

# Impact of 5S Implementation on Employee Productivity and Workplace Safety

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## ABSTRACT

This study explores employees' perceptions of organizational culture and its influence on their attitudes and behaviours. Adopting a phenomenological research design, the study employed in-depth, open-ended interviews to capture employees lived experiences and interpretations of their organizational culture. The findings indicate that key cultural dimensions such as fairness, opportunities for personal growth, enthusiasm for work, and organizational reputation play a significant role in enhancing job satisfaction and shaping positive employee behaviours. In contrast, cultural traits characterized by aggressiveness negatively affect job satisfaction. The study further reveals that alignment between organizational cultural values and employees' expectations fosters higher levels of satisfaction, while misalignment contributes to dissatisfaction. Overall, the findings highlight the critical role of organizational culture in influencing employee well-being and performance, underscoring the need for organizations to actively cultivate cultural attributes that promote fairness, growth, and engagement to sustain a satisfied and productive workforce.

**KEYWORDS:** 5S Methodology, Continuous Improvement, Employee Productivity, Lean Management, Organizational Efficiency, Safety Culture, Standardization, Visual Management, Waste Reduction, Work Environment Optimization, Workplace Discipline, Workplace Safety.

## 1. INTRODUCTION

In today's competitive and fast-paced organizational environment, improving employee productivity while ensuring workplace safety has become a critical priority for organizations across industries. Efficient work processes, well-organized workspaces, and a strong safety culture not only enhance operational performance but also contribute to employee well-being and job satisfaction. One widely recognized approach for achieving these outcomes is the implementation of the 5S methodology. The 5S system comprising Sort, Set in Order, Shine, Standardize, and Sustain originated in Japan as part of lean management practices aimed at reducing waste and improving efficiency. By systematically organizing the workplace, eliminating unnecessary items, and establishing standardized procedures, 5S creates a clean, orderly, and visually managed environment. Such an environment enables

employees to perform their tasks more efficiently, reduces time wastage, minimizes errors, and supports consistent work practices.

Beyond productivity improvements, 5S implementation plays a vital role in enhancing workplace safety. Clear pathways, properly labeled tools, regular cleaning, and standardized procedures help reduce hazards, prevent accidents, and promote a culture of safety awareness among employees. When employees work in a structured and hazard-free environment, their confidence and engagement increase, leading to improved performance and reduced risk of injuries. This study focuses on examining how the implementation of the 5S methodology can enhance employee productivity and workplace safety. By analyzing the impact of 5S practices on work efficiency, employee behavior, and

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safety outcomes, the study aims to demonstrate the value of 5S as a practical and sustainable approach for organizations seeking to improve both operational excellence and employee well-being.

## 2. Review of Literature

The 5S methodology originating from the Toyota Production System has been widely recognized as a foundational lean management tool aimed at improving workplace organization, efficiency, and safety. The five pillars of 5S Sort (Seiri), Set in Order (Seiton), Shine (Seiso), Standardize (Seiketsu), and Sustain (Shitsuke) collectively create a structured and disciplined work environment that supports both employee productivity and workplace safety.

Several studies have highlighted the positive impact of 5S on employee productivity. Hirano (1996) emphasized that 5S eliminates unnecessary items and streamlines workflows, thereby reducing time wasted on searching for tools and materials. This structured organization enables employees to focus on value-adding activities, improving operational efficiency.

Liker (2004) noted that 5S supports lean principles by stabilizing processes and reducing variability, which directly contributes to higher productivity levels. Empirical research by Ho (1999) further demonstrated that organizations implementing 5S experienced measurable improvements in labor productivity due to better workplace layout, visual management, and standard operating procedures.

Additionally, Gapp, Fisher, and Kobayashi (2008) found that 5S enhances employee engagement and discipline, fostering a culture of continuous improvement. When employees actively participate in maintaining workplace standards, ownership and accountability increase, leading to sustained productivity gains.

Workplace safety is another critical outcome of effective 5S implementation. The “Shine” and “Standardize” components play a vital role in identifying hazards, maintaining cleanliness, and ensuring equipment reliability. According to Ansari and Modarress (1997), well-organized and clean workplaces significantly reduce the risk of accidents, slips, and equipment-related injuries.

Studies in manufacturing and healthcare sectors (Ab Rahman et al., 2010) revealed that 5S contributes to improved safety performance by promoting visual controls, clear labeling, and standardized procedures. These practices enhance hazard visibility and compliance with safety regulations.

Moreover, Occupational Safety and Health literature suggests that 5S strengthens safety culture by

integrating safety into daily routines rather than treating it as a separate function (OSHA, 2013). When safety becomes embedded in standard work practices, employees are more likely to follow safe behaviors consistently.

The literature consistently indicates that productivity and safety improvements through 5S are interrelated. Cleaner, organized, and standardized workplaces reduce physical and cognitive strain on employees, leading to fewer errors and accidents (Dul & Neumann, 2009). This synergy ultimately enhances overall organizational efficiency and employee well-being.

However, researchers also caution that the sustainability of 5S outcomes depends heavily on management commitment, employee training, and continuous auditing (Bayo-Moriones et al., 2010). Without the “Sustain” phase, initial gains in productivity and safety may diminish over time.

## 3. Research Methodology

Research methodology is a systematic way of conducting research that explains how data is collected, analyzed, and interpreted to achieve the study’s objectives. It ensures the research is well planned, reliable, and ethically conducted. Descriptive analytics helps understand past data by summarizing information to identify patterns and trends. Primary data is collected directly from sources such as surveys, interviews, and observations to gain firsthand insights.

### Statistical Tools

Statistical tools are techniques used to collect, analyze, and interpret data to summarize information, identify patterns, and support informed decision-making.

#### 3.1. Percentage Analysis

Percentage analysis is a simple statistical method that converts data into percentages to make comparison and interpretation easier.

#### 3.2. One-Way Anova

ANOVA is a statistical test used to check whether there is a significant difference between the means of two or more groups.

#### 3.3. Correlation Analysis

Correlation analysis is a statistical method used to measure the strength and direction of the relationship between two variables.

#### 3.4. Chi Square Test

The Chi-Square test is a statistical method used to find out whether there is a significant relationship between two categorical variables.

