



Project Phase 1: Mazda Analysis and Business Process Modeling

By

Mr. WARIS DAMKHAM 6388014

Mr. THANAWATH HUAYHONGTHONG 6388016

Miss PATTANAN KORKIATTRAKOOL 6388022

Mr. NAPHAT SOOKJITSUMRAN 6388059

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Executive Summary page

Through group project: Project phase 1 of ITCS361 Management Information System, Mazda Motor Corporation is selected for our study.

This report consists of:

- Business Overview
- How MIS and IT important for organization problem solving
- 5 Keys business Process
- BPMN of selected company
- Discussion and conclusion

To achieve the objectives of the study report which are:

- To study the selected organization structure, strategy, value and vision and their management information system.
- To study, exemplify, and design business process models by using the BPMN.

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Mazda Motor Corporation



Overview of Mazda

Mazda Motor Corporation commonly referred to as simply 'Mazda', is a Japanese multinational automotive manufacturer which was founded on January 30, 1920, and Mazda's headquarters was located in Hiroshima, Japan. The current CEO, President, and Representative Director for Mazda are Akira Marumoto. Mazda's main goal in business is to manufacture and sell passenger cars along with commercial vehicles, with Mazda's main products being four-wheeled vehicles, gasoline reciprocating engines, diesel engines, and vehicle automatic and manual transmissions. Mazda currently has net sales of 2,882.1 billion yen from capital of 284 million yen, with those sales coming from global product sales of 1,287,501 vehicles in more than 130 countries which extend over 212 branches in Japan and 136 branches overseas.

The mission statement of Mazda

Every company that offers services to the public wants to encourage and assure customer trust that they are investing in quality vehicles. Automakers and related companies in the industry tend to establish extensive mission statements to serve as promises of reliability to consumers and so is Mazda. The core of Mazda's mission statement is Products that delight and facilitate customers. With the motto "With passion, pride, and speed, we actively communicate with our customers to deliver insightful automotive products and services that exceed their expectations." of Mazda. Mazda builds this mission with excellent and modern technology and performance of the vehicle, and consistent after-sales service, giving customers the confidence to absolutely choose Mazda.

The vision of Mazda

Mazda's love for cars has made the company want to produce cars that can delight and enrich people's lives. Mazda envisions and strives to produce vehicles that are sustainable and environmentally friendly to the world and society. Moreover, Mazda is ready to face challenges with creativity to create the best cars for customers.

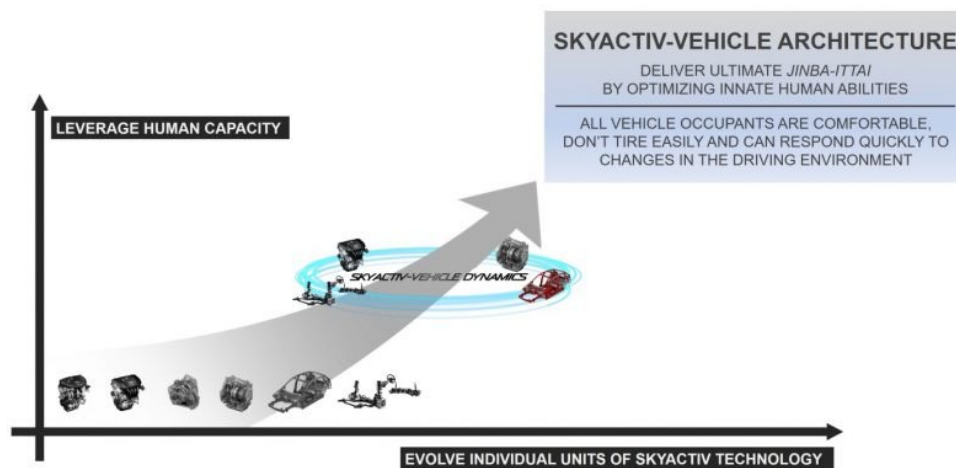
Mazda committed to 3 rules to make the best of its customers. Firstly, Brighten people's lives through car ownership. Secondly, Offer cars that are sustainable for the earth and society to more people. Last, Embrace challenges and seek to master the Doh ("Way" or "Path") of creativity. Mazda's Brand Essence is "Celebrate Driving" which is not just about driving performance but also about choosing a Mazda vehicle as a gift to a confident and proud owner. All of this can be explained by Mazda's visionary slogan, which is "To create new value, excite and delight our customers through the best automotive products and services"

The core values of Mazda

Based on Mazda's outstanding reputation for creating vehicles with sleek, cutting-edge designs and state-of-the-art technologies that make cars of higher efficiency and quality. In addition, Mazda also focuses on developing the mindset of the management team and all employees in order to provide the best service and offer the best products to customers. Mazda's values give further guidance to employees in their daily decision-making and actions. The Mazda Values are "We value integrity, customer focus, creativity, and efficient and nimble actions and respect highly motivated people and team spirit. We positively support environmental matters, safety, and society. Guided by these values, we provide superior rewards to all people associated with Mazda."

