



THE CORRESPONDENCE ANALYSIS APPROACH TO WOMEN EMPLOYEE RETENTION THROUGH CAREER ADVANCEMENT IN THE IT SECTOR

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Abstract

The IT sector is exposed to a plethora of openings for women employees in different levels in the organisational hierarchy. Although many women are tackling several setbacks and hiccups in their career progression, the lack of support and understanding from their male counterparts at office and the home front dissuade them from continued service in their chosen career. The IT companies are currently revisiting their HR policies such that their women employees are not only effectively engaged, but also empowered, to ensure that they do not switch over from one company to another. The scope for career advancement acts as a potent cause for employee retention, which by practice depends heavily not only on skilled performance, but also the service put in by the employees. An attempt has been made by the researcher to apply Correspondence Analysis – a statistical tool for identifying the relationship that exists between the experience of the women employees in the IT sector and the scope they have for career advancement. The important finding of the study reveals that only sometimes the scope for career advancement of the women employees acts as a retention factor, with those whose experience lies between 6 and 10 years. HR policies are suggested to be re-designed to accommodate the women employees on novel perspectives, which permit them to do justice to their responsibilities both in their job and home.

Key Words: *Women employees, career advancement, retention, correspondence analysis, strategies.*

*“To find a career to which you are adapted by nature, and then to work hard at it is about as near to a formula for success and happiness as the word provides. One of the fortunate aspects of this formula is that, granted the right career has been found, the hard work takes care of itself. The hard work is not hard work at all”....Mark Sullivan
“We can’t stop employees from leaving, unless we have a plan to make them stay”*

INTRODUCTION

The impact of the global meltdown has made sustenance a mind racking process, which necessitates men and women alike to opt for a livelihood in terms of a job or business venture. Women have large openings for starting their career in the IT sector, thanks to technology aided opportunities like BPOs, KPOs etc. They have joined the bandwagon for carving a niche in their career graph and emerge financially independent and successful. The IT sector is flooded with burgeoning business prospects on one hand and a paradoxical attrition on the other. Gone are the days when loyalty was the crux of an employer-employee relationship, which is now fast being supplanted by a conflicting relationship, thanks to the risk of attrition that looms large on the employers. Newer carrots need to be dangled for this purpose so that the switching over process is mitigated. Several strategies are being devised by the management to ensure that retention takes place on a continual basis, of which the scope for career advancement has been examined in the context of the experience of the respondents in this study.

REVIEW OF LITERATURE

The demographic perspectives, human capital and psychological characteristics together with the organizational characteristics play a crucial role in the career advancement in terms of the salary, position reached in the hierarchy and number of job moves (Thomas N.Garavan, Fergal O’ Brian, Deborah O’ Hanlon, 2006).By identifying the existing work practices and expertise of an individual in the primary phase of his career, leads to competency development and career advancement (AshlyPinnington, 2011). The case of expatriate assignment runs on similar lines to that of a learning cycle, and is successful with the contribution from multiple mentors in terms of information and career support (Madeline.M.Crocitto, Shawn.M.Carraher, 2005).Silverman has opined that “employee turnover can increase after training if a company fails to provide career development and opportunities to get ahead. This was the outcome of the findings made by Kraimer, Seibert, Wayne, Linden and Bravo (2011) duly reiterated by Steve Nguyen (2012).Inter-organizational career mobility and extra organizational career support have taken a back seat in case of boundaryless career attributes. A rapprochement between career theory and success nurtures clarity in comprehension as a better employment practice (Michael.B.Arthur, Svetlana N.Khapova and Celeste P.M. Wilderdom, 2005).Family structures played a predominant role in the managerial advancement of men and women alike, but tended to unsettle employment for the women only, while providing limited scope for advancement opportunities for single males and females alike (Phyllis Tharenou, 1999).Successful women managers’ attenuation attributed to their ability than performance when compared to their male contemporaries. Racial differences dwindled with extensive work experience gained, while career advancement prospects were implemented through performance ratings and ability attributions (Jeffery H.Greenhaus, SarojParauraman, 1993).

