**OPERATIONS MANAGEMENT**

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# 1.0 Introduction

The development of the present report would be done from the perspective of a trainee in the department of the operations managers within Allaband Cars, which has been developing high quality cars. The main aim of the company has been to continuously improve the operations continuously so that it can gain competitive advantage in the global markets of countries like France, Netherlands, Germany, and other Middle-East countries. As understood from the organisation, the aspects of agile and lean management are not proper within the organisation where the supplier management has also been an issue. The present report would be presented to the line manager which will look for the continuous improvement in different aspects through the different approaches where the development of the continuous improvement plan and strategic risk analysis will be done. Overall the report will aim to inform the best practices to operations management to the colleagues, the implementation of which can offer Allaband Cars a competitive advantage.

# 2.0 Effectiveness of operations management contributing to an organisational objective

## 2.1 Effectiveness of operations management across a range of sectors to meet organisational goal

In a variety of industries, including the automotive sector, operations management is essential to achieving an organisation's goals. Effective operations management techniques may help ***“Allaband Cars”***, an automobile dealership with offices in London, increase the effectiveness of its operations and boost client satisfaction.

* The best possible utilisation of resources is one of operations management's main goals in order to maximise productivity (Prokopenko, 1987). For Allaband Cars, this can entail controlling the dealership's inventory of automobiles to guarantee that it has the ideal mixture of brands and models to satisfy consumer demand. The danger of stock shortages and overstocking can result in missed sales or higher carrying costs; however, successful inventory control can reduce these risks.
* One of operational management's primary objectives is to optimise production, which includes making the greatest use of available resources. In the case of Allaband Cars, this may mean managing the dealership's supply of cars to ensure that it has the proper balance of models and brands to meet customer demand. Overstocking and stock shortage hazards can lead to missed sales opportunities or increased carrying costs, but effective inventory control can lessen these dangers.
* One of the fundamental objectives of operations management is to maximise production by making the greatest use of available resources (Forza, 2002). At Allaband Cars, this may mean keeping an eye on the dealership's stock of vehicles to make sure it has the proper balance of models and brands to meet customer demand. Successful inventory control may lessen the risks of supply shortages and overstocking, which can lead to lost sales or increased carrying costs.
* The reduction of expenses and augmentation of profitability are other essential goals of operations management. Effective control of the supply chain, such as negotiating advantageous arrangements with suppliers and putting cost-cutting measures in place during the production process, may be accomplished. Allaband Cars can increase its revenue and maintain its position as a market leader by cutting expenses.

## 2.2 Discussing the contribution of the supply chain to the organisation

A successful supply chain may significantly boost Allaband Cars' business as a London-based auto dealer. A well-managed supply chain may increase operational effectiveness, save costs, and increase customer satisfaction by expediting the movement of goods and data from suppliers to customers.

* Inventory management has been significantly improved at Allaband Cars as a result of efficient supply networks. The dealership can make sure it has the ideal combination of automobiles and components on hand to fulfil client demand by carefully managing its supply chain. By doing this, the possibility of stockouts or overproduction, which may result in lower sales or higher carrying costs, may be reduced.
* By maximising logistics and transportation, efficient supply chains may also assist Allaband Cars in cutting expenses (Ramirez-Peña *et al*. 2020). The dealership will be able to determine the most economical routes and means of delivery for its goods by coordinating closely with vendors and carriers. Customers may be more satisfied as a result of lower transportation costs and quicker deliveries.
* By enhancing transportation and logistics, efficient supply chains may also aid Allaband Cars in cost reduction (Reid and Sanders, 2019). The dealership may find the least expensive routes and forms of delivery for its items by cooperating directly with suppliers and carriers. This can save delivery times and transportation costs, which can increase customer satisfaction.
* Improved quality control is another important benefit of efficient supply chains for Allaband Cars (Ramirez *et al*. 2021). Allaband Cars may lower the possibility of flaws and recall by engaging together with suppliers to make sure that the materials and parts satisfy the dealership's requirements. This may promote client happiness and loyalty, which could result in more profitable sales.

# 3.0 Frameworks used by Operations Managers in decision-making

## 3.1 Solution for a problem of operations management and analyse the framework

A variety of operations management issues may arise for Allaband Cars, a car dealership with offices in London, which may have an effect on company productivity and profitability. The dealership can create efficient solutions to these issues by utilising a variety of approaches and analysis frameworks.

* A potential issue for Allaband Cars is ineffective inventory management. The dealership can employ strategies like ***“ABC analysis”***, which includes categorising inventory goods based on their worth and usage, to address this problem (Ravinder

and Misra, 2014). Allaband Cars can make sure it has the correct combination of cars and components on hand to satisfy client demand by giving high-value and high-usage goods priority. To reduce carrying costs, the dealership can also use ***“just-in-time” (JIT)*** ***inventory*** ***management***, which entails just acquiring merchandise as required.