Culture of Mazda

Mazda has earned the confidence of consumers and customers seeking a car with user-friendly technology and meticulous attention to detail. Mazda's primary objective is to make the driver and passengers feel secure and comfortable. The human-centered design concept addresses optimal body fit for both seats and internal equipment inside the interior space, and another unique aspect is the 'sky active' technology. In addition to a fuel-efficient and fun-to-drive engine, the car's body and driving have also been improved by reinforcing the vehicle's construction. Moreover, it is crucial to reduce carbon dioxide emissions from the production line to the final product apart from that, the form and design are contemporary and accessible to all user groups, including the introduction of automobile models in demand in a competitive market in order to develop and give customers value when making selections.



SKYACTIV-VEHICLE ARCHITECTURE

Strategies of Mazda

In terms of human resources, Mazda focuses on employee development with a focus on customers, creativity, and efficient and agile operation. Mazda has also adopted a strategy to produce products that are environmentally and socially conscious.

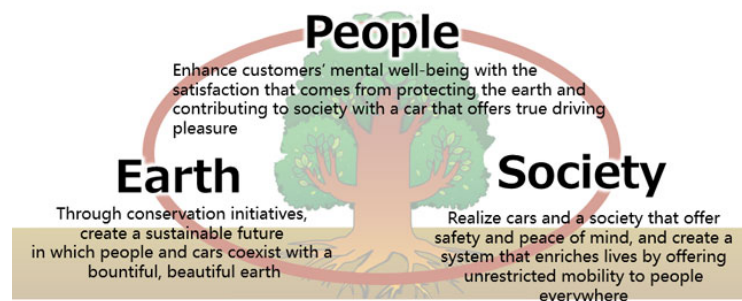
Mazda's strategy during the Covid-19 pandemic

The past Covid-19 outbreak has caused a widespread impact on all industrial business systems as well as the automotive industry. Therefore, Mazda adjusts its business strategy for sustainable growth, increasing brand value and customer experience to adapt to the COVID-19 situation by using the "MAZDA CPO" (Certified Pre-Owned) strategy. Mazda's executives predict that the automotive industry for fiscal 2022 will have cumulative sales of about 820,000 to 850,000 vehicles, and he believes Mazda will sell more than 40,000 vehicles, a 15% increase due to The situation that has improved due to several factors. In the fiscal year 2022, Mazda is preparing to penetrate the used car market by offering customers quality used cars with the new business "MAZDA CPO". The "MAZDA CPO" is an exchange channel under the trading cycle management strategy that customers will benefit the most from being Mazda car owners 'Used Mazda cars' are certified by Mazda Sales (Thailand) and passed a 100-point inspection. MAZDA CPO will increase the residual value of Mazda used cars also enhance Mazda's brand value and increase customer confidence. Currently, MAZDA CPO has opened 9 branches and expects to increase 18 branches to 38 branches nationwide by 2025.

Sustainable Zoom-Zoom 2030

Mazda announced, "Sustainable Zoom-Zoom 2030," a new long-term vision for technology development that looks ahead to the year 2030, in August 2017 under the original version. The company has striven to offer both driving pleasure and outstanding environmental and safety performance. Considering the rapid changes taking place in the automotive industry, the new vision takes a longer-term perspective and sets out how Mazda will use driving pleasure, the fundamental appeal of the automobile, to help solve issues facing people, the earth, and society.

At Mazda, we see it as our mission to bring about a beautiful earth and to enrich people's lives as well as society. We will continue to seek ways to inspire people through the value found in cars.



Sustainable Zoom-Zoom 2030 can be enlarged in 3 facets: Earth, Society, and People.

1. Earth - Perpetual conservation initiatives by creating a sustainable future in which people and cars coexist with bountiful and beautiful earth.
 - Expand measures for CO2 reduction from a "good for the wheels" perspective, considering emissions throughout the vehicle life cycle.
 - Aims to reduce corporate average "good for wheels" CO2 emissions to 50 percent of 2010 levels by 2030 and achieve a 90 percent reduction by 2050.
 - Prioritize efficiency improvements and measures for cleaner emissions implemented in the real world.
 - In 2019, began to introduce electric vehicles and other electric drive technologies. In a region that uses a high percentage of clean energy to produce energy or restricts certain types of vehicles to reduce air pollution.
2. Society - Good and efficient cars can deliver a society that offers safety, peace of mind, and convenience, and creates a system that enriches people's lives by bringing unlimited mobility to people everywhere.
 - Develop more advanced safety technologies under the Mazda Proactive Safety philosophy, working toward the goal of eliminating traffic accidents and further enhancing safety fundamentals.
 - Promote further standardization of i-ACTIVSENSE advanced safety features, which help drivers recognize and assess potential hazards; in addition to Japan, where they are already becoming standard, gradually make these technologies standard in other markets starting in 2018.
 - In 2020, Mazda Begin testing autonomous driving technologies currently being developed in line with Mazda's human-centered 'Mazda Co-Pilot Concept*1', aiming to make the system standard on all models by 2025.
3. People - Elevate customers' mental health with the satisfaction that comes from protecting the planet from unnecessary pollution and helping society with cars that deliver true driving pleasure.

Mazda's Vision, Mission statement, and Values

A good strategy needs to be built on a good foundation that clearly states an organization's view of the future and its values. Mazda satisfies this requirement with the following vision, mission, and values statements taken from Mazda. According to the slogan mentioned in the Mission statement, Vision, and Value sections.

