels in contrast to new regulations, and react fittingly to risk incidents. The ERM function at this stage is principally backward looking, developing controls and aligning existing risks with current and forthcoming regulation. the danger function first establishes and so operates within risk-review guidelines and should have (and occasionally may exercise) formal veto power over business decisions.

Systematic ERM actually begins only after compliance-centric features, including risk limits and policy setting, accounting, and forensic index adoption, have been properly developed. Most insurers are in the development stage. They use their own Risk and Eligibility Assessment (ORSA) under US and EU regulations. It provides insurers with an internal process for assessing the effectiveness of risk management and solvency under extra and stress conditions. ORSA helps insurers assess all significant risks that can affect their ability to meet policyholder obligations, including market risk, credit and argument risk, liquidity risk and operational risk.

At this stage, the ERM approach drives risk management, including loss and risk return optimization in its role. In other functions (such as finance) and business continuing dialogue, risk managers actively identify potential problems and help challenge common practices. This function develops an understanding of corporate strategy and the ability to model economic capital (risk capital) and perform stress tests. Then this function transforms the model into the strategic input of the chief executive. At the end of the

journey, the risk function creates value by integrating ERM with corporate strategy. This feature is being demanded by aligning partners to allow business managers to compare the pros and cons of potential risks and the impact of risks and returns in strategic and operational decisions. To become a

Strategic Thinking Partner does ERM capabilities must be able to drive business decisions and create the comprehensive economic capital model required to link advanced risk analysis to key business processes.

Risk Transparency and Insight

In this ERM area, respondents said they intended to improve stress testing risk reports, especially data and analytics. A quarter of respondents cited data governance and quality, while another quarter cited automation and speed of data collection as a priority for improvement in the first place. In the survey and subsequent discussions, respondents shared the perception that big data is transforming and that the industry in general needs to invest more in analytics. Fast, automated access to accurate data is nothing more than a prerequisite for strategic use of advanced analytics. The various challenges are creating value from data. Advanced analytics enable better decision-making to pursue strategic objectives, greater transparency in performance, and improved final financial results.

Most respondents stated that they were conducting a stress test and reviewing the results of their decision making, but half said it was clear that not all risks were taken into account in the process. In interviews and follow-up discussions, survey participants expressed a willingness to improve stress testing if they properly accounted for all the risks of stress testing and expanded more useful insights from the results. Almost half of respondents made it clear that the risk reporting process was partially unstructured and that there were no predefined escalation mechanisms.

Risk Culture

When asked about the organization's level of responsibility for risk-related matters, 38% of respondents declared that in their day-to-day work, they

support both risk qualitative judgments and quantitative tools, which are not always considered. This means that several industries have not achieved a possible level of transparency of risk that can improve business decisions. For

front-line functions, participants showed that risk is most ingrained in people's minds in the following areas: investment management (56% first choice of participants) and damage to businesses and commerce (22%). There seems to be room in the retail and non-life insurance business to improve the frontline risk culture. In interviews with

insurance leaders, some players have invested heavily in risk culture programs, especially third parties (ie mediators and independent financial advisors). He emphasized that he has begun professional steps to enhance the risk culture in the retail business. Distribution channel.

ERM conversion approach

ERM conversion can focus on the selected priority area or the entire ERM program. Experience has shown that successful transformations have a common main feature. Direct board and management sponsorship and participation is the first requirement. Second, the CRO (Chief Risk Officer) must be promoted to a general technical advisory position to perform a true leading role. As a leader, the CRO needs to drive the business to set the direction of the business. When planning change, the CRO-led team needs to take a unified perspective, especially across all core ERM elements. This is more important than achieving excellence in a specific field. CROs must communicate the key message of transformation and ensure that it cascades to all levels of the organization. CRO-led efforts can also impact risk management across the organization, using measures such as critical incentives and optimal operation of role modelling.

