



A STUDY ON EFFECTIVENESS OF MANPOWER PLANNING TO COMPLETE THE TASK IN SAMPSON PLASTIC INDUSTRIES

SMT. Dr.U. HOMIGA¹, Ms. P. THILAGAVATHI²

¹MBA, MPhil, PhD., NET, PGDCBM, Faculty, NICM, CHENNAI

²B.COM., MBA., NICM CHENNAI

ABSTRACT:

The objective of my project is to scrutinize the effectiveness of manpower planning within organizations. Through meticulous analysis of current practices and their impact on organizational outcomes, we aim to unveil insights crucial for optimizing workforce management strategies. By employing a blend of quantitative data analysis, case studies, and stakeholder interviews, we seek to identify key factors influencing the success of manpower planning initiatives. My findings will offer actionable recommendations for enhancing organizational resilience and competitiveness through refined manpower planning processes.

The study's methodology involves rigorous data collection and analysis to ascertain the correlation between manpower planning strategies and organizational outcomes. By assessing the accuracy of demand forecasting, the adequacy of talent acquisition and retention efforts, and the responsiveness to changing business dynamics, we aim to provide actionable insights for optimizing manpower planning processes. My findings will not only inform organizational decision-making but also contribute to the broader discourse on strategic human resource management practices.

In conclusion, this project holds significant implications for organizational leaders, HR practitioners, and policymakers by offering evidence-based recommendations to enhance the effectiveness of manpower planning. By fostering a proactive and strategic approach to workforce management, organizations can better position themselves to navigate challenges, capitalize on opportunities, and sustain long-term success in today's competitive landscape.

INTRODUCTION:

Manpower planning, also known as human resource planning, is the process of forecasting an organization's future human resource needs and ensuring it has the right number of people with the right skills in the right positions at the right time. It involves analyzing current workforce capabilities, predicting future demands, and developing strategies to meet those needs efficiently.

The effectiveness of manpower planning in the plastic industries is a critical area of research aimed at understanding how organizations within this sector can optimize their workforce to meet operational demands and strategic objectives. Manpower planning, also known as workforce planning, plays a pivotal role in ensuring that plastic industries have the right talent with the necessary skills and competencies to efficiently produce, distribute, and innovate their products in a competitive market landscape.

This study seeks to investigate the effectiveness of manpower planning strategies and practices within plastic industries, with a focus on factors such as recruitment, training, retention, and succession planning. By examining the alignment between workforce capabilities and organizational goals, the study aims to identify best practices and potential areas for improvement in manpower planning processes.

INDUSTRIAL PROFILE:

The plastic industry plays a crucial role in various sectors of the economy, ranging from packaging and construction to automotive and electronics. This industry encompasses the manufacturing, processing, and distribution of a wide range of plastic products, including polymers, resins, and finished goods. The global plastic industry has witnessed significant growth over the years, driven by technological advancements, evolving consumer preferences, and increasing demand from end-use industries. The plastic industry also faces various challenges, including environmental concerns related to plastic waste and pollution, regulatory pressures to reduce reliance on single-use plastics, and fluctuating raw material prices.

Market Overview:

The global plastic industry is estimated to be worth over USD 500 billion, with Asia-Pacific emerging as the largest market due to rapid industrialization and urbanization. Key players in the industry include ExxonMobil Corporation, Dow Inc., BASF SE, and SABIC. The industry is characterized by intense competition, innovation, and regulatory scrutiny, particularly concerning environmental sustainability and plastic waste management.

Challenges faced by plastic industries:

The plastic industry faces challenges such as environmental concerns, regulatory compliance, fluctuating raw material costs, technological advancements, supply chain disruptions, changing consumer preferences, recycling infrastructure limitations, and negative public perception. These challenges require innovation, collaboration, and a commitment to sustainability to address effectively.

The plastic industry faces a complex and evolving set of challenges that require strategic foresight, innovation, and collaboration to overcome. From environmental imperatives to regulatory pressures and technological disruptions, industry stakeholders must embrace change and adopt sustainable practices to thrive in an increasingly demanding operating environment. By addressing these challenges head-on and embracing opportunities for innovation, the plastic industry can chart a course towards a more sustainable and resilient future.