* Poor quality control is a potential issue for Allaband Cars' operations management. The dealership can cope with this problem by employing strategies like **SPC “statistical process control”**, which entails monitoring and examining manufacturing processes to find and deal with causes of variance. Allaband Cars can find and fix quality problems before they affect the consumer by applying SPC (Caulcutt, 1996).
* Managing Allaband Cars' supply chain might provide difficulties as well. The dealership might make use of frameworks like the ***"SCOR model"***, which analyses supply chain operations and pinpoints opportunities for development, to enhance supply chain management. Allaband Cars can increase efficiency and cut costs by putting best practices in supply chain management into effect, such as utilising ***"electronic data interchange" (EDI)*** and collaborating closely with suppliers to optimise logistics and transportation (Lou *et al*. 2015).

## 3.2 Reviewing the use of digital technology for better organisational performance

Digital technology can improve Allaband Cars' operating efficiency. Allaband Cars is a vehicle dealership in London. The use of automation, machine learning, and data analytics are examples of digital technologies that may increase productivity, save costs, and boost customer happiness.

* Automation is one method by which digital technology may enhance Allaband Cars' operational performance. Automation may improve productivity and reduce mistakes in procedures like order processing, inventory management, and customer service. For instance, the dealership may monitor inventory levels using automated systems and place orders for new cars and components when supplies are low. This can reduce the chance of stockouts and enhance inventory management.
* At Allaband Cars, ***“artificial intelligence” (AI)*** may also improve operational performance. Artificial intelligence (AI) may be used to analyse consumer data, spot trends, and forecast client preferences and purchasing patterns (Ahmed *et al*. 2022). The dealership may modify its goods and services in order to satisfy client wants by utilising AI to obtain insights into consumer needs and preferences.
* At Allaband Cars, data analytics may also be utilised to enhance operational performance. The dealership may pinpoint areas for growth and streamline its procedures by analysing data on revenue, stock levels, and customer behaviour. The most frequently purchased automobile makes and brands, for instance, may be found through data analytics, allowing the dealership to modify its inventory and boost customer satisfaction.

# 4.0 Application of regular quality improvement approaches in the context of operation management of Allaband Cars

## 4.1 Analyse the approaches for continuous quality improvement

The aim of continuous quality improvement (CQI), a process-driven strategy, is to raise the calibre of an organisation's goods, services, and operations. To increase customer satisfaction and organisational effectiveness, it is necessary to consistently analyse and improve organisational performance, identify areas for improvement, and put those changes into practise. The discussion of the different approaches can be done here based on the situation of the organisation Allaband Cars as follows:

**Plan-Do-Study-Act (PDSA) Model:** The PDSA model is a popular CQI strategy. Plan, Do, Study, and Act are its four stages. The Plan stage entails locating a problem area, establishing goals and objectives, and creating an improvement plan. The strategy is put into action during the Do stage, and its effectiveness is assessed during the Study stage. Lastly, the Act step entails modifying the strategy as appropriate and putting the updated plan into action. To maintain improvement, this cycle is regularly performed (Amaral et al., 2022). Allaband Cars can begin by concentrating on supply chain management and its suppliers. Companies can decide to focus on enhancing their capacity to find suppliers and supplies both ethically and worldwide. The business should also identify the parties engaged in this process, including its clients, staff, and suppliers. Allaband Cars could make adjustments to how they handle their supply chain and suppliers (Reid and Sanders, 2019). For instance, they might manage their purchases of goods and services by investing in internet-based technology and database information systems. The business might also create ethical sourcing guidelines and train staff members on how to recognise and operate with moral vendors.

**Six Sigma approach:** Another CQI strategy that places an emphasis on lowering errors and raising quality is Six Sigma. It is a data-driven strategy that entails finding and examining the reasons for flaws, putting fixes in place, and continuously tracking and evaluating the outcomes. A quality level with fewer than 3.4 defects per million opportunities is the target of Six Sigma (Jacobs and Chase, 2017). Allaband Cars can strengthen their operations management procedures and market competitiveness by putting Six Sigma into effect. By enhancing their procedures and cutting waste, they can use Six Sigma to address problems related to globalisation and sustainability. Six Sigma also offers a disciplined approach to supplier management, which can assist Allaband Cars in locating suppliers and supplies ethically and globally.