Target-specific interventions

Target-specific ERM interventions are prioritized by specific factors, such as risk definition stress test report. These interventions are effective when the entire ERM framework has been thoroughly evaluated and determined to be robust. It also helps overcome certain external limits, such as the consequences of regulation and new rules (and judgments). Success depends on a clearly defined starting point and a set of clearly expressed priorities. The targeted change begins with a diagnostic evaluation of the ERM framework. This way, each segment is searched and improvement projects are specified and prioritized. The development of advanced features is an ideal choice for targeted interventions. Machine learning, for example, allows companies to better understand the risk profile of their customers. This improves the existing model,

avoids risks that companies do not see, and allows you to estimate completely new risks. Future profitability in this area will rely on these differentiated insights from new sources and data types. To gain this insight, large companies are investing in innovative features such as advanced analytics and machine learning.

Overall ERM Conversion The

Overall Conversion Program traverses all or most of the ERM Framework segment and its components and can take up to two years to complete. When the ERM is revealed by the insurance company diagnostic evaluation, such changes.

An overall ERM transformation

An overall transformation program will cut across all or most of the ERM framework's segments and their constituent elements, and it could take up to two years to complete. Insurers undertake such transformations when a diagnostic evaluation reveals that the ERM framework requires general improvement; when the company is undergoing a strategic change of course, such as a modified risk appetite or a significant change in the business mix; or when the improvement areas indicated in the diagnostic require interventions that cut across the entire organization or involve cross-functional elements in the framework.

The assessment is the start of the journey towards building a new ERM and formalizing risk strategies and processes. Actions to focus the transformation effort on a defined ERM state are identified and implemented in each part of the framework. Actions are strategically implemented in accordance with priority needs. Priority measures for transparency and insight would include the diagnostic example, a reporting review and stress testing, and new governance and models development and implementation. The stress test approach would be determined by the specific situation and needs of the insurer. A thorough analysis of a consistent set of scenarios would be needed; a complete impact assessment; tailored strategic measures would be identified and decisions mitigated, and risk exposure in depth would be assessed.

Within each area of the ERM framework the transformation takes place and as gaps in the target state are closed, connections between the risk function are strengthened, priorities can be re-assessed and reconfigured with new insights and achievements.

Tesla has become riskier with a broad consensus and the regulatory atmosphere is increasing and the state of enterprise risk management has received greater and more systematic attention. With the identified areas for improvement in the risk management framework, leading insurers take this opportunity to go beyond filling the gaps. They define a target state for risk management and cultivate a risk culture across the organization that may become a source of true competitive value by using new capabilities and techniques.

Conclusions

Finally, risk management is very important to any company with or without risks. Early and aggressive risk identification by the involvement and collaboration of the relevant stakeholders would be required for an effective risk management plan. Risk management describes organizational decisions about how they handle, and when they occur, will face different risks. It also contributes to identifying different ways and measures for controlling these risks and ensures that an effective management plan to minimize or prevent losses can be established and implemented. A good risk management plan should clearly identify and address the company's risks and vulnerabilities in the use of strategies to resolve the problems.

The management of small and large risk, like mistigri and Sisyphus, is now responsible in particular for the designation, control and production of these risks. The assessment or roundness of certain risks goes hand-in-hand with cover-up if not denying others, its management erects winning actors who benefit from them, outsourcing or blame the loser players for potential loss, particularly because they do not have the legal and political philosophical attributes to be recognized as such. Your "control" is often a temporary solution and not a permanent solution, thus characterizing its political dimensions and imaginary mechanisms or more precisely technological innovations that create new ones when controlled.

Tesla began as a differentiator for luxury vehicles and now pushes the market down through a broad strategy of differentiation. In order to organize their marketing campaign, the company uses its media and its online sales sites and

automation, providers and research differentiate its products. Their acquisition of SolarCity was a major step forward, allowing them to move to other markets, including eco-friendly solar panels. The innovative, hard work culture in the respective markets and arenas has been developed through the efficient HR and TQM tactics. With its economic success and tremendous momentum, Tesla continues to fulfil its mission of acceleration to achieve sustainable energy throughout the world.

For a long time, management could retain the idea that the organization was only structured and operated at a micro- and internal level. As a result, only macroscopically advantageous efficiency gains could. In order to define macro-balls and dysfunctions and maybe to propose policies or measures in order to rectify them, it is up to the economy, sociology, law and political science. The harmonious integration of Taylor's OST and Walras' pure and perfect competition theory was the culmination. In this respect.