Work attitudes characterised by job satisfaction, organizational commitment and role of work life balance help to curb employee turnover rates (**Margaret Dery, 2008**). Training and development practices backed by perceived organizational support influence the retention intention of the employees. Besides when training and development is done on a tailor made basis coupled with challenging work assignments, the resultant is the retention of older employees (**Dr. Marjorie Armstrong, Stassen and Nancy.D.Ursel, 2009**). Attrition was caused way back due to extrinsic job factors. However, currently, the intrinsic factors play a dominant role in the retention of employees in any organization (**Terence R.Mitchell, brooks C.Holtom and Thomas W. Lee, 2001**).

OBJECTIVES

- To find out the relationship between scope for career advancement in women employee retention, and the experience of the respondents using Correspondence Analysis.
- To make apt suggestions to devise strategies for women employee retention in IT Sector, based on this study.

METHODOLOGY

Sampling Design

The researcher has used exploratory research for the purpose of the study. Primary data was collected using a structured questionnaire to analyse, interpret and infer the responses from the women employees in the IT sector. Secondary data was sourced from journals, magazines, books, besides surfing the net to gain access to information related to the study and enable meaningful inferences to be made and aid in the suggestion making stage. The questionnaire was divided into two sections – demographic profile of respondents made up of seven variables namely age, marital status, qualification, experience, income and designation of the respondents. The second section contained questions related to the 11 reasons responsible for the retention of the respondents, which were scaled using a 5 point Likert Scale, namely – challenging workload, scope for career advancement, training and development opportunities, goodwill of company's products and services, expectations as a customer, salary and benefits, opinions of colleagues and friends, strong management, work life balance, level of contribution in decision making and company's financial stability and health.

The sample was chosen on a judgemental basis keeping the convenience of the researcher in mind. The details of the chosen sample are as Follows:-

Details of the Study Sample

Total No. of Questionnaires	No. Circulated	No. Returned	No. Not Returned	No. Incomplete	Final Sample
	80	72	8	7	65

The researcher had deliberately chosen women employees working in the IT sector, as it is one that provides ample scope for the employment of women on a large scale, and is brimming with opportunities for career growth. But this sector witnesses a glass ceiling that prevents the women employees to climb the rungs of their career ladder, thanks to several reasons like gender discrimination, unequal pay structure, lack of support from family and superiors, multi-tasking, high stress levels and lack of an adequate work life balance, to name a few.

Data Analysis was done using **Correspondence Analysis**, is a data visualization technique, represented to form a map of points. It is multivariate statistical technique proposed by **Hirschfeld** and later developed by **Jean Paul Benzerici**. It is an exploratory data technique although no specific hypotheses have been framed (**Storti, 2010**). Correspondence Analysis is a descriptive technique designed to analyse simple two way and multi way tables containing some measure of correspondence between the rows and columns. The results provide information similar to those provided by Factor Analysis technique that explores the structure of categorical variables included in the table, which is basically like a two way frequency cross tabulation table. The determination of the relationship between 2 nominal variables in a correspondence table in a low dimensional space, by describing the relationship between the categories for each variable is the crux of Correspondence Analysis.

LIMITATIONS OF THE STUDY

1. The study was exposed to a limited time frame that acted as a deterrent.
2. The responses have been subjected to the personal bias of the respondents that prevent data accuracy.

3. Lack of spontaneity from all respondents has forced the researcher to settle for a smaller sample size.
4. The HR Policies of several IT Companies dissuaded the researcher from increasing the sample size.

ANALYSIS AND INTERPRETATION

Table 1 refers to the Correspondence Table, where the data entered relates to the experience of the respondents, and the scope for career advancement as a vital retention factor in SPSS. The frequency for each row and column categories produce a summation for each of the row and column categories called as the “Active Margin”, which is 65 in this study. From the Correspondence Table, it is found that those respondents who have 6 -10 years of experience, sometimes find the scope for their career advancement as the reason for retention in their organization, with a frequency of 18. The Active Margin for the column sometimes is 23, and hence calculated as $18/23 = 0.783$.

