IMPACT OF HACKATHONS ON EMPLOYEE ENGAGEMENT IN THE IT ORGANISATIONS

Milind Bhore[1], Deepika Pandita[2], Swati Tayal[3], Dhruva Pathak[4]

[1,3,4] Symbiosis International (Deemed University) Pune
[2]Symbiosis Institute of Business Management Pune, Symbiosis International (Deemed University) Pune

Abstract

IT organisations operate in a very fast paced and highly competitive environment. Employees of the organisation are critical assets of the organisation. There is a crunch of talent with the right skills, in the market. Turnaround time for the business is reduced by the ever demanding clients and this creates a huge pressure on the organisations to deliver the best with the least and within the fastest time. Talent and work both are no more readily available in the market and there is a huge competition to grab both. IT organisations hunt for the best of talent in the market and are willing to invest for skills in demand. They face a great pressure and challenge in on-boarding employees besides attrition is high. In such an environment, engaging the current work force is extremely important. The workforce in the IT sector is knowledgeable and talented. They feel excited to work on real time business challenges and work in teams to develop innovative solutions and applications. It is extremely challenging to keep the young workforce excited and engaged at work continuously. Organisations adopt to various innovative interventions to engage the talent positively and leverage their skills and strengths to their competitive advantage to succeed in the market.

Keywords—Talent, Attrition, Innovation, Hackathons, Employee Engagement, Learning, Collaboration, Belonging, Achievement

I. INTRODUCTION

In today's fiercely competitive environment, business' who are in possession of intellectual property, innovation and creativity are at a real competitive advantage.

Shakweh emphasised in his research that the employees form the Human capital in the organisation and serve as assets for the organisations in such a competitive environment. The Information Technology sector is fast paced and faces challenges of acquiring and retaining talent in such a competitive business world. In the IT organisations attrition is high and finding talent and on-boarding them is a challenge. In such environment, engaging the current work force is extremely important. The current workforce is knowledgeable and smart and feel excited to work on business challenges and develop innovative solutions and applications. They thrive in an environment which supports creativity, collaboration and innovation. They stay engaged if they find a purpose for working with the organisations and wish to achieve at a fast pace, else they attrite and move to another organisation which serves their purpose.

II. LITERATURE REVIEW

The term Hackathon originates from combining two terms hack (exploratory in nature and not related to crime) and marathon.

Gerard and Catherine explain, hackathon as an event during which differently skilled IT professionals such as, computer programmers, hardware engineers, testing professionals, project managers and others who are involved in building software, team up and collaborate intensively over a short period of time on software projects. The period could range between 24 to 72 hours at a stretch during which the teams of professionals work on predetermined unique business challenges and problems and try to develop creative solutions to overcome the problems. During the hackathons, teams are challenged with real time business problems and are encouraged to experiment and be creative while developing solutions. It is observed that people are very excited and charged up with the fact that they are going to build something creative from the scratch. Teams comprising of professionals with diverse skills and experience come together to build on creative ideas to build something real and potential business value.

Adams (2014) in his work explained that Hackathons are not merely events but a platform for the differently skilled talent to come together as a team and perform under certain pre set rules. It is a great opportunity for employees to hone their skills such as leadership , decision making, time management, communication with people

within the organisations and outside of their organisation, risk taking etc. Its an opportunity to build their personality and reflect on their skills both technical and leadership skills. How many   employees or fresh talent in the organisation possess skills to lead teams to deliver a innovative or disruptive product or app under certain specific conditions and within a limited specified time. These are the qualities employers search for in the talent when they do hiring decisions. Hackathons provide for a great opportunity for the employees to develop both technical and leadership or soft skills and that to at work. It is upgrading of skills on the job. These skills are most valued and sort after in todays competitive market.

Managements make every effort to build the required talent pool and leadership pipeline from withing the organisation and are ready to invest in that. Hackathons is one great platform through potential leaders can be identified. It is a perfect set up to spot talent at work in a a very natural work environment posed with all the possible situations and challenges that leaders and managers would face in their real work life. Leader as we know are expected to be able to work in a team structure. Leaders are expected to take the correct decision and solve realtime problems that the business faces.They ae expected to guide people and channelize their strengths towards the expected outcome for which they need to effectively communicate across ranks inside and outside the organisation.Leaders are expected to plan, organise, prioritize and delegate work to ensure that they achieve the desired outcome within a specific time frame. Leaders are not just expected to have information at their hand but also should be able to process and analyse it and make smart decision which will positively impact the business. Leaders are expected to able to crunch numbers, have technical expertise and able to create reports from the information for decision making and are able to influence people with their decision and leadership skills. Hackathons serve as a perfect set up to exercise and test all these skills and at the same time deliver an outcome.

