

Gamification in Sales Effectiveness Activity

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Abstract Although the measurement of organizational performance is the focus of top management of different organizations, it does not always fix control of established goals. It is necessary to create mechanisms for capturing the high income of employees, so that, by keeping them motivated, living with their active activity adds value to the organization. However, in the annual results statement, it is only a performance of the trading effectiveness that is mirrored, a pair of business generated by this organizational silo. For this reason, a literature review brings together the descriptions of studies carried out, there are no criteria for the use of the gamification concept for a return on capital invested in different business activities, according to a different author's perspective.

Keywords Gamification, Management, Monitoring, Performance, Sales Effectiveness, Sales Energy

1. Introduction

The concept of gamification has been defined by different authors over the last two decades under different perspectives. Although all relate motivation to organizational performance, some describe it as the "Holy Grail" for acquiring good results, as is the case with [1]. According to [2], the gamification concept is no more than the use of game elements in a non-game context, allowing the player's engagement and, consequently, better results in a given activity, appealing to innovation.

Although we intend to study the relationship between the use of the gamification concept and the high-performance capture in the scope of commercial effectiveness, we have managed to make a generic analogy to different performance monitoring projects described by different authors and researchers throughout this document.

This document is structured in two sequential sections, which address the theme under study: i) gamifying corporation silos, ii) measuring the sales effectiveness activity and iii) conclusions.

2. Gamifying Corporation Silos

It is not new that the concepts addressed in corporate and leadership areas were developed within the military. Although economists have recently begun to understand the

importance of the democratic role in professional development, according to [3], the stronger an army, the more benefits we get. For this reason, it is important to create organizational silos capable of evolving with synergetic objectives.

According to [4], the concept of gamification is a trend nowadays for the profitability of organizational efficiency, since it allows to introduce a mechanics of a game in the professional activity of the employees, not neglecting the motivation and individual pleasure in the long term. Through the creation of teams among the different organizational silos, it is possible to quantify the results returned by the enterprise information systems at a certain scale, such as Enterprise Resource Planning (ERP), Customer Relationship Management (CRM) or Software Configuration Management (SCM). In an automation perspective of gamification through the development of a sui generis platform, the author considers that a gamification system should be able to provide immediate feedback, compliance objectives and rules to its users. In this way, it must be assumed that everything that is important in this context and that can be punctuated can be represented by events. In the case where a user U successfully completes step X in process P , an event E is considered as a tuple $\{U, X, P\}$. Through a Business Rules Management System (BRMS), we can establish conditions so that if P implies a consequence C , then C is executed immediately, which can be translated into the assignment of extraordinary scores or the payment of a given reward. Analyzing Figure 1, we can incorporate such a platform into an abstract architecture of an enterprise information system, taking into account that all events are published on a corporate service bus, responsible for the routing of different services and security rules.

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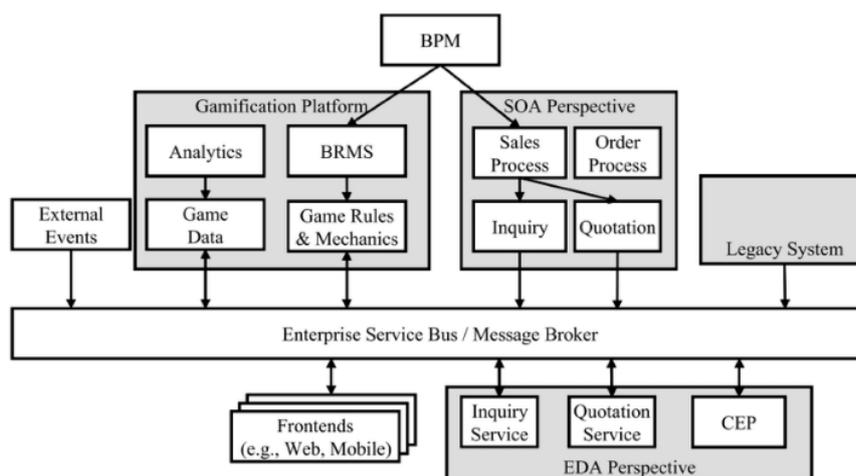


Figure 1. Architecture for a gamification platform, according to [3]

Although the creation of organizational silos is a starting point for performance monitoring and for the application of a gamification model to create synergies between different teams, it is necessary to adapt the business architecture in use. To that end, [5] concludes that two types of risks must be considered in relation to the maturity level of the enterprise architecture: i) technical risk and ii) social risk. Focusing on social risk, we can come up with issues relevant to the organizational environment, related to eventual reductions of commitment on the part of employees, which can be filled with the added value that technology can offer us, through i) the capacity to managing external relations, (ii) capacity to reduce operating costs, and (iii) speed of entry of competition into the market. The adaptation of an enterprise architecture to models that allow analysis of employee performance management can not only pave the way for a more effective use of technology in the management of external relations but also improve inter-organizational collaboration and communication.

