

**A study on Integration of Gamification towards IT
Employee Motivation: A Case Study**

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Degree of Master of Business Administration in Information Technology

Department of Computer Science and Engineering

University of Moratuwa

Sri Lanka

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DECLARATION

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ABSTRACT

The purpose of this research study was to discover if gamification can be implemented in large Sri Lankan IT Companies to improve the employee motivation and increase the outcome. Also, to provide best practices and recommendations for the managers and HR personals to implement gamification in a way that suits the company culture and size.

This study mainly focused on suitability of gamification for large Sri Lankan IT Companies. Based on the literature analysis, a framework to evaluate the current status and the applicability of gamification was derived. Then open-ended interviews, which based on the derived framework were conducted with nine representative managerial level employees from four large IT companies. An empirical qualitative analysis was used with grounded theory approach to conduct an in-depth analysis of nine management personals from these four companies.

Research study discovered five main elements of gamification, namely points, leaderboard, badges, levels and rewards as the mostly researched or considered effective elements in gamification concept. Major findings were that team culture followed in large companies for years and large number of people to be managed by gamification were main challenges. And one of the remedies is to apply divide and conquer strategy to make the gamification overcome this issue.

Keywords: Gamification, Software Development, Employee Motivation

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LIST OF ABBREVIATIONS

SPI – Software Process improvement

LOV – List of Values

IT – Information Technology

PLB – Points Leaderboard Badges

1. INTRODUCTION

1.1. Background

All organizations and businesses want to be successful at some point of time. Most organizations assume that the employees are the organization's main assets that can lead to the organization Success. In the current era markets are highly competitive and organizations are facing problems to retain employees. To face the problem, a strong and positive relationship should be created between the organization and the employees and maintained. The employees should be motivated in an organization, to achieve the goals and achievement, to fulfill the dream of Success.

Software companies have become basic factor to the growth of many businesses and it is important to know that software companies should not be underestimated than other factors. Software companies need to maintain and enhance their competitiveness and for that they need to improve their processes. However, software companies do not necessarily share the same characteristics and goals as other organizations (Richardson, 2007). There are some unique aspects of software companies that need to be understood. The way they work, their work, organizational structure and culture may differ greatly from the other non- IT organizations. For example, in software companies, employees often play many roles and most employee are directly or indirectly involved in the software development process, regardless of his field of studies or favor. Considering their crucial part in the companies' process infrastructure their motivation for Software Process improvement(SPI) must be considered as one important factor for successful implementation. Their motivation to adapt to new practices and to daily work is significant for the SPI success (Kaltio, 2000).

For many years organizations are using/following different practices to keep their employees motivated. Gamification is one of them, which is rapidly gaining popularity and becoming the new generation trend in organizations and industries. The term “Gamification” surfaced in the digital media industry in 2008, but was not looked upon till 2010. Gamification is defined as the use of game design elements in non-game contexts (Juan, Lilia and Marcela, 2013).

The focus in this research is on studying gamification in large Sri Lankan IT firms in Sri Lanka. The data collected will be analyzed and studied with the help of the previous studies. This paper aims at providing a more comprehensive views and recommendation on applying gamification to a large Sri Lankan IT company.

1.2. Motivation

IT related jobs are most of the time challenging and are tied with tight deadlines. If the workplace and the work can be made less stressful and fun by motivating employees through various kinds of practices, the practices will improve the efficiency of the employee and help the company to get a better outcome.

In that case many sources indicate that the gamification concept is successful among many other companies on making the work place fun and enjoyable. So, this research study is conducted among the Sri Lankan IT industry with focus on large IT companies to see if it can be adopted.

1.3. Research Scope

This research mainly focuses on Identifying the applicability of the gamification practice in Sri Lankan IT companies. This research reaches into some of the following topics/ subjects to understand and study about employees and motivation

- Organization structure
- Employee Motivation
- Employee Benefits and Facilities
- Team structure

The research is targeted towards motivating employees of large IT companies through gamification. Here large is considered as companies having more than 1000 employees.

1.4. Problem Statement

Software industry is one of the leading industry in Sri Lanka. In-order to survive in the competitive market, organizations must offer efficient service with innovative options to its customers. With the time, technologies are changing fast, and employees are supposed to adopt to them and keep on with the fast-moving technology stack, to ensure they provide the best services to the end customer.

To ensure that the employee does not get stress or de motivated by the rapidly changing technology trends and requirements of the customers, the work place should be made fun and motivating. Many companies follow or provide almost the same facilities to the employees and keeping them motivated. When it comes to large software companies, it includes old as well as new generation of employees, this leads to need of a solution which can be adopted by both new and old generation of employees.

The concept Gamification is developed to make people interact, stay connected and enjoy video games longer. This concept is being applied in various industries and proved to be a success in keeping the work place fun and motivating employees. This can be a viable solution to the Large IT companies struggling with the above-mentioned problems.

Now some of the elements of the Gamification is already being applied, in some areas of IT industry without knowing them as part of the gamification. Currently there are no prior studies conducted on gamification and its' effect on IT employees in Sri Lanka. Therefore, this study will focus on discovering whether gamification can be a recommended to the large Sri Lankan IT companies as a motivational element and improve the efficiency.

1.5. Research Objectives

The research object is intended to contribute to the following.

- Identify Sri Lankan Large IT companies' view on the gamification Concept and potential challenges.
- Derive a recommendation on if gamification can be considered as the next Generation Motivation factor for the Sri Lankan IT Employees.

1.6. Research Significance

The significance of this study is to identify if gamification can be used in large Sri Lankan IT companies and to provide a procedural guideline and recommendations (based on the research analysis). So far there is no research conducted in this field of study in Sri Lankan context.

This study will help Sri Lankan IT organization to identify if they can adopt this new practice and improve their employee work efficiency and the project outcome. It will also enable smaller IT companies and other industries in Sri Lankan to try out this concept and improve the outcome from their organizations.

1.7. Research Methodology

This research is conducted on qualitative approach on four large Sri Lankan IT companies. Nine various level of managerial level and project lead level employees from these companies are being interviewed to collect, their experience in handling large number of employees and what are the current practices they are following and they think about the gamification and its pros and cons. Rather than going for structured questions the interview focused on getting the relevant and wide variety of data as a research on gamification is not done in Sri Lanka previously. Grounded theory is used to identify and analyze the data with the help of the conceptual framework that is derived from the literature review conducted.

1.8. Outline of the Thesis

Including the introduction chapter, this thesis consists with five chapters and each includes;

Chapter 1 - Introduction: presents the background and motivation of the research study, research problem, research objectives, research scope and the significance.

Chapter 2 - Literature review: presents a discussion on previous research efforts and their findings conducted in relation to this research study.

Chapter 3 - Methodology of the study: comprises with the theoretical framework, applied methodology approach, data sample and data collection technique.

Chapter 4 - Data analysis: present the strategy applied for analysis of the gathered interview data, detail presentation and elaboration on the findings of the study.

Chapter 5 - Conclusion and recommendation: present a discussion on result finding of the research study, suggested recommendations, limitation of the study and possible suggestions for future research areas.

2. LITERATURE REVIEW

2.1. Introduction

2.1.1. Background Study on Software Developer Motivation

Engagement in the work is the positive feeling that employees have towards their jobs and the motivation and effort they put into it (Macey and Schneider, 2008). To be fully engaged is to be involved in and enthusiastic about one's work (Falcon, 2006). Motivation in Software Engineering is studied be one of the largest impact on practitioner productivity (Boehm, 1981) and software quality management (McConnell, 1998), and continues to be 'undermined' and problematic to manage (Procaccino et al, 2005).

Motivation is often cited as a particularly important people problem in Software Engineering process. Motivation was found to be one of the most frequently cited causes of software development project failure (DeMarco and Lister, 1999).

The Standish report (1995) amplifies this findings by reporting that having access to competent, hard-working and focused staff is one of ten success criteria for software projects.

“Motivation is a soft factor: It is difficult to quantify, and it often takes a back seat to other factors that might be less important but are easier to measure. Every organization knows that motivation is important, but only a few organizations do anything about it. Many common management practices are pennywise and pound-foolish, trading huge losses in motivation and morale for minor methodology improvements or dubious budget savings.”

2.1.2. Challenges Faced by the Current IT Industries

When it comes to challenges, IT companies share similarities in how their operation works. The IT industry faces multiple challenges which can be classified into many categories, using the Internal and External Environment Scanning Model, the key challenges that have been identified are (Bhattacharya, 2005):

Internal Challenge: Recruiting and Retaining the Right Talent

Customer Challenge: Demand for Quality, Data Security and Compliance

Competitor Challenge: Direct and indirect competition

Industry Challenge: Information Infrastructure and Branding

In this context, competitor and industry challenges are beyond the scope as they relate to external factors like government, political and economic parameters and the changes in market forces. These challenges depend on the policies and conditions that are beyond the control of the enterprise. Basically,, the techniques in gamification can be employed in the situations where the enterprise has control. (Bhattacharya, 2005; Desai, 2010; Batnagar, 2007; Goel, 2007).

Splitting down the internal and customer related problems, brings the following issues based on various studies in the context of IT companies:

Employee turnover: Many of IT companies faces a lot of of turnover or attrition. For instance, in Indian context, the percentage of turnover typically can differ from 15% of the team turn over to an extreme possibility of an entire team turn over per year (Schwartz, 2007). Employee turnover specifically in BPO can be related to internal causes like monotony, shift timings, working environment (Batnagar, 2007).

In Sri Lanka it was found that more than 50% of employees do not want to quit their current job within next 5 years. But 80% out of this category expect a change in their role, basically career advancement, within the organization. So, this poses a huge

challenge for an organization to retain IT knowledge workers unless they have a proper career development/promotion plan in place (Jinadasa and Wickramasinghe, 2005).

Job Satisfaction: Job satisfaction relates to the happiness at work. Reduced job satisfaction levels could result in stress. Stress is measured through three dimensions, i.e., meaninglessness, de-motivation, and exhaustion. The results of stress are lack of responsibility, lower quality, breached SLAs and other customer related problems (Kanwar, 2009).

Talent retention: Meaningless work, stressful work environment, adverse working conditions, lack of personal career development and better job opportunities elsewhere are the key challenges in retaining talent in BPO industry (Batnagar, 2007).

These problems bring forth the causes like monotony, shift work, stressful work environment, demotivation, exhaustion as the challenges that need to be managed. An interesting finding from the research is that these issues or challenges can be overcome by increasing the engagement of employees (Batnagar, 2007).

To increase the involvement of the employees, there need to be an understanding of the concerns contained in the above challenges and the factors that motivate employees.

2.1.3. Motivation Factors

This section debriefs motivation factors for employees.

Based on the above problems, multiple researchers have studied different motivation factors (Batnagar, 2007). Listed below are the motivating factors proposed to manage the challenges above(Seijts, 2006), and these are adopted to present the view of employees.