In the IT organisation, managements are concerned about the engagement of the employees. Unlike in old days or in traditional business', managements are more concerned about just the productivity of the employees at work. The business' are transforming to more evolved and employee enabled organisation environment. The management nurture talent as their retention is of prime importance for the success of the organisation. Today many organisations are concerned for the wellbeing and happiness of their employees as they strongly belive that happiness improves retention amongst employees. Its known fact that hapinees increase the, engagement, productivity and thereby profits for the organisation. Happy employees stay retained and are less likely to look for a job change than dissatisfied employees. (Pink, 2006, p.186-187; Collinson, 2002)

Friedman and Lewis in their research have highlighted how the leaders in the IT era and global business scenario are doing their best possible to ensure that employees working in their organisations are engaged at work. They have realised that the leadership and management style of the past will not work now and they hae to quickly adapt to the changing and highly competitive market practices and leadership styles. They understand that competition from small but higly creative and fast paced organisations can eat up their business. There are several start up success stories who have grown into multi billion dollar businesses in the information age and it is the talen in the organisation which makes this possible. Their research describes what kind of leadership is required to transform business into innovative enterprises which will sustain and succeed in this fast passed and highly competitive global business environment. They have further clarified that leaders of today should have a clear vison and ability to create an enabled environment in the organisation which encourages creativity and innovation. Hackathons are one such idea to help create an environment to encourage and foster talent creativity and innovation. The Leaders clearly encourage employees to hold and participate events like Hackathonsg to groom the next level leadership and technical skills amongst their staff.

Carr (2010) cites that the results of one of the leadership survey conducted amongst 1500 CEOs and leaders across 60 countries showed that amongst the top leadership qualities, Creativity topped the leadership quality followed by Integrity and Global thinking which ranked in second and third. These are the skills the top leadership look for and want to nurture in their organisations. They try to create a environment in which such skills and talent can be fostered. The leaders have realised that the internet has thrown open equal opportunities to all players. Today technology has enabled everyone to compete in the market, irrespective of the size of the business. Competition can arise from any corner of the market and one cannot really make out where or from whom they will face competition. But one thing that they can definitely plan is for hiring or grooming talent in the organisation which is good enough to beat all competition and enable organisation success. Talent enagagement is prime important and organisations depend on these skills to deliver and help the organisation sustrain comepetition an continue to grow in the market.

In 1950, Peter Drucker observed that Corporations are an organisation built on trust and respect for the employees and not just a profit making machine. (Byrne, 2005). This is true even more in the information age and internet era where the major assets of the organisations are the intellect capital of their employees. One good idea can earn the company billions and a bad one can destroy it. Leaders do everything possible to engage the talent as they realise that engaged employees feel connected to their jobs, and engaged employees do anything possible to make their organisations successful.

Organisations organise different types of Hackathons with a purpose, which could vary from business specific to identifying a solution to a complex technology problem, to building an application or solution for social application or as a competition to tap potential talent from technical institutions or building gaming apps or to innovate and build disruptive technologies.

Hackathons have become an important intervention and approach to encourage digital innovation with their assets and resources for many software companies as well as traditional manufacturing organisations. Most of the corporate hackathons are not profitable but still serve as a great platform for innovation and building quick and creative solutions to unique business challenge. New business ideas may also emerge out of it and give birth to some path breaking innovations which may have the potential to generate revenue in the future. Sometime the hackathon winners may receive funding for taking ahead their solution to development or may attract a good amount of prize money. Hackathons are also termed as Hack-fest or Code-fest or as Code sprints during which extensive and continuous coding (sprint) is done to get a solution to a predetermined problem as compared to open ended hackathon conducted to innovate. Hackathons serve as a great initiative for corporate branding for the organisers, a great networking and competition platform for all participants and definitely a platform to innovate and create.

III. RATIONAL OF THE PAPER

There is little or no work in the area which explains the various objectives for which employees participates in Hackathons and the impact of such participation on their engagement at work. Hence this study attempts to fill this gap.

IV. OBJECTIVE OF THE STUDY

This study was to taken up to determine if Innovative interventions like Hackathons could help in employee engagement in IT organisation.

V. RESEARCH METHODOLOGY

Discussion with experienced professionals from the IT Organisations revealed that Hackathons are a great intervention for innovation and in engaging critical talent at work. The discussions further revealed that there are various reasons for employees to participate in Hackathons and that is a critical factor in creating employee engagement.

So during this research Primary Data was collected through a survey conducted in IT organisations.This was done by running a questionnaire designed to seek responses from employees working in the IT organisations around few of the reasons why employees participated in Hackathons and also to understand if they felt enagaged at work. Confirmatory Interviews were conducted to get further insights into the experiences of the survey respondents.

Literature review of papers and publications was done to get a broad view about Hackathons in IT organisations and its impact on employees.

VI. FINDINGS AND DISCUSSIONS

After receiving the data from the survey, the same was put to analysis. The data is qualitative and is gathered on a Likert scale of 5 i.e Strongly Agree, Agree, Neutral,Disagree and Strongly Disagree. Based on the data we propose four hypothesis.

With the data available it was possible to run a Chi-Sqaure Independence Test for four different objectives of why employees participate in Hackthons and employee engagement. The outcome of the analysis is as below.

Table No.1 Objective to participate in a Hackathon to solve a unique business problem lead to employee engagement.

