Exploring Factors Leading to Intention to Participation on Training: An Exclusive Study on Software Engineers of Virtusa (PVT) Ltd

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Abstract -IT companies are having series of training programs in order to update its' workforce with the new trends in the technological environment. Even though companies are spending thumping amount of money in Training, only few are benefited by the training programmes. Company records revealed that there is a less participation on training. The study is about finding the factors behind this scenario, as to why employees are not intended to participate in trainings, with special references to software engineers at Virtusa (pvt) Ltd. To conduct the survey the researcher got a sample of 80 participants, where the population of the study is 720 software engineers According to literature, the factors affecting the to training participation divided in to two as organizational factors and personal factors. Data was analyzed by SPSS statistical software, using factor analysis. Regression analysis also conducted to show that these factors are affecting the intention to participate on trainings. The results show, among organizational factors, linkage of rewards to training, and from personal factors employee motivation, time availability, and learning intention affecting the participation of training programs. To increase the motivation and learning intent of employees it needs to have a transparent communication of objectives of training program with the participants in advance, also the benefits associated with training program has to stress to the audience in advance. Finally both the company and the employee is achieving their expected goals by having a motivated staff member.

Key Words: Learning Intention, Motivation, Rewards Linkage, Training

I. INTRODUCTION

Training is an essential process which should be cautiously designed and implemented within all firms. Training will finally leads in achieving organizational goals in the most efficiently way. Because of the importance of training to the company, the demand for training has now been increased nationally and globally. Companies usually follow different types of trainings to meet strategic demands of the company.

Due to the above reasons researcher has considered to conduct a research on mentioned concepts. Company which the research report is addressing is to, Virtusa (pvt) ltd. It is a leading IT company in Sri Lanka with around 2500 of employee in place.

Companies are usually conducting many training programs per a month. Although, records shows that there is less tendency to participate to training programs. Training and development has considered as a common factor used by many industries in order to enhance capacity of employees. Among them IT industry plays a major role as IT industry is a knowledge based industry. Meanwhile, It is a labour intensive industry unlike capital intensive industries. If there is more man involved, obviously there's more training involved. As human beings need to update knowledge, practices of themselves time to time [3].

There is a growing awareness of the impact of IT on businesses, both top line and bottom line. Therefore, there has been growing focus on new technologies. Many international firms are using different technologies to give more competitive advantages to its clients. So again IT companies are changing their existing technologies drastically. IT firms using more server and mobility, business intelligence, cloud computing, next-generation workspace, and collaboration technologies [15]. Adopting stated type of new technology indirectly means they are transferring new knowledge within the company. Hence they are using massive training programs to its employees.

II. PROBLEM STATEMENT

There have been a number of valuable studies regarding trainings and effectiveness of trainings. But in the Sri Lankan context there are fewer researches based on this topic. Hence a research gap is avaiable on this regard. By doing this research the researcher hopes to fill the existing research gap. A substantive empirical study has not been conducted to investigate, software engineers' intention to participate in training in IT sector of Sri Lanka. This is the research gap that will be primarily addressed in this research.

In each month there are different need basic training programs are conducted by Training division of Virtusa (pvt) ltd. According to the records, at the end of the day very few people are participating to the training program. Majority of the audience are not participated to the program. So this became a wasting of time and money at Virtusa.

The training division is contributing a lot of time and effort in organizing these different training programs. There is at the

same time, a considerable amount of budget allocation for the training division from the whole company budget. This amount is wasting without adding a value to the company. Hence the problem here is less participation to training programs by software engineers at Virtusa (PVT) Ltd.

Table 1: Training Participation

Name of the Training	Number of nominated Participants	Actual Number of participants attended to the session	% of actual participants from total nominated Participants
Selenium	35	15	42
ADF training	32	17	53
Big data training	53	28	39
Management Development Proogramme	45	22	48

Source: Executive Dashboard for the 3rd quarter 2015- Virtusa (Pvt) LTD

III. RESEARCH OBJECTIVES

Primary objective: To find the factors behind the less participation of employees to training programs. Secondary objectives: To give suggestions for trainers, trainees and organizers to increase training participation, to find the motivating factors to increase employee participation to training programs and to find demotivating factors that hinder employees from participation to trainings.