Connect: to the level in which the employees understand that organization cares and values their contributions

Career: to the level in which the employees thinks their work to be ‘challenging and meaningful’ and improves one’s career development. This relates to a view on growth opportunities, career development, and promotions.

Clarity: to the level in which the goals, rules and the organizational operations are transparent and understood by the employees.

Convey: to the level in which employees understand the goals and receive feedback.

Congratulate: praise and recognition for the good performance for the employees.

Contribute: to the level in which one’s contribution to the ‘success and future’ of the company is understood.

Control: to the level in which employees participates in decision making and drive initiatives.

Collaborate: to the level in which the organization upholds team work over pursuance of self-interests.

Credibility: The level to which the management demonstrates transparency and high ethical standards.

Confidence: The level to which the organization demonstrates high ethical and performance standards, creating a sense of positive identification among the employees.

Gamification cannot be the answer for all the above motivation factors. The following motivation factors can be managed by gamification: **career, clarity, convey, congratulate, contribute, connect, collaborate, credibility and confidence.** Some motivating factors like **control** are not taken for consideration in the paper as these factors require broader scope of organization involvement, for example, organization needs to involve employees in decision making. Such initiatives are beyond the intended.

2.1.4. Motivational approaches used by IT industry

In Software Engineering, the outcomes of the motivated behavior of software engineers have been explored for a long period of time. According to data from the Software Engineering Institute, 70% of the cost for a Software engineering project are for the human resources. So, many problems that may lead a project to failure, leads to inefficacy in people management in the software development process, and could be improved by adopting adequate practices of team management. The software engineering industry is based on knowledge workers. So, the motivation of these professionals is indeed a key factor. (Cesar et al, 2011).

So, based on Cesar and his team's study on many existing papers on IT motivational papers they were able to find that the companies focus their motivational approach based on Growth Orientation, Career Path (9 papers), which includes career prospects, advancements and promotion.

2.2. Gamification

The term gamification is a work of trying to adopt the following concept: “gamification is defined as the use of game design elements in nongame contexts” (Deterding and Khaled, 2011). The most elementary gamification element consists of a rewarding mechanism that awards people in response of the accomplishment of certain activities, that need to be encouraged or motivated. Gamification is initially adopted as a marketing strategy to increase customer engagements and, because of its effectiveness, rapidly spread to other domains such as employee or project management (Daniel, 2013).

2.2.1. Elements of Gamification

Gamification is initially adopted as a marketing strategy and website product managers as a tool to maximize customer engagement. For example, StackOverflow, a popular Q & A(Question and Answer) site for developers, in which users receive points and badges for performing a variety of actions (Daniel, 2013).

The most common form of feedback used in games Points, Badges, and Leaderboards. They are also widely used in gamification systems, because they appear to work moderately well as extrinsic motivators (Jose, 2007).

15 different types of gamification elements are found in the basic literature review. But most frequently used are points and badges, closely followed by leaderboards, levels, rewards and unlocking. There are other gamification elements, but these were the mostly used ones (Juan, 2015) (see Fig. 1 in Page 13).

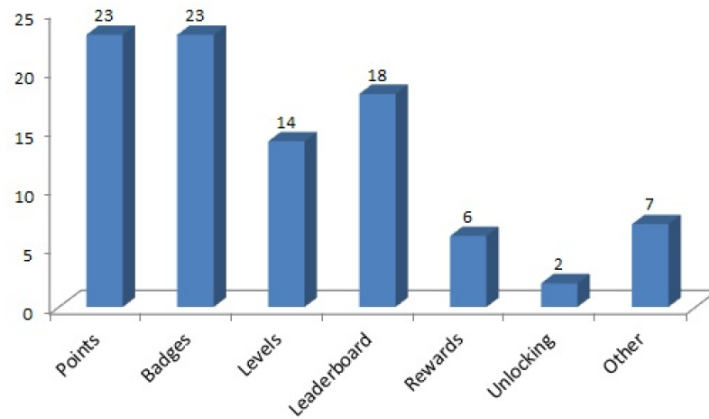


Fig 2.1: Distribution of papers by use of gamification elements
Source: (Hamari, 2014)

10 different motivational affordance categories are made by Hamari (2014) based on his research where he collected and combined the different motivational affordances found in the studies. Table 2.1 indicates the relatively large variety of different elements tested in the empirical studies, although points, leaderboards, and badges were clearly the most commonly found.

Table 2.1: Distribution of Papers by use of gamification elements

Affordance	Previous Works
Points	9
Leaderboard	10
Badges/Achievements	9
Levels	6
Story / Theme	6
Clear Goals	4
Feedback	6
Rewards	4
Progress	4
Challenge	7

Source: (Hamari, 2014)

2.2.2. Success of Gamification

In General

Gamification was earlier adopted by marketers and website product managers as a tool to maximize customer engagement. For example, Stack Overflow, a popular question-and-answer site for developers, in which users receive points and badges for helping the community. Because of its effectiveness, gamification started to spread to be used in other fields as well by the managements (Daniel, 2013).

During games people actually not gaining anything but they may feel an energy to play it. So, if we can use the same energy on other useful things like applying in the day to day work life the results would be positive for all. In this case employer will be motivated and therefore better results and more profits; and employee, enjoying game process, increases incomes and climbs career ladder. (Kamasheva, 2015).

The research showed that the main application area of gamification is “Education”, and most of them are applied in gamified courses, that is, the use of gamification elements such as points, badges and leaderboards, amongst others, to motivate and engage students in activities such as attending lectures, workshops or labs, assignment submissions, etc.

The other application areas are, Environment, Enterprise Social Network and Software engineering, in software engineering gamification elements are used throughout the software development life cycle to engage and motivate developers when doing their work. (Juan, 2015)

Following are some of the companies that uses the theory of gamification is AOL, Microsoft, eBay, Cisco, IBM, L’Oreal, Coca-Cola, Disney, Dell, Nike, NBC, Nissan, HP, Pepsi, Warner Brothers, Viacom, Samsung, Comcast, RecycleBank, Volkswagen, Facebook, Siemens, American Express, EMC (Kamasheva, 2015).

3 main groups of game mechanics are found in the Gamification Mechanism:

- 1) Olympiad: competitive mechanics,
- 2) Win-Win: mechanics without winners and losers,
- 3) Aesthetics: mechanics focused on visualization (Kamasheva, 2015).

Table 2.2: Basic Game Mechanics

Group of mechanics Tasks:	Olympiad	Win- Win	Aesthetics
To increase overall level of productivity	+		
To identify leaders	+		
To identify vector of development of particular employee and the whole team and promote their development in this direction		+	+
To provide all employees immediate feedback on the results of activities		+	
To increase the visibility of the results of each employee	+	+	+
To improve quality of communication in team		+	
To decrease the amount of conflicts		+	
To unite employees with common idea, to involve in team work	+	+	
To inculcate values of the company to employees, to form an understanding of HR-brand	+	+	+

Source: (Kamasheva, 2015)

In IT Industry

PEX4FUN, a .NET are multi-language platform used in education for providing learning based games. A tool for integrating the gamified question and answer engine of 'StackOverflow' to a software development IDE, in which users receive points and/or badges for answering questions. Agile software development methodologies like eXtreme Programming also uses Gamification elements, in which the planning activity is modeled as a planning game to maximize the scores earned during a development iteration. It's important to mention the work by Snipes that investigates a game-like system to motivate developers to use more efficient development techniques, and the work by Bacon that investigates the adoption of scoring systems in the context of software development (Daniel, 2013).

In Sri Lanka

In the Sri Lankan context there are only 2 papers found one is on

- Game based learning vs. gamification from the higher education students' perspective (Udeni and Anuja, 2013).
- Gamification for development: a case of collaborative learning in Sri Lankan primary schools (Thilina, Dhaval and Hakeem, 2017).

These both papers are focused on the educational field.

Apart from these, Articles on Gamification by Madu Ratnayaka were found in the Virtusan Blog

- Why businesses should develop a robust gamification strategy (Ratnayaka, 2012)
- Enterprise Gamification: Engaging the Millennials (Ratnayaka, 2015)

Apart from the papers and the article, based on the Interviews conducted for this research one of the Large IT companies in Sri Lanka uses gamification.

3. RESEARCH METHODOLOGY

3.1. Introduction

This section is about the methodology of the research study. It discusses on the methodological approach which have been selected, data sample selection, data collection process.

3.2. Conceptual framework

Conceptual framework is derived from the literature review by (Hamari, 2014) and (Juan, 2015).

The literature review revealed dimensions in Table 2.1, are given below with the references.

Table 3.1: Conceptual Framework derived by Hamari and Juan Vargaz

Affordance	Previous Works
Points	Ajzen (1991), Eickhoff (2012), Farzan,(2008), Halan (2003), Hamari (2013), Montola (2009), Thom (2012), Witt (2011)
Leaderboard	Ajzen(1991), Dominguez(2013), Eickhoff (2012) , Farzan,(2008), Gustafsson (2008), S.Halan(2003), Hamari (2013), Thom (2012), Witt (2011)
Badges/Achievements	Anderson (2013), Denny(2013), Dominguez (2013), Fitz-Walter(2011), Grant (2013), Hakulinen (2013), Hamari (2013), Montola (2009)
Levels	Dong (2012), Farzan,(2008) , Gustafsson (2008), Hamari (2013), Thom (2012)
Story / Theme	Downes-Le Guin (2012), Flatla,(2011), Gustafsson (2008), Halan (2003), Li (2012), Smith (2011)
Clear Goals	Dong (2012), Hamari (2013), Li (2012), Jung (2010)
Feedback	Ajzen (1991), Dong (2012), Gustafsson (2008), Hamari (2013), Jung (2010), Li (2012),
Rewards	Downes-Le Guin (2012), Flatla,(2011), Li (2012), Smith (2011)
Progress	Farzan (2011), Flatla,(2011), Hamari (2013), Li (2012),
Challenge	Ajzen (1991), Eickhoff (2012) , Flatla (2011), Gustafsson (2008), Halan (2003), Hamari (2013), Li (2012),

Source: (Hamari, 2014)

But based on the Distribution of papers by use of gamification elements (Fig 2.1, Table 2.1 in Page 13), only 5 mostly contributing elements are considered in this research. They are

- Points
- Leaderboard
- Badges
- Levels
- Rewards

3.3. Research Method

Considering characteristics of grounded theory (Corbin and Strauss, 2008), it is selected for this study. The reasons for selection are;

- This is an interview based qualitative research
- There is no adequate model to identify issues and success factors of gamification in Sri Lankan IT context.
- It will enable to have a deeper understanding of how the current motivation factors work and how we can apply the gamification in Sri Lankan IT context.
- It will support to develop a theory based on gathered data.