ORGANIZATION PROFILE

Company Name: Sampsons Plastic Industries

Industry Sector: Injection Molding Manufacturing

Sampsons Plastic Industries specializes in the manufacturing of plastic products through injection molding processes. Sampsons Plastic Industries has been established in the year 2000, with head office at Chennai. The company has a solid reputation for producing high-quality plastic components for various industries. Over two decades of experience, Sampsons Plastic Industries has honed its expertise in injection molding technology, allowing for precise and efficient production of plastic products. Their specialization lies in the production of injection molded plastic products and assemblies, demonstrating their expertise and capability in delivering high-quality and customized solutions to meet diverse customer needs. Around 180 Employees are working in sampsons plastic industries and total sales turnover in the year 2023 is 15 Crore INR.

The Future Outlook of sampsons plastic industries With a solid foundation, a commitment to quality, and a focus on innovation, Sampsons Plastic Industries is poised for continued success and growth in the competitive injection molding manufacturing sector. As the industry evolves and customer needs change, the company remains dedicated to delivering value and excellence in plastic product manufacturing. Sampson plastic industries is certified by ISO 9001:2015 of IAS/IND/0412.

Vision: To be a global leader in injection molding manufacturing, driving innovation, sustainability, and customer satisfaction.

Mission: To deliver exceptional value to our customers through precision-engineered plastic solutions.

REVIEW OF LITERATURE

- **Chen, X., & Wang, J. (2022)** Environmental Sustainability and Green HRM: This review explores the role of environmental sustainability and green HRM practices in manpower planning, discussing strategies for incorporating environmental considerations into workforce management.
- **Johnson, E., & Smith, T. (2020)** Labor Market Analysis and Forecasting: This review examines approaches to labor market analysis and forecasting in manpower planning, discussing methods for assessing external factors such as economic trends, demographic shifts, and regulatory changes.
- **Garcia, A., & Martinez, E. (2017)** Employee Well-being and Manpower Planning: This review synthesizes research on the intersection of employee well-being and manpower planning, discussing strategies for promoting mental health and managing work-related stress in the workforce.

OBJECTIVES OF THE STUDY

PRIMARY OBJECTIVE

- To Access the effectiveness of manpower planning to complete the task in Samson Plastic Industries.

SECONDARY OBJECTIVE

- To identify the employee's opinion on manpower planning by the company
- To evaluate the employee's satisfaction on manpower planning.
- To find out the issues involved in manpower planning.
- To Analyze the techniques used to must the demand of manpower recruitment.
- To suggest the ways to improve the manpower planning procedures in future.

HYPOTHESIS OF THE STUDY

To find out an association between gender and their opinion on oraganisation spreadation over on manpower requirements.

Null Hypothesis (Ho) – There is no association between gender and their opinion on oraganisation spreadation over on manpower requirements.

Alternative Hypothesis (H1) – There is an association between gender and there opinion on oraganisation spreadation over on manpower requirements.

SOURCES OF DATA

The data collected from both primary and secondary data

(a)PRIMARY DATA: The primary data for the study was collected through questionnaire method. The questionnaire was prepared with closed questions, Multiple choice questions. In this ,I have created a set of questions which has been asked to the employee, circulated among the employees of SAMSON PLASTIC INDUSTRIES, through which I can have an idea about the employees ans received response from 112 employees.

(b)SECONDARY DATA: These are sources containing data which have been collected and compiled for another purpose. Secondary sources consist of not only published records and 12 reports, but also unpublished records. The secondary data for the study was collected from books, journals and company websites.

TOOLS AND TECHNIQUES

The research deployed a survey tool to collect data, which was carefully crafted to meet the aims of the study. This survey was distributed among employees to capture their viewpoints. Data was amassed through a well-organized and detailed survey instrument. The study utilized a questionnaire as its research instrument for data collection.

ANALYSIS TOOL

PERCENTAGE ANALYSIS: It also known as ratio analysis, is a method used to analyse financial statements and other data by expressing individual items as a percentage of abase figure. It helps in comparing different components of financial statements over time or against competitors.

STATISTICAL TOOLS

CHI-SQUARE: The chi-square test is used to analyse categorical data and determine whether there is a significant association between two categorical variables. It is commonly used to test for independence in contingency tables and to compare observed frequencies with expected frequencies.

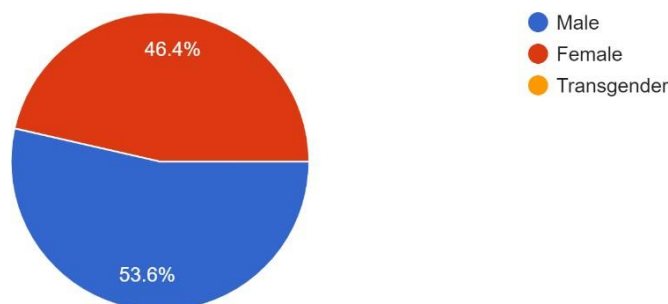
CORRELATION: Correlation tools are used to find relationships between variables. By analyzing correlations, researchers can understand how changes in one variable may affect another. This helps in making informed decisions and predicting outcomes based on data patterns, aiding in strategic decision-making.

