

Gamified e-Commerce

A New Paradigm on e-Media Business

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Abstract—Nowadays, e-commerce and e-business have increasingly become a necessary component of business strategy. It's also become a strong catalyst for economic development. We can see it through the report given by various authors [1, 2, 3].

Gamification, on the other hand, is a new term used to describe the using of game elements and game design techniques in other non-game areas/activities, such as business, education, health, politics, etc [4]. Gamification studies and improvements also take place on the e-commerce fields, as we can see on some e-commerce sites, such as ebay, foursquare, amazon gold box, and salesforce.com which has implement the gamification concept on their sites.

On this paper, we will explore this new paradigm on e-media business: the usage of gamification concept on e-commerce field. Is it possible? What are the advantages? And what are the disadvantages? All this questions lead us to the new term known as GE-commerce (Gamified E-commerce).

Index Terms—e-commerce, gamification, business strategy, ge-commerce

I. INTRODUCTION

In the emerging global economy, e-commerce has increasingly become a necessary component of business strategy. The rapid development of information and communications technology (ICT) in business has taken its' part, especially in enhancing productivity, encouraging greater customer participation, enabling mass customization, and reducing costs [1].

Some big players on e-commerce business have taken a step forward by using various techniques to increase their traffic and enlarge their customers, which lead to improvement to their revenue. One technique been used lately is by applying some game elements and game design techniques on their sites. Amazon gold box, foursquare, salesforce, and even one of the biggest online's auction, the ebay have implemented it.

This technique, that used the game concept on non-game contexts, is known as gamification. It's a new emerging business practice that can be applied

to many fields, such as education, health, politics, and business. On e-commerce itself, the implementation of gamification on e-commerce is known as G-commerce, or as the author's proposed GE-commerce (gamified e-commerce).

II. E-COMMERCE

Electronic commerce or e-commerce is the use of electronic communications and digital processing technology in business transactions to create, transform, and redefine relationships for value creation between or among organizations, and between organizations and individuals. Usually, it refers to a wide range of online business activities for products and services [1].

There are some major types of e-commerce, such as business-to-business (B2B) which is the e-commerce between companies; business-to-consumer (B2C) which involves the consumer to gather information, purchasing physical or informational goods, and receiving it; business-to-government (B2G) which is the commerce between companies and the public sector; consumer-to-consumer (C2C) which is the commerce between individuals or consumers; and mobile commerce (m-commerce) which is defined as the buying and selling of goods and services through wireless technology.

Although as reported by J. E. Lawrence and U. A. Tar [3], there are some barriers hindering e-commerce adoption in developing countries, range from the infrastructural barriers to political and governmental barriers; as displayed in figure 1, many experts still predict the e-commerce platform as the top three area of investment in 2012 [2].

Top Areas of Investment for 2012

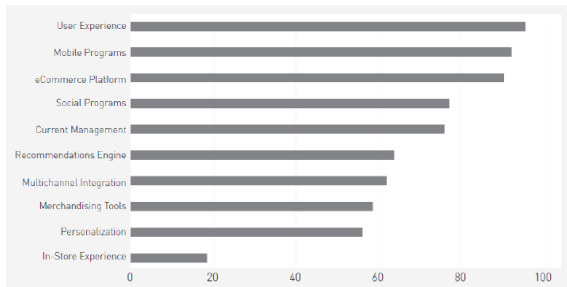


Fig. 1. e-commerce is top three priorities for 2012 [2]

III. GAMIFICATION

Gamification is a new term and concept in both theoretical and practical knowledge. Here, some basic concepts on gamification will be given. Besides that, the six-steps to be considerate when designing a gamification framework will be explained.

A. Basic Concepts

Gamification is the use of game elements and game design techniques in non-game contexts, such as health, education, politics, public sector, and business. It was an emerging new brand concept in the past couple of years.