The study follows the steps suggested by grounded theory approach (Rose et al, 2014)

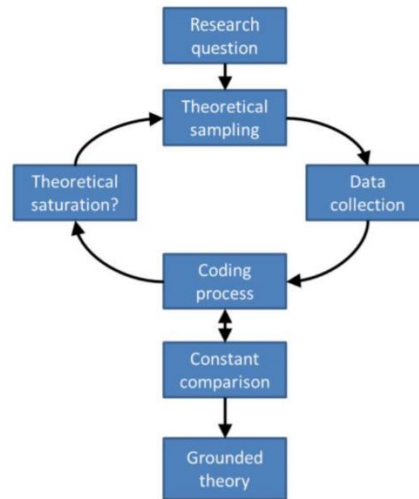


Figure 3.1: Key steps in a grounded theory research design
Source: (Rose et al, 2014, P.2)

As shown above, grounded theory involves with an iterative characteristic while data analysis involves a cycle process. Grounded theory uses a coding process for its data analysis phase. This is the main stage where concepts are developed with the use of data. There are three stages of coding process (Corbin and Strauss, 2008) as mentioned below

- Open Coding - It is the process of discovering the categories of information (Properties of each category). Labeled as codes.
- Axial Coding - It is the process of discovering the interconnection between categories and its properties against gathered data.
- Selective Coding - It is the process of developing the core category which connects all the categories and created a theoretical proposition.

Constant comparison is performed in-order to maintain a close association between the codes and the data.

Theatrical saturation is checked throughout data collection and data analysis of the study. Cycle will break, when no new categories or no new relevant data are being to be identified.

3.4. Sample of the Study – Participants

The method of data collection used in this study is in-person interviews with selective representatives from Sri Lankan Large IT Companies. The participants were selected based on the working experience and their knowledge in managing human resources and managing people under them.

All 4 large Companies from the Sri Lankan IT Industry are selected based on the SLASSCOM data which has more than 1000 Employees. Even though some companies have Global presence and more employees worldwide. This research only considers about the employees and operations that are happening inside Sri Lanka. Interviews were conducted from selected 9 individuals from those companies. At least 2 each from a company.

Company Profiles(LinkedIn)

Company 1

Company 1 is a premier technology solutions provider serving the global capital markets industry. The company's products target the Stock Market industry of Americas, Europe, Africa and Asia. The systems integration business of Company 1 is a leading Sri Lankan information technology solutions provider, specializing in IT solutions for the financial and telecom industries. Company 1 also offers information technology infrastructure and consulting services.

Employee Count 800+

Company 2

Company 2 delivers services across the IT lifecycle from development to consultation and support. With a strong heritage in software engineering, Company 2 is highly qualified to both develop and maintain software, using a proven platforming methodology and advanced Agile and Accelerated Solution Design techniques to reliably deliver results on time and within budget. Company 2 Corporation is headquartered in Massachusetts and has 50 offices across North America, Europe, Asia-Pacific and Australia.

Employee Count 1000+

Company 3

Company 3 develop and delivers enterprise software for customers around the world who manufacture and distribute goods, maintain assets and manage service-focused operations. The industry expertise of the company and solutions, targeting the niche market has become the leader in that market. Team of 3,500 employees supports more than one million users worldwide from a network of local offices and through the growing ecosystem of partners.

Employee Count 1000+

Company 4

The company quotes themselves as “World's learning company”, with 32,000 employees across 70 countries worldwide. The company’s unique insight and world-class expertise comes from its long relationship with all in the educational field. Its products and services are used by millions of teachers and learners around the world every day. It has a clear and simple set of values in everything it does, it also claims that they aspire to be brave, imaginative, decent and accountable. These values describe what is important to the company, and using it as a guide it focuses on delivering what is right for the world.

Employee count 1000+

Sample Individual Profiles contains the following Designations

- Executive Vice President, CIO/Head of Business Excellence & General Manager
- Director Human Resources and Process Development
- Line Manager and Group Manager
- Group Senior Manager
- Product manager

- Chief Product Owner/Business Architect
- Software Architect/ Product Owner
- Group Manager

Interview Participants Profile

Person 1

Role: Senior Manager Software Development

Experience: More than 15 years of experience in the company

Industry: Company 1

Person 2

Role: Director Human Resources and Process Development

Experience: One of the Co-Founder of the company which has more than 20 years of history

Industry: Company 1

Person 3

Role: Director/ Manager of a Product Group

Experience: More than 17 years of experience in the company

Industry: Company 1

Person 4

Role: Chief Product Owner/Business Architect

Experience: More than 12 years of experience in the company

Industry: Company 2

Person 5

Role: Software Architect

Experience: More than 14 years of experience in the company

Industry: Company 2

Person 6

Role: Senior Manager - Software Quality Engineering

Experience: More than 19 years of experience in the field

Industry: Company 3

Person 7

Role: Software Engineering Manager

Experience: More than 12 years of experience in the field

Industry: Company 3

Person 8

Role: Manager Application Support

Experience: More than 7 years of experience in the field

Industry: Company 4

Person 9

Role: Executive Vice President, CIO & General Manager

Experience: More than 20 years of experience in the company and the field

Industry: Company 4

3.5. Data Collection Technique

Interviews were conducted to gather data for analysis of this study. Interview questions were open-ended questions which enable to collect users' thoughts and experience on gamification or the elements of gamification already being used in the organization. Also, the interview leads to get the idea of whether the gamification concept can be applied in large companies.

One-to-one interviews were conducted which lasted approximately 30 minutes to 40 minutes. All the interview answers given by the participants were voice recorded and important points are noted down, brief transcripts of the interview with time stamps of important points can be found in the appendix and it is been used for data analysis.

3.5.1. Interview Questions

Even though there are structured questions to guide the interview through, the interview is kept as a discussion to get the information flow for more than what we expected. So, the scopes of the conversations covered are

- Status of any usage of gamification in the company
- Pros and Cons of methods they are following
- Future ideas of having gamification
- Possibilities of overcoming the issues or polishing up the gamification to suite the company and culture

3.6. Methodological Approach

A qualitative research approach is used for the study, in-order to understand, identify and analyze how well experienced management look at gamification concept.

Why Qualitative approach is used:

- Issues and success factors are not defined. Therefore, through this approach issues and success factors will be explored and identified.
- This study is an in-depth analysis of managers' experience and practices used in their organization.
- Descriptive data is required to analyze the context and achieve objective of the study.
- Managers' thoughts, suggestions and actions taken are required to do data analysis. Such information can be effectively gathered using qualitative approach.
- It also provides and flexibility to gather other issues and factors which have not identified through literature survey.

3.7. Data Analysis Strategy

Data analysis of the research guides through the coding stages of grounded theory approach.

As the first step, 5 main elements of the gamification, based on the conceptual framework are taken as 'Parent Code'. Here additionally "Gamification" is also taken as 6th Parent Code. The reason is to study the perceptions of what the managers and directors participated have, about the 'Gamification' when it is put forwarded to them as a concept. And the interview transcript data are categorized based on the Parent Codes. As shown in the Appendix C.

In-order to perform the data analysis of this research, Open Coding process is performed against each Parent Code, categorized interview transcripts data from the above-mentioned data in Appendix C. As shown in below Table 3.2. total of seventy-four (74) Codes were identified using open coding.

Table 3.2: Codings from the Interview

Parent Code	Codes
Points	Performance is looked as a Team than of individual.
	Culture of Team Work.
	Team based assessment, individuals are assessed on team feedback.
	Peer review assessment.
	Qualitative measurement over quantitative measurement.
	Need of Proper System, with some level of human control.
	Transparent Point System
	Affects Appraisal
	Mostly positive Outcome
	Total transparency allows less cheating over the system
Leaderboard	Average performing individuals gets demotivated
	Management level leaderboard
	Not Transparent
	Team level velocity leaderboard.
	Decision making only.
	Global company level Grades are given than listing in a leaderboard.

	Non- transparency sometimes creates an uncomfortable situation among other teams.
	Good when applied when all are doing the same work
	Not appropriate for Knowledge Work like Software Engineering unless a Good system is available.
	Project Based Leaderboard
	Leaderboard with limited info
	Motivation for low performing individual
	Works as a individual recognition
	Improved project outcome by 20%-50%
	Making Role models out of the Leaderboard
	Transparency allows others to learn and improve
	It's easy to implement for large companies

Badges	Recognizing 10, 20 Years of employment
	Employee of the year award is good
	Short term awards may cause issue.
	Need a proper system, value of each lines of code differs.
	Good for a smaller company
	When introducing a system that differentiates people, it needs to be well informed and properly governed.
	Young/ Millennials may like it but not all may like it.
	Badges for receiving appreciation for your work by others
	Badges for sharing the knowledge in the office social media

Levels	Providing Opportunity and Challenges
	Providing encouragement and motivation
	Flat structure and easy to implement in large companies
	Positively formed feedback to push them to the next level.
	Not all get motivated.
	Multiple Performance review per year
	Offer responsibilities and recommend objectives.
	Opportunities based on projects and team.
	Only when requirement arises

	Not in regular basis and formal way
	Communication in making an employee push himself to next level is very important

Rewards	The usual annual bonus, binds you in the success of the company.
	Technology related Conference and event tickets for an extraordinary employee is a win win option.
	Annual appreciation Night event and Awards than monetary values.
	It's hard to implement and sustain in large companies
	Everyone should have a fair share, else its purpose is lost.
	We are already the best why do we need rewards
	Team lunch outs
	No rewards, so people won't stop after achieving the reward
	Global company level competitions and rewards for the winner
	Anonymous monetary bonus
	Awards for people by people, Qualitative.
	Rewards are mostly connected with the appraisal or bonusses
	Rewards for the clients who come to learn our system, for a speedy learning process. And training on ERP systems to internal staffs.

Gamification	Office related Social Media Badges
	Enable silent people to talk out
	Gamification works for smaller Teams
	Large Organization can be split into groups and Gamification can be applied to them.
	Some of the elements adopted from the gamification will work
	Can be practiced within the team.
	Soft Skill also needs to be considered.
	Correct Scope and Good Moderation is important.
	People like recognition so this is a good system to implement
	New generation are into gamification
	For smaller companies with less than 30 or 40, you may not need gamification.
	When compared to USA, Sri Lankan people crave for designations and recognition.

	People boarded in Colombo have a better chance if gamification is implemented.
	Complex implementing in large company
	More preference for the Team culture than gamification

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4. DATA ANALYSIS

4.1. Introduction

This chapter discusses about the findings of the research study that have discovered from the interview data. Through the first section of the chapter presents data analysis strategy followed by the guideline of grounded theory approach. In the later part, it discusses on the relationship of each elements which contributes to the formation of gamification concept which may or may not have affected the relationship and builds up theory of main factors which highly affects employee motivation and project outcomes on large IT companies in Sri Lankan.

4.2. Basic Analysis

Initially based on the Interview Data collected. Current state of the gamification elements in the Industries are mapped as below in Table 4.1. Already available are marked with an 'X'.

