A Study on Challenges in Implementing Integrated Systems

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Abstract: **This study examines the main challenges that businesses encounter while implementing integrated systems, such as issues with data security, technology compatibility, change aversion, high implementation costs, and a shortage of qualified staff. Total sample size for the research study is 136.The hypothesis that we have solved are chi- square test i.e Karl Pearson's model of test and anova i.e one way T test and these test are done and also the output are generated in spss software in the raw format.**

INTRODUCTION

Organizations from a variety of industries are progressively implementing integrated systems in today's fast-paced digital environment in an effort to increase productivity, optimize processes, and enhance decision-making and the company must ensure they are adapted to the business.
The main challenges that businesses encounter while putting integrated systems into place will be examined in this study, along with possible solutions and underlying causes. The research offers suggestions for resolving these issues and guaranteeing a successful integration by looking at real-world case studies and best practices. Businesses, IT specialists, and decision-makers aiming to improve system integration and maximise operational effectiveness may find value in the study's conclusions.

Objectives of the Study:

- To examine the major obstacles
- organizations face when implementing integrated systems.
- To evaluate how skills impact the successful adoption of integrated systems.
- to analyse the benefits for the company that is derived from set up of the erp systems.
- to identify the level of satisfaction of the employees with the setting up of erp.

Need for the Study:

- To adopt integrated systems to enhance efficiency, streamline operations, and improve decision-making.
- To regulate and control the human errors that usually occur and can help to smooth functioning of work.
- To analyse actionable solutions for organizations to overcome integration challenges and maximize the benefits of their systems and reduce and control workforce.

Scope of the Study:

- This study aims to examine the various challenges organizations face when implementing integrated systems.
- It will analyze technical, financial, organizational, and regulatory barriers that hinder successful integration.
- The study considers financial constraints, including high implementation costs and return on investment concerns

REVIEW OF LITERATURE

- Merce Bernardo (2019) The objective of this article is to empirically analyse whether there is a relationship between the difficulties found in the integration process and the level of system integration achieved. A sample of 362 organisations is examined. Structural equation modelling is applied to their responses to a mailed survey. Two different groups are studied depending on the number of management systems implemented: two systems for the first group and three for the second.
- Alexandra Simon (2022) The number of management systems (MSs) has grown significantly in recent years. These intergrated

MSs can be combined into a single, collaboratively managed system after being certified with standards like the environmental or quality standards, for instance. The primary goal of this research is to examine the connections between the degree of system integration and the challenges and associated advantages that arise during the integration process and this also helps the companies in many ways.

- Peter Tsasis (2020) Integrated care has not gained much traction despite more than 20 years of research and experience in other countries. We postulated that our conceptualisation of the integration process and the intricate systems in which integrated care is implemented may be a contributing factor in the issue. The purpose of this research is to further the conversation about the applicability .The value that are ascertained are a roundoff figure and the calculation is an estimation.
- Elena Giovannoni (2020) This paper's goal is to examine some of the difficulties that come with creating integrated performance measurement systems (PMS). The major challenges faced by the organisations are listed in the study and the solutions to these are also clarified. The authors specifically aim to examine whether and how the challenges associated with the development process and PMS could undermine the integrating role of PMS and the potential impact of alternative integrating mechanisms on this role.

RESEARCH METHODOLOGY

Research methodology is mainly needed for the purpose of framing the research process and the designs and tools that are to be used for the project purpose. Research methodology helps to find the challenges in implementing integrated systems in inocyx technologies private limited

Research design:

Research design is the framework of research methods and techniques chosen by a researcher to conduct a study. The design allows researchers to sharpen the research methods suitable for the subject matter and set up their studies for success. The values are ascertained are an estimation and not exact one.

Sampling technique

Convenience sampling method
A convenience sample is one of the main types of non-probability sampling methods. A convenience sample is made up of people who are easy to reach.

SOURCES OF DATA

Primary Data:
Primary data is that data which is collected for the first time. These data are basically observed and collected by the researcher for the first time. I have used primary data for my project work. It is collected through Structured Questionnaire.

Secondary Data:
Secondary data are those data which are primarily collected by the other person for his own purpose and now we use this for our purpose. It is collected through journals, articles, books, foot notes, etc.

Sample size
The number of elements of the population is to be sampled. Total sample size for the research study is 136.