Experience	Scope for Career Advancement					Active Margin
	Never	Rarely	Sometimes	Often	Always	
< 5yrs	0	6	0	7	4	17
6 -10yrs	4	0	18	2	0	24
11-15 yrs	0	0	0	2	0	2
> 15 yrs	3	4	5	6	4	22
Active Margin	7	10	23	17	8	65

Source: Computed

The Summary Table displays a variety of useful information. Although three dimensions are derived, only two are taken into account for a supposedly meaningful proportion of the total inertia value. The singular value column shows the canonical correlation between the two variables for each dimension. This is the most important table provided by SPSS output for Correspondence Analysis. The inertia column displays the inertia value for each dimension and the total inertia value. The Total Inertia Value of 67.6% represents the amount of variance accounted for

Table 2 ,Summary Table

Dimen sion	Singular Value	Inertia	Chi Square	Sig.	Proportion of Inertia		Confidence Singular Value	
					Accounted for	Cumulative	Standard Deviation	Correlation 2
1	.766	.586			.867	.867	.057	.059
2	.272	.074			.109	.976	.095	
3	.127	.016			.024	1.000		
Total		.676	43.963	.000 ^a	1.000	1.000		
a. 12 degrees of freedom								

in the original Correspondence Table by the total table by the total model. The inertia value of each dimension refers to the amount of that total variance, which is accounted for by that dimension. The chi-square test is used to test the total variance explained with the associated probability. A high correspondence between the rows and columns exist if the chi-square value is high (Fellenberg, Hauser, Brors, Nentzer, Hoheisel, Vingron, 2001). The chi-square test is testing the hypothesis that the total inertia value is/is not different than zero. Here, the significance or p value is less than 0.05 (a common cut off value), which indicates that the total inertia value is significantly different than zero. Keeping this in mind, this chi-square is a model fit statistic and allows comparison to other models with different variables. The standard deviation column refers to the correlation between the two variables. However, here the correlation between the two variables is only 0.059, that implies that there are other more potent factors that determine the retention quotient of the respondents. According to Benzecri, Mass of Points, 1992, “the Eigen values of inertia are identical to the extent that each axis has an Eigen value whose sum equals the inertia of the cloud”. In the current study, Dimension 1 explains 86.7% and Dimension 2 only 10.9% of the total variance of the model. It is interesting to note that there is no “rule of the thumb” or criteria for retaining/rejecting dimensions for analysis on the basis of the proportion of inertia.

A glance at the Summary Table confirms the significance of the model, which is highly significant at 0.000 level with an alpha value of 0.050, and a chi-square value of 43.963. The inertia does not usually sum up to 100% and this column gives the total variance explained by each dimension in the model. In this study, the total variance explained is 86.7%, which implies that for this, the relationship between the scope for career advancement and experience of the respondents is highly significant, reflected by the chi-square statistic of 0.000.

Table 3 shows how each of the row plots are plotted in the final bi-plot and help to evaluate how each row contributes to the dimensions and vice versa. The “mass” column indicates the proportion of each category of respondents’ experience to the total. The score in dimension displays each row’s score on Dimensions 1 and 2 which are representative of the dimensional distance and shown in the graph. The contribution of the Point of Inertia of Dimension Columns not only reflects how each of the points load on the dimensions, but also its extraction. It is found from Table 3 that the experience of the respondents that lie in the category 6-10

Table 3, Overview Row Points^a

Experience	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		
					1	2	1	2	Total
< 5yrs	.262	1.072	-.167	.237	.393	.027	.970	.008	.978
6 -10yrs	.369	-1.066	.038	.323	.548	.002	.996	.000	.996
11-15 yrs	.031	.867	2.873	.087	.030	.934	.204	.795	.999
> 15 yrs	.338	.256	-.174	.029	.029	.037	.578	.095	.673
Active Total	1.000			.676	1.000	1.000			
a. Symmetrical normalization									

Years loads heavily on Dimension 1 (54.8%) and not so on Dimension 2 (2%) of the variance with regard to their retention criteria, made up of their chances for development in their career. The Overview of Column Points as shown in Table 4 reveals that although the score in Dimension 1 is highest for career advancement rarely being the reason for employee retention by the respondents, from the contribution of the point of inertia shows a 47.8% of the variance and loading on Dimension 1 is heavy in this same category accounting for 99.2% of the variance.