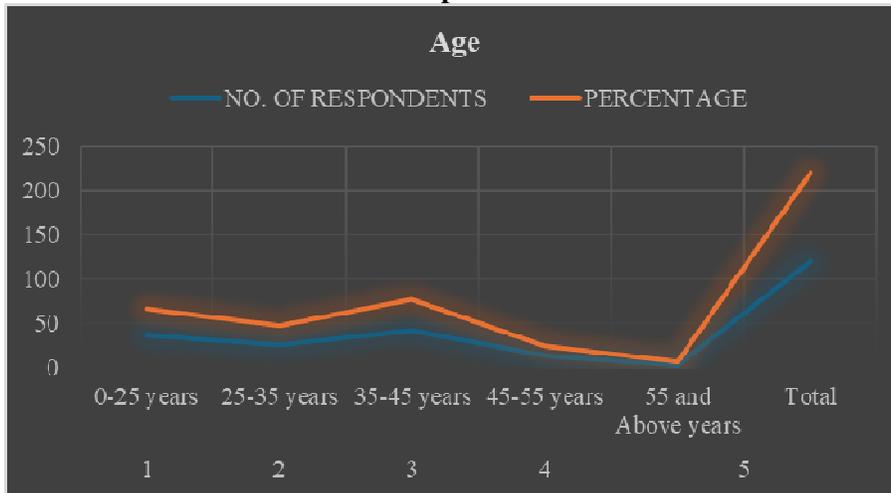
#### 4. DATA ANALYSIS AND INTERPRETATION

##### 4.1. AGE OF THE RESPONDENTS

Table showing analysis on respondents Age

S. NO	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	0-25 years	36	30.0
2	25-35 years	26	20.8
3	35-45 years	42	35.0
4	45-55 years	13	10.8
5	55 and Above years	3	3.3
	<b>Total</b>	<b>120</b>	<b>100.0</b>

Graph 4.1

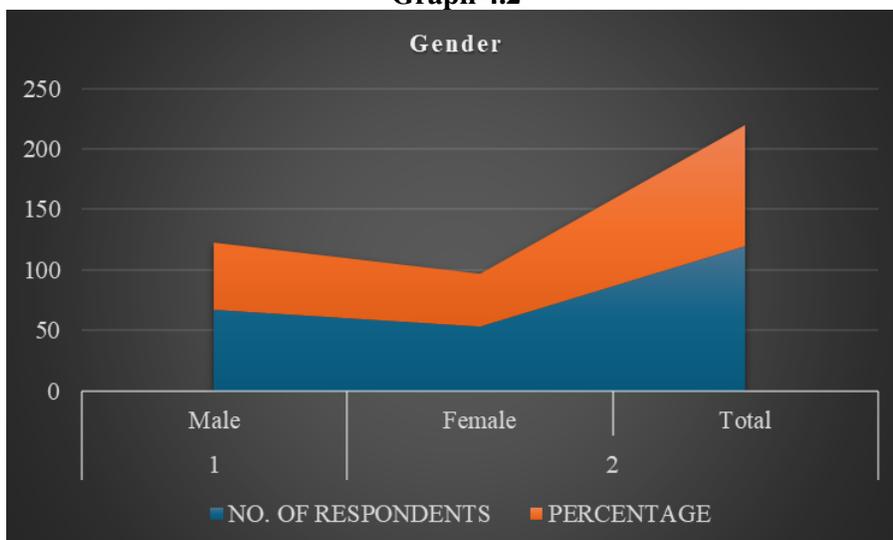


**Inference:** The age-wise distribution indicates that the majority of respondents fall within the **35–45 years category (35%)**, reflecting a mature and experienced workforce. A significant portion (30%) also belongs to the **younger age group of 0–25 years**, suggesting the presence of fresh talent and recent recruitment efforts. The representation gradually decreases in the higher age brackets, with only **10.8% between 45–55 years** and **3.3% above 55 years**, indicating fewer senior employees. Overall, the data suggests a workforce balanced between early-career and mid-career professionals, providing both energy and expertise to organizational functioning.

##### 4.2. GENDER OF THE RESPONDENTS

S. NO	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Male	67	55.8
2	Female	53	44.2
	<b>Total</b>	<b>120</b>	<b>100.0</b>

Graph 4.2

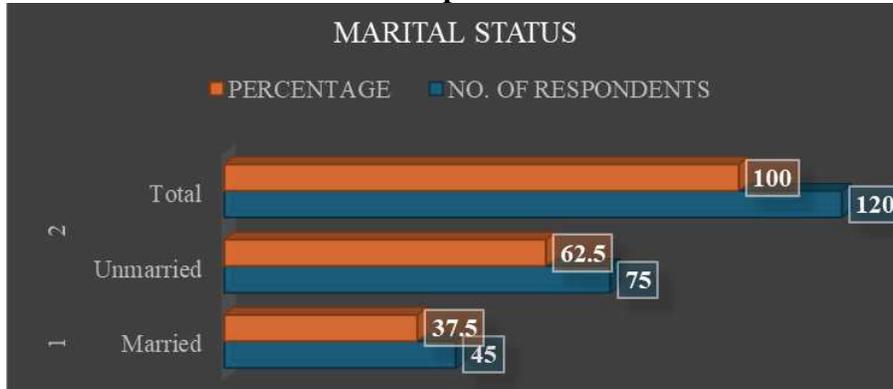


**Inference:** The gender distribution reveals that a slight majority of respondents are **male (55.8%)**, while **female respondents constitute 44.2%** of the total sample. This indicates a relatively balanced workforce with a moderate male predominance. The close proportion between male and female participants suggests that gender representation in the workplace is fairly equitable, reflecting inclusiveness and diversity in the organizational environment. Such balance can contribute positively to workforce dynamics, decision-making, and organizational culture.

**4.3. MARITAL STATUS OF THE RESPONDENTS**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Married	45	37.5
2	Unmarried	75	62.5
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.3**

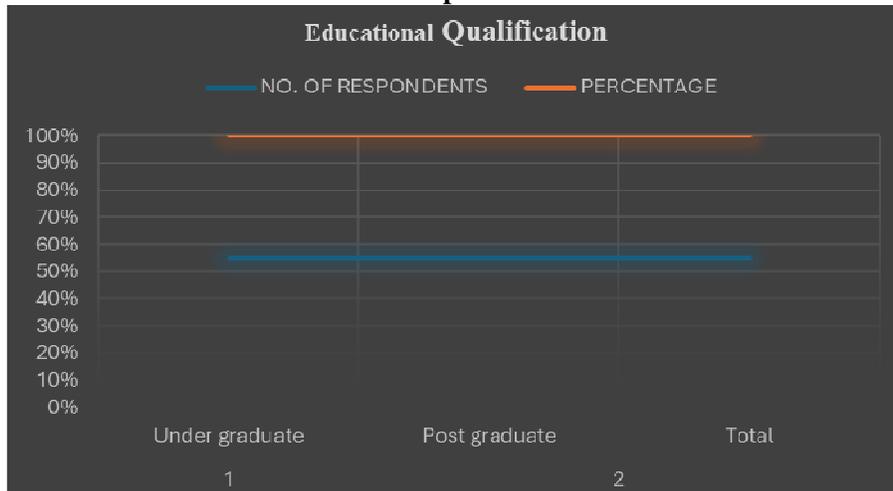


**Inference:** The marital status distribution shows that a majority of the respondents are **unmarried (62.5%)**, while **37.5% are married**. This indicates that the workforce predominantly consists of individuals who are in the earlier stages of personal and professional life. The higher proportion of unmarried employees may also suggest a younger workforce composition, which could influence organizational factors such as job mobility, career aspirations, and engagement levels. Overall, the data reflects a workforce with a greater representation of individuals likely focused on career development and skill enhancement.