Tool used for the study:

Statistical Tools:

- Chi-square test.
- Anova
- Correlation

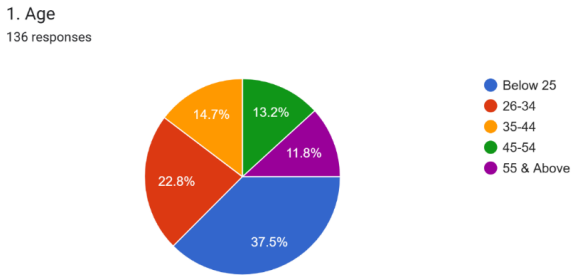
DATA INTERPRETATION

Table: Table indicating Age of the respondents

S. No	Age	No.of. respondents	Percentage
1	Below 25	51	37.5
2	26-34	31	22.8
3	35-44	20	14.7
4	45-54	18	13.2
5	55 & Above	16	11.8

Total		136	100

Chart: Chart represents Age of the respondents



Interpretation

From the above table it is interpreted that the number of respondents below 25 age is 37.5%, between 26 to 34 age is 22.8%, between 34 to 44 age is 13.2%, between 45 to 54 age is 13.2%, above 55 age is 11.8%.

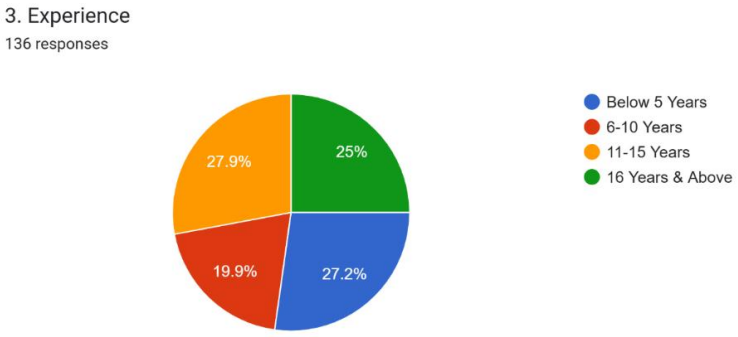
Inference

Majority (37.5%) of the respondents are below 25.

Table: Table indicating experience of the respondents

S. No		No. of. respondents	Percentage
1	Below 5 Years	37	27.2%
2	6-10 Years	27	19.9%
3	11-15 Years	38	27.9%
4	16 Years & Above	34	25%
Total		136	100%

Chart: Chart represents experience of the respondents



Interpretation:

From the above table it is interpreted that the number of respondents below 5 years are 27.2%,6-10 years are 19.9%,11-15 years are 27.9% and 16 years and above are 25%.

Inference:

Majority (27.9%) of the respondents are of the age group 11- 15 years

Chi square:

Hypothesis 1

H0(Null hypothesis): There is no significant difference between the age and experience of the respondents

H1(Alternate hypothesis): There is significant difference between the age and experience of the respondents

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
experience * age	136	100.0%	0	0.0%	136	100.0%

experience * age Crosstabulation							
Count							
		age					Total
		Below 25	26-34	35-44	45-54	55 & Above	
experience	Below 5 Years	16	7	0	1	5	29
	6-10 Years	8	10	9	2	3	32
	11-15 Years	7	9	11	9	3	39
	16 Years & Above	8	6	4	8	10	36
Total		39	32	24	20	21	136

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	34.506[a]	12	.001
Likelihood Ratio	38.721	12	.000
N of Valid Cases	136		
a. 4 cells (20.0%) have expected count less than 5. The minimum expected count is 4.26.			

Inference:

Since the p value (0.001) is less than 0.05. we reject Null hypothesis and we accept Alternative hypothesis. So, is significant difference between the age and experience of the respondents.

Hypothesis 2

H0(Null hypothesis): There is no significant difference between the challenges in implementation of erp and duration for implementation.

H1(Alternate hypothesis): There is significant difference between the challenges in implementation of erp and duration for implementation.

challenges * duration for implementation Cross tabulation						
Count						
		Duration for implementation				Total
		Less than 6 months	6 months - 1 year	1 - 2 years	More than 2 years	
challenges	Data migration issues	3	8	9	4	24
	Lack of technical expertise	5	9	13	8	35
	High implementation costs	10	9	8	6	33
	Resistance from employees	5	8	7	6	26
	Integration with legacy systems	4	9	0	5	18
Total		27	43	37	29	136

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.640[a]	12	.324
Likelihood Ratio	17.953	12	.117
N of Valid Cases	136		
a. 4 cells (20.0%) have expected count less than 5. The minimum expected count is 3.57.			

Inference:

Since the p value (0.324) is greater than 0.05. we reject Alternative hypothesis and we accept Null hypothesis. So, there is no significant difference between the challenges in implementation of erp and duration for implementation.