According to [2], motivational theories confirm that different collaborators have various needs and desires. The concept of gamification allows us to use such factors, based on those needs and desires, to obtain the completion of a given task. Its application aims not only to increase productivity, but also to improve its enthusiasm. The specific case of the application of related models in departmental silos composed of human resource specialists is one of the successful ones in the market. At the same time, by applying the concept of gamification to recruitment and training for evaluating employee performance and welfare activities, it is possible to improve their engagement. With the increase of competition and labor supply in economic activities of the tertiary sector, [2] reinforces that it is urgent the gradual improvement of the satisfaction of the different collaborators.

Although most of the activities measured by these models are not virtual, the use of technology to make such measurements is very useful. According to [6], there are two types of methods for this: i) autonomous and ii) social. The

autonomous ones offer tasks, that are verified or monitored according to the algorithms configured in the system like tests and questionnaires; while social ones allow direct or indirect interaction with real personnel, including communication and verification tasks.

According to [7], these models become useful because they offer certain motivational support to employees, be it intrinsic or extrinsic. Intrinsic motivational support is rooted directly in the task, while the extrinsic motivational support is related to the fulfillment of external objectives, and is often related to an extraordinary remuneration.

Although the concept of gamification first emerged in 2008, by Brett Terrill, with the goal of enhancing engagement of a collaborator to a particular task, it only began to be widespread in the industrial and professional services sectors in 2010. Since there are different definitions for this, [8] redefines the concept as a process of improvement of a certain service, using game experiences, with the objective of supporting the creation of value to the activities of the employee (player in this case), neglecting possible methodologies and models used. Since there is no analysis of the typology of game elements in the literature used, it is dubious whether rewarding models involved in loyalty programs, decision support systems and other services that consider the assignment of points, levels and progress metrics could be included. However, if we consider the concept of affordance as part of the concept of gamification, it is necessary to define models that allow the calculation of the evolution of the collaborator throughout the game.

3. Measuring the Sales Effectiveness Activity

Business effectiveness is one of the essential activities in organizations focused on service delivery, being present in the tertiary economic sector. According to [7], to use motivation as a contribution to models of gamification, it is

necessary to understand how we can monitor employee performance, with which it agrees [2], indicating also that incentives and rewards, whether intrinsic or extrinsic, are elements critical for gamers in any context.

One of the examples of application of this type of models to commercial efficacy is the development study by [9], which made an on-site observation through the analysis of data made available by a Business Activity Monitoring (BAM) system, with the objective of the monitoring of the performance of the automotive industry in real time. Since the company is dispersed geographically, real-time monitoring is more than essential for continuous improvement of its processes. Being difficult to monitor and analyze business events, in an integrated and comprehensive way, due to the location and source of the information systems for performance measures, the BAM system was proposed with the most promising solution to complete all the needs.

According to [10], business performance management allows organizations to monitor and respond to changes in the business environment, in order to optimize their performance, relating it to the employee's goals. Business performance is measured through indicators to reflect the return of activities under the technology layer.

For the best performance in the business, the essential is the set of effective measurement and performance analysis of the management activities of the business, which is only possible through the definition of indicators, metrics used to plan, execute and monitor business. Among these, performance indicators are highlighted, which determine the monitoring of the objectives to be fulfilled and allow the monitoring of the relative levels of control with a certain tolerance, used in the organizational context.

In the health sector, commercial efficiency is not measured by sales performance but rather by the quality of health care. In order to perform such management, [3] reviewed the methods most commonly used in this type of control, especially in cardiac surgeries. Although its area is cardiology and not management or computer science, the researcher wanted to study the usefulness of certain types of graphics used in dashboards to monitor health care performance, such as control charts, Cumulative Sum Charts (CUSUM) and funnel plots. As a conclusion to the study and application of the developed dashboard, the CUSUMs analysis was clearly the most acceptable for the evaluation and monitoring of the medical processes in question. It should be noted that further work on this point does not compare with a study on the effectiveness and/ or efficiency of a conventional dashboard and should not therefore be assessed in the same way.

In the pharmaceutical sector, commercial efficiency follows the organizational model of professional services, related to the so-called sales energy. According to [12], after a study of 57 disparate pharmacists, formal control mechanisms coexist with strong informal professional standards that also influence values, activities, and outcomes. In this configuration, input, behavior, and output control, in

the context of product development, can enable scientists to effectively conduct their work and align it with professional norms and goals. The basis of competitive advantage in the pharmaceutical industry lies in successful innovation. For this reason, the pharmaceutical industry spends a large percentage of the value of its sales in research and development, unlike other industries, such as those related to the aerospace industry or the development of advanced technology. In this context, the author reinforces that control can be defined as any process whereby top management focuses attention, motivates, and encourages employees to act in a planned way to achieve the company's annual fiscal goals. Associated with this, there is another type of control, structural control, also known as bureaucratic or behavioral control, since it allows regulating the organization's business activities and is often implemented in the form of rules and procedures.

Despite the potential benefits of implementing information systems and technologies in the health sector, their effectiveness and success are limited by cultural and regulatory concerns. According to [13], these obstacles can interfere in the alignment between IT and the organization's business, which has an impact on the evaluation of its commercial effectiveness. Although the correct leverage of IT can provide strategic skills to health professionals with commercial responsibilities, regulatory agencies and competition in the sector may be an obstacle, as it requires organizations to adapt to their characteristics and, sometimes, their own economic activity.