Mazda's Millennium Plan

Mazda's strategy can best be described by examining its mid-term (four-year) plan called its Millennium Plan. This plan was introduced in November 2000 and continues to provide the framework for all of Mazda's actions. It is made up of four parts called "pillars" which can be separated into 4 pillars.

- Pillar #1 Growing the business.
- Pillar #2 Restructuring and reform.
- Pillar #3 Creating synergies with the Ford Motor Co.
- Pillar #4 Enabling our people.

Organization Structure of Mazda

Mazda Motor Corporation uses the hierarchical structure as its organization structure, to clearly separate levels of human resources. Mazda the hierarchical structure is an organizational structure that follows a chain of command from the top executives to regular employees which resembles a pyramid. Mazda employs this management style, with its headquarters in Hiroshima overseen by Akira Marumoto, CEO of Mazda, and subdivided into positions such as senior director of managing and manager, but all positions are controlled by the CEO and president.

Moreover, The Company has established a structure to support the Audit & Supervisory Board members in the performance of their duties, staffed by employees who are not responsible to the Board of Directors, with personnel assignments and performance appraisals carried out through advance discussions between the Human Resources Department and the full-time Audit & Supervisory Board members. Full-time members of the Audit & Supervisory Board present information to outside members prior to meetings of the Board of Directors and of the Audit & Supervisory Board, or during meetings of the Audit & Supervisory Board, based on the knowledge and judgment they have gained from participation in management meetings and other significant meetings, as well as from their daily audit activities.

Mazda's main products and services

Mazda is a Japanese multinational automotive manufacturer. Mazda's main product line is to manufacture cars and apply specific technologies to vehicles of various models. Along with providing after-sales service to customers in maintenance and health care of various vehicles, as well as giving advice.

Customers

The potential customers of Mazda are the people who want a car that is durable and an engine that can perform at high speeds but is smooth while driving. It has a distinctive, sleek design and cutting-edge technology that can be adapted to the car. It also has technology that is friendly to the environment.

Suppliers

Since Mazda is a multinational automotive manufacturer company, the most important part is the engine. At the present, Mazda uses engines from Changan Ford Mazda Engine Co., Ltd. with Changan owning 50 percent of the shares and Ford and Mazda 25 percent each. It began production of engines for Mazda cars in April 2007. After the name change, the plant will continue to produce engines for supply to Changan Mazda Automobile Co., Ltd. Through this investment, Mazda aims to strengthen the growth of the automotive industry by continuously delivering attractive, high-quality vehicles that drive vehicle ownership value.

Main competitors

The main competitors have the advantage in price and quality of the car.



Toyota

- Pros: The durability of the engine and the rather more elegant design and there are many service centers.
- Cons: Lacking some state-of-the-art technology and product promotion.



Honda

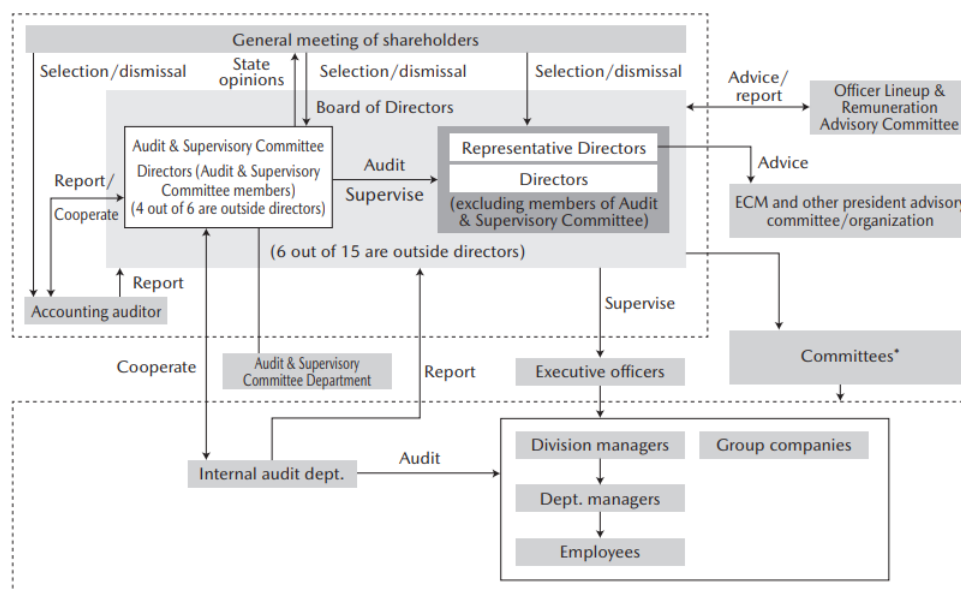
- Pros: Offering well-rounded vehicles that offer tons of value
- Cons: In comparison to its rivals, it has fewer automobile functionalities.

