Caribbean Advanced Proficiency Examination

Management of Business



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# **Introduction**

**Topic Statement:**

An examination into the effects of the production method used at Lasco Manufacturing Limited on the productivity and profitability of the firm from 2020 to 2021

**Thesis Statement:**

The production method used by Lasco Manufacturing Limited develops an environment where workers become proficient in the goods services being generated, hence raising profitability.

**Objectives:**

1. To identify the production method used at Lasco Manufacturing Limited.
2. To analyze the impact of the production method on the productivity of the business.
3. To determine the extent of Lasco Manufacturing Limited’s profitability being affected by the production method used.
4. To determine the relationship between the level of productivity in Lasco Manufacturing Limited’s production method.

# Justification

The topic entitled," An examination into the effects of the production method used at Lasco Manufacturing Limited on the productivity and profitability from 2020 to 2021", was selected so the researchers could be able to gain insights on not only the elements in the production method impact on the firm's productivity but also its profitability. With the significance of the selected topic, the researchers are surmised that the production method utilized influences the growth and development of the firm. This indicates the right production method can create a system of proficient workers and ultimately generate profits that facilitate the firm to expand and grow. Thus, the production method is a major factor that should be considered in making decisions within a firm. Therefore, the researchers intend to investigate Lasco Manufacturing Limited based on the theme of production in regards to productivity and profitability.

# Background

Production methods are the ways and strategies of producing a good or service in any limited company to satisfy a customer's needs competently. This plays a major role in production planning, where they examine the types of goods or services being created since the different product (like the discrepancy between an electronic and a non - electronic by product) needs different production processes. (Daneshjo, 2013) highlights that the main goal is to produce goods or services according to optimal specification, in the amount and by the schedule demanded, and at a minimum cost. To attain that level, great productivity must be adapted.

Productivity as a measure for output is important to industry and academia (Kumar, Duhan & Haleem, 2016). An investigation was made to look at the factors that enhance productivity by scrutinizing various international and national sources to explore this intriguing topic (productivity) which has been the main focus for researchers over a long time. Thus, experts from the Indian manufacturing industry were required to express their perception and the results were: positive attitude and involvement of management, proactive employees, and good working conditions. All these factors encompass the methods of production used within a firm.

The same publishers direct the relationship between productivity and profitability. They stated that “the wealth of nations and our living standards are being determined by productivity development” (Brynjolfsson & Hitt, 1998 as cited in Kumar, Duhan & Haleem, 2016). Halton (2021) mentioned that “productivity gains have historically led to gains in real income, lower inflation and increased corporate profitability. A company that is increasing output with the same number of hours worked will likely be more profitable, which means that it can raise wages without passing that cost on to customers.”

Cook (2021) also supported the previous article by saying "inefficient processes and low productivity mean costs are higher than they could / should be. This cost can either be absorbed by your company (hurting profits), can be passed to your customers (potentially reducing sales – and therefore profitability), or can be mitigated through cheaper materials and lower quality products (which again can affect sales and – you guessed it – profits)"

# Literature Review

Lasco Manufacturing Limited is a public limited company with a registered office located at 27 Red Hills Road, Kingston, while its manufacturing facilities are situated at Marl, St. Catherine (LASCO Manufacturing Limited, 2021). It was founded in September 1988 by Hon. Lascelles Chin. It has been in effect since 1994 when it was formulated by the amalgamation of Lasco Foods (Successors) Limited and Lasco Foods Limited. The firm's operation has been expanding among the exports market where its products are being shipped to North America and even countries in the Caribbean. Since its establishment, the organization has seen nothing but exponential growth due to its advancement in technology, strategic decisions, sales of products, and by extension, its profitability. Hence the organization has been generating profits of 1 to 1.5 million dollars between the period investigated which was shown in the Annual Reports.

To constitute the explanation on the concepts of the production method, the basis of what production is must first be interpreted. (Conrad, 2021) states that production is the method of turning raw material or inputs into finished goods or products in a manufacturing process. In other words, it means the creation of goods from basic inputs.