**4.4. EDUCATION QUALIFICATION OF THE RESPONDENTS**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Under graduate	48	40
2	Post graduate	72	60
	<b>Total</b>	<b>120</b>	<b>100</b>

**Graph 4.4**



**Inference:** The educational profile of the respondents shows that the majority are **postgraduates (60%)**, while **40% hold undergraduate qualifications**. This indicates that the workforce is relatively well-educated, with a higher proportion possessing advanced academic credentials. Such a qualification structure suggests strong

potential for analytical thinking, skill adaptability, and higher-level professional engagement. Overall, the data reflects a knowledge-driven workforce capable of contributing effectively to organizational improvement initiatives such as 5S implementation and continuous development practices.

#### 4.5. INCOME OF THE RESPONDENTS

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	15000-25000	20	16.3
2	25000-35000	25	20.3
3	35000-45000	29	26.0
4	45000-55000	21	17.1
5	Above 55000	25	20.3
	<b>Total</b>	<b>120</b>	<b>100.0</b>

Graph 4.5

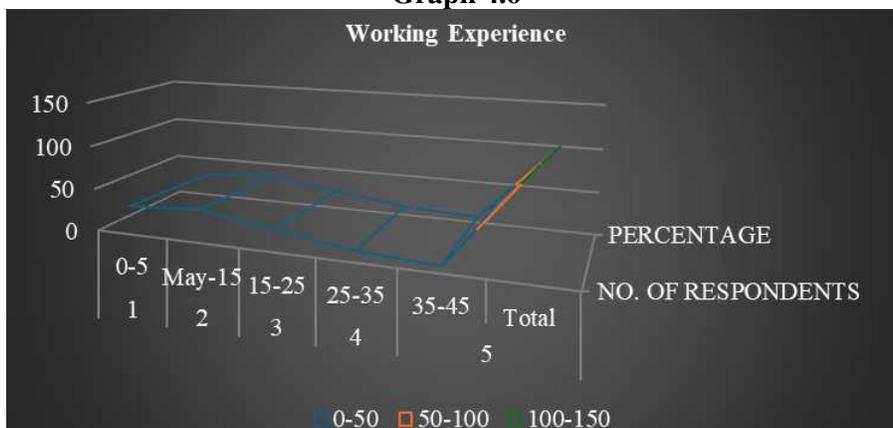


**Inference:** The salary distribution indicates that the largest proportion of respondents (26%) fall within the ₹35,000–₹45,000 income range, reflecting a mid-salary workforce segment. Notably, 20.3% each earn between ₹25,000–₹35,000 and above ₹55,000, indicating a balanced representation of both mid-level and higher-earning employees. Additionally, 17.1% fall within the ₹45,000–₹55,000 bracket, while the lowest income group of ₹15,000–₹25,000 constitutes 16.3% of the sample. Overall, the salary profile demonstrates a diverse income spread with a concentration in the middle-income range, reflecting a workforce structure that spans entry-level to experienced professional categories.

#### 4.6. WORKING EXPERIENCE OF THE RESPONDENTS

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	0-5	34	28.5
2	5-15	39	32.5
3	15-25	26	21.7
4	25-35	13	10.8
5	35-45	8	6.7
	<b>Total</b>	<b>120</b>	<b>100.0</b>

Graph 4.6

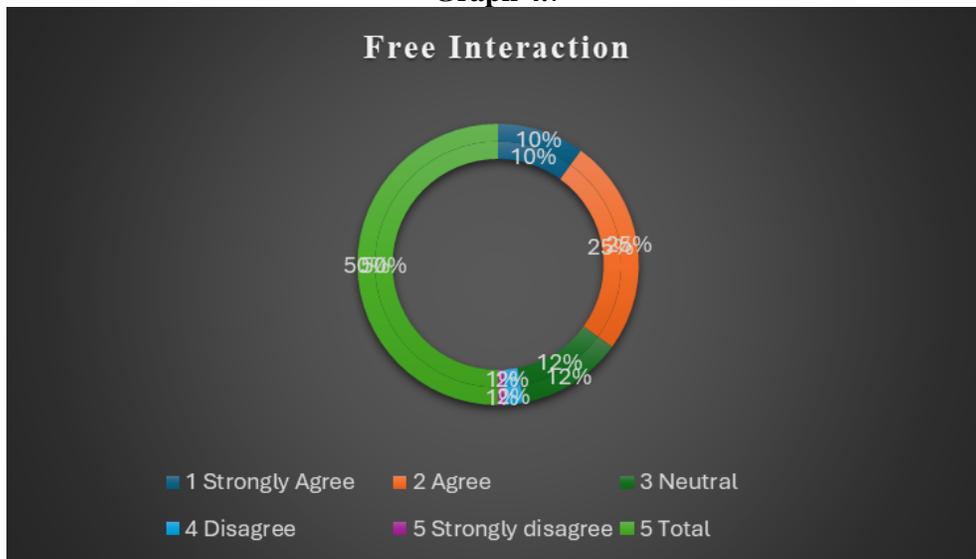


**Inference:** The distribution of respondents based on years of experience shows that the highest proportion, **32.5%, have 5–15 years of experience**, indicating a strong presence of mid-career professionals. Additionally, **28.5% fall within the 0–5 years range**, reflecting ongoing recruitment and the presence of newer employees in the workforce. The percentage gradually decreases among those with longer tenure, with **21.7% having 15–25 years**, **10.8% having 25–35 years**, and only **6.7% exceeding 35 years of service**. Overall, the data highlights a workforce that is predominantly composed of early and mid-career employees, with a smaller representation of senior, long-tenured staff, suggesting a balanced yet future-oriented employee structure.

