

# Factors Affecting the Implementation and Adoption of ERP: A Statistical Study

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## **Abstract**

This study adopted a descriptive study method such that an extensive review of literature related to wellness concepts, occupational stress aspects and worksite Adoption of ERP are studied and analyzed to determine the association between them. About 700 employees in the city of Hyderabad who are working in various hospitals are considered in the study and the sample data is determined by convenience sampling technique. About 40 responses are not considered in the study because of inappropriate and semi-filled responses. So, the final sample size considered was 660 responses. The first part of the paper review of the selected constructs are presented, the second part of the paper discuss the results opted from survey by observing the association using chi-Square test and the in the third part finally conclusions and implications are presented based on literature and from results obtained for the analysis. Constructed hypothesis are tested by cross-tabulation were, usefulness, ease of use and intention to adopt ERP as a crucial factor in formation of perception of Adoption of ERP in employees of an organization.

## **Article History**

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**Keywords:** Usefulness, ease of use, intention to adopt ERP, behavior towards ERP implementation.

## **1. Introduction:**

Enterprise Resource Planning (ERP) provides an organization with immense benefits such as reduction in inventory, optimum employees are adequately estimated, data of multiple sources integrates and reduction of cost on information technology (Candidate & Nzuki, 2014). The implications of ERP are applicable and the process is compatible in all forms of organizations and it correlates with management practices. The different operational units globally emphasized the

need and contemporary use of information systems(Candidate & Nzuki, 2014). Every function in the organization are cohesive in nature were integration is deliberate for development of streamlined process development and applications of ERP are vast to the present contemporary context (Haddara & Elragal, 2013; Haddara & Zach, 2011; Lasisi, 2018). Thus, it is crucial to understand the behavioral and technical factors which influence the implementation and adoption of ERP in the present Indian scenario (Arora & Erturk, n.d.; Johansson,

Alajbegovic, Alexopoulo, & Desalermos, 2019; Moss, 2014). With the available literature a theoretical model was developed such that observed an relation between influential factors on intention and how this behavioral intention tends to actual behavior for implementation of ERP in organization by employees.

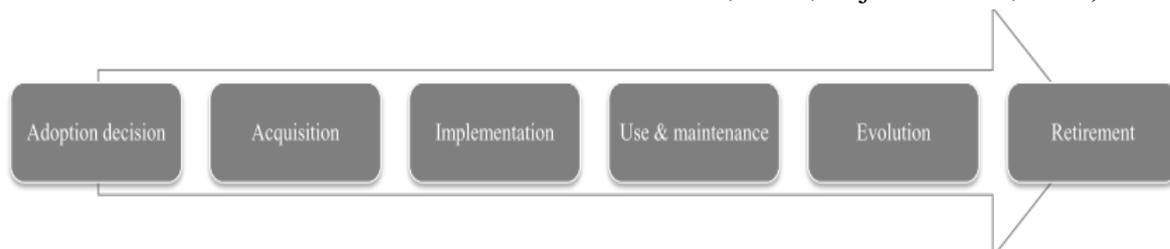
**Research Questions:**

1. Do perceived usefulness is positively associated with intention to adoption of ERP in organization?
2. Do ease of use is positively associated with intention to Adopt ERP in organization?

3. Do intention in Adoption of ERP is positive significantly associates with actual behavior to use?

**2. Literature Review:**

ERP systems are an high-end software’s that combines a multiple business sub-units like supply chain, manufacturing, finance, sales, budgeting, human resources and customer support systems(Rajan & Baral, 2015).Implementation of ERP is complex for there is a shift form a total conventional system because it requires a total organizational restructuring and crucially employee support and willingness to accept and adopt to such change (Candidate & Nzuki, 2014; Rajan & Baral, 2015).