Table 4, Overview Column Points^a

Scope for Career Advancement	Mass	Score in Dimension		Inertia	Contribution				
		1	2		Of Point to Inertia of Dimension		Of Dimension to Inertia of Point		
					1	2	1	2	Total
Never	.108	-.653	-.194	.046	.060	.015	.764	.024	.788
Rarely	.154	.974	-.623	.131	.191	.220	.855	.124	.979
Sometimes	.354	-1.017	-.030	.283	.478	.001	.992	.000	.992
Often	.262	.664	.781	.132	.151	.587	.670	.330	1.000
Always	.123	.867	-.626	.085	.121	.177	.829	.153	.982
Active Total	1.000			.676	1.000	1.000			
a. Symmetrical normalization									

Table 5, Confidence Row Points			
Experience	Standard Deviation in Dimension		Correlation
	1	2	1-2
< 5yrs	.125	.374	-.203
6 -10yrs	.124	.197	.016
11-15 yrs	.671	.608	-.851
> 15 yrs	.266	.461	-.076

Table 6 Confidence Column Points			
scope f or career advancement	Standard Deviation in Dimension		Correlation
	1	2	1-2
N	.366	.411	-.289
R	.223	.211	-.204
S	.142	.168	-.101
O	.270	.183	-.365
A	.217	.225	.249

Tables 5 and 6 comprised of the Confidence Row and Column Points provide the square root of the row and column scores in each dimension, which is applied to calculate the extent of accuracy of the estimate points on their axes.