Many articles harmonize or proceed with this concept of Production. An ideal one selected by the researchers was written by (Lumen Learning, 2022) where not only a great introduction of the production method was depicted, but also the relationship between production and production method was highlighted. So according to this piece, the best way to understand operations management in manufacturing and production is to consider the things that are used daily. Businesses know what they want to produce, but the challenge is to select a process that will maximize the productivity and efficiency of production (Lumen Learning, 2022). This indicates that any firm must examine the production process as a whole to ultimately analyze which production method fits them effectively. Hence, this can impact the possibility of whether a firm strives financially or gains control over the markets.

This is followed by a clear and concise definition of the production method. (Wilson, 2016) highlights that production methods are the ways to manage how your products are produced. This ideology is supported by an article written by (Widyatmoko, 2016) who focuses on the production of asphalt materials. “Production methods for asphalt materials are generally classified based on mixing temperatures. Most of the bituminous materials used for paving roads were produced following HMA (Hot Mix Asphalt) manufacturing processes. However, other manufacturing methods produce bituminous mixtures at lower production and installation temperatures; these methods of producing bituminous mixtures are known as low-temperature asphalts (LTAs).” This denotes that an organization's production method is dependent on the type of product produced as the size of their market. The reason being is that identical products prerequisite a different production method to other nature of products created in a production unit. As reviewed, choosing a suitable production method means they may best align with the company's goal.

One of the main production methods that will be discussed later is Mass Production. Mass production is the application of the principles of specialization,division oflabour, and standardization of parts to the manufacture of goods. Such manufacturing processes attain high rates of output at low unit cost, with lower costs expected as volume rises. Mass production methods are based on two general principles: (1) the division and specialization of human labour and (2) the use of tools, machinery, and other equipment, usually automated, in the production of standard, interchangeable parts and products. The use of modern methods of mass production has brought such improvements in the cost, quality, quantity, and variety of goods available that the largest global population in history is now sustained at the highest general standard of living (Holstein, 2019). This ultimately implied that many large manufacturing companies utilized this method since they are obligated in satisfying the needs and wants of the global market comprised of many competing firms. This method would be beneficial in terms of productivity and efficiency as a differentiator in the market.

To encompass the understanding of both objectives 2 and 3, (BBC, 2022) focuses on “The impact of production processes on productivity” which signifies the success of production method from productivity and how to attain it, as well as, its influence on profitability. “One major reason why a business might choose one production process over another relates to productivity. Productivity is a measure of efficiency. A business can improve productivity in various ways: Investing in up-to-date machinery, providing incentives to encourage workers to work harder and faster, providing training to staff to improve their skills so they can work more efficiently and even encouraging staff to come up with time-saving ideas that allow them to work more efficiently. Being more productive enables businesses to keep their costs per unit as low as possible. This means they can price their goods or services more competitively or increase their profit margins.” (BBC, 2022) symbolizes not only the relationship between the production method and its productivity utilized within it but also the effect of the variability from productivity to profitability. This means that improved productivity can allow a firm to retain wealth to functionally initiate expansion for even further generation of revenue.

# Methodology

The researchers did the topic “An examination into the effects of the production method used at LASCO Manufacturing Limited on the productivity and profitability of the firm from 2020 to 2021”. The research techniques that were used are a questionnaire and secondary source financial documents to collect accurate information relating to the topic.

Quantitative research is the research strategy where data are analyzed through numerical comparisons and statistical inferences. It is used to discover facts about a particular phenomenon. Questionnaire is a set of printed or written questions with a choice of answers, devised for a survey or statistical study. Questionnaires provide a relatively quick and efficient way of obtaining large amounts of information from a large sample of people and are cost-efficient. The questionnaires consist of fifteen questions with five categorized in these three headings: General Questions, Questions for Employees and Questions for Managers.