Table 4.1: Gamification Element Usage

Element	Person 1	Person 2	Person 3	Person 4	Person 5	Person 6	Person 7	Person 8	Person 9
Points					X			X	X
Leaderboard			X		X			X	X
Badges					X			X	
Levels	X	X		X	X			X	X
Rewards	X		X		X	X		X	

Table 4.2: Gamification Element Usage Summarized

Elements	Counts
Points	3
Leaderboard	4
Badges	2
Levels	6
Rewards	5

The above table reveals the fact that whether the companies are already using any of the gamification elements. One of the company follows all the 5 gamification elements

derived in the conceptual framework in this research. So, we can assume, that company may be following a practice like Gamification already. But still some companies are not aware of some elements of the gamification, or for certain reasons they have not followed them.

The detailed analysis will further analyze the data based on the codes identified in the grounded theory.

4.3. Detailed Analysis

Based on the Table 4.1 above, we can say that gamification presence is there in the industries, even though some of the companies don't follow all the elements in gamification. And the elements 'Levels' and 'Rewards', no doubt are most commonly known and adopted one. But some companies do follow gamification. And based on the interview, managers had knowledge about the gamification concept or at least about the elements in them, and each of them had their own perception based on their long experience in the industry on why they implemented/recommend and why they don't implement it.

In-order to have deeper understanding, analysis is performed on parent code based on the sub codes Identified, in Table 3.2 (page 25) above (Check Appendix C for Detailed Coding).

4.3.1. Points

Eight codes were conceptualized under Parent code 'Points', through the observation of interview transcripts. Four identified codes relate negative effects and four codes relate positive effects of the 'Points' element.

Participants mentioned that the points system brought them positive outcomes. Some of them has already implemented and the system is totally transparent to everyone. Also, they stressed, Points system is going to assess people so when implementing a system like this it must, be carefully designed and implemented. Systems can be fooled so what's the guarantee of maintaining a good system is a question by a manager. So, to counter this another manager said making the system totally transparent will reduce

the number of cheatings that can happen as everyone are going to know if there is any drastically changes happens.

Some companies have a culture of giving more preference towards the team concept. They encourage working together rather than of individual performances. For them they fear that bringing in Points system will cause psychologically negative relationship between team mates.

Some companies don't have a point system based on quantitative values, but in qualitative measurement and it is private and only visible within the management. This may not help encourage the employees as their performance is not visible but this can help management make decisions.

We can see that most of the managers are not so comfortable with the Points system to be transparent to the employees. Yes, it has, it's consequences, but the purpose of adding points for the employees and not revealing it to them will not add any values to the employees. So, by slightly tweaking it like only revealing the top 3 performers, in a private meeting showing a blind chart on where he stands with others will help him find role models as well where he stands and what he has to do to improve himself.

4.3.2. Leaderboard

Seventeen codes were conceptualized under Parent code 'Leaderboard', through the observation of interview transcripts. Ten identified codes relate negative effects and Seven code was relates positive effects of the 'Leaderboard' element.

Leaderboard is something that's based on the points. It is about listing the points of others and making a comparison. But when it comes to leaderboard some of the managers are using management level employee leaderboard, and it is not transparent. This is for the management to keep track of each team velocity. These leaderboards lead to provide good projects to a good team often and makes the other teams wonder why always a certain team is always getting the best projects. Here we can see even the hidden leaderboards can cause confusions among the employees who were unaware of it.

Another statement is that instead of adding employees in a leaderboard they are given grades. This is can be a good system in situations where average performing individuals are discouraged when listed in a leaderboard.

As same as points when implementing they are supposed to be evaluated among same type of workers. As of one manager, they only list the top performing employees, so average performing employees are motivated towards achieving in to the top performers. This Leaderboard system also works as a recognition and created role models for the others to follow and get inspired.

He also said that they have separate leaderboards for different projects, and these leaderboards has improved the project out comes by 20 – 50 %. He also believes that implementing it in large company is easier.

So, based on the codes we can say that a leaderboard does motivate people, but as mentioned above a leaderboard with only the top and minimal info will not bring a demotivation among the others. Also, a leaderboard system within a team will always keep the team on fire. So carefully structured several leaderboards in a company will motivate different project people in different ways than having one single leaderboard.

4.3.3. Badges

Badge system is kind of a recognition given to people who performed well in their work or do better in a field of work. One company recognize people with 10 and 20 years of service award. But they don't provide employee of the year award. But they never thought about employee of the year award.

Another manager while sharing his views said rewards are good but not the short-term ones, as they may lead to misunderstanding when someone continuously receive many awards. Again, this is about evaluating people so there should be a well informed and good system that gives preferences to everyone. In their company there is an award system, provided by employees to employees. This happens when employees appreciate others for their help, skills and work. Every appreciation one gets counted as a point and an award is given at the end of the year.

When it comes to badges, millennials are into gamified world. They have played many games and are aware of these most commonly used gamification in Games. They really get encouraged when a Badge system is there for a recognition. But based on one manager's statement he said more experienced people never cared about the badges and recognition all they want is instead of badges an allowance to be added into their salary.

One of the trends followed in IT companies these day is internal knowledge sharing platform. It has the look and feel of social media with badge system like in 'Stack Overflow' site. Managers who have a similar system in their company agreed on this site really creates value for everyone. People like to share their knowledge, help people who are stuck with problem and they also love to give praise and receive praise in this platform.

So, overall, we can say that badge a carefully structured badge system, to recognize people annually and a system to keep the millennials up on their toes will not fail to keep the employees motivated.

4.3.4. Levels

Levels is identifying the talented employees and giving them more challenges to keep them challenged and motivated. In some companies talented individuals are sent for external trainings and client visits abroad. In other companies most of the time levels are followed in the appraisals. And all managers agreed that they have this system already implemented in their system. Also, they are confident in saying implementing it in a large company is easy.

Additionally, one company follows 2 times performance review per year. This leads to a better follow up on challenges goals determined in a performance review or an appraisal. This kinds of gives an employee a satisfaction of not waiting for a whole year to get new feedback or appreciation.

Giving feedback is another important aspect when it comes to the levels. There are times when people don't get motivated but demotivated. But positively formed feedback will help push an individual to the next level of his career.

Some companies do not do this, they only provide opportunities based on the projects and only when the requirements arise, basically this happens when the team in Sri Lanka is part an outsourced team or working for a team abroad.

We can see that the levels system will help improve an employee's career and make him motivated in the work with more and more challenges. And it is followed in most of the companies. Adopting the 2-performance review per year can be an added performance boost for the company.

4.3.5. Rewards

After the interviews it's a statement that most of the companies give an annual bonus for the employee. It is a share of success of the company for the work they did for the company to earn the success.

In some companies, talented employees are provided with tech events and overseas conferences, this works as a reward for the hard working and allows them to come back and train the internal staffs on what they learned in the conferences and the tech events.

When it comes to large company's managers think that it may be harder to implement and sustain. One suggested solution by another manager is to assess employees by Groups and teams but then it may end up as an expensive option as this may lead for many people to get the reward.

And there is another statement saying that they don't have a reward system, as people will get the award and stop doing what they used to do. This is where a constantly active plan should be there for people to not stop doing the good work they are doing. And it is also good to have many fields to compete for the reward as not all of them are good at the same thing but in many others.

In some companies there is no reward system, but after every successful release of a software version they are working on the team is sponsored by the company to go for lunch outs. Also in a company people are rewarded with monetary rewards and it is anonymous. Personally, the employee would be motivated.

Rewards can be expensive if every team and the projects are assessed. But it can be good if the employees are sent out for technology related events so that they can train the staffs. Sometimes rewards like lunch outs can be cheap but very welcoming for a hard-working team. Also, anonymous monetary rewards are also good, so others will never know that only some people gets rewarded.

4.3.6. Gamification

“Sri Lankan people like recognition” is a Statement by a manager. Gamification’s Badge element is about giving recognition for an employee for what he is does better, to keep him motivated in what he is doing.

When it comes to people and IT industry, there are various kinds of people and what they wanted to get motivated is different. One manager says, millennials (Young People who are born after 1990) are interested in Points, Leaderboard and Badges but Older people prefer monetary related rewards. At another conversation, when talking about badges, a manager mentioned, most of the IT companies are in Colombo but many people come from places outside Colombo, some stay in places for rent in Colombo for the week. People like those have nothing else to do as their families are not in Colombo so when something like ‘Over Time Run’ is enabled in an office they work for long hours, same will happen if there is task related to gamification is going on, they have long hours than people who live in Colombo and have their own family commitments.

And when it comes to some companies they give preferences towards the Team work, so they totally try to avoid gamification. They give more preferences towards the team performances. So, they are ready to adopt some of the elements from the gamification

not all. And Soft Skill is something addition to the normal work that needs to be identified and recognized is another input.

Most of the managers interviewed, consider gamification as a good choice when applied for smaller team and projects rather than for the whole company. Applying it for the whole company will become complex as various people from various team do totally different work.

So, considering everything we can say a carefully planned and scoped gamification with certain elements removed based on the preferences we can apply gamification to these companies.

4.3.7. Findings from the analysis

Interviews are conducted on open view basis, but the questions are used to guide back the managers to get answers needed for the research. But while so many new concepts or views of managers are recorded. We can see some of the findings below, which may help with the gamification concept or they can be considered as valid points for making decisions.

Social Media in Office

Most of the company interviewed have an office social media. It is a standalone platform for socializing, entertainment and mostly in work related knowledge sharing. These platforms have a feature to post about anything related to office or work, like for example, we need more car park space, I have a doubt on what is dead lock in Java kind of stuffs. For these posts people can vote up or share their comments. When someone asks a useful question or someone gives a valid answer they can be voted up and the person will get some points. Not only point but also badges, based on the up votes he got in specific field. It can be programing related, employee welfare related or something for marketing office brand. So, this kind of platform even though does not comes inside gamification, it uses some of the elements of the gamification. May be this social media platform, we can take as a new element for the future gamification.

A Platform for Voiceless

Not everyone come forward and tell their opinion. When an employee related social media is introduced to the system. There is a rise in the number of views and opinions shared in it. This social media platform, makes the employee comfortable and makes him/her feel free to express their opinion. Employee opinion is one of the critical information to make future decisions, but not all come forward and speak. So, a platform like this can help voice of an employee heard to the nook and corners of the company. And this leads to a happy employee. This is a statement by one of the managers whom have implemented Office Social media in their company. This gives a strong reason to accept the above finding to be a new element for the gamification in future.

Soft Skills Plays a Main Role

When it comes to evaluating people apart from the main work, soft skill also plays a big role now. Requirement gathering, meetings with customer, customer visits all needs something more than your technical knowledge. Impressing the customer, marketing yourself and your company are valued at some companies. 'Customer is King' is a famous verse in marketing so communication skill is one such soft skills. This leads to identifying key players when targeting a long career for an employee. Some companies provide these kinds of training and they have Toast Master Clubs in the company too. This may not suit to a gamification but having points and badges for skills like these may help management find some real leaders.