**4.7. ORGANISATION ALLOW TO HAVE FREE INTERACTION EMPLOYEES AND DO NOT HESITATE TO SHARE THEIR PERSONAL PROBLEMS WITH THEIR SUPERVISORS**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly Agree	24	20.0
2	Agree	60	50.0
3	Neutral	29	24.2
4	Disagree	5	4.2
5	Strongly disagree	2	1.7
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.7**

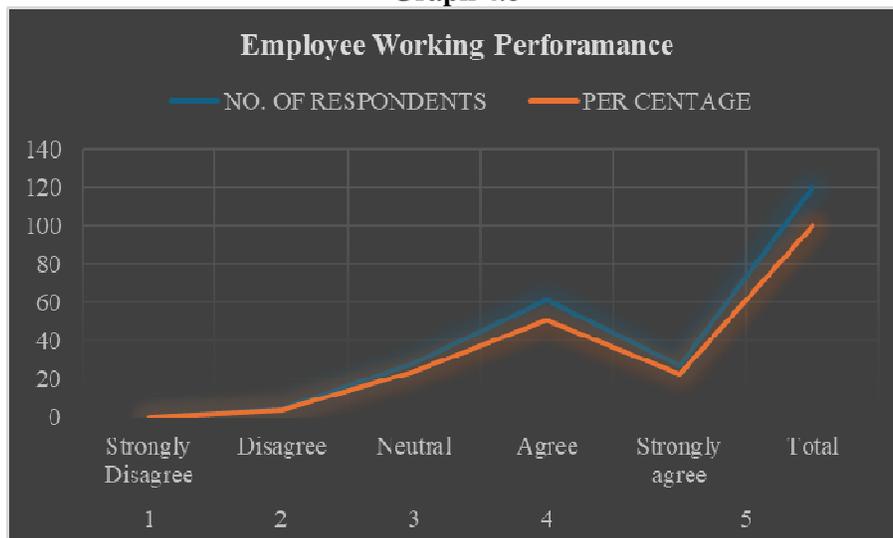


**Inference** The response pattern indicates a highly positive perception toward the statement presented. A majority of respondents either **agree (50%)** or **strongly agree (20%)**, demonstrating strong alignment and support for the concept evaluated. Meanwhile, **24.2% remain neutral**, suggesting that some respondents may require further awareness, experience, or clarity regarding the topic. Only a small proportion **disagree (4.2%)** or **strongly disagree (1.7%)**, indicating minimal resistance or negative perception. Overall, the data reflects a largely favourable attitude among participants, with a strong consensus leaning toward acceptance and acknowledgment of the statement’s relevance and impact.

**4.8. WHEN AN EMPLOYEE DOES GOOD WORK HIS/HER SUPERVISING OFFICERS TAKE SPECIAL CARE TO APPRECIATE IT**

S. NO.	PARTICULAR	NO. OF RESPONDENTS	PER CENTAGE
1	Strongly Disagree	0	0
2	Disagree	4	3.3
3	Neutral	28	23.3
4	Agree	61	50.8
5	Strongly agree	27	22.5
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.8**



**Inference:** The responses indicate a predominantly positive perception regarding the statement under consideration. A majority of respondents **agree (50.8%)** or **strongly agree (22.5%)**, totalling **73.3%**, which reflects strong approval and acceptance. **23.3% of respondents remain neutral**, suggesting a moderate level of uncertainty or lack of strong opinion, while only a minimal proportion **disagree (3.3%)**, and none strongly disagree. Overall, the data demonstrates a clear positive consensus among participants, indicating general alignment with the concept or practice being evaluated.

**4.9. EMPLOYEES ARE NOT AFRAID TO EXPRESS OR DISCUSS THEIR FEELINGS WITH THEIR SUPERVISORS/SUBORDINATES**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly Disagree	0	0
2	Disagree	12	10.0
3	Neutral	40	33.3
4	Agree	47	39.2
5	Strongly agree	21	17.5
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.9**

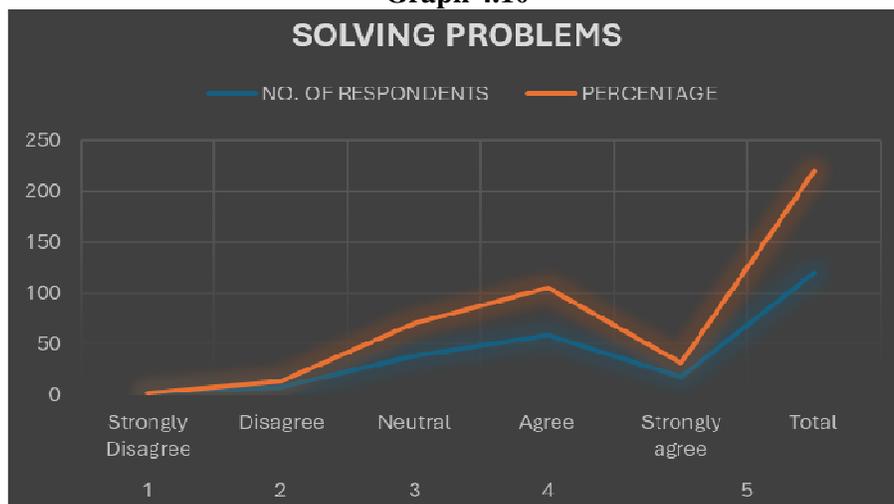


**Inference:** The responses show a moderate positive inclination toward the statement under consideration. A combined **56.7% of respondents agree (39.2%)** or **strongly agree (17.5%)**, indicating general acceptance of the concept. Meanwhile, **33.3% remain neutral**, reflecting uncertainty or ambivalence among a significant portion of participants. A smaller segment, **10%**, disagrees, and none strongly disagree. Overall, the data suggests a favourable yet cautious perception, highlighting both support and areas where further awareness or clarification may strengthen consensus.

#### 4.10. ORGANISATION ALLOW TO HAVE FREE AND FRANK COMMUNICATION BETWEEN VARIOUS LEVEL HELPS IN SOLVING PROBLEMS

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly Disagree	1	0.8
2	Disagree	7	5.8
3	Neutral	38	31.7
4	Agree	58	47.5
5	Strongly agree	17	14.2
	<b>Total</b>	<b>120</b>	<b>100.0</b>