The sampling method used in this research topic was the Cluster Sampling Method. Cluster sampling is a probability sampling method in which you divide a population into subsets and randomly select entire subsets as your sample. The reason why the researchers chose this sampling method is because it is very easy to implement and has high reliability in getting accurate and valid information. The researchers created a sample of employees and managers across four departments to answer the questionnaire. The researchers randomly selected ten employees and five managers from different departments to form the sample. Forty copies of the questionnaire were created and issued out to persons who worked at Lasco Manufacturing Limited. The researchers divided the questionnaire into three sections; General (everyone), Employees only, and Managers only so that they could collect accurate information from everyone. The questionnaire was distributed to the company on March 20, 2022 and was collected on March 22, 2022. The questionnaire was left at the company for both employees and managers to fill out for the two day duration. The company delivered the results of the questionnaire to the researchers five hours after the two days had passed. After the data was collected, careful analysis was done to present statistical data of the findings and to make informed recommendations.

# Presentation of Data

**Figure 1:** The doughnut chart represents the responses to the question, “Do you know the production method used?”

**Figure 2:** The Pie chart represents the responses to the question, “If yes, what is the method that the company uses?”

**Figure 3:** The Pie chart represents the responses to the question, “What is your level of satisfaction on the production method you are engaged in?”

**Figure 4:** The Bar graph represents the responses to the question, “How long has the company been using this type of production method?”

**Figure 5:** The Pie chart represents the responses to the question, “Do you think the production method is counterproductive?”

**Figure 6:** The Pie chart represents the responses to the question, “How often does the machinery break down?”

**Figure 7:** The Pie chart represents the responses to the question, “How does it affect the company productivity?”

**Figure 8:** The doughnut chart represents the responses to the question, “Do you see any improvements in the production method that the company uses?”

**Figure 9:** The Bar graph represents the responses to the question, “How often do you work overtime?”

**Figure 10:** The Bar Graph represents the responses to the question, “What motivates you to go above and beyond at work?”

# Analysis of Data

Figure one shows the response to the question, “Do you know the production method used?” 13% of respondents said “No” while 87% of respondents said “Yes”.

Figure two shows the response to the question, “If yes, what is the method that the company uses?” 7% of respondents said “Batch” 20% of respondents said “Mass” 73% of the respondents said “Flow”.

Figure three shows the response to the question, “What is your level of satisfaction with the production method you are engaged in?” 5% of respondents said “Very unsatisfied” another 5% said “Unsatisfied” 15% of respondents said “Very satisfied” and 75% of respondents said “Satisfied”.

Figure four shows the response to the question, “How long has the company been using this type of production method” 10% of respondents choose “17 plus years” another 10% said “5-8 years” 20% percent of respondents said “13-16 years “and 60% of respondents choose “9-12 years”.

Figure five shows the response to the question, “Do you think the production method is counter-productive?” 10% of respondents said “No”, 80% of respondents said “Prefer not to say” and 10% of respondents said “Yes”.

Figure six shows the response to the question, “how often does the machinery break down?” 10% of respondents said “very often” 20% of respondents said “Often” and 70% of respondents said “Not so often”.

Figure seven shows the responses to the question, “How does it affect the company productivity?” 10% of respondents choose “Not affected” 20% of respondents choose “Greatly affected” another 20% of respondents said “moderately affected” and 50% of respondents said “slightly affected”.

Figure eight shows the question, “Do you see any improvements in the production method that the company uses?” 38% of respondents said “No” and 62% of respondents said “Yes”.

Figure nine shows the question, “How often do you work overtime?” 12.5% of respondents said “Monthly,” 25% of respondents said “Daily,” and 62.5% of respondents said “Weekly”.

Figure ten shows the question, “What motivates you to go above and beyond at work” 12.5% of respondents said “Others” another 12.5% of respondents said ”Having a position of power” while 17.5% of respondents said “Public Recognition” and 57.5% respondents said “Bonuses”.