Millennials

New generation of employees mostly the millennials, are into the latest trends and technologies. They like challenges and they are energetic. So, they like gamification like concepts and they like recognition too. Socializing is another aspect that the millennials like. A company which has most employees as millennials gamification will really boost the outcome.

Sri Lankan's People's mind set on Designation

As one manager expressed his experience, he pointed out that Sri Lankan employee mind set is concentrated towards the number of years they have experience and the designation they have. As a comparison he took an American Software engineer who is in the same designation but who never cared about the designation. But in Sri Lanka that will result in a very bad impression when it comes to the society or an interview. Maybe this is something we can't change now. But this mind set is what a gamification needs to build the momentum.

Gamification may be not a Good idea when it comes to Team Culture

Some companies have setup teams and encourages team work and collaboration while in the work. So, companies like that may not like to bring in a competition by introducing individual points and badge systems. So, companies like this may try gamification elements for the whole team, sometimes this increases the team bond while they work for the team's victory.

Gamification in trainings and learning for clients and internal marketing staffs

One of the manager thinks that gamification could be a good mechanism for education, that is to train internal marketing staffs and the client company staffs on their system. When asked if this can be applied for the internal staffs, he said yes that's also possible in learning new technology or training the new recruits.

4.3.8. Factors which affects Gamification in Large Sri Lankan IT Industry based on the Analysis

Till now the analysis is made from the codes identified from the interview. Many information was retrieved and analyzed and discussed above. Here, the identified factors that affects implementing gamification and recommendations for them are discussed.

Software Engineers are Knowledge Workers

Software Engineering is about knowledge workers, it is not something Every employee does it the same, it varies from project to project, team to team, person to person, issue to issue.

And specially when it comes to Large companies, you will see more and more variety of work handled by an employee. So, creating a system that can identify all these aspects and assign points for each of the employee will not be easy. And it may end up causing loss of time and money.

Team Culture

All the large IT companies have employees working in teams towards achieving a goal or target. Team already help employees feel comfortable and motivated as they always have someone to back them up when they are facing any issues. If a gamification like system comes, the relationship they had as a team may not exist anymore or it will damage the already existing team culture.

Age Variation

When it comes to large IT companies they have more than 10 to 15 years of existence in the country, Company 3 (1997), Company 2 (1996), Company 1 (1996), Company 4 (1998). Age gap will be there between employees and within teams too. Older generation of employees may not be excited with the gamification concept, and they may not like to see a change in a 15+ years of tradition. And there is newer generation of employees who may be interested in challenges and gamification. So, designing a system to satisfy both will be a critical challenge.

Demotivation

Actions, activities, events conducted for motivation does not always ends up motivating everyone. There will always be someone who may get demotivated or frustrated if the events or the activities are not properly planned and executed without being a biased event. Obviously, the top achievers will always be in top in a leaderboard most of the time. Not everybody is going to accept the system. Making a system that makes everyone cheered up and happy is an important challenge.

Continuous Rewards

Rewards are tempting to get, employees will work hard to get it. But what happens after they achieve it? They will stop working hard if the reward does not yield in future too. This will have an impact on the company output as well. Client may be happy with the product this month and expects the same or better the next month. If the reward is not there for the next month employee will not have the driving force that they had last month to achieve the same target this month. This may end up in not reaching the customer expectations. So, there should be a continuous reward system implemented in to the gamification system.

Complex when it comes to Large Company

Even though some managers said implementing gamification for larger companies are easy, most of the managers agreed that it is complex. Many things should be considered when trying to implement gamification in a company level, Product Groups, Projects, Teams, Individuals.

5. RECOMMENDATIONS AND CONCLUSION

5.1. Recommendations

In the previous sections, gamification elements are analyzed based on the interview and the codes we have extracted. It revealed lots of positive aspects based on each of the elements of the gamification. Therefore we can say based on our literature review and pre-studies, if the top 5 most influenced gamification elements can have a positive aspect based on the information we gathered from the interview, it can be taken as, Gamification will have a positive aspect in in Large Sri Lankan IT companies.

At the same time some issues are brought forward and discussed as well. There were some common issues and in some other places they have been solved with some other means of sources which also has been discussed above. This section based on the whole analysis will provide recommendations or best practices identified to help companies come to an overall idea of

- Whether they can implement gamification in their company
- Does gamification suits our company culture
- Individual elements of gamification
- How to overcome/avoid some already existing gamification element issues

5.1.1. Recommendations and Suggestions on implementing the Gamification Elements in Large Sri Lankan IT Companies

Recommendations for Points

Having a proper system to assess knowledge work and allocate points is complicated.

Human Moderator Panel– Implementing a point system with a moderator panel ensures that the points are calculated properly for each work done.

Some companies have a culture of giving more preference towards the team concept

Points for Team – For companies who don't want to disturb the culture of team work they have, they can implement a point system that evaluate teams instead of the individuals. This will increase each team performance and will increase the team bond within the team.

Recommendations for Leaderboards

In Leaderboard, points are assigned to people, and exposing or making it transparent to everyone is not liked by many employees, especially ones who are average or below average. But points system is needed, and it must be transparent for employees to get an idea of where they stand among others

Grading - Having points system for individuals but when making it transparent show a grading instead of the points. This will categorize similar range of employees as groups, this have a minimal impact for the employees who have less points.

Some companies don't have a quantitative point system but a qualitative and it is visible to the management and individuals. There are companies which have a rating/ranking for each team based on their velocity. These are mostly used to make management results.

General Transparency – While having appraisals and informing about the performance of the employee, it's good to show a blind graph of performances by

others and where they stand within it. Same with the teams, while having the team meetings they need to be informed of how good is the team performing among the other teams. The point is if there is nothing to compare with, an individual or a team will have no idea on how much more effort they should put to become one of the best employee or a team.

Limited Employees - All the employees may not like to be listed in the leaderboard, so a special request can be made to the employees and when they say 'Yes' you can make it transparent to everyone. And display only the top performing limited number of employees like 5 or 10. This ensures that the others get someone to take as a role model or an inspiration without getting demotivated.

Several Leaderboards – Implementing a leaderboard for Groups, teams and projects rather than having one single leaderboard. This paves the way for the employees working on the same kind of work and projects.

Recommendations for Badges

Social Media Badge – Many employees may be shy to interact with others or help others in the office environment, but may be comfortable using social media. So creating a knowledge share platform like 'Stackoverflow' will improve the contribution of the employees who have talent but shy to be available for everyone and it will work as a knowledge resource too. And having a badge system creates a competition among the employees to come up with better answers to the problems faced by fellow employees and become reputed and be a role model for others.

Monetary Valued Badge – Based on a manager's statement young generation employees like and older generation employees only care if they get any monetary value. Implementing a badge system where the badges can be redeemed for money or any other vouchers will allow both old and young generation of employees to accept the system and work hard to get achieve them.

Recommendations for Levels

Multiple Appraisals – Appraisal is a good way of keeping the employee up to date with what is company's expectation from an employee and how good is the employee keeping up to the pace. Having appraisal multiple time, at least 2 as it may be not easy in large companies will help keeping the employee focus and the goals and their future achievements. Annual appraisal may be too long in a fast-moving technology world.

Suggest Roles and Challenges – Levels is not only about the talented employees but others too. Have a peer review from team of each employees. Addition to the annual appraisals have a regular one to one chat with the employee, and let him know what he is good at and where he can improve and recommend him suggestions to improve his career and offer to help. Employees most of the time like an open conversation and guidance when they are confused or underperforming.

Extra Load of Work – Extra talented employees used to get bored, they can do more work than what the company is expecting. So, providing with extra load of work, may be something not directly related to the work but others, like employee welfare society works to keep him challenged and to train him in his management skills.

External Trainings – Identify the talented individuals and sending them out on external trainings to enhance their talents for an accelerated future. This enable the company to identify the future leaders and give them challenges and to get them ready.

Motivating and Encouraging Speech – Giving feedback is not just talking or telling it's an art on how you convey a negative or a positive message in a motivating way. So, improving the way feedbacks are given will help push an individual to the next level of his career.

Recommendations for Rewards

Continuous Rewards – If reward is given for a certain achievement and stopped after achieving it employees won't show the same performance they had when the reward is active. So, if you are planning to give rewards for work and if it is short term ones, it needs to be given continuously. Else employees will achieve the reward and stop the extra performance they showed.

Long Term Rewards – If it is not possible to go for a continuous reward, you can go for the long-term reward like Employee of the year. And this will be easy to go on doing for many years. And when it comes to a reward like this, there won't be much disappointments and among the employees who gets disappointed the same person getting multiple rewards within short terms.

Rewards by Employees to Employees – Implementing a reward system where employees appreciate their coworkers for their skill, their help and their service will bring a very employee friendly working environment and the reward will morale boost the reward winner and the others to do good for the other employees.

Annual Bonus – This is common in most of the companies. Defining annual goals and based on how much have achieved in it and giving bonus based on it among employees bring a close bond between the employees and the company.

Tech Tours – In a large company sending out everyone out for training will be expensive. But sending one guy or several of them can become profitable for company if planned properly. This is a two-way benefit for the employee and the company. Talented employees are sent for tech events or conferences, sometimes abroad too. This gives an employee to learn a new technology or enhance his already known knowledge plus a free tour. And the when the employee comes back from the tour or his training he can educate the fellow employees in the company and enhance their knowledge base.

Inexpensive Lunch Outs – Employees work hard and achieve something every day, for example an important release. Everybody knows how critical and how much

pressure is on the team. So, sponsoring the team for a lunch out won't be much for the company but a lot for the employees.

5.1.2. Recommendations and Suggestions to overcome the issues found in implementing Gamification System in Large Sri Lankan IT Companies based on the Analysis

Software Engineers are Knowledge Workers – Software engineering is a knowledge work, is hard to evaluate them on quantitative measurements. So, if you want a system to the whole company then the system must have a human moderator from each group/project/team to check on how the points are allocated occasionally and alter it. Else if the gamification will be applied team wise then it's better to have peer reviews from each member about each other and give points based on qualitative analysis.

Team Culture – Team culture is very important when it comes to large companies. Doing something that may affect the team bond is something you should avoid doing. Importantly it's better to avoid gamification within teams. But gamification can be applied within projects to evaluate teams. This will create a competition between teams and will increase the bond between members in each team.

Age Variation – Not everyone is going to like everything, but things can be altered to make it like by everyone. Younger generation of employees grew up with games at some point of their life. So, they naturally have an urge to like Gamified nature. Older generation of people are mostly seniors and they already have the reputation and recognition, they are not going to get interested by the gamification if they are not getting any monetary value. So, make these achievements have monetary values, each badge or how long you hold a position in the leaderboard will give certain amount of value in their salary and this can be given as a bonus too to avoid any confusions.

Demotivation – There is always someone who achieves in their life by hard work and there are people who work hard but they don't achieve the same. Same happens in an IT industry too. One of the reason is there may be only a little number of field of interest to achieve. To make this a little better, making lots of areas of interests and

introducing many achievements in each area of interests will allow many employees to achieve something and get motivated.