**Total Quality Management (TQM):** TQM is a thorough method of CQI that incorporates every employee in the company. It emphasises raising customer satisfaction while lowering costs and improving quality. Continuous improvement, customer focus, staff involvement, and a management style centred on processes are all components of TQM. By implementing all the employees in identifying and resolving quality issues, Allaband Motors can continuously improve its manufacturing procedures (Jacobs and Chase, 2017). It can implement a customer-centric strategy to design and produce custom vehicles in accordance with the requirements and tastes of their global clients. Moreover, Allaband Vehicles may track and analyse data pertaining to production, quality, and customer feedback using database information systems. Making judgements based on this information will help you find areas that need improvement.

**Kaizen:** Kaizen, a concept from the Japanese language, denotes ongoing development. Making minor, gradual changes to procedures and goods is part of the CQI method. Every person in the company participates in kaizen, which aims to continuously improve every aspect of the business (Prayuda, 2020). The overall aim of the model has been to increase the improvement of the process within the organisation.While Allaband Cars has been planning to improve operations management for capturing the high class car market in France, Germany, and other Middle-East countries, the improvement in supplier management and fostering of innovative ideas can be done.

**Lean Management:** A CQI strategy called lean management seeks to reduce waste and boost productivity. It entails finding and removing tasks that don't add value, streamlining procedures, and raising standards of quality. Continuous improvement, respect for people, and the eradication of waste are the pillars of lean management. As an example, the organisation of Toyota had used the same to improve the profitability by limiting the stock. The same can be applied by the present company to reduce the wattage of stock materials and improve continuously.

## 4.2 Continuous improvement plan on the basis of operational activities

| **Improvement areas** | **Actions necessary** | **Results** | **Responsible person** | **Time needed** |
| --- | --- | --- | --- | --- |
| Lean manufacturing | Considering data regarding materials needed, improvement of the production process, and reduction of waste through ordering of materials to suppliers as per orders from the customers | Improvement in the production quality and reduction of waste. | Operations manager | 1-3 years |
| Sourcing of the suppliers | The selection of the suppliers are to be done based on the use of the past records and ethical production process. It is necessary to select the reputed suppliers for the components of their cars who are well known for quality. As an example, the suppliers from Indonesia have a reputation for supplying OEMs at low cost and high quality. The company needs to follow quality requirement guidelines for strict supplier selection. | Improvement and continuous high quality supplier selection. | Purchase manager and operations manager | Continuous process |
| Use digital technologies in continuous improvement process | According to the report by Fonseca et al (2021), deploying IoT-based solutions can boost productivity, decrease downtime, and enhance quality. Examples include real-time monitoring and predictive maintenance. Digital technologies can be used by Allaband Automobiles to improve supply chain management.  Further, Data analytics can be used by Allaband Vehicles to streamline its production procedures, such as locating bottlenecks and cutting waste. The business can more successfully tailor its cars by using data analytics to get insights into the preferences and behaviour of its customers. | Continuous improvement in overall operations which can gain them competitive advantage across the markets. | Data analysts and software experts | Continuous process. |

# 5.0 Strategic risk analysis on the operation function of Allaband Cars 850

## 5.1 Role and Importance of Strategic risk analysis for Allaband Cars

Strategic risk analysis is essential for the long-term performance and sustainability of the business for small automakers like Allaband Motors. Identification, assessment, and management of potential risks that could affect an organisation's capacity to meet its goals and objectives are all parts of strategic risk analysis.

The following are some functions and the significance of strategic risk analysis for small automakers like Allaband Cars:

Strategic risk analysis aids in the identification of potential risks that might have an impact on the company, including market turmoil, supply chain disruptions, shifting consumer preferences, legislative changes, and technical advancements.

**Risk impact evaluation:** If possible hazards are discovered, strategic risk analysis aids in determining their potential effects on the enterprise. By prioritising which risks to handle, the company may then deploy resources accordingly.

**Creating risk management plans:** Strategic risk analysis aids small automobile manufacturers in creating plans to reduce potential risks. The supply chain may be diversified, new technology may be purchased, and crisis management plans may be developed as part of these efforts.

**Strategic risk analysis:** Strategic risk analysis gives small vehicle producers crucial information they need to make decisions about the future of their company. This enables the firm to take advantage of new possibilities while lowering risks by reducing uncertainty and boosting decision-making confidence.

**Increasing resilience:** Strategic risk analysis allows small automakers like Allaband Cars to grow more flexible during times of uncertainty by identifying potential hazards and creating risk management strategies. This makes it possible for the company to adjust to shifting conditions and maintain its competitiveness over time.

Small car makers like Allaband Vehicles must conduct strategic risk analysis. Strategic risk analysis can assist the organisation in achieving its goals and objectives while minimising potential hazards by identifying potential risks, evaluating their impact, implementing risk management, improving decision-making, and building resilience.