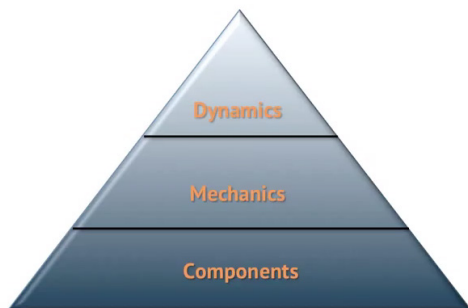


Fig. 2. Pyramid of gamification elements

Figure 2 above describe the pyramid of gamification elements. On the highest level, there is dynamics level which is the conceptual level, where the constraints, emotions, narrative, progression, and relationships of gamification been decided. The second level is the mechanics level which describe as processes that drive action forward, such as challenges, chance, competition, cooperation, feedback, resource acquisition, rewards, transactions, turns, and win states. Lastly, on the lowest level, there are components, define as specific instantiations of dynamics and mechanics, such as achievements, avatars, badges, boss fight, gifting, content unlocking, leaderboards, levels, points, quests, social graph, virtual goods, etc.

People, organization, or company that used gamification on their system to achieve their goals is usually known as gamificator. There are many reasons and goals a gamificator would like to achieve, for example to enhance their employees' productivity, to increase their loyal customers, or to improve their product demands.

After knowing some basic concepts of gamification, we could implement gamification concept on a system using the gamification design framework as described below.

B. Gamification Design Framework

There are some steps we need to know when designing a gamification system. Here are the six-step of gamification design framework as described by K. Werbach and D. Hunter [4]:

1. Define business objectives. Why are you gamifying? How do you hope to benefit your business, or achieve some other goal such as motivating people to change their behavior?
2. Delineate target behaviors. What do you want your players to do? And what are the metrics that will allow you to measure them? These behaviors should promote your business objectives, although the relationship may be indirect. For example, your business goal might be to increase sales, but your target behavior could be for visitors to spend more time on your website. The metrics should in some fashion provide feedback to the players, letting them know when they are successfully engaging in the intended behaviors.
3. Describe your players. Who are the people who will be participating in your gamified activity? What is their relationship to you? For example, are they prospective customers, employees at your organization, or some other community? And what are they like? You can describe your players using demographics (such as age and gender), psychographics (such as their values and personalities), Bartle's player types [5], or some other framework.
4. Devise your activity loops. Explore in greater detail how you will motivate your players using engagement and progression loops. First, describe the kinds of feedback your system will offer the players to encourage further action, and explain how this feedback will work to motivate the players. Second, how if at all will players progress in your system? This includes how the system will get new players engaged, and how it will remain interesting for more experienced players.

5. Don't forget the fun. Although more abstract than some of the other elements, ensuring that your gamified system is fun remains as important as the other aspects. In order to fully explore this aspect of the design process, consider how your game would function without any extrinsic rewards. Would you say it was fun? Identify which aspects of the game could continue to motivate players to participate even without rewards.

6. Deploy the appropriate tools. What are some of the game elements involved and what will the experience be like for the players? What specific choices would you make in deploying your system? For example, you might discuss whether the gamified system is to be experienced primarily on personal computers, mobile devices, or some other platform. You might also describe what feedback, rewards, and other reinforcements the players could receive. Finally, think about whether you've tied your decisions back to the other five steps in the process, especially the business objectives.

IV. GE-COMMERCE

The implementation of gamification concept on e-commerce media business gave birth to a new term known as GE-commerce (gamified e-commerce). Here, we will see whether it's possible to apply gamification on e-commerce field? Why do some big players on e-commerce media business use this technique? What are the advantages? And what are the disadvantages? On the last part, there are some screenshots taken from one of the most successful e-commerce sites called foursquare, which has implemented the gamification concept on their system to achieve their business goals.

A. *New Paradigm on e-Media Business*

Implementation of gamification on e-commerce sites has emerging lately. It has become a new paradigm on e-media business. But one question should be considered, is it possible to adapt this technology on all e-commerce field? Clearly the answer to the prior question is it is very possible. All e-commerce sites can be gamified by using some game elements on it. But the more fundamental question should be, whether it's appropriate or not to use gamification on an e-commerce site?

