A Study on Operation Strategy and its Implementation Towards Win Tech Precision Engineering, Chennai

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Abstract- An operations strategy refers to the system an organization implements to achieve its long-term goals and mission. It involves decisions based on multiple factors, including product management, supply chain, inventory, forecasting, scheduling, quality, and facilities planning and management. The objective of the study is to analyse the study on operation strategy and its implementation towards Win Tech Precision Engineering, Chennai. The study based only on the opinion and expectation of customers. Total number of sample taken for the study is 120 respondents. Descriptive research design and Convenience sampling techniques were used for the study. Primary data and secondary data have been used in the study. Simple percentage analysis, chi square analysis and correlation analysis have been applied in this study to reach the finding of the study. It is found that 49.2% of the respondents said that agree towards adoption and implementing high quality technology. It is suggested that the company has to adopt and implement the high quality technology to manufacture the quality products. In conclusion, a well-designed and executed operational strategy can serve as a key driver of success for businesses, enabling them to achieve sustainable growth and profitability.

Keywords:
Operations Strategy Implementation and Process Optimization Focused on Improving Productivity, Quality and Cost Efficiency in Manufacturing.

Introduction

An operations strategy is a set of decisions an organization makes regarding the production and delivery of its goods. Organizations may consider each step they take toward manufacturing or delivering a product an operation, and all decisions regarding these various operations are the operations strategy. An organization's operations strategy works in tandem with its overall business strategy, helping the organization to achieve its long-term goals and improve competitiveness in the marketplace.

An operations strategy refers to the system an organization implements to achieve its longterm goals and mission. It involves decisions based on multiple factors, including product management, supply chain, inventory, forecasting, scheduling, quality, and facilities planning and management. For service providers, operations strategy concerns financing, marketing, human resources, and service that matches the company's goal and mission.

Review of Literature

1. **John C. Anderson (2002):** Emphasized that aligning operations strategy with business strategy improves competitive performance and organizational strength.
2. **Sabrina Lohmann (2019):** Identified that customer priorities influence operational decisions like cost, quality, and production strategies.
3. **Peterson Obara Magutu (2010):** Found that effective planning and implementation of operations strategy improve service delivery, though challenges exist in execution.
4. **Reinaldo Pacheco da Costa (2005):** Highlighted the importance of aligning cost management with operations strategy for business success.
5. **Díaz-Garrido (2008):** Explained different types of operations strategies and the need for further research in this area.

Objective

1. To analyse cost reduction through operation strategy.
2. To evaluate the impact on productivity and efficiency.
3. To examine quality improvement in operations.
4. To identify challenges and suggest improvements in operational performance.

Research Design

Research design refers to the overall strategy utilized to carry out research that defines a succinct and logical plan to tackle established research question(s) through the collection, interpretation, analysis, and discussion of data. Hence descriptive research study is used. Descriptive research can only report what has happened and what is happening

Sample design

Random sampling techniques were used for the study. Random sampling, or probability sampling, is a sampling method that allows for the randomization of sample selection, i.e., each sample has the same probability as other samples to be selected to serve as a representation of an entire population.

Sample Size

The study based only on the opinion and expectation of employees. Total number of sample taken for the study is 120 respondents

Sampling Unit

Sampling Unit of this study is Win Tech Precision Engineering, Chennai.

Data Sources

The study basically uses primary and secondary data. The study depends mainly on the primary data and secondary data namely the text books, journals, newspapers, magazines and internet.

Primary data

Primary data sources can be described as those sources that are closest to the origin of the information. They contain raw information and thus, must be interpreted by researchers. Secondary sources are closely related to primary sources and often interpret them. Examples of primary sources include manuscripts, newspapers, speeches, cartoons, photographs, video, and artefacts. Primary sources can be described as those sources that are closest to the origin of the information.

They contain raw information and thus, must be interpreted by researchers. Well structured questionnaire has been used for the col1ection of primary data from the respondents

GENDER OF THE RESPONDENTS

Gender	No. of the respondents	Percent
Male	76	63.3
Female	44	36.7
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 63.3% of the respondents are male and 36.7% of the respondents are female.

Thus the majority of the respondents are male.

AGE OF THE RESPONDENTS

Age	No. of the respondents	Percent
Below 20	24	20.0
21-30	41	34.2
31-40	20	16.7
41-50	17	14.2
Above 50	18	15.0
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 20.0% of the respondents are in the age group of below 20 years, 34.2% of the respondents are in the age group of 21-30 years, 16.7% of the respondents are in the age group of 31-40 years, 14.2% of the respondents are in the age group of 41-50 years and 15.0% of the respondents are in the age group of above 50 years.