5 Key business processes of Mazda

- Supply chain process
- Car production
- Product Development and Production
- Analyzing
- Evaluating

IT and MIS system of Mazda's company

Mazda's information management system utilizes a management system that manages both internal and external data resources. The management of the management system inside the company entails the management and planning of the marketing of automobiles and components, as well as the management and planning of production lines located in various areas and production bases throughout the globe. which collects trading and distribution statistics and procurement of production resources to plan future investments to target customers with diverse consumption needs consistent with the collection and data collection of consumers who are willing to choose from a wide range of vehicles initially launched, including entry-level and high-end models, to determine the response and demands of potential consumers in each age group. purchase and the accumulation of flaws or inferiority compared to rivals that impact sales. Alternatively, to adjust or decrease the output of each model to improve sales and purchases.



Mazda is also a key priority in terms of technology information for supporting business growth, as seen by their development of a sales data and information model. A design application or website that offers a simulation of picking the car options, from the engine, color, and interior design to the computation of planning costs for customers interested in buying, including the ability to select a nearby site or service center in every region of the nation and world.

FINANCE CALCULATOR

MAKE YOUR SELECTION

YOUR CUSTOMER TYPE

Personal

SELECT YOUR FINANCE OPTION

Personal Contract Purchase (PCP) ▾

A Mazda PCP finance agreement may enable you to own your car more often. You choose your new Mazda; agree on your deposit, term and expected annual mileage; Mazda then calculate your car's anticipated future value at the end of the contract. We deduct this Optional Final Payment from your balance, and your monthly payments are based on this reduced amount. At the end of the contract term you have 3 great choices: (i) Renew: part exchange your Mazda for a new one and use any available equity as your deposit for your new Mazda; (ii) Retain: pay the Optional Final Payment and keep the car; or, (iii) Return: if market conditions have changed, you can hand the car back to Mazda and walk away owing nothing further, as long as the car is in reasonable condition for it's age and is within the agreed contract mileage.

Miles per year: 9000

6000

25000

Length of contract: 48

24

48

YOUR DEPOSIT

£ 4,000

Example of IT system

£489.33 /Month

5.4% APR Representative

FINANCE SUMMARY

YOUR SELECTION

Model	MAZDA6 GT Sport
Date	24 / 09 / 2022
Personal Contract Purchase (PCP)	Personal

YOUR RESULTS

Monthly payment	£489.33
On the road price	£36,242.15 ¹
Mazda deposit contribution	£1,000.00
Customer deposit	£4,000.00
Amount of Credit	£31,242.15
Interest charge	£4,773.69
Optional final payment	£12,528.00
Total amount payable	£41,015.84
Duration of agreement	48
Mileage	9000
Excess mileage charge per mile	7.50p per mile
Fixed rate of interest P.A.	2.78%
APR	5.4%

Example of IT system

Mazda's Company Issue

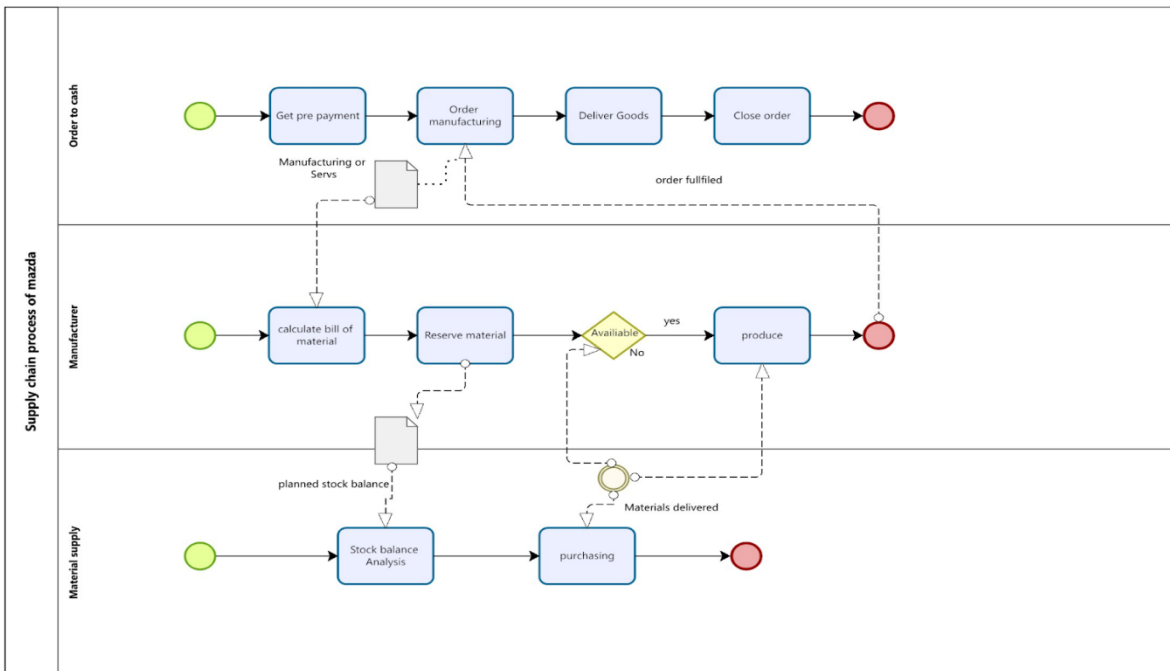
Mazda's concern, which has been a hot topic and trend for some time, is recalling over 42,000 vehicles back to the plant for examination owing to non-functional seat bag issues and the possibility of fire. can comply the production base where the issue is located is in China, where Takata Corporation provides the airbags, allowing Mazda to be more careful and examine the quality of autos in China. This is a result of the management and strategy companies' current issues, which must be handled in order to maintain their trading position with other suppliers. Mazda cannot positively impact these things. and conversely These elements have a direct impact on the company's operations and performance. Mazda must therefore guarantee that it regularly evaluates and monitors the external environment to ensure that it responds to external influences and that they are considered during strategic decision-making and strategy formulation. Businesses such as Mazda utilize strategic modeling tools on a continuous basis to maintain awareness of their external environment. This includes instruments like Porter's Pest Control and the Five Force Models, as well as Strategic Cluster Analysis and Pentagon Analysis. A third-party review of Mazda case studies will examine the company's business environment using strategic models and techniques.