Not everything can be easily gamified. A gamificator should know and understand on the system he/she is trying to gamify. There are some basic rules they need to know and follow when trying to implement the gamification concept on e-media business:

1. Do not force the user to perform tasks that increase the effort to make a purchase
2. Never damage the image of the product or store
3. Manage attractive targets for the user in short, medium, and long term
4. Manage your gamification to the most common customer of the store

These basic rules can help a gamificator to design and implement gamification concept on an e-commerce site properly. If by using gamification on e-commerce site, it deals adequately with the effort made by the customer to purchase our products, it takes up the image of our products, and it can attract more customers to the site, then it should be used.

B. *Gamified e-Commerce*

Gamified e-commerce simply is an e-commerce site with gamification on it. Increasingly more and more e-commerce sites has change its' role as e-commerce sites. Although there are some widely known advantages to use gamification concept on e-commerce, there are also some disadvantages need to be considered.

Some of the ge-commerce disadvantages are:

1. It should be properly design and implemented
2. It should be properly maintain
3. It can increase the website/system production cost

Besides the disadvantages, some advantages widely known when gamification be used on an e-commerce site are:

1. It can increase customers' satisfaction
2. It can increase customers' interaction
3. It can increase employees' productivity
4. It can improve company revenue/profit
5. It can upgrade product/company brand
6. It can reduce operational costs

By knowing the disadvantages and advantages of gamification implementation on e-commerce, it can help the gamificator to get a better result and achievement.

C. *Example*

Below here, some screenshots of gamification implementation on foursquare been displayed.

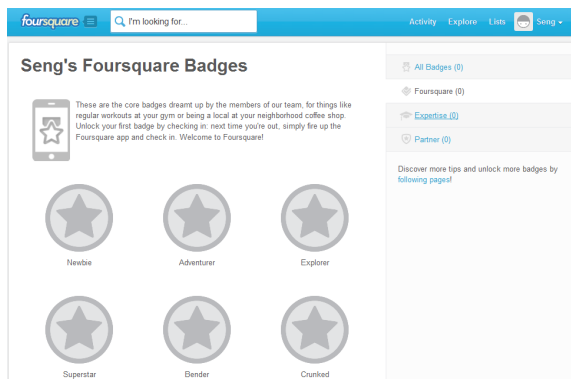


Fig. 3. Foursquare badges

On figure 3 above, we can see different kinds of badges available for the foursquare user to collect. It can give motivation for the user to do some tasks given to get and collect all the badges. Some can be obtained easily, while some others could be quite difficult, such as meeting and participating in an event on another geographic area.

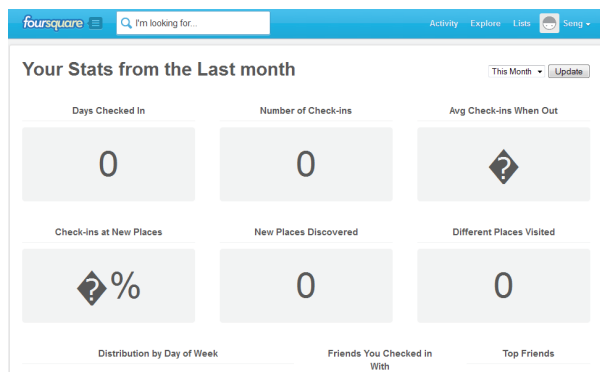


Fig. 4. Foursquare progress stats

As we can see on figure 4, the user also can check their progression or stats. It can be used for the user to keep their track among other foursquare users, or just to give them some intrinsic motivation on their achievement.

There are also some ge-commerce sites that widely known, such as Google news site, amazon gold box, ebay, salesforce, Samsung, SAP, etc. Please feel free to try it yourself.

V. CONCLUSION

Gamification as a new concept and area of study has been widely used in many fields, not to mention on the e-commerce business area. The implementation of gamification concept has become a new paradigm on e-media business, i.e. on e-commerce. Of course, there are some advantages and disadvantages on implementing the new concept on e-commerce, but with proper understanding and techniques used when implementing gamification, will lead the gamificator to the better result and achievement at the end.

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