The fiction of splits between tasks and responsibilities as an economist is no longer viable, if ever; companies, including small and medium size firms, are, of course, "incorporated in society" and, as François Perroux always pointed out in his relentless criticism of the ne, they are not merely market-based prices but also rules and price-makers and distorted their environment. Without the full absorption of the company by the market, naturally. It is only in such a limited situation that agents can take all risks through a complete market and price system; economic theory and laws would be enough to make management irrelevant. However, in practice it is not (hopefully) the case and Max Weber's "deception of the world" is incomplete; nevertheless, it is advanced by the worldwide commodification processes inseparable from globalisation, which some want and others deplore. The company's social and political responsibilities are thus challenged and requested, and its management must decide on the risks that they may take and those that they can insure, transfer or make others bear or bear. The company practices, concepts and instruments that they use are always shaped by imitation, interdependence, propagation, standardization and conventions in their environment and in whole societies. The sciences of management cannot be reduced to the economic side or confined to organizations. At the same time, they must continue to describe, understand, evaluate and propose corrective measures or innovations for their functioning and evolutions. They also raise their epistemic and ethical issues to a meso or macro plan, where possible damage to these concepts, instruments and behavior can be seen as vectors, whether intended or not.

Risks and responsibilities are interlinked and the decisions made on them, the "management" of them, have responsibilities to be assumed or exonerated by the companies. And, as was often the case in recent decades, the overshadowment of the social, political, ecological and other dimension exposes societies and companies to incompatible risks to real sustainable development and encourage them to use a CSR rhetoric often made up of the efforts of the people and to make them more aware of the social and environmental aspects of the world. Be aware that it is a cost rather than a risk which is usually managed or, in other words, a cost-based risk management. Risks can conceal risks; their management can dilute responsibilities and overwhelm highly dangerous ethically and politically irresponsible activities.

Risk management processes offer a way of understanding if your project is feasible if you think you can. A feeling of trust based on credible data is a powerful determinant of success, and risk information for project information is a key source of data. If the risk assessment verdict is poor, better alternatives will be found.

So, what is the right thing. Like every other good question concerning project management, the answer to this question is also simple: It's all about that. Technical projects vary so much that no "one size fits everybody" answer can occur. The interplay between the value of developed risk information and the effort and costs associated with obtaining it always determines the amount of risk management required for a ruling.

Proving that the minimum investment in project design and risk assessment which is prudent defines all concerned that their projects are at least plausible. Do that and get the work done if you have informal discussions and collect the information needed on index cards or yellow sticky notes. If your project is formal and most technical projects are likely to be done, determine what you need to do to provide the project team with confidence, and provide a baseline for status tracking and change management. But stay handy. It is just as inappropriate for project and risk management to get involved in computer tools and complex evaluation techniques than is necessary.

The best strategy for continuous process improvements is to clearly and measurably define your aim and, over the course of time, make small adjustments and adjustments to processes to assess whether they are effective and helpful. If this strategy continues across a series of projects, there will be good risk control at reasonably small time and effort costs. A large amount of new overhead is not only expensive to add at the moment but also distracts the project leader at least from other project problems.

Take the following suggestions into account if you currently do very little to manage risk. This may be sufficient if the situation improves. When there are problems, add a few more ideas and continue to try. Although the risk can never be completely eliminated from projects, it can always be reduced, often with a relatively small increase.

Scope Risks. Reduce the risk by defining the project scope thoroughly. Each aspect of the deliverable project that remains fluid, defective, or "flexible" constitutes a real failure mode. If you are unable to define anything, convert the project to a smaller sequence of efforts, one after the other, and make reviews and tests as interim subprojects complete. As you continue, refine the definition of scope and the following steps. Use a strawman description to document as many specific details as you can and invite criticism if the project is not actually breaking in incremental parts. Validating the definition of scope with project sponsors, clients and key stakeholders always providing substantial justification for all changes in scope.

Scheduled risks. The basis for managing the risk in schedules is project planning, and planning short-term immediate activities (at least) is not an option. Based on the working profile, identify all the project work that has caused trouble similar to past work. Set a range based on your trust or better yet, examine the worse cases and document their consequences for each project estimate. Negotiate some schedule reserves for projects with significant risks but create a credible plan that could be concluded before the committed date.