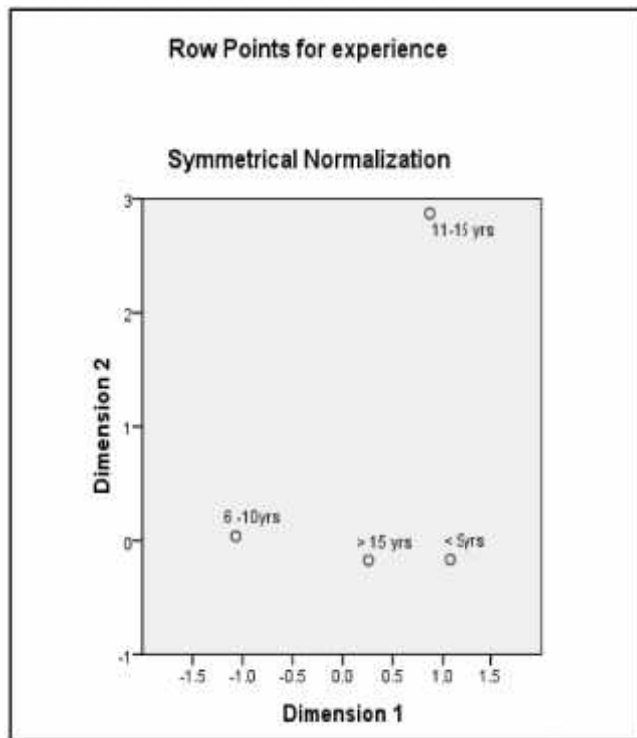


Figure 1

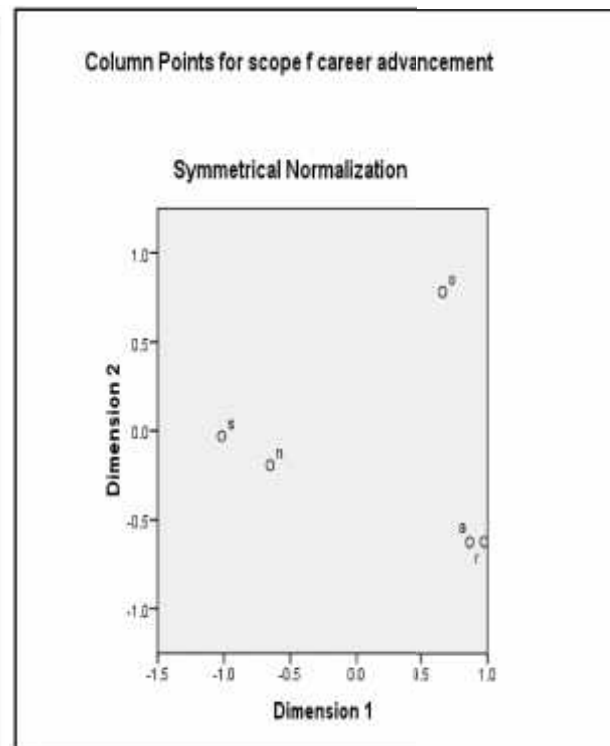


Figure 2

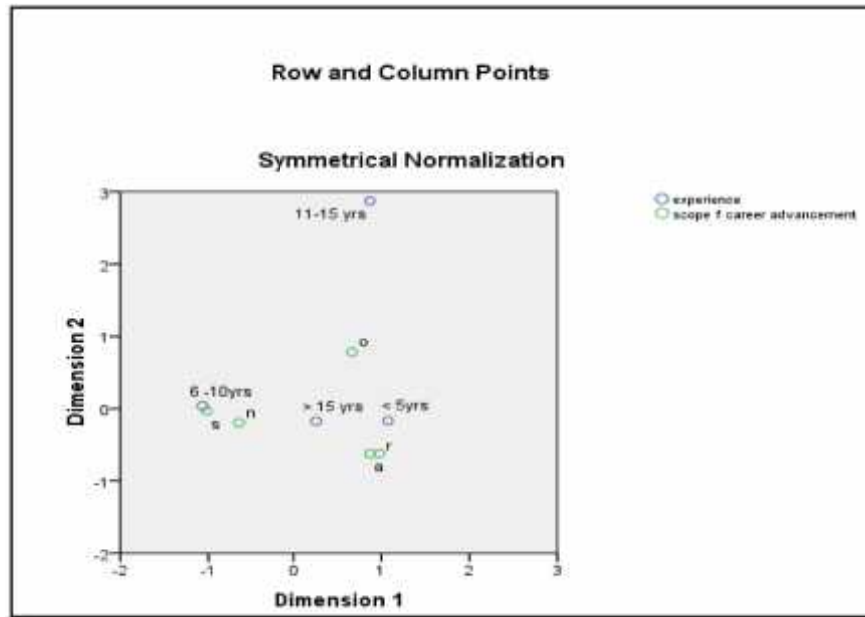


Figure 3

The bi-plot is a visual display of each of the values in the data, plotted with their axes. Through this, the chi-square reveals the strength of the trends within the data, based on the points of distances. The distance between the row and column points explains their similarity or dissimilarity. Points that lie close to each other explain similar profiles and vice versa. Symmetrical normalization is used to standardised rows and column data to enable easy comprehension. From the bi-plot, it is seen that the experience between 6-10 years and the scope for career advancement are very close to each other for the response “sometimes”. It is also found that the responses to the scaling factors “always” and “rarely” lie very close to each other, reflecting a similar thought process among the respondents in these two scales. The scatter plot also reveals that the scales “never” and “sometimes” are marginally distant from each other. However, the response to “often” is farther away and significant from any of the other 4 scales. As regards the experience of the respondents, the distance is the maximum in case of 11-15 years.