Continuous Rewards – Another issue with giving rewards is, if you are willing to start giving rewards for achievements, you should continuously do so. If it is a limited time frame rewards then people will stop doing it. Some of the things like OT (Over Time) Drive are different that temporarily boosts the outcome. If you try to that forever, then it becomes normal. So, the appropriate rewards should be given continuously to keep the momentum going on.

Complex when it comes to Large Company – Some managers said it is easy when it comes to large companies, what they meant is in large companies, it is hard to monitor everyone and evaluate everyone properly. So, having a Gamified system will make employees evaluate them self and improve them self. Complexity comes when large company have different project/functional groups and as this is knowledge workers, it needs moderators too. The best solution so far is to Gamify each projects/functional group. Assuming projects/functional groups will have teams within it. This will lead to a smooth Gamified experience for the employees and the management should have another set of people to overlook the whole Gamified system. It may sound expensive but the employee motivation results by this is priceless for the company and its future.

5.2. Conclusion

This research study was conducted on identifying if gamification can be applied for large Sri Lankan IT Companies. Gamification is a new practice in the real-world scenario, past studies in gamifications are very seldom and there was no past study conducted for gamification in Sri Lankan IT Companies. Main objective of this study was to identify possible issues in applying gamification in large Sri Lankan IT companies and suggesting recommendations based on interviews held from well experienced senior management personals from large Sri Lankan IT Companies on how it can be implemented.

The study integrated with conceptual framework identified in table 3.1 based in literature review. And used the gamification elements identified to construct interview question and structure the research based on them.

Success factors and individual trends in each gamification elements and findings were also analyzed.

Through this research, Points, Leaderboard, Badges, Levels and Reward were individually analyzed in-order to discover how gamification in large IT companies in Sri Lanka is working or will work.

Results and observation of this research study are presented as below;

5.2.1. Objective 1: Identify Sri Lankan Large IT companies' view on the Gamification Concept and potential challenges.

Through the analysis made on each interview on gamification with each management level professionals from large Sri Lankan IT companies there were positive effects and some negative effects got identified.

Points and the leaderboard systems goes together. They kind of bring a competition among the employees to increase the performance of the employees. It helps to find the top performer for others to get inspired of. Making points and leaderboard transparent won't be liked by many employees so only the selected or the top performing points are posted. The team culture stressed by some of the managers,

suggests sometimes it's better to have the gamification between Teams rather than the individuals will increase the team bond and the outcome of the projects.

Badges and the Rewards goes as recognition. People like to get recognized, specially the Sri Lankan employees. Some companies have this system implemented already, it was identified that in an IT company 'Social media knowledge sharing' related badge system is more engaged and practiced. Again, when it comes to rewards, long term rewards are preferred over short term due to short term success sometimes favors the same person. Rewards/badges given by employees to employees is a practiced and proven to be a success one based on a manager's view. One of the notable issue discussed here is about the age difference. Younger generation people prefer gamification for gaining recognition where older generation people are already recognized. So, providing monetary values in salary for the achievement is provided as a solution.

When it comes to levels, it's all about identifying an employee's capability and giving him appropriate challenges or assignments to help him master a skill or to encourage him to perform well. In most of the companies this is done through the appraisal where they set goals for each individual and give feedback on his past performance. Based on a company that already practices this, the recommendations are given to do the appraisal 2 times a year which will save more time and keep the momentum going on. Providing external trainings, training tours customer visits are some of the popular recommendations provided.

These are some of the interesting issues found addition to the individual element related issues.

- Knowledge Work
- Team Culture
- Age Variation
- Continuous Rewards
- Complex when trying to implement one system for the Whole company

5.2.2. Objective 2: Derive a recommendation on if Gamification can be considered as the next Generation Motivation factor for the Sri Lankan IT Employees.

After analyzing the issues on each gamification elements and with the knowledge managers shared recommendations could be provided from the research itself. The recommendations are listed below.

Points

- Human Moderator Panel
- Points System for Team

Leaderboards

- Gradings
- General Transparency
- Limited Employee
- Multiple Leaderboards

Badges

- Social Media Badges
- Monetary Value for Badges Earned

Levels

- Multiple Appraisals
- Recommend Roles and Challenges
- External Trainings
- Motivating Counseling

Rewards

- Continuous Reward
- Long Term Reward
- Reward by Employee to Employee
- Annual Bonus
- Tech Tours
- Lunch Outs

After identifying the issues and recommendations. A conclusion can be formed. Gamification is created based on actual Games. It is supposed to be fun and encourage people to do their best to achieve success. In the field of education and clerical related work it has proven to be success (Literature Review).

As Large IT company is the main concern in this research, large number of employees, really makes implementing gamification for the whole company difficult. So, it is agreed that the gamification in large company should be applied for Individual Projects Groups or Projects rather than for the whole company. Then it can be managed easily.

When it comes to Knowledge workers, it is identified that gamification cannot be used like in education or Games. It needs some modification and moderators as the work and challenges always have a different value.

Gamification elements them self has issues when applied, but with the above-mentioned recommendations, they can be implemented. Some of the elements are already followed in the companies. Some elements like 'Levels' and 'Reward' are proven to be successful ones already. Managers agreed that the gamification can be a Good thing with fine tweaking, or only applying some of the elements, mentioned in the above sections.

According to the analysis, it is Recommended that the gamification can bring positive out -come with the appropriate customizations and element adoption.

5.3. Limitations

Several shortcomings could be identified during this research.

The sample size was small in interviews due to the reason as the managers are interviewed and most of these bigger companies need to get permission before they can give an interview.

Some papers or resources not properly validated, were used as resources on gamification are very scarce.

Gamification is relatively young when it comes to academic studies, and there are only few well-established resources. Here we relied on the selection criteria where the empirical papers were clearly studying the effects of implementation of game-like mechanics. As the research on gamification progresses, in future, this research may be looked back for corrections and changes.

5.4. Directions for future research

Gamification is new to Sri Lanka, there are no papers written on it yet, this research works can be used more like a pilot study or the first stepping stone for future generations to do the research in the gamification in Sri Lanka.

This research is conducted on large Sri Lankan IT organization with experienced professionals. This only covers 4 IT companies in Sri Lanka. The large companies usually have a 15+ years of industry presence. Some of them still follow some of the old traditions. When a company become bigger and bigger, things will become complex to make a change in the future.

In this research we touched or came across how the culture, number of employees, employee age variations etc. affects the implementation of the gamification. So, with the help of this research those areas can be studied deeply and further as another research.

The study on large companies brought out many issues and most of the time the solution or the recommendation provide is to split the employees based on projects and teams, so this will help conduct the same research on smaller or medium sized companies to get a better idea on whether we can implement gamification in Sri Lankan IT companies.

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APPENDIX A: FACE TO FACE INTERVIEW QUESTIONS

What kind of Employee Motivation tactics or practices does your company provide now?

Are you aware of Gamification?

Are you aware of Points System?

Are you aware of Leaderboard?

If yes, are they visible to everyone or private?

Are you aware of Badges?

Are you aware of Levels/Challenges?

Are you aware of Rewards?

Do you think if implemented will have a positive effect on Employee Motivation?

Some international companies have succeeded in applying Gamification and motivating their employees. As a Sri Lankan company, do you think Gamification will improve the Motivation and the productivity of your company?

In case you have implemented Gamification and employees are motivated, and due to some unavoidable reasons, you should stop the ongoing Gamification practices. How much does this effect on an employee's motivation?

Do you wish to share anything related or something close to Gamification that you have implemented or thinking of implementing that will facilitate the employees?

Any suggestions to convert Gamification to suite for the Sri Lankan culture match?

APPENDIX B: INTERVIEW RESPONSES AND NOTES

Person 1

General Info

00.34: 20th year in the Company, Managed 30, 40 Members, Managed 300 Members
Lifetime

01.27: 35-40 Member at the moment

Points

08.35: No point system in the company, Not looking at individual performance but team performance.

09.23: Something against culture, we have teams, if we try to go for the individuals, it affects the team performance

Leaderboard

10.01: There is no leaderboard, but the managers have a leaderboard. But it is not revealed to anyone, for managers

10.50: It's for the culture again, we don't promote individual o work together each other.
It's the synergy

Levels

11.26: Give Assignments for the Employees based on their performance, they will see it as an opportunity, through that we try to encourage them and keep them motivated

Badges

12.30: 10, 20 Years award is not a badge. We don't have badge system

13.35: Employee of the year is not an issue as it is a long period, if we are going to asses an employee weekly may bring issues among employees

Awards

14.17: Bonus System. Based on the performance salary is affected. Depending on your performance you will get rewards like attending special events.

15.35: Employee of the Year awards is not yet there, but may be in future.

Extra findings

15.45: We are looking at the culture at the company, if we are going for Gamification it may affect the culture. But if we come to smaller divisions like teams, some of the elements of the Gamification can help. When it comes to the whole company we give more preference towards the Culture.

18.02: In Our company, if we see a potential we try to groom them. We can add this as a motivational factor in Gamification.

Person 2

Points and Leaderboard

04.47: Salaries, Bonuses, No individual KPI level but Group Level. So, everybody in the group gets same bonus

05.30: Individual Salaries related to Appraisal.

05.57: Goal set for individual measured how goals are achieved. Based on that appraisal feedback and ratings affect salary revisions and the career path/Promotions

06.45: Recognition, Appreciation, Opportunities

07.18: Rewards and Recognition

08.25: Based on your interactions in the team and the managers give you feedback based on your competence. No point system like in Games.

09.25: You can't call it as a point system. It's totally based on feedback.

10.18: Teamwork and Agile environment we can have transparency, but not the total transparency.

But it may cause problems within employees to affect it so it's not needed

Badge

11.20: You can implement it with proper system,

11.30: In smaller Companies you can have, but not when you are in a large distributed system like this company

13.10: the person who done less code may have done an important code and the person done more code fixed a small bug, so even a system like Gitlab can't help to see the real value/impact

14.02: In support system we can assess with severity but in development we may need human interaction. We need a proper system with human interactions.

Levels

15.16: We have levels in career path. But its not a flat structure so it is not reflected much.

15.50: It's not very hard to implement in this company

Rewards

16:45: No, we don't have. What we have is motivational recognition appreciation kind of thing and Not converted to monetary values.

16:55: Its flatter scheme, does not happen occasional its annual

17:20: For a small company it's easy to do but for a large company it's hard to implement and sustain

Extra Findings

ERP for new person who learns, easy to teach or train people who learns our System. We don't have but there are. This is for people to get motivated to use what we built.

19:45: No idea in Our Company internal staff, but one area is ERP Training for internal staffs

Person 3

00:12: I have heard about Gamification

Points

08:40: Points System No we don't have, we have an established appraisal system which follows different mechanism. It does not directly points but again it's a comparison based on qualitative. We have something else. This is not new, it was already there.