IV. LITERATURE REVIEW

Training, in the most simplistic definition, is an activity that changes people's behavior" [7]. As in [8] training is a part of human resource development, along with the other human resources activities such as recruitment, selection and compensation. Reference [11] defines, Training is the process that provides employees with the knowledge and the skills required operating within the systems and standards set by management. To increase the commitment level of employees and growth in quality movement, senior management team is now increasing the role of training. He further stated Training could be enormously demanding and should be in-depth; lack of training or poor training brings out high employee turnover and the delivery of substandard product. Reference [7] saying there are 2 basic factors effects to participate on trainings such as Organizational and personal factors. In the same study revealed that organizational factors are Supervisory support, Quality of trainings, Rewards linkage to trainings and personal Factors are Motivation, Future career expectations and Learning Intention of employees.

As in [11], without motivation professionals won't invest the effort required to change behaviors. There are many ways an organization can help participants develop the motivation to learn new skills, including conducting pre-training skills assessments and establishing professional skill development plans, or coupling the training with some form of post-training certification and recognition program.

Training motivation results in training outcomes that ultimately influence job performance [12]. Individual or personal motivation factors vary from person to person because every individual has different personality type, need, want and demand. Training transfer depends on individual and situational traits further positive transfer climate also enhances motivation to learn [5].

According to [15], although organizational learning theory and practice have been clarified by practitioners and scholars over the past several years, there is much to be explored regarding interactions between organizational learning culture and employee learning and performance outcomes. This study examined the relationship of organizational learning culture, job satisfaction, and organizational outcome variables with a sample of information technology (IT) employees in the United States. It found that learning organizational culture is associated with IT employee job satisfaction and motivation to transfer learning. Turnover intention was found to be negatively influenced by organizational learning culture and job satisfaction.

As in [20] that higher self-expectation sled to higher training performance in two studies of military personal. Meanwhile [9] stated that mangers in high need for achievement are applied new knowledge got from trainings. That indirectly means those who have strong need to achievement are tended to participate in trainings.

Supervisory support has been cited as a key work environment variable [28]. Employees look towards their supervisor for important information regarding how to work successfully within the social environment of the organization. Employees who perceive that a training program is important to the supervisor will be motivated to attend, Learn and transfer trained skills to the job [11].

As in [10] participants were more likely to attempt to use the training if they perceived it as clearly relevant to work-related activities. Organizational climate was found to be the most important factor bearing on efforts to apply new knowledge in the actual job setting.

V. RESEARCH METHODOLOGY

Sampling Method

This research used convenient sampling, because it is difficult to reach out to software engineers with their busy schedule. Here the sample consists of 80 software engineers out of 10 projects where the whole population is 720.

Method of Data collection
Structured questionnaire was built using questions from multiple relevant sources. It is designed under two parts; General Information and Information regarding software engineers' intention to participate in trainings. The questionnaire consists with 36 questions.