Resource risks. Bottlenecks and constraints are the majority of the resource risks. Problems with past projects may recur, unless plans are developed to avoid similar circumstances. Conduct sufficient resource analysis to match your needs and qualifications with project budget and available personnel. Negotiate a budget reserve for particularly risky projects.

General Risks. Examine your plan with the project team, and brainstorm likely risks. List known risks and identify the likelihood and impact of each risk using a minimum 'high/moderate/low' evaluation. Make a list of significant risks a priority and allocate them, even if only you are using the list for project exposures. Develop strategies for prevention or recovery for significant risks, as necessary.

The remaining minimum risk management requirements relate to monitoring and control of changes. "I have always found that plans are useless in preparation for combat, but planning is indispensable," says Dwight Eisenhower. Eisenhower recognized that little ever happens exactly as planned, particularly

for projects. The planning exercise never exactly forecasts the future but provides what progress needs to be measured and problems quickly detected. Tracking progress for all existing project activities at least once a week is prudent for risk management. If this regular surveillance fails, the slippage of projects and other problems can be rapidly increased, cascaded and insuperable soon. The ongoing risk management involves the frequent dogmatic monitoring of project work. You can detect many risks while they are small by means of disciplined tracking. The preservation of project plans and objectives can resolve small problems quickly. The large problems can easily be solved.

In risk management, the control of projects is also central. There are many things a project leader cannot control during a running project. Take advantage of the controls you have. The process of managing project changes is one of the most important checks for the leader. There are almost certainly no projects without the ability to control changes in the specification.

References

- 1 <https://mrsc.org/Home/Stay-Informed/MRSC-Insight/October-2018/An-Introduction-to-Risk-Management.aspx#:~:text=%E2%80%9CRisk%20management%E2%80%9D%20helps%20an%20organization,is%20intentionally%20proactive%2C%20not%20reactive.> [An Introduction to Risk Management-October 15, 2018 by Roger Neal]
- 2 <https://www.investopedia.com/articles/professionals/021915/risk-management-framework-rmf-overview.asp> [Risk Management Framework (RMF) by the Investopedia team - updated Jan 18, 2021]
- 3 <https://searchcompliance.techtarget.com/definition/risk-management#:~:text=Risk%20management%20is%20the%20process,errors%2C%20accidents%20and%20natural%20disasters.> [Risk management- By Ben Cole, Executive Editor]
- 4 <https://www.toppr.com/guides/business-management-and-entrepreneurship/recent-trends-in-management/risk-management/>

- 5 Bernroider, E. (2002). Factors in SWOT analysis applied to micro, small-to-medium, and large software enterprises: An Austrian study. *European Management Journal*, 20(5), 562-573.
- 6 Chen, W. M., Kim, H., & Yamaguchi, H. (2014). Renewable energy in eastern Asia: Renewable energy policy review and comparative SWOT analysis for promoting renewable energy in Japan, South Korea, and Taiwan. *Energy Policy*, 74, 319-329.
- 7 Jackson, S. E., Joshi, A., & Erhardt, N. L. (2003). Recent research on team and organizational diversity: SWOT analysis and implications. *Journal of Management*, 29(6), 801-830.
- 8 Leigh, D., & Pershing, A. J. (2006). SWOT analysis. *The Handbook of Human Performance Technology*, 1089-1108.
- 9 Tesla, Inc. – Form 10-K.
- 10 United States Department of Commerce – International Trade Administration – Automotive Products: Expanding a Key Industry to TPP Countries.
- 11 United States Department of Commerce – International Trade Administration – The Automotive Industry in the United States.
- 12 United States Department of Commerce – International Trade Administration – Top Markets Series: Renewable Energy.
- 13 Five Steps of Risk Management Process by Ingrid Horvath -July 5, 2020
- 14 Tesla, Inc.'s Mission Statement & Vision Statement (An Analysis) updated on august 27, 2018 by Christine Rowland
- 15 Tesla Inc.'s Organizational Culture & Its Characteristics (Analysis) updated on February 22, 2019 by Pauline Meyer
- 16 https://www.researchgate.net/publication/328235661_The_analysis_of_methodical_approaches_of_the_risk_assessment_organization by Maksym Tarashevskyi updated on January 2018 DOI:10.15587/2312-8372.2018.135482
- 17 Tesla Inc.'s Organizational Structure & Its Characteristics (Analysis) updated on September 8, 2018 by PAULINE MEYER
- 18 Tesla Inc. SWOT Analysis published on September 12, 2018 by Daniel Kissinger