ANALYSIS AND INTERPRETATION OF DATA

TABLE NO: 1 THE TABLE SHOWS GENDER WISE CLASSIFICATION GENDER

GENDER	NO. OF RESPONDENTS	% OF RESPONDENTS
MALE	60	53.6%
FEMALE	52	46.4%
Total	112	100

THE CHART SHOWS THE GENDER OF RESPONDENTS

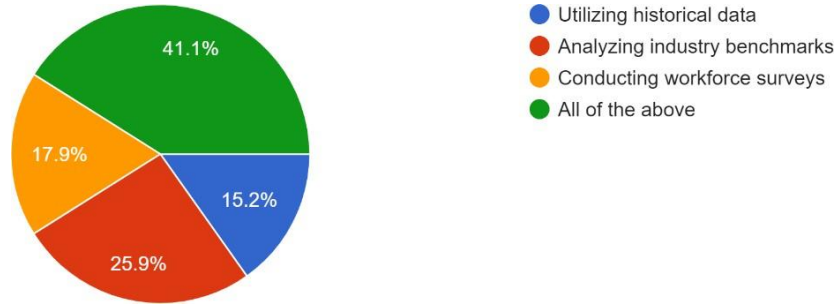


INTERPRATATION

The Table and chart shows the gender of the respondents.53.6% of the respondents are male and 46.4 % of the respondents are female.

TABLE NO. 2 THE TABLE AND CHART SHOWS HOW CAN ORGANIZATIONS EFFECTIVELY PREDICT MANPOWER RECRUITMENT?

PARTICULARS	NO. OF RESPONDENETS	% OF RESPONDENTS
Utilizing historical data	17	15.2%
Analyzing industry benchmarks	29	25.9%
Conducting workforce surveys	20	17.9%
All of the above	46	41.1%
TOTAL	112	100

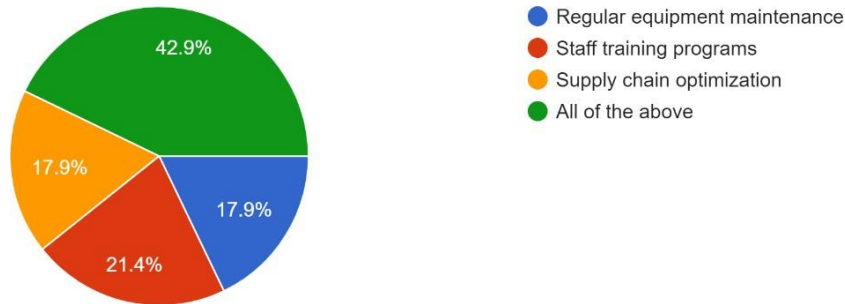


INTERPRETATION

The table and chart shows that how can organization effectively predict manpower recruitment. 15.2% are responded to utilizing historical data, 25.9% are responded to analyzing industry benchmarks, 17.9% are responded to as conducting workforce surveys, 41.1% are responded to all the above factors.

TABLE NO.3 THE TABLE AND CHART SHOWS WHAT APPROACHES DO RESPONDENTSPRIORITIZE TO ENSURE CONSISTENT PRODUCTION LEVEL?

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
Regular equipment maintenance	20	17.9%
Staff training programs	24	21.4%
Supply chain optimization	20	17.9%
All of the above	48	42.9%
Total	112	100

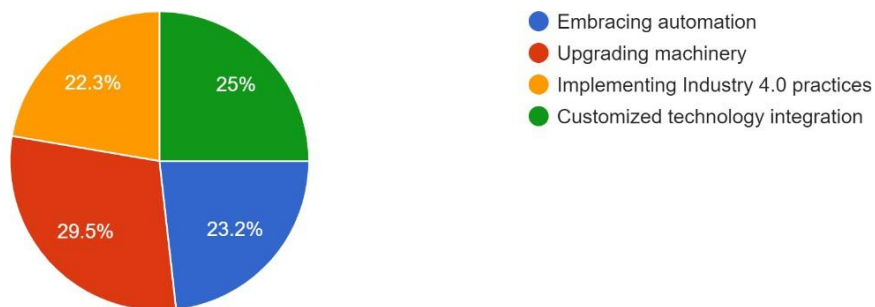


INTERPERTATION

The table and chart show that what approaches do respondents prioritize to ensure consistent production level.17.9% are responded to regular equipment maintenance, 21.4% are responded to staff training programs, 17.9% are responded to supply chain optimization,42.9% are responded to All of the above.