Mazda's data gathering will be able to resolve the situation more effectively by handling the information meticulously and consistently, by analyzing the statistics of all occurrences of problems, and by altering its strategy. Information Management Systems It is essential for advancing the business in an intelligent manner and creating case studies.

5 keys business processes and BPMN

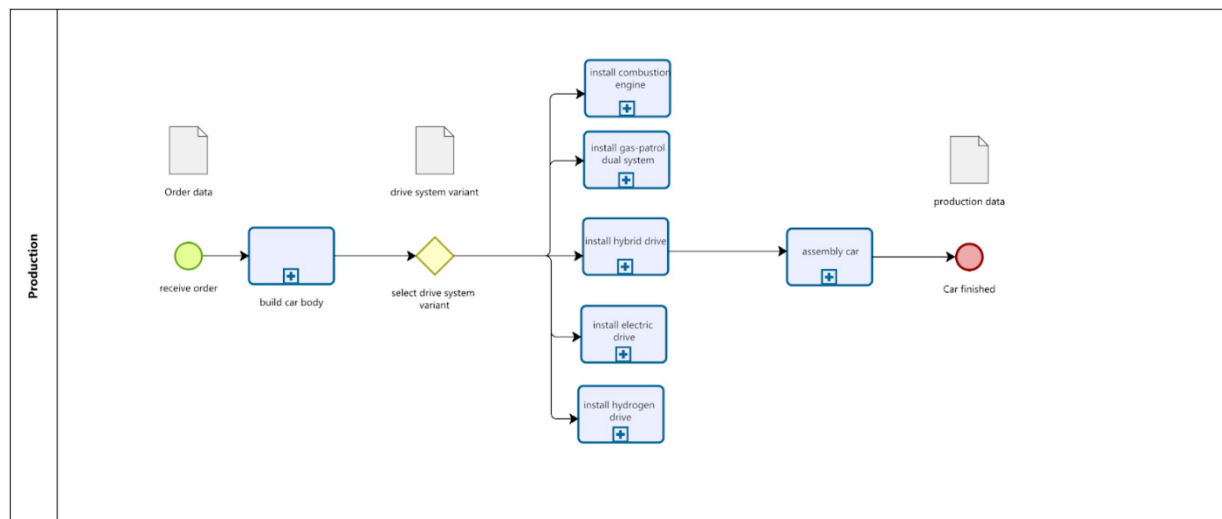
Supply chain process

The supply chain process focuses on the supply chain process and how it could be effective in the supply chain process, as in order to cash, manufacturing, and material supply every step is analyzed so that there could effectively focus on the issues as well as the steps that can be taken in order to improve the process. The focus is on analyzing orders to cash, manufacture, and material supply. Every step needs to be effectively implemented for the effectiveness of the company's supply chain process so there could be the effectiveness and so that the company could grow and effectively manage the processes.