- 19 Tesla, Inc. PESTEL/PESTLE Analysis updated on February 19, 2019 by Daniel Kissinger
- 20 Tesla Inc. Five Forces Analysis (Porter's Model) updated on February 22, 2019 by Daniel Kissinger
- 21
- 22 Door* Marinus de Pooter** - Ways to improve risk management published on 16 June, 2013
- 23 Tesla & The Science of Risk - By Carolyn Fortuna Published April 16, 2020
- 24 Why Improve Risk Management? by Jim DeLoach October 12, 2016
- 25 Transforming enterprise risk management for value in the insurance industry by Christian Bongiovanni, Luca Pancaldi, Uwe Stegemann, and Giambattista Taglioni- updated on July 22, 2016 | Article
- 26 Understanding tesla's intensive growth strategy in 2020 by Analytics Insight October 14, 2020
- 27 https://www.academia.edu/36282427/Tesla_case_study_pdf [Tesla case study by Adam Bučko]
- 28 Tesla & The Science Of Risk By Carolyn Fortuna-Published April 16, 2020
- 29 Tesla Brings Driverless Technology—and Cybersecurity Concerns—to the Masses - Posted on March 26, 2015 by Brandon Righi
- 30 The biggest risk that will determine Tesla's fate: Elon Musk himself- published on Aug. 15 2017
- 31 Musk's Master Plan Risks Tesla's Financial and Automotive Future - Jim Collins, Former Contributor & Great Speculations Contributor Group Markets
- 32 Tesla's Strategy Is Risky and Aggressive, but It Has Worked - by Will Knight-July 12, 2016
- 33 Alhawari, S., Karadsheh, L., Talet, A. N., & Mansour, E. (2012). Knowledge-Based Risk Management
- 34 framework for Information Technology project. International Journal of Information Management, 32(1), 50–65.doi:10.1016/j.ijinfomgt.2011.07.002
- 35 Borge, D. (2002). The Book of Risk. New York, USA: John Wiley & Sons.

- 36 Colomo-Palacios, R. (2015). IT for Green, a Global Perspective. *Journal of Global Information Technology Management*, 18(1), 1–5.
doi:10.1080/1097198X.2015.1017399
- 37 Doherty, N. T., & Dickmann, M. (2012). Measuring the return on investment in international assignments: An action research approach. *International Journal of Human Resource Management*, 23(16), 3434–3454.
doi:10.1080/09585192.2011.637062
- 38 Elkington, P., & Smallman, C. (2000). Managing Project Risks: A case study from the utilities sector. *International Journal of Project Management*, 20(1), 49–57. doi:10.1016/S0263-7863(00)00034-X
- 40 Retrieved from <http://www.observatorio.pt/download.php?id=224>.
[Accessed: 1 Oct 2014]
- 41 Fernandes, G., Ward, S., & Araújo, M. (2014). Developing a Framework for Embedding Useful Project Management Improvement Initiatives in Organisations. *Project Management Journal*, 45(4), 28. doi:10.1002/pmj.21441
- 42 Greiman, V. A. (2013). *Megaproject Management: Lessons on Risk and Project Management from de the Big Dig*. Hoboken, New Jersey, USA: John Wiley & Sons, Inc.
doi:10.1002/9781118671092
- 45 Haji-Kazemi, S., & Bakhshshahi, A. H. F. (2009). Impact of Standards on Project Management. *PM World Today*, XI(VI).