Graph 4.10

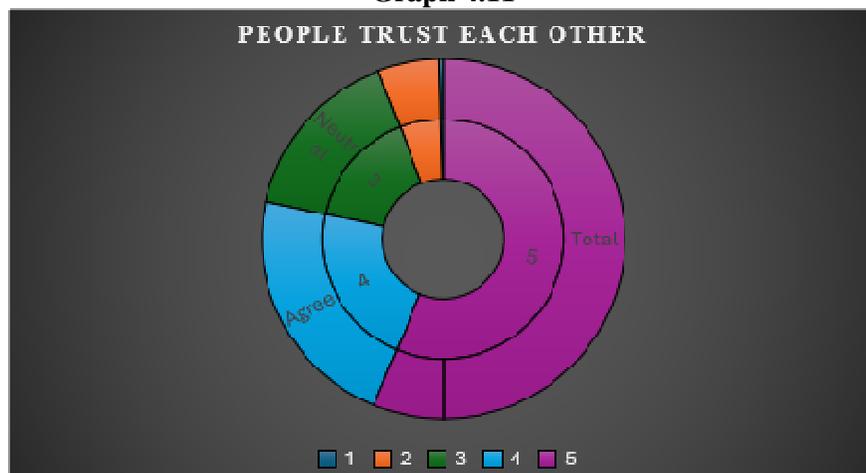


**Inference:** The response pattern indicates a generally positive perception toward the statement. A majority of respondents, **47.5% agree** and **14.2% strongly agree**, totalling **61.7%**, reflecting substantial support. Meanwhile, **31.7% remain neutral**, suggesting some uncertainty or the need for more information. Only a small fraction, **5.8% disagree** and **0.8% strongly disagree**, indicating minimal opposition. Overall, the data reflects a favourable consensus with a strong tendency toward agreement, while highlighting a moderate portion of respondents who are neutral.

#### 4.11. PEOPLE TRUST EACH OTHER IN THIS ORGANISATION

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly Disagree	1	0.8
2	Disagree	13	10.8
3	Neutral	38	31.7
4	Agree	53	44.2
5	Strongly agree	15	12.5
	<b>Total</b>	<b>120</b>	<b>100.0</b>

Graph 4.11

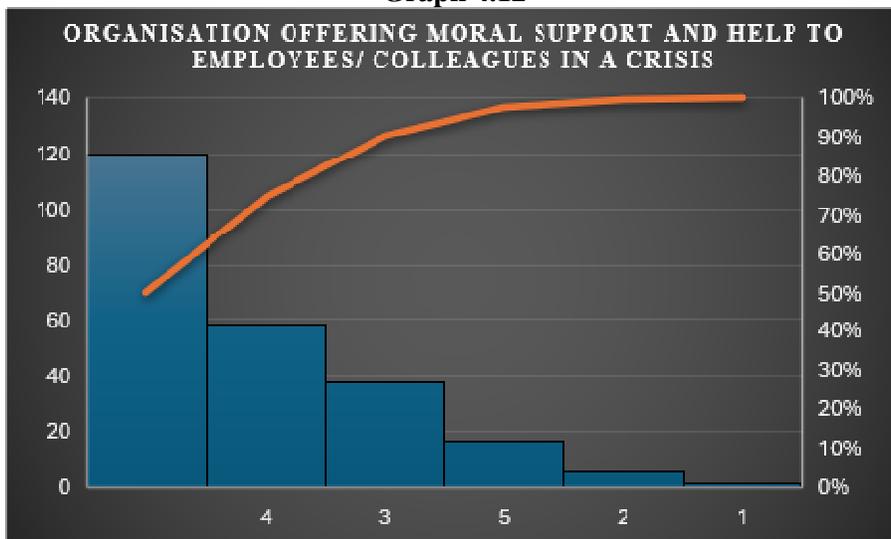


**Inference:** The responses indicate a predominantly positive perception toward the statement. A combined **56.7% of respondents agree (44.2%) or strongly agree (12.5%)**, showing majority support. **31.7% remain neutral**, reflecting a notable portion of respondents who are undecided or cautious in their opinion. A smaller segment, **11.6% (10.8% disagree and 0.8% strongly disagree)**, expresses dissent. Overall, the data suggests general acceptance of the concept, with room for increased awareness or engagement to convert neutral respondents into supporters.

**4.12. ORGANISATION OFFERING MORAL SUPPORT AND HELP TO EMPLOYEES/ COLLEAGUES IN A CRISIS**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly Disagree	1	0.8
2	Disagree	5	5.8
3	Neutral	38	31.7
4	Agree	58	47.5
5	Strongly agree	17	14.2
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.12**



**Inference:** The responses reflect a generally positive perception toward the statement. A majority of respondents, **47.5% agree and 14.2% strongly agree**, totalling **61.7%**, indicating substantial support. **31.7% remain neutral**, suggesting some uncertainty or lack of strong opinion, while only a small fraction, **5.8% disagree and 0.8% strongly disagree**, expresses opposition. Overall, the data demonstrates a favourable consensus with most participants showing agreement, alongside a moderate portion who are undecided.

**4.13. EMPLOYEES HERE BELIEVE THAT THEY HAVE LONG – TERM JOB SECURITY**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly Disagree	1	0.8
2	Disagree	8	6.7
3	Neutral	35	29.2
4	Agree	54	45.0
5	Strongly agree	22	18.3
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.13**

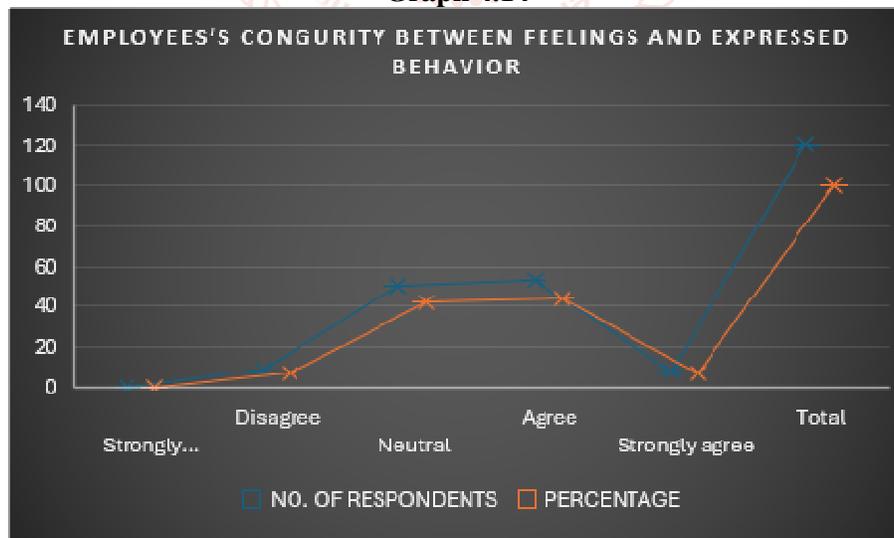


**Inference:** The responses indicate a largely positive perception of the statement. A combined **63.3% of respondents agree (45%) or strongly agree (18.3%)**, showing clear support. **29.2% remain neutral**, reflecting a moderate level of indecision or uncertainty. Only a small fraction, **7.5% (6.7% disagree and 0.8% strongly disagree)**, express opposition. Overall, the data demonstrates a favorable consensus among participants, with strong agreement balanced by a notable portion of neutral respondents.