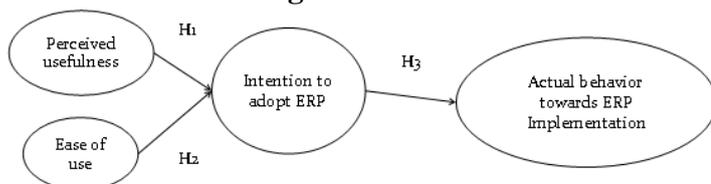
**Figure 1: Implementation process for ERP**  
Source: Haddara & Elragal (2013)

Were, previous studies has focused on change in the business process(Rajan & Baral, 2015) and only little research has been made on employee intention towards and also to its implementation part in reality because a gap between intention to actual behavior. This paper focuses on such factors.

H2: Ease of use is positive significantly associated with Adoption of ERP.

H3: Intention to Adoption of ERP is positive significantly associates with actual behavior towards ERP implementation

**Research Design / Framework:**



**Hypothesis Formulation:**

H1: Perceived usefulness is positive significantly associated with intention to adoption of ERP.

**3. Methodology:**

This study adopted a descriptive study method such that an extensive review of literature related to wellness concepts, occupational stress aspects and worksite Adoption of ERP are studied and analyzed to determination the association between them. About 700 employees in the city of Hyderabad who are working in various hospitals are considered in the study and the sample data is determined by convenience sampling technique. About 40 responses are

not considered in the study because of inappropriate and semi-filled responses. So, the final sample size considered was 660 responses. The first part of the paper review of the selected constructs are presented, the second part of the paper discuss the results opted from survey by observing the association using chi-Square test and the in

the third part finally conclusions and implications are presented based on literature and from results obtained for the analysis. Constructed hypothesis are tested by cross-tabulation were, usefulness, ease of use and intention to adopt ERP as a crucial factor in formation of perception of Adoption of ERP in employees of an organization.

**Descriptive Statistics:**

Demographics	Category	Frequency	Valid Percent	Cumulative Percent	Mean	Std. Deviation
Gender	Male	417	63.2	63.2	-	0.48
	Female	243	36.8	100		
	Total	660				
Age	<20 Years	203	30.80	30.80	2.01	0.87
	20-25 Years	289	42.20	74.50		
	25-30 Years	122	17.80	93.00		
	> 30 Years	46	6.70	100		
	Total	660				
Marital Status	Married	430	65.20	65.20	-	0.47
	Un Married	230	34.80	100		
	Total	660				
Span of Experience	0-2 Years	19	2.90	2.90	2.59	0.58
	2-5 Years	245	37.10	40.00		
	5-10 Years	380	57.60	97.60		
	> 10 Years	16	2.40	100.00		
	Total	660				
Educational Qualification	SSC/Diploma	210	31.80	31.80	-	0.52
	Graduation	424	64.20	96.10		
	Post Graduate	26	3.90	100.00		
	Others	0	0.00	0.00		
	Total	660				
Monthly Income	10000-20000	335	50.80	50.80	1.9	1.07
	21000-30000	127	19.20	70.00		
	31000-40000	122	18.50	88.55		
	>40000	76	11.50	100.00		
	Total	660				

Table 1: Demographic Characteristics of the respondents

It can be interpreted from the table 1 that, from the total 660 male respondents about 63.2 percent are male and the rest are female

respondents. When comes to age of the respondents, majority about 42.20 percent are under the age category of 20-25 years

and the only 6.70 percent are above age of 30 years. To the next category, about 65.20 percent of the respondents are married and the rest are unmarried. To the most important factor, the experience of the employees which is considerable for implementation of wellness intervention majority about 57.60 percent are have 5 to 10 years of experience and the only few about 2.40 percent of respondents have more than 10 years of experience. With respect to the qualification of the respondents, majority, 64.20 percent

of the respondents are graduates and few only 3.90 percent possess post-graduation. Finally, with regard to income status of the respondents: about 50.80 percent of the respondents earn 10000-20000/- per month and only few about 11.50percent of the respondents earn above 40,000/-.

**Hypothesis Testing and Results:**

H1: Perceived usefulness is positive significantly associated with intention to adoption of ERP.

