

**Financial and Banking Services Market**

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**«ECONOMIC BUBBLES»
ON THE MARKET OF VIRTUAL GOODS****Abstract**

In the paper origin and cause of the crises on the market of virtual goods – places where supply and demand are set for digital products, with intangible nature, especially video games – systematized chronologically and analyzed. It is proved that this segment despite strong prospects and dynamic development is able to generate a market phenomenon as «economic bubble» – trading large volumes of goods at prices that are significantly different from the true prices. Also the existing situation in the market of video goods, is analyzed, especially advertising and consumer behavior. Earlier data on the performance of gaming market is systemized and illustrated as well as thesis on the formation of new economic bubbles in the industry is highlighted.

Key words:

Financial bubbles, video game industry, virtual goods market segment, casual consumer, «cream skimming» strategy, mobile platforms market.

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Introduction

Formulation of the problem. The video game industry is relatively young and during its inception it used to develop as the modernization of the mechanical slot machines. Subsequently, however, it transformed in a separate area of the «social market substitutes» (Kotler, 1990., p. 174).

Today we have a strong market, which exceeds the scope of film business in gross sales: in 2009 after the global economic crisis, it was sold nearly 273 million of items that leads to \$ 9.9 billion total income; in 2014 this figure amounted to \$ 24 billion (compared to \$ 10 billion of film industry). The general revenue from the sale of equipment, advertising and all products, complement the gaming industry, including the markets of mobile devices in 2013 worldwide reached \$ 70 billion (Galarnea, 2014). And that's not including the circulation of money in cybersport: World Cup finals with team video game League of Legends™ in 2014 has collected \$ 2.13 million, world final of SMITE™ in January 2015, collected \$ 2.61 million prize fund with the presence of 2.9 million broadcast viewers around the world, and Dota2™ finals in 2015 prize pool reached \$ 18.42 million (Esportsearnings, 2016).

So as we can see, this is a strong business environment, which should be taken to account by scientists, theoreticians and practitioners: it is fully formed market now with its laws and mechanisms of supply and demand, competition and mergers, the shadow economy and the «economic bubbles».

Analysis of recent researches and publications. An important contribution to the theory of «economic bubbles» and market researches is made by J. Keynes, Ph. Kotler, F. Hayek, J. Schumpeter and others. The industry of video games is also studied by L. Halarni, A. Katz , D. Takahashi.

The purpose and task of the research is the study of trends of development and presence of «economic bubbles» in the market of virtual goods, especially video games.

Basic material

In the Dictionary of Economics and Finance the «economic bubble» (as well as «financial bubble», «market bubble») refers to the state of the market in which the price of a security or commodity rises to the level that has no objective market basis. Usually, the situation is characterized by high demand for a product, resulting in a skyrocketing price, which in turn causes a further increase of demand (Dictionary of Economic and Finance, 2014).

Thus there are hypothesis considering economic bubbles appearance as a result of actual value uncertainty, the result of speculation or case of limited rationality (Baranovskyy, 2008).

Since the first official market bubble – tulip bubble – and continuing by crisis of hybrid derivative financial instruments based on mortgage lending in the United States, different markets repeatedly faced with a sharp reappraisal of certain goods and opportunities for speculation by hype around it. Sometimes it happens in old markets, sometimes – in a fundamentally new, or in some narrow niche with an innovative product. Although, if we take the market theory of economic bubbles (Hayek, 1975), the video game industry, due to the nature of products often framed with malinvestments or overinvesting.

In the US, 67% of households have member, user of video games, whose average age is 34 years (The Entertainment Software Rating Board). Themselves investments in developing a video game or specific equipment usually are venture. And if in the first case we are talking about the wrong decisions when buying a device, or ordering a digital product, in the second we will have to deal with not always predictable reaction of very sensitive to the content and quality of the goods (even more than the price) consumer's market, which can neutralize the existing price elasticity of demand with the exceptional characteristics of good. Therefore, like other markets, this has own trends and the history of formation with sometimes drastic changes in the way of growth.

Speaking about new ways, we can give an example of the socialization of users of the product. Some time ago they was described as «lonely, to whom video games and computers do not allow to be feeling so» (Kotler, 1990, p. 175) and currently we have a wide range of products that provide social component: from the casual browser-based products in social networks to narrowly directed servers of a specific virtual world where users can interact with many others: multiplayer online game EVE OnLine™ during the record session counted 6,000 participants in one battle (EVE Online: Epic Battles).

Actually, in the targeting on social element also emerged some market bubbles but we should start in chronological order. General description of the video game industry market crises is given in Table 1.