Thus the majority of the respondents are in the age group of 21-30 years.

EDUCATIONAL QUALIFICATION OF THE RESPONDENTS

Educational Qualification	No. of the respondents	Percent
Up to Higher Secondary	34	28.3
Graduate	26	21.7
Post Graduate	36	30.0
Diploma	12	10.0
Others	12	10.0
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 28.3% of the respondents have completed up to Higher Secondary, 21.7% of the respondents have completed Graduate degree, 30% of the respondents have completed PG degree, 10.0%of the respondents have completed Diploma and 10% of the respondents have completed others educational qualification.

Thus the majority of the respondents have completed Post Graduate.

SALARY OF THE RESPONDENTS

Salary	No. of the respondents	Percent
Below 10, 000/-	28	23.3
10,000-20,000/-	49	40.8
20,001- 30,000/-	22	18.3
Above 30,000/-	21	17.5
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 23.3% of the respondents have below Rs.10, 000, 40.8% of the respondents have Rs. 10,000-20,000/-, 18.3% of the respondents have Rs.20,001-30,000 and 17.5% of the respondents have above Rs.30,000 as their income level.

Thus the majority of the respondents have Rs. 10,000-20,000/- as their income level.

EXPERIENCE OF THE RESPONDENTS

Experience	**No. of the respondents**	**Percent**
Below 1 year	28	23.3
1-3 years	39	32.5
4-6 years	31	25.8
Above 6 years	22	18.3
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 23.3% of the respondents have below 1 years, 32.5% of the respondents have 1-3 years, 25.8% of the respondents have 4-6 years and 18.3 % of the respondents have above 6 years experience.

Thus the majority of the respondents have below 1-3 years experience.

USE OF EFFICIENT EQUIPMENT

Particulars	**No. of the respondents**	**Percent**
Strongly agree	25	20.8
Agree	37	30.8
Neither agree nor disagree	27	22.5
Disagree	19	15.8
Strongly Disagree	12	10.0
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 20.8% of the respondents said that strongly agree, 30.8% of the respondents said that agree, 22.5% of the respondents said that neither agree nor disagree, 15.8% of the respondents said that disagree and 10.0% of the respondents said that strongly disagree towards use of efficient equipment.

Thus the majority of the respondents said that agree towards use of efficient equipment.

DIRECT PURCHASE FROM MANUFACTURER

Particulars	**No. of the respondents**	**Percent**
Strongly agree	20	16.7
Agree	45	37.5
Neither agree nor disagree	25	20.8
Disagree	14	11.7
Strongly disagree	16	13.3
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 16.7% of the respondents said that strongly agree, 37.5% of the respondents said that agree, 20.8% of the respondents said that neither agree nor disagree, 11.7% of the respondents said that disagree and 13.3% of the respondents said that strongly disagree towards direct purchase from manufacturer.

Thus the majority of the respondents said that agree towards direct purchase from manufacturer.

LOW COST SUPPLY CHAIN

Particulars	**No. of the respondents**	**Percent**
Strongly agree	33	27.5
Agree	24	20.0
Neither agree nor disagree	30	25.0
Disagree	3	2.5
Strongly disagree	30	25.0
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 27.5% of the respondents said that strongly agree, 20.0% of the respondents said that agree, 25.0% of the respondents said that neither agree nor disagree, 2.5% of the respondents said that disagree and 25.0% of the respondents said that strongly disagree towards low cost supply chain.

Thus the majority of the respondents said that strongly agree towards low cost supply chain.

JUST-IN-TIME STRATEGY

Particulars	No. of the respondents	Percent
Strongly agree	32	26.7
Agree	40	33.3
Neither agree nor disagree	32	26.7
Disagree	3	2.5
Strongly disagree	13	10.8
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 26.7% of the respondents said that strongly agree, 33.3% of the respondents said that agree, 26.7% of the respondents said that neither agree nor disagree, 2.5% of the respondents said that disagree and 10.8% of the respondents said that strongly disagree towards just-in-time strategy.

Thus the majority of the respondents said that agree towards just-in-time strategy.