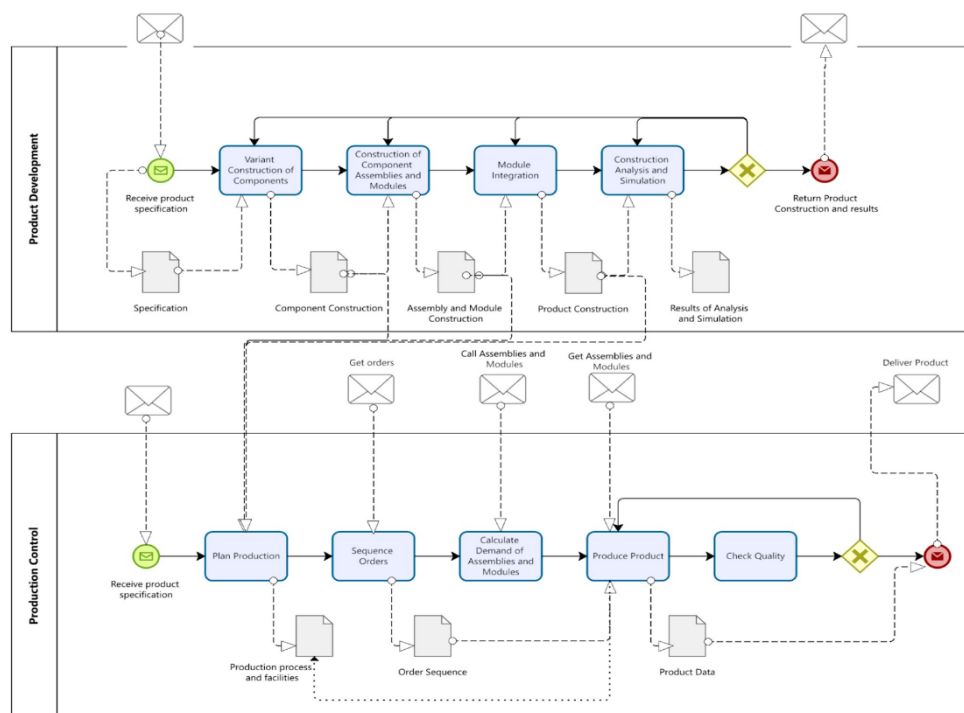
Car production

The BPMN of car production is demonstrated by the principle production process. The process model starts with receiving an order and ordering data as a data object. The first sub-process is the construction of the automobile's body. In order to manufacture complicated products, industrial processes must be divided into specialized technologies. The exclusive gateway divides production processes containing drive system variation data into their respective subprocesses. Consequently, object data of the drive system variant is required. After installing the appropriate drive, the subprocesses are merged with the subsequent subprocess, "vehicle assembly." The model's final state is "vehicle completed" output data as a data object.



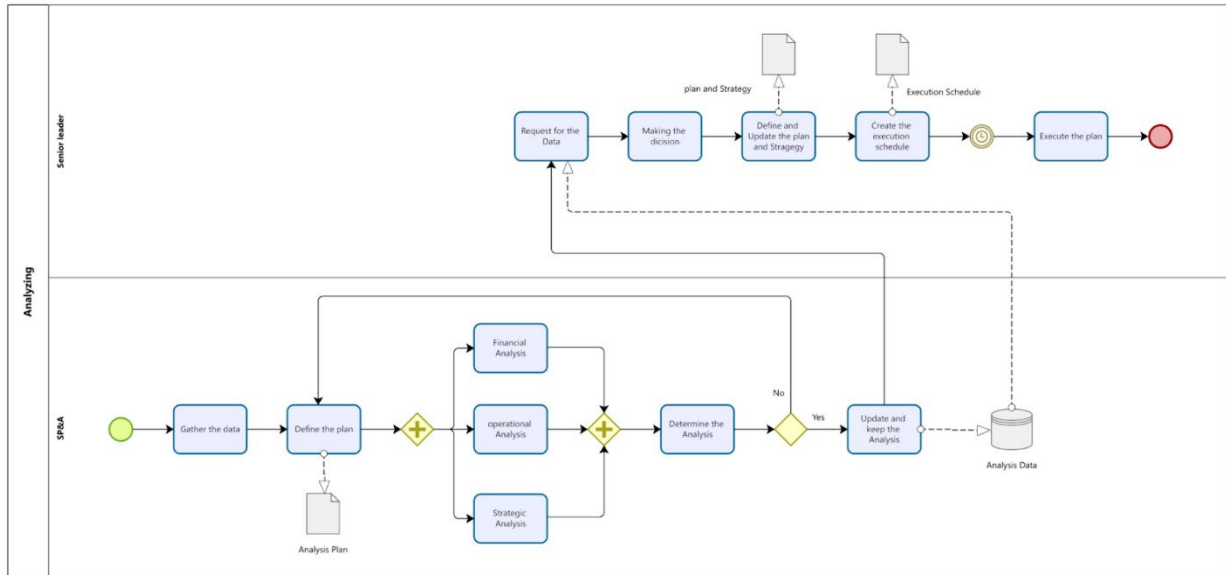
Product Development and Production

This process can be separated into 2 sections which are Production control and Production development. Production control is a human task, this section indicates the purchase requirements of the product such as size, color, etc. The designed component construction is the input for the human task of component assembly and module construction. This human task connects components to modules and assemblies. The following human task combines modules into product construction. The subsequent service task analyzes and replicates the product's construction. If the result has any errors, the previous tasks are notified and fixed. Finally, the results of the data object product construction and analysis are returned as a response message. Next, Production development which the component, assembly, module, and product construction are sent to the production control workflow will be in this section. First, is production planning. Therefore CAM systems are used order requests are received by the distributors. The subsequent service task calculates component requirements and sends a message request to suppliers. After obtaining the components, the next step is to manufacture the product. The subsequent task verifies the product's quality. If there are any quality faults, rework must be performed. Ultimately, the manufactured item is returned to the distributor.