**4.14. EMPLOYEES’S CONGURITY BETWEEN FEELINGS AND EXPRESSED BEHAVIOR (MINIMUM GAP BETWEEN WHAT PEOPLE SAY AND WHAT PEOPLE DO)**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly disagree	0	0
2	Disagree	9	7.5
3	Neutral	50	41.7
4	Agree	53	44.2
5	Strongly agree	8	6.7
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.14**

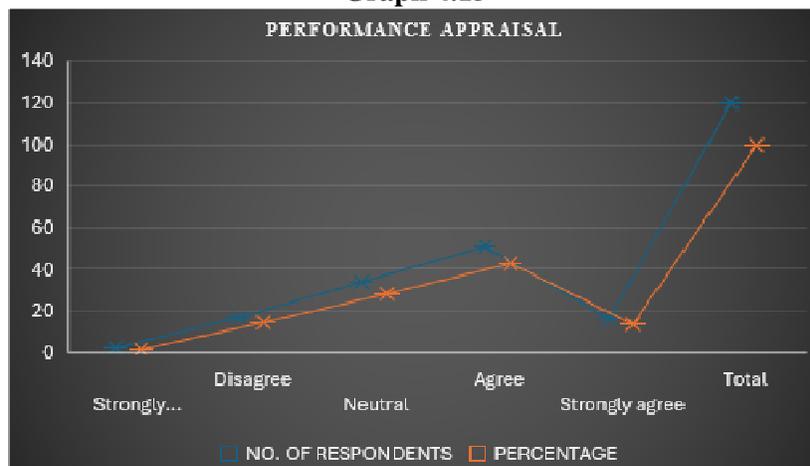


**Inference:** The responses indicate a moderately positive perception toward the statement. A combined **50.9% of respondents agree (44.2%) or strongly agree (6.7%)**, showing general support. **41.7% remain neutral**, reflecting a significant portion of respondents who are undecided or cautious in their opinion. Only **7.5% disagree**, and none strongly disagree, indicating minimal opposition. Overall, the data suggests cautious approval, with most respondents leaning toward agreement while a large neutral group may benefit from further clarification or engagement.

**4.15. PERFORMANCE APPRAISAL REPORTS IN ORGANISATION ARE BASED ON OBJECTIVE ASSESSMENT AND ADEQUATE INFORMATION AND NOT ON FAVORITISM**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly disagree	2	1.7
2	Disagree	17	14.2
3	Neutral	34	28.3
4	Agree	51	42.5
5	Strongly agree	16	13.3
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.15**

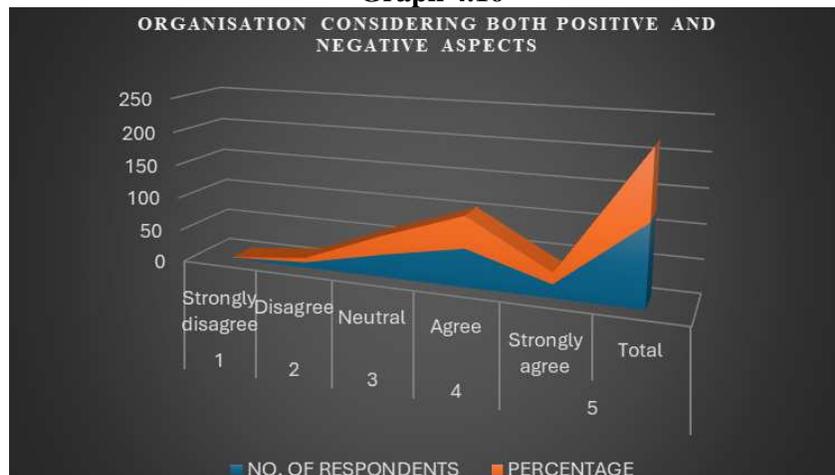


**Inference:** The responses reflect a generally positive perception toward the statement. A combined **55.8% of respondents agree (42.5%) or strongly agree (13.3%)**, indicating majority support. **28.3% remain neutral**, suggesting a considerable portion of respondents are undecided or cautious. Meanwhile, **15.9% (14.2% disagree and 1.7% strongly disagree)** express disagreement, representing a minor opposition. Overall, the data demonstrates a favorable consensus, with most participants showing agreement, balanced by a notable neutral segment.

**4.16. ORGANISATION CONSIDERING BOTH POSITIVE AND NEGATIVE ASPECTS OF EMPLOYEES BEFORE TAKING ACTIONS**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly disagree	1	0.8
2	Disagree	8	6.7
3	Neutral	34	28.3
4	Agree	57	47.5
5	Strongly agree	20	16.7
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.16**

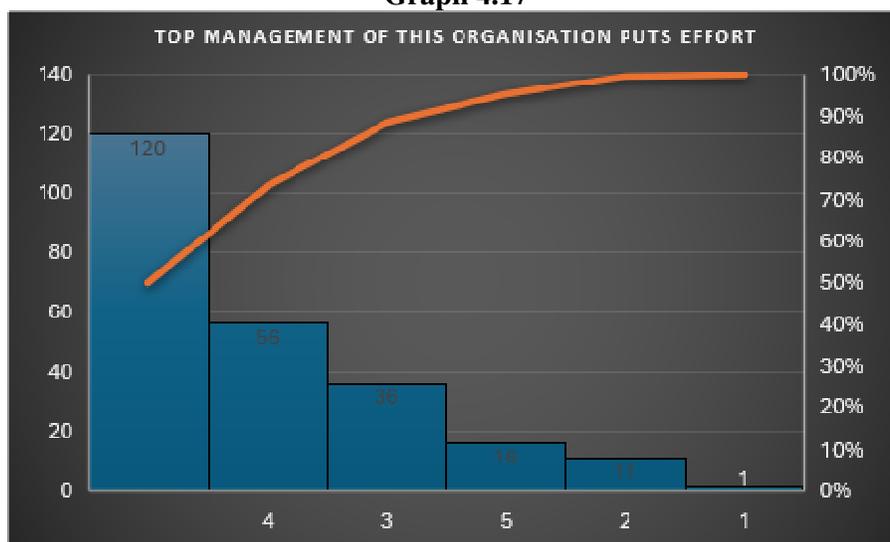


**Inference:** The responses indicate a predominantly positive perception toward the statement. A combined **64.2% of respondents agree (47.5%) or strongly agree (16.7%)**, showing clear support. **28.3% remain neutral**, reflecting a moderate level of indecision or uncertainty. Only a small fraction, **7.5% (6.7% disagree and 0.8% strongly disagree)**, express opposition. Overall, the data demonstrates strong agreement among participants, with a notable neutral segment that may benefit from additional clarification or engagement.