FOLLOWING COST LEADERSHIP STRATEGY

Particulars	No. of the respondents	Percent
Strongly agree	27	22.5
Agree	47	39.2
Neither agree nor disagree	24	20.0
Disagree	2	1.7
Strongly disagree	20	16.7
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 22.5% of the respondents said that strongly agree, 39.2% of the respondents said that agree, 20.0% of the respondents said that neither agree nor disagree, 1.7% of the respondents said that disagree and 16.7% of the respondents said that strongly disagree towards following cost leadership strategy.

Thus the majority of the respondents said that agree towards following cost leadership strategy.

FASTER PRODUCTION RATES

Particulars	No. of the respondents	Percent
Excellent	31	25.8
Good	20	16.7
Average	20	16.7
Bad	2	1.7
Poor	47	39.2
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 25.8% of the respondents said that excellent, 16.7% of the respondents said that good, 16.7% of the respondents said that average, 1.7% of the respondents said that bad and 39.2% of the respondents said that poor towards faster production rates.

Thus the majority of the respondents said that poor towards faster production rates.

ERROR FREE SERVICES

Particulars	No. of the respondents	Percent
Excellent	37	30.8
Good	32	26.7
Average	20	16.7
Bad	12	10.0
Poor	19	15.8
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 30.8% of the respondents said that excellent, 26.7% of the respondents said that good, 16.7% of the respondents said that average, 10.0% of the respondents said that bad and 15.8% of the respondents said that poor towards error free services.

Thus the majority of the respondents said that excellent towards error free services.

QUICKER TRANSPORT METHODS

Particulars	No. of the respondents	Percent
Excellent	24	20.0
Good	45	37.5
Average	31	25.8
Bad	3	2.5
Poor	17	14.2
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 20.0% of the respondents said that excellent, 37.5% of the respondents said that good, 25.8% of the respondents said that average, 2.5% of the respondents said that bad and 14.2% of the respondents said that poor towards quicker transport methods.

Thus the majority of the respondents said that good towards quicker transport methods.

LARGER FINISHED-GOODS INVENTORIES FOR SERVING AT PROMISED TIME

Particulars	No. of the respondents	Percent
Excellent	37	30.8
Good	29	24.2
Average	14	11.7
Bad	17	14.2
Poor	23	19.2
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 30.8% of the respondents said that excellent, 24.2% of the respondents said that good, 11.7% of the respondents said that average, 14.2% of the respondents said that bad and 19.2% of the respondents said that poor towards larger finished-goods inventories for serving at promised time.

Thus the majority of the respondents said that excellent towards larger finished-goods inventories for serving at promised time.

BETTER CONTROL OF PRODUCTION OF ORDERS

Particulars	No. of the respondents	Percent
Excellent	30	25.0
Good	31	25.8
Average	36	30.0
Bad	7	5.8
Poor	16	13.3
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 25.0% of the respondents said that excellent, 25.8% of the respondents said that good, 30.0% of the respondents said that average, 5.8% of the respondents said that bad and 13.3% of the respondents said that poor towards better control of production of orders.

Thus the majority of the respondents said that average towards better control of production of orders

HIGH QUALITY IN PRODUCT ATTRIBUTES

Particulars	No. of the respondents	Percent
Strongly agree	49	40.8
Agree	37	30.8
Neither agree nor disagree	13	10.8
Disagree	20	16.7
Strongly disagree	1	0.8
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 40.8% of the respondents said that strongly agree, 30.8% of the respondents said that agree, 10.8% of the respondents said that neither agree nor disagree, 16.7% of the respondents said that disagree and 0.8% of the respondents said that strongly disagree towards high quality in product attributes.

Thus the majority of the respondents said that strongly agree towards high quality in product attributes.

ADOPTION AND IMPLEMENTING HIGH QUALITY TECHNOLOGY

Particulars	No. of the respondents	Percent
Strongly agree	24	20.0
Agree	59	49.2
Neither agree nor disagree	18	15.0
Disagree	18	15.0
Strongly disagree	1	0.8
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 20.0% of the respondents said that strongly agree, 49.2% of the respondents said that agree, 15.0% of the respondents said that neither agree nor disagree, 15.0% of the respondents said that disagree and 0.8% of the respondents said that strongly disagree towards adoption and implementing high quality technology.

Thus the majority of the respondents said that agree towards adoption and implementing high quality technology.