Anova:

Hypothesis 3

H0(Null hypothesis): There is no significant difference effectiveness of integrated systems and challenging was the implementation process in your organization

organization H1(Alternate hypothesis): There is significant difference effectiveness of integrated systems and challenging was the implementation process in your organization

Descriptives								
Effectiveness of inter grated systems								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	21	1.7143	1.10195	.24046	1.2127	2.2159	1.00	4.00
2	21	2.1905	1.16701	.25466	1.6593	2.7217	1.00	5.00
3	37	3.0270	1.14228	.18779	2.6462	3.4079	1.00	5.00
4	25	2.5600	1.26095	.25219	2.0395	3.0805	1.00	5.00
5	32	4.0000	1.36783	.24180	3.5068	4.4932	1.00	5.00
Total	136	2.8382	1.43098	.12271	2.5956	3.0809	1.00	5.00

ANOVA					
Effectiveness of inter grated systems					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	81.784	4	20.446	13.760	.009
Within Groups	194.657	131	1.486		
Total	276.441	135			

Inference:

Since the p value (0.009) is less than 0.05. we reject Null hypothesis and we accept Alternative hypothesis. So, there is significant difference effectiveness of integrated systems and challenging was the implementation process in your organization

FINDINGS

- Majority (37.5%) of the respondents are below the age of 25.
- Majority (50%) of the respondents age are male and female.
- Majority (27.9%) of the respondents are of the age group 11- 15 years.
- Majority (30.9%) respondents are above 50,000.
- Majority (43.4%) respondents are respondents who have completed UG
- Majority (52.2%) respondents' are married.
- Majority (30.9%) respondents' interpreted that erp used is 23.5%,crm is 25.7%,hrm is 30.9% and scm is 19.9%.
- Majority (22.8%) respondents' say high implementation costs
- Majority (31.6%) respondents interpreted that 1 are 21.3%,2 is at 14.7%,3 are at 31.6%,4 are at 15.4% and 5 are at 16.9%
- Majority (31.6%) respondents say phased implementation approach.
- Majority (31.6%) respondents' say 1-2 years .
- Majority (41.2%) respondents interpreted yes, extensive training at 26.5%,yes,but minimal training are at 41.2% and no training provided are at 32.4%
- Majority (42.6%) respondents agree that yes, minor delay.
- Majority (30.9%) respondents agree that time saving
- Majority (27.9%) respondents agree somewhat satisfied
- Majority (26.5%) respondents agree to neutral.
- Majority (24.3%) respondents say 1 are 23.5%,2 is at 24.3%,3 are at 21.3%,4 are at 7.4% and 5 are at 23.5%

- ❖ Majority (39.7%) respondents say number of respondents say yes at 32.4%, No at 27.9% and may be at 39.7%
- ❖ Majority (27.2%) respondents say neutral.
- ❖ Majority (28.7%) respondents agree 3.
- ❖ Since the p value (0.001) is less than 0.05. we reject Null hypothesis and we accept Alternative hypothesis. So, is significant difference between theage and experience of the respondents.
- ❖ Since the p value (0.324) is greater than 0.05. we reject Alternative hypothesisand we accept Null hypothesis. So, there is no significant difference between the challenges in implementation of erp and duration for implementation.
- ❖ Since the p value (0.009) is less than 0.05. we reject Null hypothesis and we accept Alternative hypothesis. So, there is significant difference effectiveness of integrated systems and challenging was the implementation process in your organization

SUGGESTIONS

- To address the challenges in implementing integrated systems, organizations should prioritize careful planning and thorough research before selecting software and technologies.
- To overcome resistance to change, involving employees early in the process, providing adequate training, and clearly communicating the benefits of the new system can foster a smoother transition.
- By adopting a strategic, people-focused approach, organizations can better manage the challenges of integrated system implementation and maximize the benefits.

LIMITATIONS OF STUDY

- The study is confined within Chennai city.
- The study is based upon the employees in the Chennai unit.
- The data collected for the research is fully on primary data given by the respondents. There is chance for personal bias. So, the accuracy may not be true.

CONCLUSION

In order to successfully deploy integrated systems, businesses must overcome a number of formidable obstacles. These include the high expenses of purchasing, setting up, and maintaining such systems, as well as technical difficulties such incompatibilities between different hardware and software platforms. The sharing of sensitive data across several systems also raises privacy and data security issues. Adoption may also be hampered by employee resistance to modifications to their current workflows. Seamless integration is further hampered by the necessity for specific training and skills as well as the absence of platform standards. Long-term success also depends on managing continuing maintenance and support and guaranteeing scalability for future expansion. In the end, even if integrated systems have the potential to improve productivity and decision-making, overcoming these obstacles calls for meticulous preparation, significant funding.

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