

## A Study on Employee Retention with Special Reference to Software Companies

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**ABSTRACT:** Employee turnover occurs for many reasons but when employees leave their jobs and must be replaced due to the fact that the business is perennial. Replacing exiting employees is costly to organizations and destructive to service delivery. It is therefore imperative for management to reduce, to the minimum, the frequency at which employees, particularly those that are crucial to its operations leave. Retention is a voluntary move by an organization to create an environment which engages employees for long term. In this study it was studied whether the employee tenure depends on certain socio-economic characteristics like gender, age and marital status. The purpose of the study is to know the various reasons that lead to consistent and sustained employment in business organizations. A survey with 197 respondents working in software companies was done to collect data. Common factor analysis through reliability analysis and chi-square analysis was performed on collected data. The results are surprisingly insightful as the results are significant.

**Keywords:** employee retention, employee turnover, employee satisfaction, employee perceptions.

### INTRODUCTION

Ability of an organization to retain its employees is referred to as employee retention. There are metrics measure employee retention and usually done through percentages and probability distributions. For example, a retention rate of 80% usually indicates that an organization kept 80% of its employees in a given period. Retention issues are strategic rather than policy. Employee retention in principle doesn't accrue anything to organizations, but analytical thinking of the same might result into a great advantages. Bringing the distinction between low-performing employees and top performers always the crux of employee retention strategies. Employees that are valuable, contributing are always great assets to the organization. Employee turnover is the primary target for employee retention strategies. Employee turnover always a symptom of low employee morale, absence of a clear career path, lack of recognition, poor employee-manager relationships or many other issues. A lack of satisfaction and commitment to the organization can also cause an employee to withdraw and begin looking for other opportunities. Pay does not always play as large a role in inducing turnover as is typically believed (Allen, 2008).

Decrease of employee turnover is always the primary goal for any business with consistent practices. Decreasing training costs, recruitment costs and loss of talent and organizational knowledge are other concerns of employee retention practices in business. At the same time, bearing unfruitful, sloppy employees is not the idea

of employee retention practices. So, employers can seek "positive turnover" whereby they aim to maintain only those employees whom they consider to be high performers. Hiring employees is just a start to creating a strong work force. Next, you have to keep them. High employee turnover costs business owners in time and productivity. Try these tactics to retain your employees.

Worldwide, retention of skilled employees has been of serious concern to managers in the face of ever increasing high rate of employee turnover. Today's business environment has become very competitive thus making skilled employees the major differentiating factor for most organizations. Organizations - both public and private - rely on the expertise of their employees in order to compete favorably and indeed gain competitive advantage in the international market. However, recent studies have shown that retention of highly skilled employees has become a difficult task for managers as this category of employees are being attracted by more than one organization at a time with various kinds of incentives. Furthermore, skilled employees in South Africa are daily migrating abroad for better job conditions (Gillingham, 2008). This phenomenon is having adverse effect on investment as emigrating employees moved client's investments offshore.

### RESEARCH METHODOLOGY AND OBJECTIVES

This study is empirical in nature a sample of 197 individuals in different software companies were interviewed in Hyderabad. There are two sets of variables in the study the employee tenure or stay

was studied with respect to gender, marital status and age. The tenure is not the only variable that represents the study interest there are other couple of variables. The analysis is divided into two parts. The first part deal with chi-square analysis (through cross tabulation did in SPSS). The second part deal with general factor analysis (through reliability analysis done in Calc). The summary statistics were taken from the analysis outputs and interpreted accordingly. Following are the study objectives.

1. To understand the consistency in opinions of software employees.
2. To know inter-gender differences to employee tenure in software companies.
3. To study and understand employee tenure through marital status of the software professionals.
4. To know inter-age differences to employee tenure in software companies.

As mentioned before, the chi-square analysis was done through cross tabulation in SPSS. The default hypothesis for bi-variate chi-square test will be that the variables under the study are independent from each other. So the null hypothesis ( $H_0$ ) the variables under study are independent. For instance, while studding age-wise differences the hypothesis can be “employee tenure doesn't depend on age”, which obviously leads to the study hypothesis as “there is dependency between study variables”. So the study interest, *ipso facto*, seeks to find a very relevant and meaningful association between socio-economic characteristics and study interest. The following section provide the summary for study analysis.