# Interpretation of Data

Lasco Manufacturing limited is a well-known household brand in Jamaica and the rest of the Caribbean. Its name is associated with providing good quality household products at reasonable costs of items such as; soaps, milk powders, toothpaste, etc. They are also known to be efficient with their production to be as profitable as possible.

The right method of production is capable of providing increased productivity and efficiency in the workplace. In response to a survey conducted at Lasco among its workers, it is stated in the report that 87% of the respondents responded “Yes” and 13% responded “No” to the question, “Do you know the production method used?”. The researchers were pleased with the responses; they reveal that most of the workers are aware of what method of production their company uses. They must understand how the method of production may affect their productivity. Businesses know what they want to produce, but the challenge is to select a process that will maximize the productivity and efficiency of production (Lumen Learning, 2022).

A flow production method can increase the productivity, profitability, and efficiency of a company. It is reported that when asked what method of production Lasco uses, 73% of the respondents said "Flow Production", 20% responded “Mass Production” and 7% of the respondents said “Batch Production”. It became clear that the method of production the company used was Flow Production based on the majority response that was 73%.

The researchers agreed with the responses because Flow production has been the most suitable and efficient method of production for Lasco's products. And with that being the case, productivity is going to be high in comparison to using other ineffective methods of production for the types of products that Lasco manufactures. Using ineffective and unsuitable methods of production will not yield the quality of products produced and would decrease the company’s ability to meet and respond to consumers’ wants, preferences and buying behavior thus resulting in a drop in sales and profits.

It is important to ensure that the workers are satisfied with the equipment and production methods that they use to ensure optimum productivity. From the survey it was shown that 75% of workers chose that they are “satisfied", 15% chose “very satisfied”, 5% chose “Unsatisfied“ and the remaining 5% chose  “ Very Unsatisfied" to the question, "What is your level of satisfaction with the production method you are engaged in?". This shows that the workers are mostly comfortable with the method of production that they use in the creation and/or assembly of goods in production.

Companies are encouraged to provide the proper equipment and method of production so that workers can adapt and work efficiently in the long run. The report showed that 10% of managers chose "17 plus years", 20% responded with "13-16 years", 60% chose "9-12 years" and 10% choose "5-8 years", in response to the question, "How long has the company been using this type of production method?". This shows that the company has been using flow production for over a decade and so far they have been able to increase productivity. This may lead to bigger profit margins over time. The variety of responses also suggests that some workers have been working at the company for a longer time than others. For a business to be profitable the business has to try to increase productivity with the method of production.  A business can improve productivity various ways: Investing in up-to-date machinery, providing incentives to encourage workers to work harder and faster, providing training to staff to improve their skills so they can work more efficiently and even encouraging staff to come up with the time-saving ideas that allow them to work more efficiently (BBC, 2022).

The survey results showed that 80% of the workers responded "Yes", 10% of the workers responded “No" and the remaining 10% chose "prefer not to say" to the question, "Do you think the production method is counterproductive?". The researchers agreed with the 80% that said "Yes" because Lasco has always been a very profitable and productive company in the past decade and because of that it would be impossible to see their method of production which is Flow Production as being counterproductive.

When a company engages in capital-intensive production, the company may incur expenses from the depreciation of the machinery that is used in day-to-day operations. The respondents responded to the question, “How often does the machinery break down?” 70% of the respondents responded “Not so often", 20% responded "Often" and the remaining 10% of the responses were "Very often". Over the last couple of years Lasco has not incurred a lot of expenses from broken-down machinery based on the fact that 70% agreed that it is not often that machinery breaks down. It is good that the company does not have to do too many repairs as that would decrease productivity and profits. On the other hand, the varying responses may also indicate that some machinery breaks down more often than others.