H_{01} – Participation in Hackathons with the objective to solve unique business problem leads to employee engagement at work in IT organisations.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	19.006ᵃ	9	.025
Likelihood Ratio	15.051	9	.090
N of Valid Cases	34		

When we run the Chi-Square Independence test to understand impact of participation in Hackathons with an objective to solve a unique business problem on employee engagement at work. The null hypothesis (H_{01}) stated above stands rejected and we get a score of 0.025. This means employees feel engaged at work when they participate in the Hackathons with an objective to solve unique business problem.

Table No.2 Objective to participate in a Hakathon to win a prize leads to employee engagement

H_{02} – Participation in Hackathons with and objective to win the Prize leads to employee engagement at work in IT organisations.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	16.931ª	9	.050
Likelihood Ratio	18.911	9	.026
N of Valid Cases	34		

When we run the Chi-Square Independence Test to understand the impact of participation in the Hackathons with an objective to win the Prize on employee engagement. The null hypothesis (H_{02}) stated above stands rejected and we get a score of 0.050. This means employees feel engaged at work when they participate in the Hackathons with an objective to win the prize.

Table No.3 Objective to participate in a Hackathon to build a Disruptive Technology or App or Solutions leads to employee engagement.

H_{03} - Participation in Hackathons with and objective to build a Disruptive Technology or App or Solution leads to employee engagement at work in IT Organisations.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	13.472ª	9	.142
Likelihood Ratio	8.947	9	.442
N of Valid Cases	34		

When we run the Chi-Square Independence Test to understand the impact of participation in the Hackathons with an objective to build a Disruptive Technology or App or Solution on employee engagement. The null hypothesis (H_{03}) stated above stands accepted and we get a score of 0.142 which is greater than the 0.05 acceptable Significance value. This means employees do not feel engaged at work when they participate in the Hackathons with an objective to build a Disruptive Technology or App or Solution.

Table No.4 Objective to participate in a Hackathon to gain a new experience leads to employee engagement.

H_{04} - Participation in Hackathons with an objective to gain a new experience leads to – employee engagement at work in IT organisations.

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.421ª	6	.754
Likelihood Ratio	3.316	6	.768
N of Valid Cases	34		

When we run the Chi-Square Independence Test to understand the impact of participation in the Hackathons with an objective to gain a new experience on employee engagement, we get a significance value of 0.754. Both "getting new experience" and "employee engagement" are categorical variables. To test the significant relationship between these two, the acceptable significance value is 0.05. Since the achieved value is greater than the acceptable value it can be said that employees do not feel engaged at work when they participate in the Hackathons with an objective to gain a new experience.

VII. CONCLUSION

After doing an analysis on of the responses received and having one on one discussions with the respondents it is observed that many of the praticipants agree that Hackathons serve as a great intervention for Employee engagement when the objective of the Hackathon is to solve a business problem or to compete and win a prize. Employees also participate in Hackathons and experience collaboration, learning and networking. It helps them bond together in teams and also at the same time feel a sense of achievement as they are being creative and innovative to build something totally out of scratch which may have a potential business value.

Hackathon culture in the IT organisation is a great intervention which creates learning experience, collaboration, networking and sense of pride and achievement. Hackathons bring out the creativity and innovation

element amongts the participants. Employees feel enagaged at work when they participate in the hackathons with an objective to soleve a business problem or when they compete in Hackathons to win a prize. Winning also indirectly relates with the other factors such as a sense of achievement and sense of pride for the organisation.

VIII. LIMITATIONS AND FUTURE SCOPE

The survey results touch upon different dimensions of reasons of participation in Hackathons impacting the Employee Engagement however the focus here is limited to impact of hackathons on employee engagement in the IT organisations. This study is limited to find out the impact of the objectives to participate in Hackathons on employee engagement in IT organisations. However a further study can be done on the impact of other dimensions such as synergy and excitement, team work and collaboration, sense of achievement, sense of belongingness, learning experience on employee engagement. Detailed survey can be run in multiple organisations across different sectors. There is scope to take up another study at a even larger scale than this, across more organisations and sectors to understand the effect hackathons have on employee engagement in different organisations. Another study can be conducted to confirm if the age and tenure of the participants impact the responses or the outcome of the survey.

REFERENCES

[1] Adams (2014). The 10 skills employers most want in 2015 graduates.
[2] Byrne (2005). The man who invented Management. Why Peter Drucker's ideas still matter.
[3] Carr (2010). The most important leadership qualities for CEOs? Creativity.
[4] Collinson (2002). Managing Humour. Journal of management studies.
[5] Darso, L. and Hoyrup, S. (2001) Developing a Framework for Innovation and Learning in the Workplace
[6] Friedman and Lewis (2016). A new Kind of CEO for the Global Information Age
[7] Gerard, B. and Catherine.M. (2014). Digital Innovation: The Hackathon Phenomenon.
[8] Kitsios, F. and M. Kamariotou (2018). Open Data Hackathons and Innovation: Strategic Planning, Implementation and Evaluation of Civic Applications.
[9] Sorenson, S. (2013). How employee engagement drives growth. Gallup Business Journal.
[10] Shakweh (2014). Should CEO be a change agent.
[11] Senge, P. (1990). The Fifth Discipline: The Art and Practice of the Learning Organization.
[12] Pink (2006). A whole new Mind.NEW York. Riverhead Books.