TABLE NO.4 THE TABLE AND CHART SHOWS IN MANAGING PRODUCTION LEVELS,WHAT IS RESPONDENTS STANCE ON TECHNOLOGY ADOPTION?

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
Embracing automation	26	23.2%
Upgrading machinery	33	29.5%
Implementing Industry 4.0 practices	25	22.3%
Customized technologyintegration	28	25%
TOTAL	112	100



INTERPRETATION

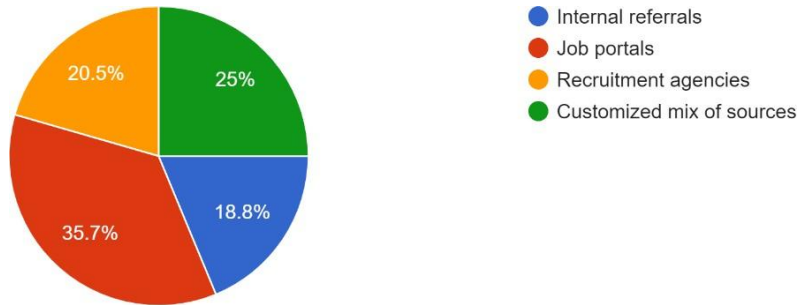
The table and chart shows that in managing production levels what is respondents Stance on technology adoption? 23.2% are responded to embracing automation, 29.5% are responded to upgrading machinery, 22.3% are responded to implementing industry 4.0 practices, 25% are responded to customized technology integration.

TABLE NO.: 5 THE TABLE AND CHART SHOWS HOW DO RESPONDENTS DETERMINE THESOURCING STRATEGIES FOR RECRUITMENT POLICY?

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
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Internal referrals	21	18.8%
Job portals	40	35.7%
Recruitment agencies	23	20.5%
Customized mix of sources	28	25%
TOTAL	112	100

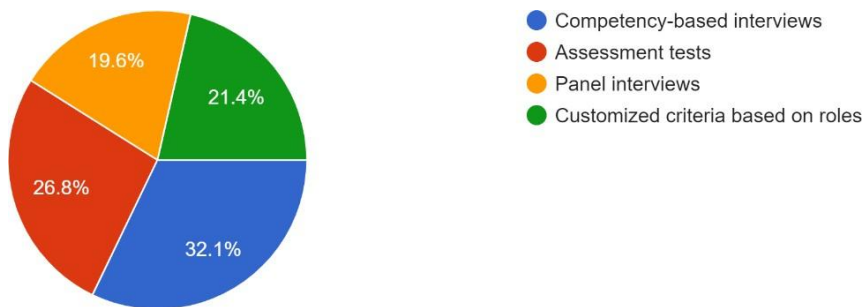
INTERPRETATION



The table and chart shows that how do respondents determine the sourcing strategies for recruitment policy? 18.8% are responded to internal referrals, 35.7% are responded to job portals, 20.5% are responded to recruitment agencies, 25% are responded to customized mix of sources.

TABLE NO.: 6 THE TABLE AND CHART SHOWS WHICH CRITERIA ARE CRUCIAL IN DEFINING THE SELECTION PROCESS WITHIN A RECRUITMENT POLICY?

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
Competency based interviews	36	32.1%
Assessment tests	30	26.8%
Panel interviews	22	19.6%
Customized criteria based on roles	24	21.4%
TOTAL	112	100



INTERPRETATION

The table and chart shows that which criteria are crucial in defining the selection process within a recruitment policy? 32.1% are responded to competency-based interviews, 26.8% are responded to assessment tests, 19.6% are responded to panel interviews, and 21.4% are responded to customized criteria based on roles.

CHI-SQUARE

O	E	O – E	O – E²	(O – E)²/E
11	9.10	1.9	3.61	0.39
22	15.53	6.47	41.86	2.69
10	10.71	-0.71	0.5041	0.047
17	24.64	-7.64	58.36	2.36
6	7.89	-1.89	3.57	0.45
7	13.46	-6.46	41.73	28.27
10	9.28	0.72	0.528	0.056
29	21.35	7.65	58.52	37.17
CV				71.433

CALCULATED VALUE: 71.433

STEP: 4

DEGREE OF FREEDOM

d.f = (r-1) (c-1)

= (2-1) (4-1)

= 1*3

= 3

Level Of Significance: 0.05

Table Value: 7.815

STEP: 5

INFERENCE

Therefore, calculated value is 71.433 which is less than the table value 7.815. So, accept Ho. Hence proved that there is no association between gender and their opinion on oranorganisation spreadation over on manpower requirements.