Conceptual Framework

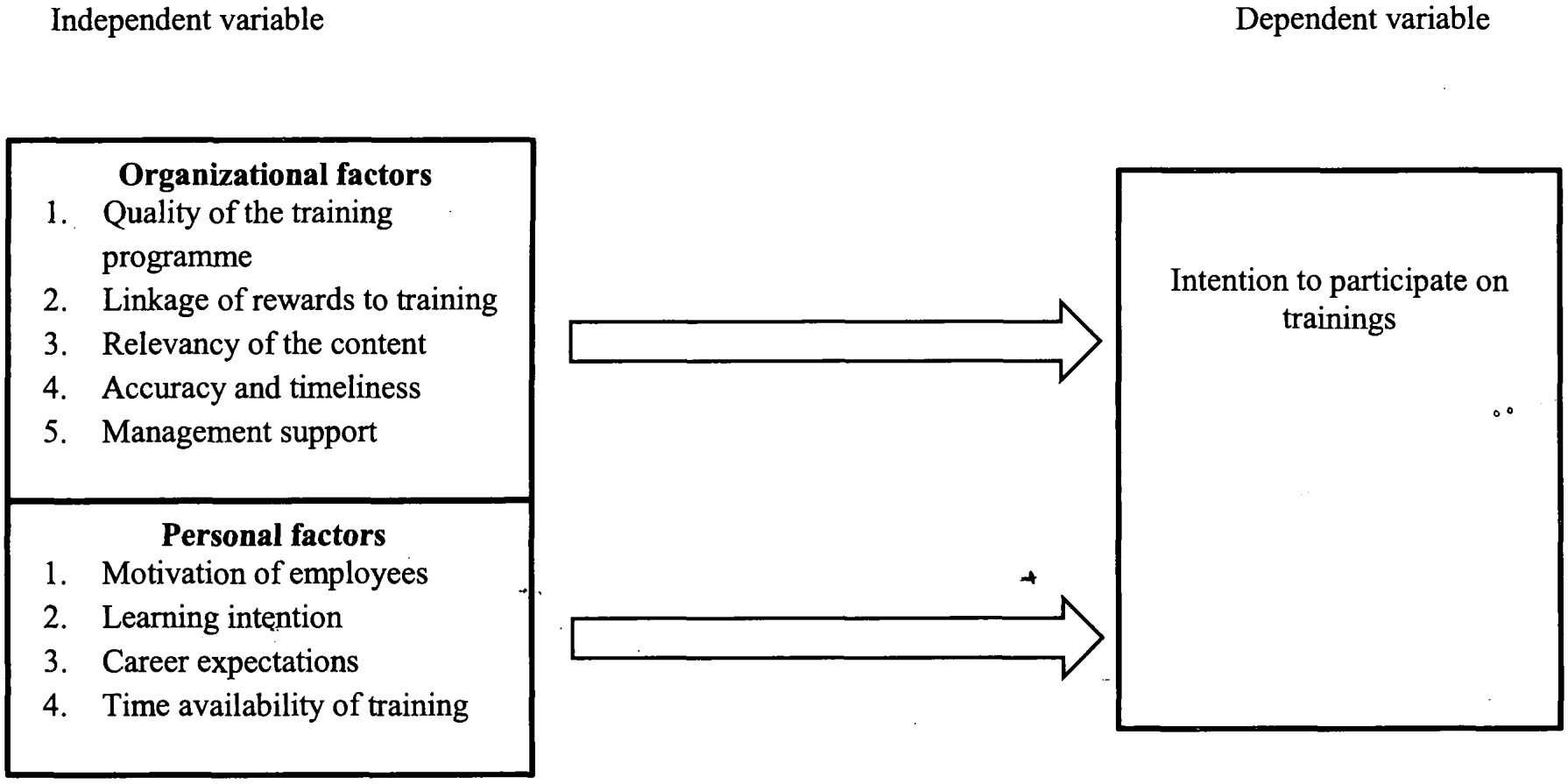

Figure 1: Conceptualization

Table 2: Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Management support	80	1.80	2.60	4.40	4.4560	.46955	.220
Quality of training	80	1.71	2.29	4.00	3.1457	.40559	.165
Relevancy	80	3.00	2.00	5.00	3.5200	.76238	.581
Accuracy and Timeliness	80	3.00	2.00	5.00	4.0600	.68243	.466
Future Career Expectations	80	3.00	2.00	5.00	4.6800	.76772	.589
Linkage of trainings to rewards	80	3.00	2.00	5.00	3.2100	.56614	.321
Previous Experience	80	2.00	2.00	4.00	3.5800	.57463	.330
Learning intention	80	2.40	2.60	5.00	2.3600	.82413	.679
Time Availability	80	4.00	1.00	5.00	2.5600	.97227	.945
Employee motivation	80	3.67	2.33	5.00	2.5933	.02251	1.046
Valid N (listwise)	80						

Data analysis

Deductive method was used to analyze the data. Factor analysis and Regression were the main statistical tools used. Also Mean, Mode, Standard deviation and Cronbach's alpha values also have taken into consideration. Under the quantitative method, the Likert Scale was included to measure the findings. Five-point scale running from "strongly disagree (1)" at one end to "strongly agree (5)" at the other end.

VI. FINDINGS

According to the figures support given by management can be described as a satisfactory dimension effects to training, the mean it is 4.45. Quality of trainings has got a mean of 3.15, which emphasize that quality of the trainings is at a moderate rate. Not close even to 5 or 1. This mean has deviated among results is at 0.469. Relevancy of the training has got a rate of 3.5, again a moderate figure. So it might be a hidden caution that this figure can be go down from 3 to 2 or less. Accuracy of the session has a good rating where the mean value is 4.06 and standard deviation is 0.68. Timeliness refers to the up to date training content which is not outdated. Both factors got a good score.

Future career expectations factor is also at a good rate, where it scores 4.68. Less reward may lead to less participation to trainings. Here employees have respondents that less linkage is available between trainings and rewards at Virtusa, mean score is 3.21, where standard deviation is 0.566. That proves the training participation is not link to rewards at this company. Employees who have already participated to the training sessions might think again when they are going to participate to the next session. Those who have bad experience might not want to come back again. Their satisfaction on previous training is 3.58, which is at a moderate level.

The mean score for learning intention of employees is 2.58. That very low score also would be a main factor influencing participation to trainings. With the high work load employee have, they are not tend to participate on trainings. Mean score is 2.56. Again it has scored a low point for employees' motivation. The score is 2.59, which is very low.