## 5.2 Strategic risk analysis for Allaband Cars using risk identification and mapping

The steps listed below can be used to carry out a strategic risk assessment for Allaband **Vehicles using risk identification and mapping:**

Identifying potential hazards that might have an impact on Allaband Cars' operations is the first step in the risk analysis process. This can be accomplished by looking back on earlier instances and evaluating present and upcoming operations. The following list of dangers could apply to Allaband Cars:

* Economic downturns that result in a decline in demand for automobiles
* Modern vehicles are outdated thanks to technological developments
* interruptions in the supply chain that have an impact on the availability of raw materials or finished goods
* Government laws or rules that are altered and have an impact on the automotive industry
* Natural catastrophes or other calamities that harm manufacturing facilities or interfere with operations

**Risk assessment:** After identifying potential hazards, the next stage is to evaluate each risk's likelihood and potential consequences. This can be accomplished by rating each risk on a scale of 1 to 5 or 1 to 10 according to its impact and likelihood. Risks with a strong probability and high impact, for instance, would receive a score of 10, whereas risks that have a low possibility and low impact would receive a score of 1.

**Risk assessment matrix:** The last stage is to build a risk matrix that illustrates the potential dangers to Allaband Vehicles. To accomplish this, each risk can be plotted in a matrix with impact on one axis and likelihood on the other. The top right quadrant of the matrix should be used for hazards with a high likelihood and high impact, while the bottom left quadrant should be used for risks with a low probability and low impact.

# 6.0 Conclusion

Based on the information supplied in the paper, it can be said that achieving organisational goals requires good operations management. A car dealer with offices in London, Allaband Cars, strives to continuously enhance its operations to achieve a competitive edge in international markets. Supplier management, agile, and lean management are just a few of the areas that the research has identified as needing improvement. The organisation can optimise resource use, production, and cost cutting with the aid of the best operations management strategies. The importance of effective supply chains in lowering transportation costs and improving quality control has also been highlighted in the research.

# Reference list

Ahmed, A.A.A., Agarwal, S., Kurniawan, I.G.A., Anantadjaya, S.P. and Krishnan, C., 2022. Business boosting through sentiment analysis using Artificial Intelligence approach. International Journal of System Assurance Engineering and Management, 13(Suppl 1), pp.699-709**.**

Amaral, V.P., Ferreira, A.C. and Ramos, B., 2022. Internal Logistics Process Improvement using PDCA: A Case Study in the Automotive Sector. Business Systems Research: International journal of the Society for Advancing Innovation and Research in Economy, 13(3), pp.100-115. DOI: <https://doi.org/10.2478/bsrj-2022-0027>

Caulcutt, R., 1996. Statistical process control (SPC). Assembly Automation, 16(4), pp.10-14.

Fonseca, L., Amaral, A. and Oliveira, J., 2021. Quality 4.0: the EFQM 2020 model and industry 4.0 relationships and implications. Sustainability, 13(6), p.3107. Doi: <https://doi.org/10.3390/su13063107>

Forza, C., 2002. Survey research in operations management: a process‐based perspective. International journal of operations & production management.

Jacobs, F. R. and Chase, R. B. (2017) Operations and Supply Chain Management. 14th Ed. US: McGraw Hill Education.

Lou, Y.I., Wang, H.C., Chen, J.C., Vatjanasaregagul, L. and Boger II, E.P., 2015. Merging Just-in-Time (JIT) Inventory Management with Electronic Data Interchange (EDI) Impacts on the Taiwan Electronic Industry. Open Journal of Accounting, 4(03), p.23.

Prayuda, R.Z., 2020. Continuous improvement through Kaizen in the automotive industry. Journal of Industrial Engineering & Management Research, 1(1b), pp.37-42.

Prokopenko, J., 1987. Productivity management: A practical handbook. International Labour Organization.

Ramirez, M., Pérez, V., Gómez, A., Montaño, R. and Batista, M., 2021, October. Supply chain production planning of a manufacturing project system 4.0: case study: Shipbuilding. In IOP Conference Series: Materials Science and Engineering (Vol. 1193, No. 1, p. 012051). IOP Publishing.

Ramirez-Peña, M., Mayuet, P.F., Vazquez-Martinez, J.M. and Batista, M., 2020. Sustainability in the aerospace, naval, and automotive supply chain 4.0: Descriptive review. Materials, 13(24), p.5625.

Ravinder, H. and Misra, R.B., 2014. ABC analysis for inventory management: Bridging the gap between research and classroom. American journal of business education.

Reid, R. D. and Sanders, N. R. (2019) Operations Management: An Integrated Approach. 7th Ed. Hoboken NJ: Wiley.