**ANALYSIS**

**Part 1: General factor analysis**

This section deal with factor analysis not in a way it is dealt through either exploratory or confirmatory factor analysis. The classical test

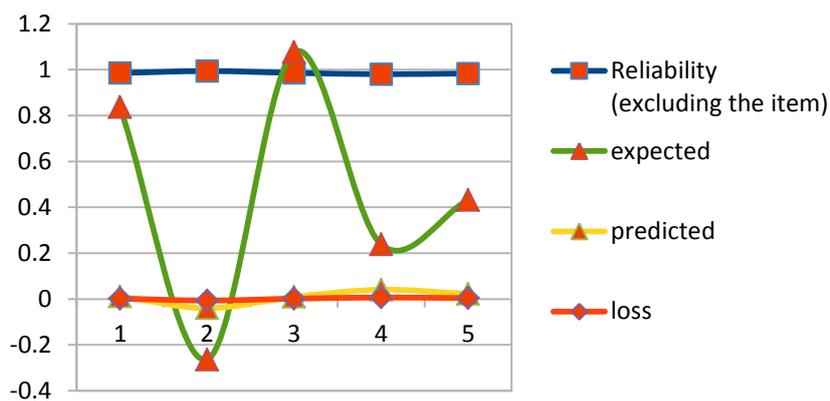
theory was adopted to beacon the needs of factor analysis. The classical test theory is a theory that address the consistency of variable in hand. This study has 6 variables apart from socio-economic characteristics. These variables were studied with the help of 5 item Likart scale, where 1 stands for “strongly disagree” and 5 stands for “strongly agree”. So, obviously the data set, as configuration matrix, is a set of test lets. Hence, the data can be very much suitable for a factor study where the general or single factor being probed through classical test theory. Cronbach alpha treated as a voluble measure to assess internal consistency (Revelle W Zinbarg R, 2009). The concept of internal consistency belongs to the theory of testing more importantly in psychometrics ( Kaplan, R.M., & Saccuzzo, D.P., 2010).

Studying factorial structures through classical test theory antedates to 1951 (Cronbach LJ., 1951). Cronbach's alpha will generally increase as the intercorrelations among test items increase, and is thus known as an internal consistency estimate of reliability of test scores. Because intercorrelations among test items are maximized when all items measure the same construct, Cronbach's alpha is widely believed to indirectly indicate the degree to which a set of items measures a single one-dimensional latent construct. It is easy to show, however, that tests with the same test length and variance, but different underlying factorial structures can result in the same values of Cronbach's alpha. Indeed, several investigators have shown that alpha can take on quite high values even when the set of items measures several unrelated latent constructs (Cortina, J.M. 1993; Lissitz, Mulaik SA., 1977; Schmitt N 1996; Zinbarg *et al*, 2006). So studying constrcut and finding factro structures through classical test theory is very much approachable in psychometrics. To put it precisely the internal consistency measure i.e. Cronbach alpha shows if there is any common factor under the testlets that were under study. The following is the summary for the factor structures identified through reliability analysis.

Item	Reliability (excluding the item)	With item	Loss of Reliability	SB Prediction	Expected reliability at 0.99
1	0.9853775785	0.9873846295	0.0020070511	0.0119226595	0.8371101409
2	0.9938103467	0.9873846295	-0.0064257172	-0.039834117	-0.2636778648
3	0.9858226355	0.9873846295	0.001561994	0.0092993366	1.0761065924
4	0.9803722295	0.9873846295	0.0070124	0.0406491591	0.2383914635
5	0.9834992868	0.9873846295	0.0038853427	0.0228678099	0.4316120417

Table 1: Reliability analysis

Illustration 1: Visual for reliability analysis



The above table deals with reliability analysis for factor structures. The Cronbach's alpha is 0.9873 this shows that there is perfect relationship between tests lets and the general factor model is perfectly valid. This means that the study variables represents a single factor. In this case the study factor is tenure of employment. So the test criteria selected for this study is trying explain the study factor i.e. tenure of employment. There are other statistics that explain other information pertinent to factor structure. The second column in the table deal with the overall measure (alpha) for all variables, where as the first column is the item-wise consistency in the data (representing the factor) while items were deleted. The values are pretty much consistent for the measure is wandering across 0.98. The interesting observation is that when item – 2 i.e. employee feelings towards their present company is actually creating whatever the discrepancy detected in the data set. The value of internal consistency is actually improving when item 2 is deleted but as such the improvement is insignificant for the loss of value is only zero (-0.0064). The negative sign shows that the overall impact is negative by this variable on the factor structure. The graph adds the visualization to summary statistics shown in the table. Both predicted a d loss of information is very close to gather. This shows that the loss of

information while deleting items is actually insignificant while over all reliability stay steady. The effect of the item wise contribution to the underlying factor structure is illustrated by expected reliability measures, which is very distinct in the graph. So to put it precisely the underlying factor structure is so distinct and the data is trying being in tune with the study purpose.