**4.17. THE TOP MANAGEMENT OF THIS ORGANISATION PUTS EFFORT TO IDENTIFY AND UTILIZE THE POTENTIAL OF THE EMPLOYEES**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly disagree	1	0.8
2	Disagree	11	9.2
3	Neutral	36	30.0
4	Agree	56	46.7
5	Strongly agree	16	13.3
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.17**

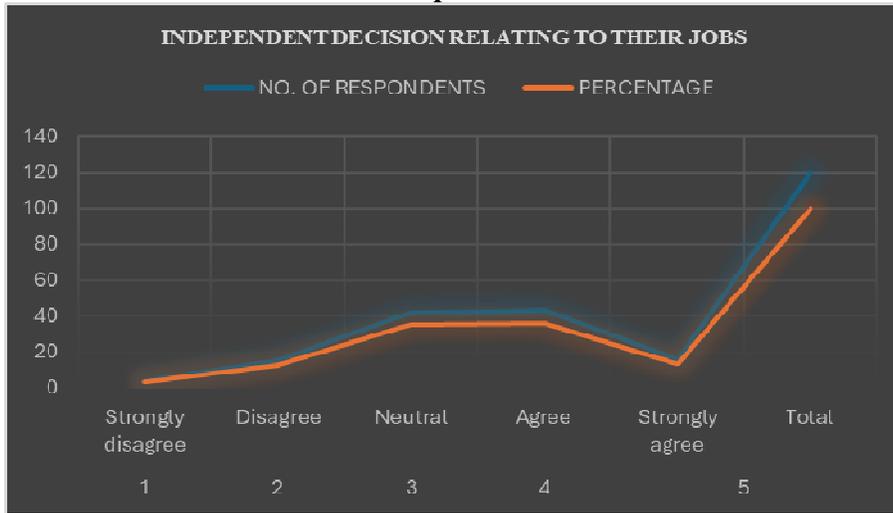


**Inference:** The responses indicate a largely positive perception toward the statement. A combined **60% of respondents agree (46.7%) or strongly agree (13.3%)**, reflecting strong overall support. **30% remain neutral**, indicating a significant portion of respondents who are undecided or moderately cautious. Only **10% (9.2% disagree and 0.8% strongly disagree)** express opposition, representing minimal resistance. Overall, the data demonstrates a favourable consensus, with the majority of participants leaning toward agreement while a notable neutral group remains.

**4.18. EMPLOYEES TAKING INDEPENDENT DECISION RELATING TO THEIR JOBS**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly disagree	4	3.3
2	Disagree	15	12.5
3	Neutral	42	35.0
4	Agree	43	35.8
5	Strongly agree	16	13.3
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.18**

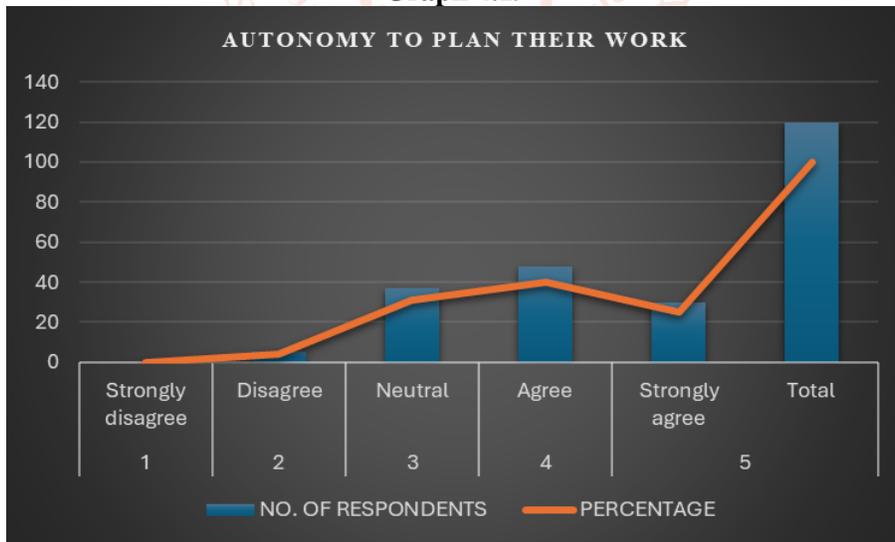


**Inference:** The responses reflect a moderately positive perception toward the statement. A combined **49.1% of respondents agree (35.8%) or strongly agree (13.3%)**, indicating general support. **35% remain neutral**, showing a substantial portion of participants who are undecided or cautious in their opinion. Meanwhile, **15.8% (12.5% disagree and 3.3% strongly disagree)** express opposition. Overall, the data suggests a balanced perception, with a slight majority favouring agreement, tempered by a significant neutral group.

**4.19. A GOOD WAY TO MOTIVATE EMPLOYEES IS TO GIVE THEM AUTONOMY TO PLAN THEIR WORK**

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly disagree	0	0
2	Disagree	5	4.2
3	Neutral	37	30.8
4	Agree	48	40.0
5	Strongly agree	30	25.0
	<b>Total</b>	<b>120</b>	<b>100.0</b>

**Graph 4.19**

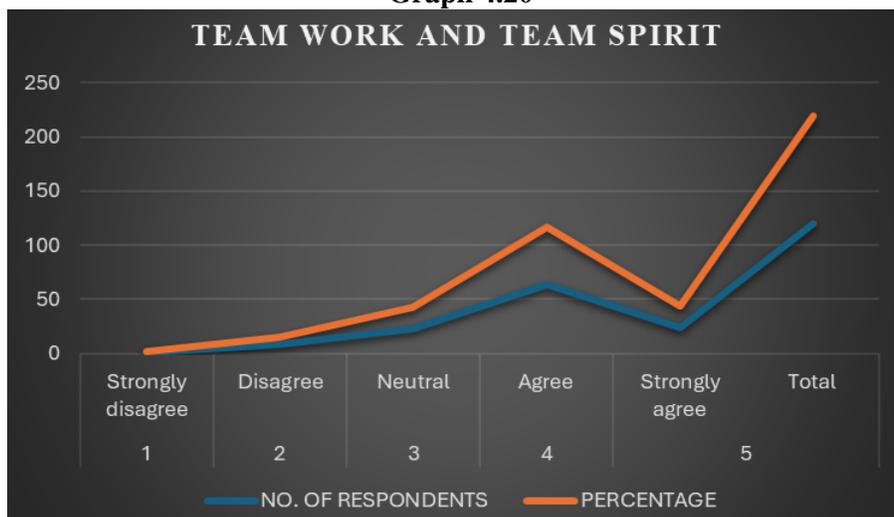


**Inference:** The responses indicate a predominantly positive perception toward the statement. A combined **65% of respondents agree (40%) or strongly agree (25%)**, showing substantial support. **30.8% remain neutral**, reflecting a considerable portion of participants who are undecided or cautious. Only a small fraction, **4.2% disagree**, with no respondents strongly disagreeing. Overall, the data demonstrates strong consensus in favor of the statement, alongside a moderate neutral segment.