<b>Q1. Perceived usefulness is positive significantly associated with intention to adoption of ERP.</b>						<b>Total</b>
<b>Level of job</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>	
Operational Level	0	0	3	6	4	13
Tactical Level	29	23	27	269	132	480
Strategically Level	7	10	14	52	58	141
Others	3	0	4	13	6	26
Total	39	33	48	340	200	660
<b>Chi Square Test</b>	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>			
	30.602	12	0.002			

Table 2: Association of Perceived usefulness and intention to adopt ERP

It can be interpreted from table 2, that the majority of the respondents are from tactical level (72%) and from all the level of employees about 51 percent of the employees agree that wellness programs has an positive significant association with employee participation and involvement.

Chi-Square results that there is an (30.602, df12, P<0.05) Perceived usefulness is positive significantly associated with intention to adoption of ERP is proved.

H2: Ease of use is positive significantly associated with Adoption of ERP.

<b>Q2. Ease of use is positive significantly associated with Adoption of ERP.</b>						<b>Total</b>
<b>Level of job</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>	
Operational Level	0	0	0	10	3	13
Tactical Level	13	26	16	374	51	480
Strategically Level	0	15	3	88	35	141
Others	0	3	0	20	3	26
Total	13	44	19	492	92	660
<b>Chi Square Test</b>	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>			
	33.068	12	0.001			

Table 3: Association of Ease-of-use and intention to adopt ERP

It can be interpreted from table 3, that the majority of the respondents are from tactical level (72.7%) and from all the level of employees about 74.5 percent of the employees agree that wellness programs has an positive significant association with reduction of absenteeism. Chi-Square results

that there is an (33.068, df12,  $P < 0.05$ ) Ease of use is positive significantly associated with Adoption of ERP is proved.

H3: Intention to Adoption of ERP is positive significantly associates with actual behavior towards ERP implementation

<b>Q3. Intention to Adoption of ERP is positive significantly associates with actual behavior towards ERP implementation</b>						<b>Total</b>
<b>Level of job</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>	
Operational Level	3	0	0	6	4	13
Tactical Level	64	39	57	108	212	480
Strategically Level	11	6	10	55	59	141
Others	0	0	0	17	9	26
Total	78	45	67	186	284	660
<b>Chi Square Test</b>	<b>Value</b>	<b>df</b>	<b>Asymp. Sig. (2-sided)</b>			
	45.9	12	0.000			

Table 4: Association of Intention to Adoption of ERP and actual behavior towards ERP implementation

It can be interpreted from table 4, that the majority of the respondents are from tactical level (32.12%) and from all the level of employees about 43 percent of the employees agree that wellness programs has an positive significant association with reduction of stress levels. Chi-Square results that there is an (45.9, 12df,  $P < 0.01$ ) association between Intention to Adoption of ERP is positive significantly associates with actual behavior to use is proved.

#### 4. Conclusions and Discussions:

It can be interpreted from table 2, that the majority of the respondents are from tactical level (72%) and from all the level of employees about 51 percent of the employees agree that wellness programs has an positive significant association with employee participation and involvement. Chi-Square results that there is an (30.602, df12,  $P < 0.05$ ) Perceived usefulness is

positive significantly associated with intention to adoption of ERP is proved. It can be interpreted from table 3, that the majority of the respondents are from tactical level (72.7%) and from all the level of employees about 74.5 percent of the employees agree that wellness programs has an positive significant association with reduction of absenteeism. Chi-Square results that there is an (33.068, df12,  $P < 0.05$ ) Ease of use is positive significantly associated with Adoption of ERP is proved. It can be interpreted from table 4, that the majority of the respondents are from tactical level (32.12%) and from all the level of employees about 43 percent of the employees agree that wellness programs has an positive significant association with reduction of stress levels. Chi-Square results that there is an (45.9, 12df,  $P < 0.01$ ) association between Intention to Adoption of ERP is positive significantly associates with actual behavior to use is

proved. Hence, the entire hypothesis are supported i.e., employees are more keen to adopt and accept its implementation further and continue in the organization.

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