**Part 2: Chi-square analysis**

Chi-square analysis is used along with general factor study through reliability analysis. Chi-square analysis is a measure that helps to assess dependency of variables. This technique is also known as cross tabulation. Following is the description to output generated through SPSS v20 installed in Windows 7. There are both socio-economic like *gender, age, marital status,* and study variables in the study. The study variables like *tenure with organization, preferability of employees to stay with the company (likes and dislikes), employee feelings towards their present company, the effectiveness of organization using employees, employees opinion regarding workload, employee participation and vacation, employee feelings about working environment.* However this paper deals with only socio-economic characteristics crossed by the employee stay at their jobs.

Table 1: Tenure with organization \* Gender

Crosstab				
			Gender	
			male	female
Tenure with organization	< 1 year	Count	5	1
		% within Tenure with organization	83.3%	16.7%
		% within Gender	11.6%	14.3%
		% of Total	10.0%	2.0%
	1 - 3 years	Count	15	1
		% within Tenure with organization	93.8%	6.2%
		% within Gender	34.9%	14.3%
		% of Total	30.0%	2.0%
Crosstab				

			Gender	
			male	female
	3 - 5 years	Count	16	5
		% within Tenure with organization	76.2%	23.8%
		% within Gender	37.2%	71.4%
		% of Total	32.0%	10.0%
	5 years & above	Count	7	0
		% within Tenure with organization	100.0%	0.0%
		% within Gender	16.3%	0.0%
		% of Total	14.0%	0.0%
Total	Count	43	7	
	% within Tenure with organization	86.0%	14.0%	
	% within Gender	100.0%	100.0%	
	% of Total	86.0%	14.0%	

The above table shows the details of cross tabulation for gender vs. tenure of the study. From the percentages it is very clear that the most of the employs belongs to the category of 1 to 3 years of stay and in all categories male respondents are observed to be more. One reason might be that the study is in favor of male respondents for total number of respondents belongs male category. There are only 14 female respondents. This might be one of the reasons for finding frequencies rather hyperbolic to male category. The most important observation could be that the percentage is 100 % in favor of male for 5 years and above category. This is rather interesting because there are no female respondents who stayed more than 5 years. This is a bit antagonistic to the general opinion from the research industry engaging in this domain of study. Most of the research bemoans that given consensus female employees found to be more loyal in terms of stay in their working places. This idea is rebuked by theism study through cross tabulation. However, as it was mentioned earlier the study pretties much in favor of male respondents so the figures need rather careful interpretation. In other words, the favorability is not a serious issue in this study. But from the figures it is obvious that the study is in favor of male respondents, so it is not extraneous if we interpret that the male respondents are more likely to stay with their companies.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.652 <sup>a</sup>	3	.302
Likelihood Ratio	4.556	3	.207
Linear-by-Linear Association	.001	1	.978
N of Valid Cases	50		

The above table is the output from the chi-square analysis. From the table it is clear that the chi-square measure is 3.652 and p-value is 0.302 which is not at all significant at % % significant level. The data pretty much supports the null hypothesis or there is no evidence in the study in support of alternative hypothesis that the employee stay depends on gender. From the chi-square analysis it is clear that the relationship is not at all significant. The way respondents stay at their jobs cannot be studied through gender. In other words, employee longevity of stay doesn't depend on their gender. So, it doesn't behoove well to study the employee longevity through gender. The gender as socio-economic characteristic fails explains employee stay at their jobs.

Table 2: Tenure with organization \* Marital status

Crosstab				
			Marital status	
			married	Unmarried
Tenure with organization	< 1 year	Count	5	1
		% within Tenure with organization	83.3%	16.7%
		% within Marital status	14.7%	6.2%
		% of Total	10.0%	2.0%
	1 - 3 years	Count	7	9
		% within Tenure with organization	43.8%	56.2%
		% within Marital status	20.6%	56.2%
		% of Total	14.0%	18.0%
	3 - 5 years	Count	15	6
		% within Tenure with organization	71.4%	28.6%
		% within Marital status	44.1%	37.5%
		% of Total	30.0%	12.0%
	5 years & above	Count	7	0
		% within Tenure with organization	100.0%	0.0%
		% within Marital status	20.6%	0.0%
		% of Total	14.0%	0.0%
Total	Count	34	16	
	% within Tenure with organization	68.0%	32.0%	
	% within Marital status	100.0%	100.0%	
	% of Total	68.0%	32.0%	