4. Conclusions

Today, companies, especially those active in information technology, face increasing difficulty in retaining their talents. For professionals in this area, working in large technology companies such as Microsoft or Amazon is certainly attractive, however, even these show a great turnover of their employees. Despite the observable evidence that humans are liberally endowed with intrinsic motivational tendencies, according to [14], this propensity is something expressed only under specific conditions. Although, in the field of commercial efficacy, the most salient motivation is of the extrinsic type, by the underlying economic activity, according [15], feedback continues to be a very useful personal and hierarchical control mechanism for the development of the employee and his/ her company. This allows you to not only monitor and compare your behavior, but also evaluate its performance.

According to [16], the role of Management Control Systems (MCS) has become an important concern for professionals and researchers in the fields of economics and management, regarding different organizational changes. With its use of the area under focus in this document, it is possible to carry out a statistical analysis with different parameters, defined by the indicators presented in the gamification model used, with which it agrees [6].

According to [17], based on this type of models, it is possible to monetize the invested capital, which, in turn, shows the benefit of the teams in play.

REFERENCES

- [1] S. Deterding, D. Dixon, R. Khaled, and L. Nacke, "From game design elements to gamefulness: defining gamification", *Proceedings of the 15th International Academic MidTrek Conference: Envisioning Future Media Environments*, pp. 9-15, ACM, 2011.
- [2] J. G. Kang and K. H. Han, "A business activity monitoring system supporting real-time business performance management", *Third 2008 International Conference on Convergence and Hybrid Information Technology*, IEEE Computer Society, pp. 473-478, 2008.
- [3] S. P. Singh, "Gamification: a strategic tool for organizational effectiveness", *International Journal of Management*, Vol. 1, Anveshak, pp. 109-115, 2012.
- [4] T. Besley and J. A. Robinson, "Quis custodiet ipsos custodes? Civilian control over the military", *Journal of the European Economic Association*, vol. 8, European Economic Association, pp. 655-663, 2010.
- [5] M. A. P. Herzig and A. Schill, "A generic platform for enterprise gamification", *Joint Working Conference on Software & 6th European Conference on Software Architecture*, IEEE, pp. 219-223, 2012.
- [6] R. V. Bradley, R. M. E. Pratt, T. A. Byrd, and L. L. Simmons, "The role of enterprise architecture in the quest for IT value", *MIS Quarterly Executive*, vol. 10, pp. 80, 2011.
- [7] I. V. Osipov, A. A. Volinsky, E. Nikulchev, and A. Y. Prasikova, "Study of Gamification Effectiveness in Online e-Learning Systems", *International Journal of Advanced Computer Science and Applications*, Vol. 6, pp. 71-77, 2015.
- [8] K. Huotari and J. Hamari, "A definition for gamification: anchoring gamification in the service marketing literature," *Electronic Markets*, vol. 27, no. 1, pp. 21-31, 2017.
- [9] R. Marcão, G. Pestana, and M. J. Sousa, "Gamification in project management", *Second International Conference On Economic and Business Management, Advances in Economics, Business and Management Research*, Vol. 33, pp. 852-861, 2017.
- [10] R. Marcão, G. Pestana, and M. José Sousa, "Corporate frameworks and technological products focusing alarmistic and monitoring indicators of control and performance", *11th CISTI*, 2016.
- [11] L. Noyez, "Control charts, cusum techniques and funnel plots. A review of methods for monitoring performance in healthcare", *Interactive Cardiovascular and Thoracic Surgery*, vol. 9, 2009.
- [12] L. B. Cardinal, "Technological innovation in the pharmaceutical industry: the use of organizational control in managing research and development", *Organization Science*, vol. 12, pp. 19-36, 2001.
- [13] R. V. Bradley, R. M. E. Pratt, T. A. Byrd, C. N. Outlay, and D. E. Wynn Jr., "Enterprise architecture, IT effectiveness and the mediating role of IT alignment in US hospitals", *Info Systems J*, vol. 22, Blackwell Publishing Ltd, pp. 97-127, 2012.
- [14] R. M. Ryan and E. L. Deci, "Intrinsic and extrinsic motivations: classic definitions and new directions", *Contemporary Educational Psychology*, vol. 25, Ideal Library, pp. 54-67, 2000.
- [15] P. Petkov, F. Kobler, M. Foth, R. Medland, and H. Krcmar, "Engaging energy saving through motivation – specific social comparison", *Conference on Human Factors in Computing Systems*, 2011.
- [16] R. H. Chenhall and K. J. Euske, "The role of management control systems in planned organizational change: an analysis of two organizations", *Accounting, Organizations and Society*, vol. 32, Elsevier, 2007.
- [17] R. Marcão, G. Pestana, and M. J. Sousa, "Enterprise Architecture as a key to address performance management (through gamification)", *284th International Conference on Science, Technology and Management*, The Ires, in press, 2017.