It requires seeing whether influencing factors has a relationship to training intention of employees. Regression analysis found that all components selected in the conceptual framework has an impact to training intention by showing a sig value below 0.05.

Table 3: Total Variance Explained

Extraction Method: Principal Component Analysis.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.057	20.571	20.571	2.057	25.571	25.571
2	2.004	20.039	40.610	2.004	28.039	53.610
3	1.439	14.394	55.004			
4	1.321	13.208	68.212			
5	.936	9.361	77.573			
6	.883	8.833	86.407			
7	.434	4.340	90.746			
8	.417	4.172	94.918			
9	.259	2.589	97.507			
10	.249	2.493	100.000			

Source: Survey data

Here it can be stated that researcher has covered 53.61 % of the research variable. Last columns of the figure indicate that with the combination of 2 components, how much it has represents the variable in the actual context. Researcher explains more than half of the variable's context in the real world. That means researcher has explained 53.61 of the research variable in the actual context.

Table 4: Component Matrix
Extraction Method: Principal Component Analysis.

	Component	
	1 (OF)	2
Employee Motivation	.323	.811
Learning intention	.021	.797
Future Career Expectations	-.056	.416
Time Availability	.798	.374
Linking rewards to training	.812	.454
Relavancy	.542	-.215
Accuracy and Timeliness	.362	-.395
Quality of training	.426	-.350
Management support	.382	.177
Previous training experience	.515	.691

Source: survey data

When interpreting the factors, it needs to look at the loadings to determine the strength of the relationships. Factors can be identified by the largest loadings, but it is also important to examine the zero and low loadings in order to confirm the identification of the factors. This factor component table shows the loadings of each factors to a component. To employee motivation it is 0.811, where to learning intention, it is 0.797. That two is fall in to one category. Time availability variable has got a factor loading of 0.798, where linking rewards to trainings has got a factor loading of 0.812.

Finally all variables were fallen in to 2 components. That means this data can be categorized in to two based on the similar nature. Time availability and linking rewards to training has fallen in to one component and employee motivation and learning intention has fallen in to other component. According to the similarities researcher can categorized and label them such as, Component 1: Organizational factors. Component 2: Personal factors

According to Field (2005), factors which associated with more than 0.7 of factor loading are considered as influential factors. Here the results table shows 4 factors that exceeds 0.7. They are, time availability, linkage of rewards to training, employee motivation and learning intention
It interpret that the mentioned factors has a highest impact on the intention to training participation than all other factors. It has automatically accepted these 4 factors and rejected all other 6 factors.

VII. CONCLUSION

The sole objective of the research is to find the most influential factors affecting intention to participate to training programs by software engineers. It has achieved by conducting a survey. Out of all the factors, the most influencing factors are, motivation of employees, including both intrinsic and extrinsic motivation, learning intention of employees, linkage of rewards to training and lack of time availability.

Out of those factors also most influencing factor to intention to participation on training program is the learning intention of employees. It found that employees whose age is above 30 are the not willing to participate on training to the most. So having them motivated is a challenge to company. They are but willing to have extra earnings on participation to trainings. Hence we can conclude that with age, the training intention of employees is gradually goes down.

Results shows that trainings are not link to rewards at the company. Rewarding employees is in extrinsically motivated employees. Results again proved that almost all employees are like to have extra earnings as a result of trainings. Secondary objectives were successfully achieved hence researcher gave suggestions for trainers, trainees and organizers to increase training participation and found the motivating and demotivating factors to increase employee participation to training programs. Motivating factors to increase participations are employee participation are linking rewards to trainings, according to the results of the research, and by increasing quality of training also participation can increase.

VIII. RECOMMENDATIONS

It needs to stimulate most influencing factors effect in training intention of software engineers, so that the training participation can be increased. At the same time factors that hindering employees from participate to training also has to be minimize to the optimum. Following are the suggestions given by the researcher.

To increase employee intention to learn: Provide a clear understating about the objective of the training, Having a kick-off meeting, Link training with practical applicability, Always interact with employees designing, implementing and evaluation training.

To increase extrinsic motivation: Link rewards with training.

To increase time availability: Software engineers are often working with clients Deadlines. That is a one reason why they do not intend in participating to training programs. Researcher suggests that allocating a specific time slot to participate in training programs. Here employees in different level have to participate in different training programs. By considering the deadlines of the client project, it has to set.

Technology-enabled training: Use more social media in communicating about the training, Use different seating arrangements in the training area, Use more self-learning in training than instructor led trainings, Use techniques like gamification, video-based training and mobile learning

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