Appendices

Appendix 1:

When the fire department arrived, the standard procedures were observed, which were to be accessed by perforating trousers on the battery protective metal plate and applying the water to the fire source. It was correct for the Model S lithium-ion battery to use water, but it was wrong not to punch the metal firewall, because the recently established hole allows the fire to flow back into the front of the model's trunk. Nevertheless, the fire quickly came to an end through a combination of water with a dry chemical extinguisher. It must be noted that in the fire in the battery, internal firewalls built into the pack structure were contained in a small section near the front. The passenger compartment was not fired at all. The results could have been far worse if a conventional petrol car had encountered the same object on the highway. A typical gasoline car only has a thin metal sheet protecting the bottom, making it vulnerable to fuel supply lines or fuel tanks being destroyed, causing the entire car to form and burn down a pile of gasoline. The combustion power of our battery pack, by contrast, accounts for only about 10 percent of the energy in a fuel tank and is divided in 16 fire wall modules. As a result, only 1 percent of the fuel in a comparable gasoline sedan has an effective combustion potential. The statistics on driving across the country make this very clear: The National Fire Protection Association reports 150,000 car fires per year, and the Department of Transport says that America drives about three trillion miles per year. That's 1 fire per 20 million megabytes of driven vehicles, compared to 1 fire for Tesla in more than 100 million miles. This means that in a conventional gasoline car you are five times more likely than Tesla to experience a fire! There should be no doubt that consumers concerned with the risk of fire are safer to power a vehicle with a battery than a large tank of highly inflammable liquid.

Appendix 2: The 2nd blog article

The Mission of Tesla

Elon Musk, Chairman, Product Architect & CEO November 18, 2013

In his statement, Elon Must state “When we created Tesla a decade ago, our aim was to accelerate the development of sustainable transport through the marketing of compelling mass electric cars as soon as possible. If we could have done it with our first product, we would, but for a start-up company that had not built a car and had one technological iteration and no cost savings, that was simply impossible to achieve. We decided to build a sports car because it looked as if we had the best chance to be competitive on its petrol alternatives,

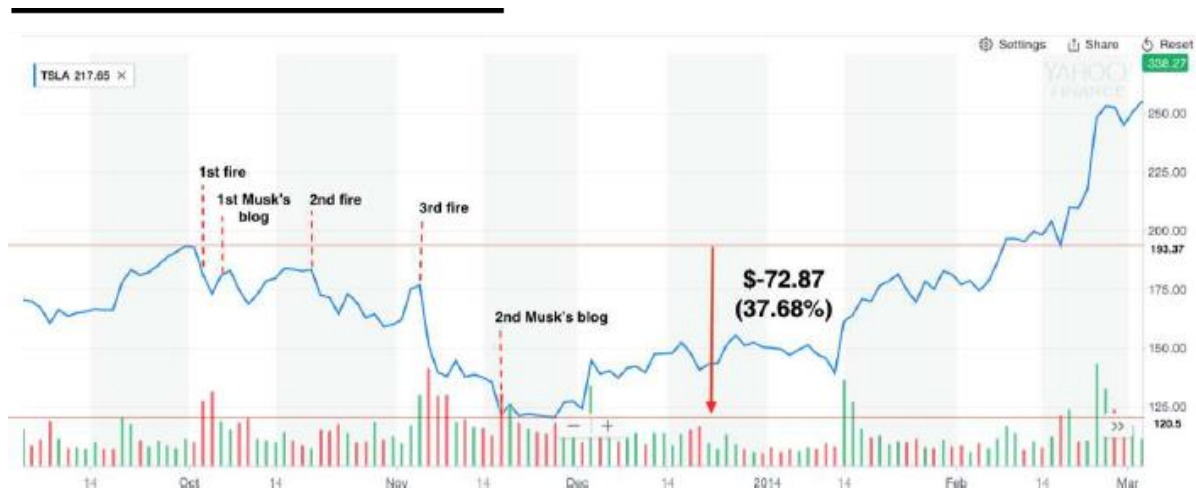
irrespective of what it looked like. I suspected that it could be misunderstood as Tesla believes that rich people lack sport cars, so in my first blog article on our company, I described the three-step "main plan" for becoming compelling and affordable electric vehicles. Sadly, this was almost completely overlooked. To reach this goal, great technological breakthroughs are required, which naturally call for high scrutiny. That is fair, because new technology should be higher than previously. However, the extent of the standard should also be reasonable, and we think that in the recent media coverage this was far outnumbered”.