Analyzing

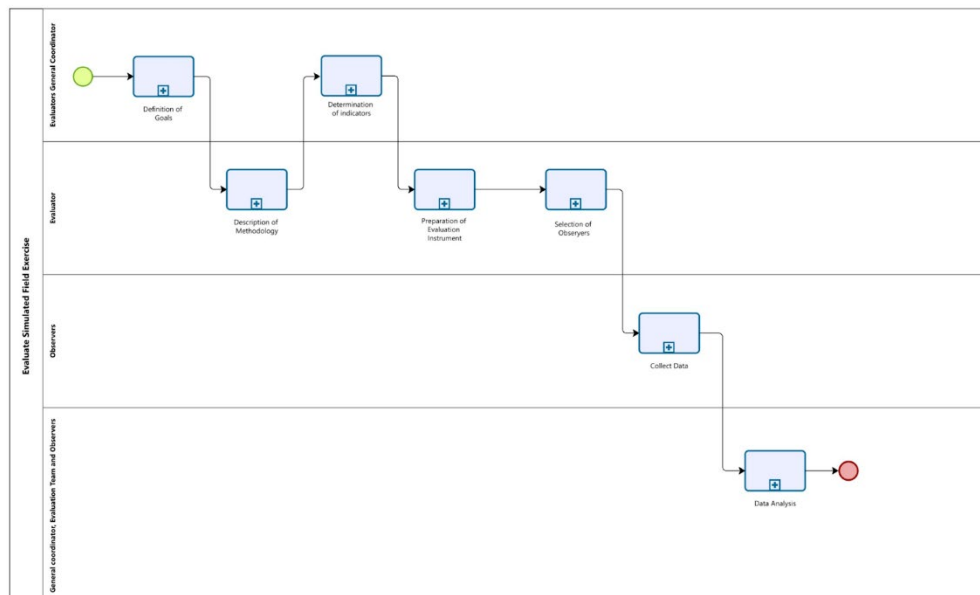
Data analytics is one of the core aspects of organizational stability, strategy, and growth, with a good analysis, will enable better planning to follow. Mazda's analytic plan guides critical business decisions across the enterprise through financial, operational, and strategic analysis.



Powered by
BPM
Modeler

Evaluating

In this process there will be 4 lanes. It will start process from 'Evaluators and General coordinator' lane, and its process end at 'General coordinator, Evaluation Team and Observers'.



Powered by
BPM
Modeler

Mazda's supply chain redesign and BPMN

Business Process Reengineering or Business Process Redesign, abbreviated BPR, is a management initiative that strives to improve the efficiency and effectiveness of an organization's work processes across the system. Humans are indeed the core of reengineering, and technology's purpose is to assist humans. Not a replacement for humans. Nevertheless, many organizations misunderstand the function of technology. The word "automation" in Mazda's ideology makes it very evident that humans are more trustworthy than robots. (verify that the spelling is accurate. Mazda invented the term through the use of human-controlled machines. Do not allow the equipment to operate autonomously. The primary principle of a long-term philosophy is long-term management rather than short-term benefit. It expresses the concept that humans require a purpose in order to discover motivation and set objectives.

Supply chain

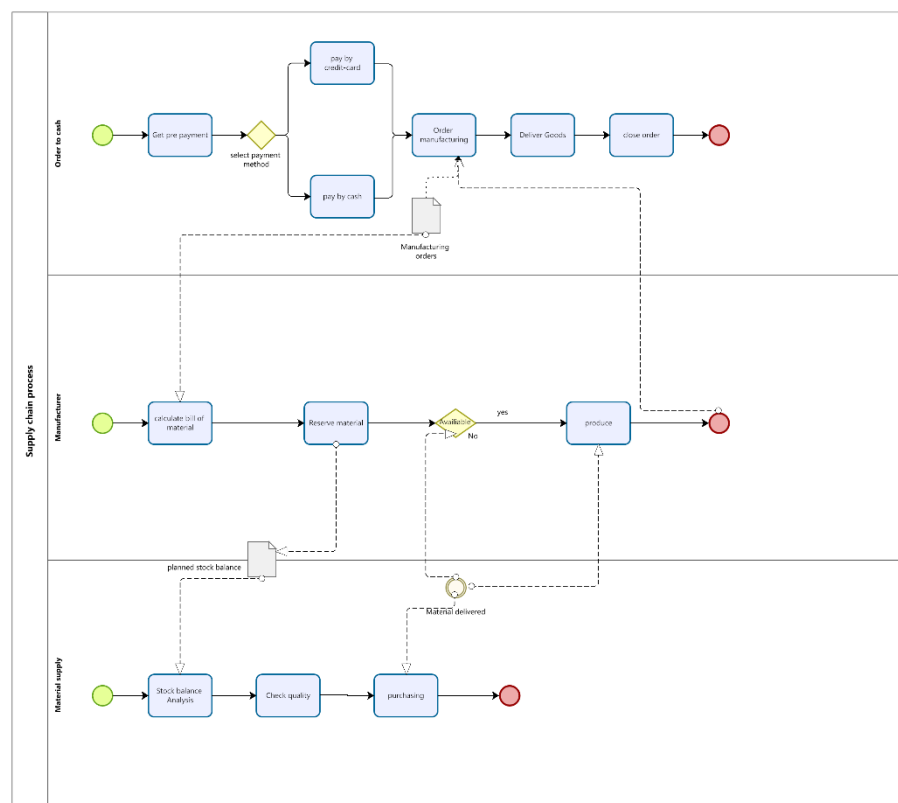
Mazda's supply chain process focuses on the supply chain process and how it may be effective in the supply chain process, as each stage is reviewed in order to effectively focus on the challenges as well as the steps that can be taken to improve the process.