THE ABILITY OF A MANUFACTURING SYSTEM TO SWITCH BETWEEN DIFFERENT PRODUCTS IN THE PRODUCT MIX

Particulars	No. of the respondents	Percent
Strongly agree	34	28.3
Agree	47	39.2
Neither agree nor disagree	11	9.2
Disagree	9	7.5
Strongly disagree	19	15.8
Total	120	100.0

Source: Primary data

INTERPRETATION

The above table shows that 28.3% of the respondents said that strongly agree, 39.2% of the respondents said that agree, 9.2% of the respondents said that neither agree nor disagree, 7.5% of the respondents said that disagree and 15.8% of the respondents said that strongly disagree towards the ability of a manufacturing system to switch between different products in the product mix.

Thus the majority of the respondents said that agree towards the ability of a manufacturing system to switch between different products in the product mix.

CHI SQUARE ANALYSIS

Null hypothesis (Ho):

There is no significance difference between the gender of the respondents and to understand effectiveness of cost reduction by the operation strategy.

Alternative hypothesis (H1):

There is some significance difference between the gender of the respondents and to understand effectiveness of cost reduction by the operation strategy.

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
GENDER OF THE RESPONDENTS * TO UNDERSTAND EFFECTIVENESS OF COST REDUCTION BY THE OPERATION STRATEGY	120	100.0%	0	.0%	120	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.264[a]	18	.318
Likelihood Ratio	24.268	18	.146
Linear-by-Linear Association	1.988	1	.159
N of Valid Cases	120		

a. 32 cells (84.2%) have expected count less than 5. The minimum expected count is .37.

INFERENCE

As per the above table, it is inferred that the P value is 0.318; it is not significant to 5% (0.05) significant level. The minimum expected count is 0.37. Thus alternative hypothesis is

rejected and it is found that there is no significant relationship between the gender of the respondents and to understand effectiveness of cost reduction by the operation strategy.

CORRELATION ANALYSIS

Correlations

		AGE OF THE RESPONDENTS	TO ANALYSE THE FLEXIBILITY LEVEL IN THE COMPANY BY IMPLEMENTING OPERATION STRATEGY
AGE OF THE RESPONDENTS	Pearson Correlation	1	-.014
	Sig. (2-tailed)		.881
	N	120	120
TO ANALYSE THE FLEXIBILITY LEVEL IN THE COMPANY BY IMPLEMENTING OPERATION STRATEGY	Pearson Correlation	-.014	1
	Sig. (2-tailed)	.881	
	N	120	120

Inference:

The Above table indicates that out of 120 respondents, co-efficient of correlation between age of the respondents and to analyse the flexibility level in the company by implementing operation strategy is -0.014. It is below 1. So there is negative relationship between age of the respondents and to analyse the flexibility level in the company by implementing operation strategy.

FINDINGS

- 63.3% of the respondents are male.
- 34.2% of the respondents are in the age group of 21-30 years.
- 30.0% of the respondents have completed Post Graduate.
- 40.8% of the respondents have Rs. 10,000-20,000/- as their income level.
- 32.5% of the respondents have below 1-3 years experience.

- 30.8% of the respondents said that agree towards use of efficient equipment.
- 37.5% of the respondents said that agree towards direct purchase from manufacturer.
- 27.5% of the respondents said that strongly agree towards low cost supply chain.
- 33.3% of the respondents said that agree towards just-in-time strategy.
- 39.2% of the respondents said that agree towards following cost leadership strategy.
- 39.2% of the respondents said that poor towards faster production rates.
- 30.8% of the respondents said that excellent towards error free services.
- 37.5% of the respondents said that good towards quicker transport methods.
- 30.8% of the respondents said that excellent towards larger finished-goods inventories for serving at promised time.
- 30.0% of the respondents said that average towards better control of production of orders.
- 40.8% of the respondents said that strongly agree towards high quality in product attributes.
- 49.2% of the respondents said that agree towards adoption and implementing high quality technology.
- There is negative relationship between age of the respondents and to analyse the flexibility level in the company by implementing operation strategy.

CONCLUSION

- The study on operation strategy and its implementation highlights the importance of developing a clear and effective operational strategy for businesses to achieve their goals and objectives. Through proper planning and execution, businesses can streamline their operations, optimize resources, and improve efficiency.
- The study also emphasizes the need for a flexible and adaptable approach in implementing operational strategies to address the dynamic nature of the business environment. By continuously monitoring and evaluating the effectiveness of their operational strategies, businesses can identify areas for improvement and make necessary adjustments to remain competitive.
- In conclusion, a well-designed and executed operational strategy can serve as a key driver of success for businesses, enabling them to achieve sustainable growth and profitability. Therefore, businesses should invest the necessary time, effort, and resources in developing and implementing effective operational strategies that align with their overall goals and objectives.

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