How Does the Tesla Model S Fire Risk Compare to Gasoline Cars.

Since Model S was put into production last year, over a quarter million petrol car fires have taken place in the United States alone. More than 400 deaths and about 1200 serious injuries have taken place (extrapolating 2012 NFPA data). However, the three fires in the Model S were more national than those in over 250,000 gasoline-powered combinations after very high velocity collision and caused no serious injuries and deaths. Model S fires versus fireplaces in petrol is disproportionately covered in the press, although the latter is far deadlier.

When you read the titles, therefore, it is easy to assume that, when nothing could be farther from truth, the Tesla Model S and, perhaps in general, electric cars tend to catch the fire. Journalists with extensive knowledge of the automobile industry, such as Automotive News's news editor, understand and try to reject this notion; however, they are being drowned out by an assault on popular and financial media to give a feeling of something that would be wrong with Google. I also want to thank research journalists for having taken the time to investigate and write a precise article. The extent to which this is scandalous is well described in the Automotive News article mentioned above. In comparison to the fire rate of petrol-fire vehicles per 1,350 cars, there are now substantially more than 19 000 Model S vehicles on the road reported by the shareholder letter of Q3 for a mean of one fire per at least 6,333 cars. This indicates that you experience fire in a petrol car more than a S model four and a half times more! In view of absolute probabilities, it is more likely that in your entire life you will be hit by lightning than even a fire without harm in a Tesla. Such metrics tell part of the story only. The much more lethal nature of a fire in gasoline cars should be highlighted. Since Model S came into production in the middle of last year, over 400 people died and 1,200 were severely injured by fire in gasoline vehicles alone in the United States, compared with no deaths and no injuries resulting from Tesla fires anywhere in the world. There's a real physical reason for this: a petrol tank has 10 times the battery power of our pack. Furthermore, the Model S battery pack has internal firewalls between 16 modules and the battery-packed firewall. This

is why petrol firefighters tend to favor petrol. It is much less efficient to try to set a building's side on fire with a battery pack.



Appendix 3

By breaking trends over time, the investors will see exactly what the company has and what it owes to its creditors or other parties at the end of each accounting year, using the accounting statements from Tesla.

Balance Sheet below is an overview at a given point of time, usually after a quarter, six months, or one year of Tesla Inc's financial situation. The balance sheet of Tesla consists of two main parts: assets and liabilities. Liabilities are Tesla's debts or liabilities and are divided into existing obligations and long-term liabilities. On the other hand, a value that can be converted into cash and currently owned by Tesla is an asset. An asset can also be divided into two current and non-current categories.

Tesla Incorporation is one of the world's most prominent and well-engineered carmakers. This company continually suffers from losses and warm news when it catches the attention of several market stakeholders. The progressive shift from consumer to environmental-friendly car options helped to bring a range of orders and also brought others into the business of monitoring events closely.

Below is a compiled 5-year balance sheet of Tesla inc.

Fiscal year is January-December. All values USD Millions.	2020	2019	2018	2017	2016
Assets					
Cash & Short-Term Investments	19,622	6,514	3,878	3,523	3,499
Cash Only	19,622	6,514	3,878	3,523	3,499
Cash & Short-Term Investments Growth	201.23%	67.97%	10.07%	0.70%	-
Cash & ST Investments / Total Assets	37.63%	18.99%	13.04%	12.30%	15.44%
Total Accounts Receivable	1,886	1,324	949	515	499
Accounts Receivables, Net	1,886	1,324	949	515	499
Accounts Receivables, Gross	1,886	1,324	949	515	499
Accounts Receivable Growth	42.45%	39.51%	84.14%	3.25%	-