10:10: Earlier company based on points the sales team get different bonus based on performance

10:42: We have a qualitative leaderboard not public(private)

10:48: it has to be private, it contains info of others.

12:15: We have to see practical way of how the system is implemented. There should be a human interaction is needed.

13:15: People work on different machines, which may have different performances.

13:40: When it comes to what I believe in Software Engineering, is Qualitative component. Who is better? a person who wrote 2 lines or 10 lines of code to solve a problem

14:07: We don't have a Badge system

14:32: We can have. We have to see if the systems whether they have well communicated. When u bring in system that differentiates people things are going to change. We need to have a calculated evaluation to see if this is what we want. Do you want the culture we have now or do we need a new culture after implementing that.

Levels

15:40: We do have levels

16.00: We give feedback to employees. There may be negative and positive, but the way how things are communicated in a positive way plays a main role.
Sometimes whatever we communicate some people gets demotivated.

Rewards

17.43: Recognition and salary, apart from that we don't have reward systems

18.07: Annual bonus is there

18.35: Yes, it still depends on what rewards we are bringing,

Does it motivates everyone

and fare chance of everyone getting it, else if the same person gets the reward always others become demotivated

19.37: Applying with necessary modification. Large org can be broken into small groups and applied with necessary modification with human interactions on system.

20.08: looks like a big attraction, so with time certain elements of these will come into operations

20.45 Smaller company with 30-40 people, you may not need, if it's a large company this can help

Person 4

14.00: So, bit for than 75 -100 People work under me

Points

14.48: No, we don't have points system

Leaderboard

14.55: No leaderboard system

15.20: There is unofficial board, each team has a different velocity, so a board is maintained with details of teams these are used to make management decisions but not used to appreciate the employee

16.55: As decisions are made public, people don't get motivated. The best team get good work. But the appreciations are not made public. So others think that a favoritism is given towards the best team.

18.45: The product owner as they are aware of the performance info, they go and talk with the team. But this is informal.

Badge System

19.20: No Badges System

19.45: Never thought about it.

20.08: Depends we have a diverse team with people with 2 to 8 years' experience. People with 1 or 2 years may like that. The senior people have a mindset as if u want to give me a badge put it on my salary they are not interested in Badges or recognition

Levels

22.06: We have 2 reviews per year. January Objective settings. We identify high performances we tell them to take more responsibilities and recommend some objectives.

23.30: People say we are bored with these things and we provide and recommend suggestions

24.13: Yes, it motivates them

Rewards

24.48: No we don't have anything like rewards.

25.45: The people have a mindset like we are already best, why do I need this. But we have team outings

26.55: Some element adopted will definitely help. May be not in the same way.

18.30: Internal Stackoverflow kind of system. There people like to share info and help others. So there people like to get reputation and appreciation there.

29.00: In HSenid, the people are appreciated based on how many projects are completed. Some people like to get appreciation. Some people are shy. So, in small company it Is very good. And as all know everyone it works.

30.37: What's the point of you becoming no 1 out of 1000s of people, that's kind of shady. How do u know how he became first and it creates lots of doubts. But within your team or in a small company it really is worth.

Person 5

Extracts from the Interview I had with Person 5 (Due to technical issues the automatic phone record did not trigger)

Points

Yes, but there are no systems it's based on the peer reviews from the team members and the Line manager's decisions.

Leaderboard

Yes, and its anonymous and global, a grade is given based on the performance as A*, A, B etc.

Badges

Had it for a brief period. No now.

Levels

There is not actually a level system but the promotion system is designed in a very flexible way to praise the good work of an Employees, mid-year promotions, double promotions. Having 2 promotions per year always gives an employee an encouragement to work hard for the next 6 months than thinking I have to wait for a whole year till the next promotion cycle comes.

Rewards

All the efforts and good things are considered with the appraisal, sometimes a highly performing employee gets a chance to visit client abroad from the team

Person 6

Points

02.32: No points system for individual. We have metric point system to evaluate teams. Indirectly affected to the appraisal but not directly.

Leaderboards

04.14: No leaderboards

04.50: It will, several projects where only some teams get into leaderboard. So, it demotivates others.

05.45: Different functions then the work is different and then the leaderboard and point don't work. If the works are same for everyone like in Garment factory then we can measure using Points

Badges

06.20: We don't have badge system,

Awards

06.55: But give awards for quarterly for teams and individual.

It's not connected to reward system. It should be nominated by others. There is no quantitative assessment. It's by employees to employees

Levels

07.48: There can be opportunity given based on projects and team. But it's not only because the employee is performing well but also when the requirement comes.

08.37: In certain situation it can be. But when there are 100 people working different things support and development, the work may differ. Risky, if everyone is doing the same thing then its ok.

10.05: When 2 people from 2 teams perform well, but only one team got the requirement to get a promotion and then only one guy gets the new challenge and the other may not which may demotivate that guy.

Rewards

10.50: Not a public one. But through appraisal and there are rewards given to employees which is anonymous and monetary rewards.

11.39: I don't think so, in our company it will be complex. But it may be practiced within the team. So, it won't be compared with other teams.

12.42: When u have knowledge workers. It's hard to give a quantitative analysis. If it's a Clerical job then you can quantify the work. In knowledge work, they may do a R&D it may not give any results at start. In other places they do develop something and they work on support so it is hard to compare and make a system that quantitatively analyze all employees.

Person 7

Points

07.55: Not available right now

08.15: No

09.11: Can't say if it works or not. It might workout, but based on the rewarding mechanism to award. We must have an interesting reward scheme. Else people will not see the value.

12.10: We should have some level of human interaction. People can do countless commits every day. There can be loop holes in systems.

Badge System

13.45: Age gap in IT industry is very low. Younger people have execution kind of people. Elder people who have experience they will be not doing the same what juniors do. So, it needs to be considered when thinking about awards and badges.

15.10: No badge system in Pearson

Levels

15.56: No, apart from typical appraisal there is nothing

16.28: We give opportunities, not in a regular basis or in a formal manner.

17.10: opportunity may be based on performance or not but as its informal

Rewards

18.01 Not in local company, but the Global company, we can also participate and the winner can get the rewards like Amazon or Dell Get voucher

19.24: It could affect overall performance.

20:50: Not only technical but also for the soft skill, how they help others and social skills Should have a correct scope, mechanism, good moderation is a must

22.30: People come to Colombo to work and boarded and work. All what they do is work. They do extra work. It is easy for them to get motivated. There are other people who live close by have their family and commitments where they have lots of other works to care about outside office hours

29.20: If you see United States, there are people work as Software engineer for 10 years and they don't care. But in Sri Lanka people care about designation, this is the typical Sri Lankan Culture. So, when implementing a system like this in Sri Lanka it must be very carefully.

Person 8

Points

07.30: Yes, we have point system and it is visible for everyone.

Leaderboards

09.00: Yes, we have. It covers different List of values(LOV) and how each perform.

09.45: We have a leaderboard that shows all across the BT related delivery projects.

10.30: the leaderboard is not that detailed to cause a jealousy. Only in some projects all the top and low performers are shown.

11.50: Low performing guy sometimes get motivated.

Badge

07.48: We have badges, it is like support, it's like recognition. Based on the appreciation you get you get a badge. It's called the Repes. You can copy relevant managers as well to the exposure.

16.41: Most people get motivated when recognition is given. This Repes thing is very encouraging and we appreciate the people who raise Repes. We appreciate who appreciates others. We call them the Millennials. This is the way of working. This is actually we have a internal score, whether this guy raise many Repes and how much Repes they get.

17.50: Yammer social media related knowledge recognition.

19.20: People who don't talk in public talks in Yammer. Specially women. And this helps to get complaints too.

Levels

21.30: So, it depends on if someone is skillful and if someone is willing to do things, and depends on projects to projects we actually give them opportunity.

22.13: Sometimes we ask them to play some roles.

Rewards

25:31 Sometimes back we had this small reward system. Last year this happened.

26.04 Top performers get some retention bonus in appraisal.

26.24 Internal games to come up with Ideas. And reward the best ideas.

27.10: I think so, some people like recognition.

30.44: This is a very good way of recognizing people.

31.10: Not everyone is talkative, this is a good platform for people like that. Most of the time people who talks gets all the opportunities.

31.39: In Engineering, software engineering perspective it's a very good way of identifying and getting the output.

33.24: In lots of company's transparency is low. So, people really don't know what actually is the management is expecting from us.

34.20: In appraisal if you are exceeding expectation, and that's something you have to do. But you have to give exceeding goals and encourage them in regular basis and this is what you need to do and where you can go. Communication between low level and Top level should be very important and transparent.

Person 9

02.23: I have 2 roles CIO for Global company, General Manager for the Local Company.

03:45: In Sri Lanka we have 3500, Globally 25 000 People.

Points

03.25: We have a System called Repes, we have a platform called V+ it's kind of an engagement and the point systems is called Repts.

03.45: This is visible for Everyone. Anyone can see any one's points

04.10: Largely impact is positive. This is directly connected to the Appraisal. And any systems are fool proof. So, somebody can fool the system a little bit, but by making it transparent, if someone is getting points in a drastic way other can identify and inspect if someone is fooling the system. So, we want the crowd to govern it.

05.00: We have Gamification in many area, but eventually melts down to Repes. We have broken down to 3 areas

Solo – Individual knowledge transferring, your referral, training and your billing,

Team – Team out come, client satisfaction, team activity, team performance

Org – People work on Social kind of works representing the company, like helping others representing the company

Leaderboard

06.52: Yes, there are leaderboards, there is a master leaderboard that roles everything into one. You can check who is the best software engineer and everything.

07.02: There are leaderboards for individual projects as well

07.35: It does couple of thing, as individual recognition and transparency. We see improvement in Outcome.

07.55: In most areas we see 50 to 20 % improvement.

08.00: Most importantly, others can see the top performance, and why they are top performers. And you can showcase how you got to the top. And it can role model and it helps others.

08.35: Without Transparency others don't know why or for what this guy is getting recognized. But here with transparency it helps others to improve or inspired. Not only individual but inspires others.

09.35: Everything is automated.

10.20: It depends on how it is designed.

Its easy to implement in large companies to implement leaderboards

Levels – Under experiment, 6 month moving windows so actively good at something, good for new members too

New generation are into gamification, people like it, improve themselves and help company improve, in social media(Yammer) people can find the best person on the related technology to get help or advice. Works like a recognition. Audience is important to show the power of their knowledge, that's where Social Media comes in.