The above table shows the details of employee tenure and its dependency on marital status. Almost 68 % of respondents are married and only 32 % of respondents are unmarried. A maximum of 21 individuals belongs to the category 3 to 5 years and 71 % i.e. 15 respondents are married. So it makes sense if this observation is interpreted as mostly married individuals try to stay for periods of 3 to 5 years at their work places. Unfortunately there are only 7 individuals in the category 5 years and more but 100 % of respondents are married. The unmarried respondents in the first category i.e. less than 1 year are more (16 %) accounting to only one individual. So, from the figures it makes sense to infer that unmarried individuals are highly likely to stay less than 1 year whereas married individuals try to stay more than 5 years.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.380a	3	.039
Likelihood Ratio	10.223	3	.017
Linear-by-Linear Association	2.161	1	.142
N of Valid Cases	50		

The chi-square measure is 8.380 with p-value being 0.03 which is less than 0.05. So, there is evidence in the study that the marital status level differences are significant. In other words, the way sample respondent's tenure depends on marital status. Since, the tenure of job depends on marital status, it seems plausible to construe that married individuals take the tenure of their job rather seriously compared to unmarried individuals. So software companies might have to think about marital status of the employee rather more important compared to unmarried employees.

Table 3: Tenure with organization \* Age

Crosstab				
			Age	
			20 - 25 years	26 - 30 years
Tenure with organization	< 1 year	Count	1	1
		% within Tenure with organization	16.7%	16.7%
		% within Age	10.0%	4.5%
		% of Total	2.0%	2.0%
	1 - 3 years	Count	5	7
		% within Tenure with organization	31.2%	43.8%
		% within Age	50.0%	31.8%
		% of Total	10.0%	14.0%
	3 - 5 years	Count	4	13
		% within Tenure with organization	19.0%	61.9%
		% within Age	40.0%	59.1%
		% of Total	8.0%	26.0%
	5 years & above	Count	0	1
		% within Tenure with organization	0.0%	14.3%
		% within Age	0.0%	4.5%
		% of Total	0.0%	2.0%
Total		Count	10	22
		% within Tenure with organization	20.0%	44.0%
		% within Age	100.0%	100.0%
		% of Total	20.0%	44.0%

The above table deal with age wise differences to tenure of stay. The study respondents were categorized as two groups with respect to age namely 20 – 25 and 26 to 30. The study doesn't consisting of individuals either below 20 years or above 30 years. So only two groups were available for analysis. The differences don't seem to be valid as far as the individuals whose stay is less than 1 year. Each of the age groups i.e. 20 – 25 and 26 – 30 have equal in percentage (16 %). The second category i.e. 1 – 3 years of stay has more individuals from 20 – 25 age group (50 %) compared to the other age group (31 %). The third category i.e. 3 – 5 appears to be rather more interesting since the percentages are distinctly different for both age groups i.e. 40 % for 20 – 25 and 59 for 26 – 30. There aren't any respondents who belong to the group 20 – 25 in the last category i.e. more than 5 years of tenure. All reinvents in this group belongs to the age category 26 to 30. So age seems to affect the tenure of job. The below table shows the summary statistics of cross tabulation for age and tenure of employment.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.604a	9	.029
Likelihood Ratio	17.658	9	.039
Linear-by-Linear Association	.153	1	.696
N of Valid Cases	50		

The chi-square value is 18.60 at p-value 0.02, so the value is significant. To put it more succinctly age wise differences to tenure of job are significant. Age appears to play important role while understanding tenure of job. And from the cross table it is clear that the people who stay less than 1

year doesn't seems to have any different, but the other categories show significance. It seems plausible to construe that the tenure depends on age.

## CONCLUSION

(The underlying factor structure is so distinct and the data is trying being in tune with the study purpose. The way respondents stay at their jobs cannot be studied through gender. In other words, employee longevity of stay doesn't depend on their gender. So, it doesn't behoove well to study the employee longevity through gender. The gender as socio-economic characteristic fails explains employee stay at their jobs. Since, the tenure of job depends on marital status, it seems plausible to

construe that married individuals takes the tenure of their job rather seriously compared to unmarried individuals. So software companies might have to think about marital status of the employee rather more important compared to unmarried employees. So age seems to affect the tenure of job. And from the cross table it is clear that the people who stay less than 1 year doesn't seems to have any different, but the other categories show significance. It seems plausible to construe that the tenure depends on age.)

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