Accounts Receivable Turnover	16.72	18.56	22.61	22.82	14.02
Inventories	4,101	3,552	3,113	2,264	2,067
Finished Goods	1,666	1,356	1,582	1,014	1,017
Work in Progress	493	362	297	243	234
Raw Materials	1,942	1,834	1,235	1,006	817
Other Current Assets	1,108	713	366	268	194
Miscellaneous Current Assets	1,108	713	366	268	194
Total Current Assets	26,717	12,103	8,306	6,571	6,259
Net Property, Plant & Equipment	23,375	20,199	19,691	20,492	15,037
Property, Plant & Equipment - Gross	29,893	25,062	22,886	22,436	16,055
Buildings	3,662	3,024	4,047	2,517	1,079
Machinery & Equipment	1,811	1,493	1,398	1,256	795
Construction in Progress	1,621	764	807	2,542	2,147
Computer Software and Equipment	856	595	487	395	276
Leased Property	3,537	2,853	2,090	4,117	3,134
Other Property, Plant & Equipment	16,848	15,115	14,057	11,609	8,623
Accumulated Depreciation	6,518	4,863	3,195	1,944	1,018

Total Investments and Advances	279	270	398	442	268
Other Long-Term Investments	279	270	398	442	268
Long-Term Note Receivable	334	402	422	457	506
Intangible Assets	520	537	351	422	376
Net Goodwill	207	198	68	60	-
Net Other Intangibles	313	339	282	362	376
Other Assets	923	798	572	273	217
Deferred Charges	-	-	-	-	1
Tangible Other Assets	923	798	572	273	217
Total Assets	52,148	34,309	29,740	28,655	22,664
Assets - Total - Growth	52.00%	15.36%	3.78%	26.44%	-
Asset Turnover	0.73	-	-	-	-
Return on Average Assets	1.60%	-	-	-	-
Liabilities & Shareholders' Equity					
ST Debt & Current Portion LT Debt	2,459	2,070	2,711	979	1,206
Short Term Debt	286	228	-	-	-
Current Portion of Long-Term Debt	2,173	1,842	2,711	979	1,206

Accounts Payable	6,051	3,771	3,404	2,390	1,860
Accounts Payable Growth	60.46%	10.77%	42.43%	28.48%	-
Income Tax Payable	777	611	349	186	153
Other Current Liabilities	4,961	4,215	3,528	4,120	2,608
Accrued Payroll	654	466	449	378	219
Miscellaneous Current Liabilities	4,307	3,749	3,079	3,742	2,389
Total Current Liabilities	14,248	10,667	9,992	7,675	5,827
Current Ratio	1.88	1.13	0.83	0.86	1.07
Quick Ratio	1.59	0.80	0.52	0.56	0.72
Cash Ratio	1.38	0.61	0.39	0.46	0.60
Long-Term Debt	10,888	12,627	11,116	11,152	7,386
Long-Term Debt excl. Capitalized Leases	8,513	10,402	8,410	8,829	5,901
Non-Convertible Debt	8,462	10,402	8,410	8,829	5,901
Convertible Debt	51	-	-	-	-
Capitalized Lease Obligations	1,121	1,269	2,706	2,323	1,485
Provision for Risks & Charges	519	581	413	2,309	2,210
Deferred Taxes	151	66	-	-	-

Deferred Taxes - Credit	151	66	-	-	-
Other Liabilities	2,663	2,258	1,905	1,887	1,336
Other Liabilities (excl. Deferred Income)	1,379	1,051	855	662	447
Deferred Income	1,284	1,207	1,050	1,225	889
Total Liabilities	28,469	26,199	23,426	23,023	16,759
Total Liabilities / Total Assets	54.59%	76.36%	78.77%	80.34%	73.95%
Common Equity (Total)	22,225	6,618	4,923	4,237	4,753
Common Stock Par/Carry Value	1	1	0	0	0
Additional Paid-In Capital/Capital Surplus	27,260	12,736	10,249	9,178	7,774
Retained Earnings	(5,399)	(6,083)	(5,318)	(4,974)	(2,997)
Other Appropriated Reserves	363	(36)	(8)	33	(24)
Common Equity / Total Assets	42.62%	19.29%	16.55%	14.79%	20.97%
Total Shareholders' Equity	22,225	6,618	4,923	4,237	4,753
Total Shareholders' Equity / Total Assets	42.62%	19.29%	16.55%	14.79%	20.97%
Accumulated Minority Interest	1,454	1,492	1,390	1,395	1,152
Total Equity	23,679	8,110	6,314	5,632	5,905

Liabilities & Shareholders' Equity	52,148	34,309	29,740	28,665	22,664
---	--------	--------	--------	--------	--------