#### 4.20. ORGANISATION ENCOURAGES THE EMPLOYEE TO PARTICIPATE IN TEAM WORK AND TEAM SPIRIT

S. NO.	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	Strongly disagree	1	0.8
2	Disagree	8	6.7
3	Neutral	23	19.2
4	Agree	64	53.3
5	Strongly agree	24	20.0
	<b>Total</b>	<b>120</b>	<b>100.0</b>

Graph 4.20



**Inference:** The responses reflect a strongly positive perception toward the statement. A combined **73.3% of respondents agree (53.3%) or strongly agree (20%)**, indicating clear and substantial support. **19.2% remain neutral**, suggesting a smaller portion of participants are undecided or cautious. Only a minimal fraction, **7.5% (6.7% disagree and 0.8% strongly disagree)**, express opposition. Overall, the data demonstrates a robust favorable consensus among respondents, with strong agreement prevailing.

#### 4.21. CORRELATION

Correlation, in the finance and investment industries, is a statistic that measures the degree to which two securities move in relation to each other. Correlations are used in advanced portfolio management, computed as the correlation coefficient, which has a value that must fall between -1.0 and +1.0.

##### 4.21.1. CORRELATION BETWEEN AGE AND ORGANIZATION CULTURE FACTOR

Correlation between age and organization culture factor		Age	Organization allows to have free interaction among employees and do not hesitate to share their personal problems with their supervisor.
Age	Pearson Correlation	1	-.034
	Sig. (2-tailed)		.711
	N	120	120
Organization allows to have free interaction among employees and do not hesitate to share their personal problems with their supervisor.	Pearson Correlation	-.034	1
	Sig. (2-tailed)	.711	
	N	120	120

Correlation is significant at the 0.01 level (2-tailed)

#### INFERENCE

$P > 0.001$ - Null hypothesis accepted

$P < 0.001$ - Null hypothesis rejected

The Pearson correlation coefficient between **age** and the perception that the organization “allows free interaction among employees and encourages sharing personal problems with supervisors” is **-0.034**, with a significance

value ( $p = 0.711$ ). This indicates an extremely weak, essentially negligible, negative relationship between age and this aspect of organizational culture. Moreover, the p-value is much greater than 0.05, suggesting that the correlation is **not statistically significant**.

#### 4.22. CHI-SQUARE METHOD

A chi-square ( $\chi^2$ ) statistic is a test that measures how a model compares to actual observed data. The data used in calculating a chi-square statistic must be random, raw, mutually exclusive, drawn from independent variables, and drawn from a large enough sample.

##### 4.22.1. OUTPUT

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Work experience * Employees here believe that they have long term job security	120	100.0%	0	0.0%	120	100.0%

Work experience * Employees here believe that they have long term job security Cross tabulation							
Count							
		Employees here believe that they have long term job security					Total
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree	
Work experience	0-5	0	4	5	18	7	34
	5-15	0	1	16	15	9	41
	15-25	1	3	9	9	2	24
	25-35	0	0	2	8	3	13
	35-45	0	0	3	4	1	8
Total		1	8	35	54	22	120

CHI-SQUARE TESTS			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.722 <sup>a</sup>	16	.283
Likelihood Ratio	20.002	16	.220
Linear-by-Linear Association	.088	1	.767
N of Valid Cases	120		
a. 16 cells (64.0%) have expected count less than 5. The minimum expected count is .07.			

**Inference:** The Chi-Square test was conducted to examine the relationship between **work experience** and the perception that employees believe they have **long-term job security**. The **Pearson Chi-Square value is 18.722** with **16 degrees of freedom** and a **p-value of 0.283**. Since the p-value is greater than 0.05, the result is **not statistically significant**.

#### 5. Findings

The survey results show that 35% of respondents are aged 35–45 years, 55.8% are male, and 60% hold postgraduate qualifications. About 26% earn between ₹35,000 and ₹45,000, while 32.5% have 5–15 years of work experience. Half of the respondents feel they can interact freely with supervisors, and 50.8% believe supervisors appreciate good work. Additionally, 47.5% report open communication, and 44.2% feel employees trust each other. Nearly half (47.5%) say the organization provides support during crises, and 45% believe they have long-term job security. Objectivity in performance appraisal is acknowledged by 42.5%, while 47.5% feel that both strengths and weaknesses are considered before decisions. Respondents also noted that management

utilizes their potential (46.7%), autonomy motivates them (40%), and teamwork is encouraged (53.3%). Statistical tests indicate no significant relationship between age and openness ( $R = -0.034$ ;  $p = 0.711$ ) or between work experience and perceived job security ( $p = 0.283 > 0.05$ ).

#### 6. Suggestions

The research can be strengthened by clearly identifying the specific gap in existing 5S literature and explaining how this study addresses that gap. Incorporating more recent studies from 2020–2024 and case studies from diverse manufacturing sectors would broaden the perspective. The document would benefit from reduced redundancy, especially in the introduction and methodology, and from clearer,

more direct language when interpreting survey results. Visual tools such as graphs, charts, and tables should be added to improve the presentation of statistical findings. Advanced analytical methods—including regression, correlation, or trend analysis—would enhance the depth of the results. The study should also recommend practical actions such as periodic 5S audits, employee training sessions, and incentive-based programs to ensure sustained implementation. Expanding the discussion on barriers like employee resistance, management involvement, and resource limitations, along with proposed solutions, would provide a more balanced view. Additionally, the paper should strengthen the link between 5S practices and sustainable production under SDG 12, ensure uniform formatting for professionalism, and provide deeper analysis of how Kenmore Shoes' operations improved after adopting 5S. Including insights from other industries, examples of accident reduction, and clearer summarization of key findings with suggestions for future research would significantly enhance the overall quality and applicability of the study.

## 7. Conclusion

Implementing 5S improves workplace organization, boosts employee productivity, and enhances safety. It creates a cleaner, more efficient, and safer work environment, while also promoting better teamwork and employee satisfaction. Sustaining these benefits requires ongoing training, management support, and employee commitment. In conclusion, the implementation of 5S at Kenmore Shoes has improved workplace organization, productivity, safety, and employee satisfaction. The study shows that 5S also supports sustainability by reducing waste and improving resource use. However, continuous training, management support, and employee involvement are necessary to sustain these benefits in the long run.

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