(i) CORRELATION

x	y	x²	y²	xy
20	26	64	4	16
24	33	16	25	-20
20	25	64	9	24
48	28	400	0	0
112	112	544	38	20

STEP 3

$$r = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{N\sum x^2 - (\sum x)^2} \sqrt{N\sum y^2 - (\sum y)^2}}$$

$$= \frac{4*20-0}{\dots}$$

$$\begin{aligned} & \sqrt{4*544-(0^2)}\sqrt{4*38-(0^2)} \\ &= \frac{80-0}{\sqrt{2176}\sqrt{152}} \\ &= \frac{80}{46.64*12.32} \\ &= \frac{80}{574.60} \\ r &= 0.1392 \end{aligned}$$

$$-1 = +1$$

Unfavourable

STEP: 4

INFERENCE

The steps to calculate the correlation coefficient (r) between two variables, x and y, using the Pearson product-moment correlation formula. It provides the raw data values for x and y, along with the calculated values for x^2 , y^2 , and xy.

The formula used is:

$$r = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{N\sum x^2 - (\sum x)^2}\sqrt{N\sum y^2 - (\sum y)^2}}$$

After calculating the components, it determines the correlation coefficient r to be 0.1392. The note states that a value of -1 indicates a perfect negative correlation, while +1 indicates a perfect positive correlation. Therefore, the calculated value of 0.1392 suggests a positive correlation between the two variables x and y based on this data set. The interpretation mentions this is "unfavourable "

(ii) CORRELATION

x	y	x^2	y^2	xy
21	36	49	64	-56
40	30	144	4	24
23	22	25	36	30
28	24	0	16	0
112	112	218	120	-2

STEP: 3

$$\begin{aligned} r &= \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{N\sum x^2 - (\sum x)^2}\sqrt{N\sum y^2 - (\sum y)^2}} \\ &= \frac{4*(-2)-0}{\sqrt{4*218-(0^2)}\sqrt{4*20-(0^2)}} \\ &= \frac{-8}{29.52*21.10} \\ &= \frac{-8}{646.48} \\ r &= -0.01237 \end{aligned}$$

$$-1 = +1$$

Favourable

INFERENCE

The steps to calculate the correlation coefficient (r) between two variables, x and y, using the Pearson product-moment correlation formula. It provides the raw data values for x and y, along with the calculated values for x^2 , y^2 , and xy.

The formula used is:

$$r = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{N\sum x^2 - (\sum x)^2} \sqrt{N\sum y^2 - (\sum y)^2}}$$

After calculating the components, it determines the correlation coefficient r to be -0.01237. The note states that a value of -1 indicates a perfect negative correlation, while +1 indicates a perfect positive correlation. Therefore, the calculated value of -0.01237 suggests a negative correlation between the two variables x and y based on this data set. The interpretation mentions this is "favourable".

KEY FINDINGS

- From the study it was found that 53.6% of the respondents were Male and 46.4% were Female.
- The majority of respondents 41.1% indicated that organizations leverage a combination of historical data analysis, industry benchmarking, and workforce surveys to predict manpower recruitment effectively.
- The majority of respondents 42.9% indicated that organizations prioritize a combination of regular equipment maintenance, staff training programs, and supply chain optimization to ensure consistent production levels.
- The majority of respondents 29.5% prioritize upgrading machinery as a technology adoption strategy to manage production levels effectively.
- The majority of respondents 34.8% indicated that they monitor all of the above key performance indicators (OEE, production cycle time, and defect rates) to gauge and maintain production efficiency.
- The majority of respondents 37.5% indicated that they prioritize all of the above aspects—seamless application process, transparent communication, and timely feedback—in their approach towards candidate experience in developing a recruitment policy.

CONCLUSION :

In conclusion, this study on the effectiveness of manpower planning in organizations has shed light on the crucial role that strategic workforce management plays in organizational success. Through a thorough examination of manpower planning processes, outcomes, and contributing factors, it is evident that effective manpower planning aligns workforce capabilities with organizational goals, enhances productivity, and fosters resilience in a dynamic business environment. By identifying opportunities for improvement and offering practical recommendations, this study contributes to the body of knowledge on strategic HR management, empowering organizations to optimize their workforce planning efforts and achieve long-term sustainability and success.

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