In addition, it is determined that, in the case of order-to-cash, it is necessary to obtain money and then order, manufacture, deliver items, etc. BPMN focuses on the manufacturing process of a company's supply chain, which includes calculating the bill of materials, reserve materials, and output, etc. Included in the steps are a material supply chain example, purchasing, and stock balance. Each phase must be efficiently implemented for the company's growth and efficiency, as well as for good process management. Problems with the procedure.

There may be problems in the Mazda supply chain process, such as problems with order-to-cash, order manufacturing, or the delivery of goods or orders, etc. It is evaluated that manufacturing of the company's supply chain process may encounter problems, as stated by the fact that the Mazda supply chain process faces size and logical data limitations in relation to the organization's production network. Mazda's inventory network includes both direct and indirect vendors. Several suggestions for the process's enhancement are outlined below.

After we have analyzed Mazda's supply chain, we have redesigned the BPMN which would have solved Mazda's issue. One of the issues cited in Mazda's supply chain is cash payment, which poses a dilemma for individuals who do not carry cash but do carry credit cards. Today, e-commerce and credit card payments are more convenient and lower the danger of fraud. Credit card payment is included to Mazda's redesigned supply chain for the benefit of all consumers and to acquire a competitive advantage over rivals in the same industry. However, this is a modest contribution to the payment-related issue in Mazda's supply chain.

Next, Mazda's supply concentrates on manufacturing, and materials supply must make it as efficient as possible, because the majority of customers who purchase automobiles do so based on the quality of the materials used in their construction. Using machines or technology to uncover flaws, we will thus modify and add new material inspection requirements for vehicle strength and customer safety. If the material is flawed, it must be transferred to a warehouse for debugging and repeatedly inspected in the same manner in order to produce a high-quality automobile. Lastly, we do this to ensure that buyers choose Mazda products by stating that we have a method for selecting materials carefully. In order to restructure the supply chain and catapult the company into the global market, all of the aforementioned measures must be taken.



Discussion

Mazda Motor Corporation is one of the most famous and quality automobile manufacturing companies in the world. We choose to study the structure of Mazda because Mazda uses the MIS to manage data and in product and manage products and technology, which will be specific to studying the goals of Mazda, its Vision, Mission, Core Values, organizational structure, and how Mazda runs and manage its organization in Mazda company too.

We research Mazda MIS covering all aspects including profit, sales partners, and competitors, as well as studying Mazda's key business processes. Moreover, we study Mazda's MIS and IT system then we analyze its problems and apply them with MIS to correct those problems

Not only studying Mazda's process but also studying and analyzing business processes and strategies to implement and redesign along with building BPMN to give us a better understanding of how Mazda's system works.

Conclusion

In conclusion, after studying Mazda in MIS and various aspects, Mazda is clearly an organization focused on product development and customer care. This is evident in the vision, value, and mission statement. Cutting-edge technology and sleek designs are the uniqueness and distinction of Mazda. Furthermore, BPMN shows that Mazda has organized and comprehensive system management.

Reference

- [1] Mazda, "COMPANY INFORMATION"[Online]. Available:
https://newsroom.mazda.com/en/about/at-a-glance/?_ga=2.15588799.862118709.1663832179-1313141716.1663832179.
- [2] Mazda, "CORPORATE VISION"[Online]. Available: <https://www.mazda.com/en/about/vision/>.
- [3] Robert B. Austenfeld, Jr., "Mazda Motor Corporation's Strategy", August 24, 2004.[Online]. Available:
<https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.564.1764&rep=rep1&type=pdf>.
- [4] Barbara Farfan, "Mission Statements From the Automotive Industry", November 20, 2019.[Online]. Available: <https://www.liveabout.com/auto-industry-mission-statements-4068550>.
- [5] Inter New, "Mazda adjusts business strategy for sustainable growth enhances brand value and customer experience", April 5, 2022.[Online]. Available: <https://whatcar.co.th/mazda-adjusts-business-strategy-for-sustainable-growth-enhances-brand-value-and-customer-experience/>.
- [6] Joel Patel, "Mazda vs. Honda: Battle of the Brands", August 24, 2021.[Online]. Available: <https://cars.usnews.com/cars-trucks/advice/mazda-vs-honda>.
- [7] Adam Hudson, "Mazda Case Solution", December 20, 2017.[Online]. Available: <https://www.essay48.com/13888-Mazda-Case-Solution>
- [8] Mazdausa.com. 2022. *Mazda Build & Price Your Vehicle*. [online] Available at: <https://www.mazdausa.com/shopping-tools/build-and-price#/>
- [9] Docplayer.net. 2022. *BPMN Process Design for Complex Product Development and Production - PDF Free Download*. [online] Available at: <https://docplayer.net/13406598-Bpmn-process-design-for-complex-product-development-and-production.html>
- [10] Bohatala.com. 2022. *Toyota Business Process Model and Notation Analysis Summary*. [online] Available at: <https://bohatala.com/toyota-business-process-model-and-notation-analysis-summary>

VDO Clip Presentation

Demonstration VDO Clip on how to use a BPMN Modeling tool to create your redesigned business process

Link: <https://www.youtube.com/watch?v=HfiLfXpslZY>