Gamification platform is implemented to the whole global company

Rewards

No rewards, so people won't stop after achieving the reward. So, the reward is their performance through points taken into appraisal

Findings: *Gamification is Technology engineering, not technology management, it's how you can bring out the best technology skills out of an employee*

APPENDIX C: OPEN CODING AGAINST PARENT CODES

Person	Code
Points	
Person 1	No point system in the company, Not looking at individual performance but team performance.
	Something against culture, we have teams, if we try to go for the individuals, it affects the team performance
Person2	Salaries, Bonuses, No individual KPI level but Group Level. So, everybody in the group gets same bonus
	Based on your interactions in the team and the managers give you feedback based on your competence. No point system like in Games
	You can't call it as a point system. It's totally based on feedback.
	Teamwork and Agile environment we can have transparency, but not the total transparency.
	But it may cause problems within employees to affect it so it's not needed
Person 3	Points System No we don't have, we have an established appraisal system which follows different mechanism. It does not directly points but again it's a comparison based on qualitative
Person 4	No, we don't have points system
Person 5	Yes, but there are no systems, it's based on the peer reviews from the team members and the Line manager's decisions
Person 6	No points system for individual. We have metric point system to evaluate teams. Indirectly affected to the appraisal but not directly.
Person 7	Not available right now
	Can't say if it works or not. It might workout, but based on the rewarding mechanism to award. We must have an interesting reward scheme. Else people will not see the value
	We should have some level of human interaction. People can do countless commits every day. There can be loop holes in systems.
Person 8	Yes, we have point system and it is visible for everyone.
Person 9	We have a System called Repes, we have a platform called V+ it's kind of an engagement and the point systems is called Repe.
	This is visible for Everyone. Anyone can see any one's points
	Largely impact is positive
	This is directly connected to the Appraisal

	And any systems are not fool proof. So, somebody can fool the system a little bit
	But by making it transparent, if someone is getting points in a drastic way other can identify and inspect if someone is fooling the system. So, we want the crowd to govern it.
	We have Gamification in many area
Leaderboards	
Person 1	There is no leaderboard, but the managers have a leaderboard. But it is not revealed to anyone, for managers
	It's for the culture again, we don't promote individual o work together each other. It's the synergy
Person 2	
Person 3	We have a qualitative leaderboard not public(private)
	it has to be private ,it contains info of others.
	There should be a human interaction is needed.
Person 4	No leaderboard system
	There is unofficial board, each team has a different velocity, so a board is maintained with details of teams these are used to make management decisions but not used to appreciate the employee
	The best team get good work. But the appreciations are not made public. So others think that a favorism is given towards the best team
Person 5	Yes, and its anonymous and global, a grade is given based on the performance as A*, A, B etc.
Person 6	No leaderboards
	Different functions then the work is different and then the leaderboard and point don't work. If the works are same for everyone like in Garment factory then we can measure using Points
Person 8	Yes, we have. It covers different LUVs and how each perform.
	the leaderboard is not that detailed to cause a jealousy. Only in some projects all the top and low performers are shown.
	Low performing guy sometimes get motivated
Person 9	Yes, there are leaderboards, there is a master leaderboard that roles everything into one. You can check who is the best software engineer and everything.
	There are leaderboards for individual projects as well
	As individual recognition and transparency.
	We see improvement in Outcome.
	In most areas we see 50 to 20 % improvement.

	Most importantly, others can see the top performance, and why they are top performers. And you can showcase how you got to the top. And it can role model and it helps others.
	Without Transparency others don't know why or for what this guy is getting recognized. But here with transparency it helps others to improve or inspired. Not only individual but inspires others.
	Everything is automated.
	It depends on how it is designed.
	Its easy to implement in larger companies to implement leaderboards
Badges	
Person1	10, 20 Years award is not a badge. We don't have badge system
	Employee of the year is not an issue as it is a long period, if we are going to asses an employee weekly may bring issues among employees
Person2	You can implement it with proper system
	In smaller Companies you can have, but not when you are in a large distributed system like this company
	the person who done less code may have done an important code and the person done more code fixed a small bug, so even a system like Gitlab can't help to see the real value/impact
	In support system we can assess with severity but in development we may need human interaction. We need a proper system with human interactions.
Person 3	We don't have a Badge system
	We can have. We have to see if the systems whether they have well communicated. When u bring in system that differentiates people things are going to change. We need to have a calculated evaluation to see if this is what we want
Person 4	No Badges System
	Depends we have a diversified team with people with 2 to 8 years' experience
	People with 1 or 2 years may like that
	The senior people have a mindset as if u want to give me a badge put it on my salary they are not interested in Badges or recognition
Person 5	Had it for a brief period. No now.
Person 6	We don't have badge system
Person 7	No badge system in Pearson
	Younger people have execution kind of people. Elder people who have experience they will be not doing the same what

	<p>juniors do. So, it needs to be considered when thinking about awards and badges.</p>
Person 8	<p>We have badges, it is like support, it's like recognition. Based on the appreciation you get you get a badge. Its called the Repes. You can copy relevant managers as well to the exposure.</p>
	<p>Most people get motivated when recognition is given. This Repes thing is very encouraging and we appreciate the people who raise Repes. We appreciate who appreciates others. We call them the Millennials. This is the way of working. This is actually we have a internal score, whether this guy raise many Repes and how much Repes they get.</p>
	<p>Yammer social media related knowledge recognition</p>
	<p>People who don't talk in public talks in Yammer. Specially women. And this helps to get complaints too.</p>
Person 9	
Levels	
Person 1	<p>Give Assignments for the Employees based on their performance, they will see it as an opportunity, through that we try to encourage them and keep them motivated</p>
Person 2	<p>We have levels in career path. But its not a flat structure so it is not reflected much.</p>
	<p>It's not very hard to implement in this company</p>
Person 3	<p>We do have levels</p>
	<p>We give feedback to employees. There may be negative and positive, but the way how things are communicated in a positive way plays a main role.</p>
	<p>Sometimes whatever we communicate some people gets demotivated.</p>
Person4	<p>We have 2 reviews per year. January Objective settings. We identify high performances we tell them to take more responsibilities and recommend some objectives</p>
	<p>People say we are bored with these things and we provide and recommend suggestions</p>
	<p>Yes, it motivates them</p>
Person 5	<p>There is not actually a level system but the promotion system is designed in a very flexible way to praise the good work of an Employees, mid-year promotions, double promotions. Having 2 promotions per year always gives an employee an encouragement to work hard for the next 6 months than thinking I have to wait for a whole year till the next promotion cycle comes.</p>

Person 6	There can be opportunity given based on projects and team. But it's not only because the employee is performing well but also when the requirement comes
Person 7	No, apart from typical appraisal there is nothing
	We give opportunities, not in a regular basis or in a formal manner
Person 8	So it depends on if someone is skillful and if someone is willing to do things, and depends on projects to projects we actually give them opportunity.
	Sometimes we ask them to play some roles.
	In appraisal if you are exceeding expectation, and that's something you have to do. But you have to give exceeding goals and encourage them in regular basis and this is what you need to do and where you can go. Communication between low level and Top level should be very important and transparent.
Person 9	Under experiment, 6 month moving windows so actively good at something, good for new members too
Rewards	
Person 1	Bonus System. Based on the performance salary is affected. Depending on your performance you will get rewards like attending special events.
	Employee of the Year awards is not yet there, but may be in future.
	We can use rewards as a mechanism to train the users of our system and to train internal employees on ERP.
Person 2	No, we don't have. What we have is motivational recognition appreciation kind of thing and Not converted to monetary values.
	Its more flat scheme, does not happen occasional its annual
	For a small company it's easy to do but for a large company it's hard to implement and sustain
person 3	Recognition and salary, apart from that we don't have reward systems
	Annual bonus is there
	Does it motivates everyone fare chance of everyone getting it, else if the same person gets the reward always others become demotivated
person 4	No we don't have anything like rewards

	The people have a mindset like we are already best, why do I need this. But we have team outings
	Internal Stackoverflow kind of system. There people like to share info and help others. So there people like to get reputation and appreciation there.
Person 5	All the efforts and good things are considered with the appraisal, sometimes a highly performing employee gets a chance to visit client abroad from the team
Person 6	But give awards for quarterly for teams and individual
	It's not connected to reward system. It should be nominated by others. There is no quantitative assessment. It's by employees to employees
	Not a public one. But through appraisal and there are rewards given to employees which is anonymous and monetary rewards.
Person 7	Not in local company, but the Global company, we can also participate and the winner can get the rewards like Amazon or Dell Get voucher
Person 8	Sometimes back we had this small reward system. Last year this happened.
	Top performers get some retention bonus in appraisal.
	Internal games to come up with Ideas. And reward the best ideas.
Person 9	No rewards, so people won't stop after achieving the reward. So, the reward is their performance through points taken into appraisal
Gamification	
Person1	if we come to smaller divisions like teams, some of the elements of the Gamification can help. When it comes to the whole company we give more preference towards the Culture.
Person 3	Applying with necessary modification. Large org can be broken into small groups and applied with necessary modification with human interactions on system.
	Smaller company with 30-40 people, you may not need, if it's a large company this can help
Person 4	Some element adopted will definitely help. May be not in the same way.
Person 6	I don't think so, in our company it will be complex. But it may be practiced within the team. So it won't be compared with other teams.

Person 7	It could affect overall performance
Person 1	We are looking at the culture at the company, if we are going for Gamification it may affect the culture.
Person 7	People come to Colombo to work and boarded and work. All what they do is work. They do extra work. It is easy for them to get motivated. There are other people who live close by have their family and commitments where they have lots of other works to care about outside office hours
	If you see United States, there are people work as Software engineer for 10 years and they don't care. But in Sri Lanka people care about designation, this is the typical Sri Lankan Culture. So, when implementing a system like this in Sri Lanka it must be very carefully
	Not only technical but also for the soft skill, how they help others and social skills
	Should have a correct scope, mechanism, good moderation is a must
Person6	When u have knowledge workers. It's hard to give a quantitative analysis. If it's a Clerical job then you can quantify the work. In knowledge work, they may do a R&D it may not give any results at start. In other places they do develop something and they work on support so it is really hard to compare and make a system that quantitatively analyze all employees.
	In certain situation it can be. But when there are 100 people working different things support and development, the work may differ. Risky, if everyone is doing the same thing then its ok.
Person 2	For Customer Training
	ERP for new person who learns, easy to teach or train people who learns our System. We don't have but there are. This is for people to get motivated to use what we built
Person 4	What's the point of you becoming no 1 out of 1000s of people, that's kind of shady. How do u know how he became first and it creates lots of doubts. But within your team or in a small company it really is worth
Person 8	I think so, some people like recognition.
	This is a very good way of recognizing people
	Not everyone is talkative, this is a good platform for people like that. Most of the time people who talks gets all the opportunities.

	In Engineering, software engineering perspective it's a very good way of identifying and getting the output.
	In lots of company's transparency is low. So, people really don't know what actually is the management is expecting from us.
Person 9	New generation are into gamification, people like it, improve themselves and help company improve, in social media(Yammer) people can find the best person on the related technology to get help or advice. Works like a recognition. Audience is important to show the power of their knowledge, that's where Social Media comes in.
	Findings: <i>Gamification is Technology engineering, not technology management, it's how you can bring out the best technology skills out of an employee.</i>