Inference

From the above analysis, it is found that the respondents who have an experience ranging between 6-10 years only perceive that their retention decision is “sometimes” backed by the factor “scope for career advancement”. This opinion could be due to either gender discrimination or gender based pay structure, which is a commonality in many an organization. The entire study reveals that women working in the IT sector normally are settled in their job with the hope for a better career progression “sometimes”, is a vital retention factor only when they have worked between 6 and 10 years. In the infancy stage of their career, the lure for money and job security normally rules the roost. But with the passage of time, they realise that career progression plays a very significant part in their growth patterns. Normally when they have put in a decade of service, other factors like work life balance and HR policies tend to dominate their thought processes. By the time they have completed about 15 years of service, they find the concept of “glass ceiling” looming large ahead of them that paves way for a lot of stress leading to attrition.

Suggestions

From the above study, the researcher has observed that there is a scope for improving the existing situation as discussed below:-

- Employees with less than 5 years of experience need to be trained adequately, and the training module should highlight their chances to progress in their career, subject to the satisfaction of certain criteria, for which the training is imparted.
- Such training imparted should contribute substantially in ensuring that women employees are enabled to scale up in their career.
- As the respondents with over a decade of experience stand apart from the others, they should be infused with a sense of job security, so that they contribute their fullest to the growth of the organization.



- The IT sector should incorporate changes in their HR policies that encourage women empowerment and nurture career progression.
- The general practice in IT companies dissuades the continuance of service from experienced personnel (over a decade service), by calculating the pressing financial implications due to this. But IT companies should outgrow this practice so that attrition is fast supplanted by loyalty.
- Organizations to fully comprehend that the cost of retention is far cheaper than the cost of recruitment, not including the training costs for an ease in slipping gracefully into the system.
- Several retention strategies like the buddy scheme, mentoring, succession planning, recognition, employee engagement, employee health and safety initiatives, conduct of employee wellness programs and flexible working hours to be implemented, to reap the twin benefits favouring both the organization and the employees simultaneously.
- The hovering practice of issuing the “pink slip” without prior notice is a typical characteristic of IT companies wherein the emotional balance of the employees is totally toppled. Hence, to overcome this, the organization has to educate on a periodical basis its employees about the pressing demands of the job, which need to be fulfilled to qualify for a promotion.
- *“People leave when they don’t feel appreciated. That’s why we’ve made recognition a really high value. Our business is people – capability first; then you satisfy your customers; then you make money” – David Novak, CEO, Yum! Brands...* So, it is suggested that the HR policies and practices must not only recognise the work and contribution of employees, but also appreciate and encourage them, for the long term twin benefit of both the management and employees.
- *“Your job is going to fill a large part of your life, and the only way to be truly satisfied is to do what you believe is great work. The only way to do great work is to love what you do”- Steve Jobs.* So, it is evident that retention and career advancement are like two sides of the same coin – the onus of which is to be borne and shared between both the employees and the management.
- Like *Forrest Grump* said, *Nick Carter “Your career is like a box of chocolates- you never know what you are going to get. But everything you get is going to teach you something along the way and make you the person you are today. The exciting part – it’s an adventure in itself”....* So the employees should do a SWOT analysis and identify their core competencies and nurture them and push themselves outside their comfort zone to carve a niche in their career.

CONCLUSION

When the above are practiced, a positive change in favour of retention is bound to happen. With an acute paucity in experienced, competent and skilled hands, nearly all corporates are faced with the threat of attrition. Besides, from the recent past only, the ability to multi-task by women employees has been recognised in open forums. This has opened potential vistas to the employees and management alike to cash in on. The versatile skill set of women employees to be fully exploited by the management with a simultaneous scope for career growth that encouragement and challenging assignments can get. When they are fully convinced that their contribution for organizational betterment is linked with their career progression, they will tend to push themselves to the maximum, and even tread out of their comfort zones. With current day women being financially and emotionally independent, their designations and chances to leave a mark in their chosen profession is becoming the order of the day. It is also fascinating to note that the IT sector tops the charts in giving fancy job titles that fan the ego of their employees and tips the scales in their favour. To recollect the words of **Andrew Grove, Co-founder and Chairman, Intel Corporation** *“The sad news is, nobody owes you a career. Your career is literally your business. You own it as a sole proprietor. You have one employee: yourself. You need to accept ownership of your career, your skills and timing of your moves”.*

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