When machinery breaks down it may have a negative impact on production and result in a decline in productivity over a period of time. It is stated that 20% of the workers responded that productivity was "greatly affected", 20% responded "Moderately Affected", 50% responded "Slightly Affected" and 10% responded “Not Affected", to the question "How does it affect the company productivity?". Based on the responses it shows that when machinery breaks down it will have a negative effect on productivity because it stops the workers from being able to carry out certain tasks.

The Flow Production method is the production method that the company uses in its everyday operations. 62% of the respondents said "yes" and 38% responded "no" to the question, "Do you see any improvements in the production method that the company uses?". The majority of the responses were, "yes" to seeing improvements in the method of production that Lasco uses; this indicates that so far production has been somewhat efficient.

Research has shown that workers may choose to do overtime to complete more work and get more money for the extra hours that they put in. To the question of, “How often do you work overtime?” five of the respondents said "Monthly", twenty five of respondents said "Weekly" and ten responded "Daily". Workers doing overtime would increase productivity and in return, more production of goods is carried out promptly.

The worker's responses to the question, "What motivates you to go above and beyond at work?", five of them responded "other reasons", five responded "having a position of power", seven responded "public recognition" and the remaining twenty three responded "Bonuses".

After the researchers reviewed the responses, it was clear that most of the workers did the overtime to get the bonuses that come with doing overtime which would be extra money for them. The researchers realized that bonuses are very good in encouraging workers to be more productive and in the end both the company and workers will benefit in terms of efficiency, effort, productivity, rewards, and profits.

Based on the findings in the research, it is safe to say that the production method that Lasco Manufacturing uses is Flow Production which is very effective in increasing productivity and maximizing profits.

# Conclusion

Lasco Manufacturing is classified as a public limited company that has produced high quality household goods across the Caribbean. The firm has been growing rapidly due to its innovative ways of generating profits across the Caribbean. The researchers summarized that the company has been very consistent in their productivity and production method. The employee's responses helped to confirm this with the majority of them using Flow Production Method. The employee's responses also helped confirm that flow production has positively impacted the productivity of the firm.

# Recommendation

It has been observed that LASCO Manufacturing Limited has a very efficient and effective production method in place that will continue to help them make profits. However, there were some flaws that were identified during the research. Here are some recommendations the researchers identified:

1. Inform workers about the production method they are using. Educating the employees more about the production method will help the company be more efficient.
2. Try to use different methods of encouraging workers. Offering gift baskets and appointing group leaders will help workers be more productive and help build their confidence.

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# Appendix

General Questions

1. What is your gender?

* Male
* Female
* Prefer not to say

1. How long have you been working at the company?

* 1-2 years
* 3-5 years
* 6-9 years
* 10+ years

1. What was your role in the business during the specified period?

* Supervisor
* Employee
* Intern
* Other

1. What made you interested in working for the company?

* The Pay
* It was easy to be employed
* It was your dream
* A family member
* Others

1. Has the working environment of the company been suitable to you?

* Yes
* No
* Prefer not to say

For the Employees

1. What is your level of satisfaction on the production method you are engaged in?

* Very satisfied
* Satisfied
* Unsatisfied
* Very unsatisfied

1. How often do you work over time?

* Daily
* Weekly
* Monthly
* Others

1. What motivates you to go above and beyond at work?

* Bonuses
* Public Recognition
* Having a position of power (a promotion)

1. Do you see any improvement in the production method that the company uses?

* Yes
* No

1. Do you know the production method the company uses?

* Yes
* No

10 i) If yes, what is the method that the company uses?

* Batch
* Flow
* Mass
* Not Sure

For Managers

1. What type of production method have you observed being used in the period?

* Flow
* Mass
* Batch

1. How long has the company been using this type of production method?

* 5-8 years
* 9-12 years
* 13-16 years
* 17+ years

1. Do you think the production method is counterproductive?

* Yes
* No
* Prefer not to say

1. How often does the machinery break down?

* Very Often
* Often
* Not so Often
* Never

1. How does it affect the company productivity?

* Greatly Affected
* Affected
* Slightly Affected
* Not Affected