Table 1

Timeline of market crises in the video game industry

Year	Object	Description
1985	USA, console games	The glut on the market of products with unsatisfactory quality, industrial espionage, counterfeit goods
2006	Casual games	Not taken into account low activity and loyalty of target segment
2011	Social browser games	Excessive competition and consumers switching to smartphones and tablets, reducing the quality
2013-nowadays	Mobile aps market	Glut, reducing the quality

Source: Composed according to Galarnea, 2014, Katz, 1985, Igromania, 2014.

The first tangible crisis the gaming industry experienced in 1985 in the United States. Industry gross revenue, which reached its maximum values of about \$ 3.2 billion in 1983, fell to just \$ 100 million 1985 (a decline of nearly 97%) (Katz, 1985., p. 30).

This phenomenon almost destroyed the market of digital products, which at that time was still in its development, and caused the bankruptcy of several companies producing home computers and game consoles. Game industry recovered in a few years, but it is advisable to define the prerequisites of such a crush.

The beginning of the crisis was caused by a set of reasons (including inflation in the US), but the main was in the market glut with hundreds of games, most of which were of mediocre quality. As a result, retailers have not received the expected increase in sales. This led to a loss of consumer confidence. Please note that video games prevailed in the form of game consoles, but at the same time, it was the birth of the PC-gaming era.

Due to fact that home computers had more memory than consoles with good graphics and sound capabilities, they bought more experienced players, and in addition to the games, could be used to text editing or home accounting.

For instance, strategy of «Commodore», anticipated attraction of players not only by discounts when changing their old computer system to the new one, but also an extensive advertising campaign, which explained the child who is admitted to college, that it is much more useful to have a computer, than a game console.

For example, the strategy of «Commodore», supposed to attract players not only by the discount when exchanging their old computer to the new system, but also with an extensive advertising campaign, which explained when one's child is admitted to college it would be better to have a computer rather than a game console (Katz, 1985, p. 31).

Despite the large amount of advertising that extols the benefits of computers over game consoles, PC market could not avoid falling through the mentioned above crash of gaming industry. Games have always been the main driver of sales increasing of hardware, but after the crisis videogames were seen as outdated phenomenon. Like the game console market, computer market suffered from oversupply and a large number of competing platforms.

Therefore, we can conclude that the main cause of those economic bubbles were the developers who produced mediocre quality products hoping to cash in on a market activity around the games. With the support of extensive advertising campaigns and aggressive marketing, these games did not justify the expectations of end users resulted that industry was suffering even more damage.

So from that time measures began to be developed of control of third-party software developers, but even creation of a certain digital protection was not preserved industry leaders from the industrial espionage.

The collapse in the gaming industry marked the end of the 8-bit era and the transition to 16-bit computing in the PC-market of the US, but actually among game genres it was a shift from classic arcade games into role, sports, strategy and adventure games that surely reaching different groups consumers up to date.

PCs of various companies and game consoles from different manufacturers were constantly competing around the world, and got their target markets and over each other ahead again globally. In parallel it was a developing of a mobile gaming applications market, but no one even thought that it would be on a par with classical forms of video games.

Digital entertainment product improved by decades, reprinted, enlarged and new ideas were generated, but it was focused on the segment of professional players. By 2006, casual games (easy in mechanics, with a slope to the graphics component, aimed at the average consumer), although were exist, but it was just a niche genre, and only Japanese firms (e.g. «Nintendo» corporation, which, incidentally, have got a significant part market after the described above crisis in the US) saw a fortune there. An audience of typical players is counted in tens of millions, while the potential number of «casuals» – more than a billion (Igromania, 2014, p. 8).

Ordinary games were too unclear and boring for them. Therefore «Nintendo» released «Wii» console with many components. For example «Wii Bal-

ance Board» allowed performing in game form useful exercises. However, according to scientists, the effectiveness of such a sport is extremely low for one's health. But advertising is usually not speak about this. The console allowed doing of exercises, aerobics and even yoga without leaving the TV screen and performing virtual pirouettes on a snowboard or skateboard.

Another example of controllers stands «Wii Remote», which allows you to play without joysticks, gamepads and keyboards with many keys, and which responded to actually moving of hand with it. At that time motion capture technology was like a wonder and captured by television advertising casuals rushed to buy «Wii».

During the first three years it was sold 50 million consoles, and games for them firmly occupied the top of the charts. That is why other firms-developers who had severe market segments rushed after as well (10, 8). However, until such time as the «Sony» and «Microsoft» were released their «Kinect» and «PS Move» (identical by motion-capture technology input devices) in accordance, «Nintendo» perfectly applied the strategy of «cream skimming» (Igromania, 2014, p. 8).

Therefore, those who came after «Nintendo» have found extremely ugly picture. It turned out that casual gamers are very inactive consumers: buyers bought the shelves of boxes «Wii» by millions, however just for many of them a game that was included – Wii Sports™ – remained the first and last game. Casual player is an interesting type of consumer so therefore it is appropriate to illustrate his principal characteristics (Fig. 1).

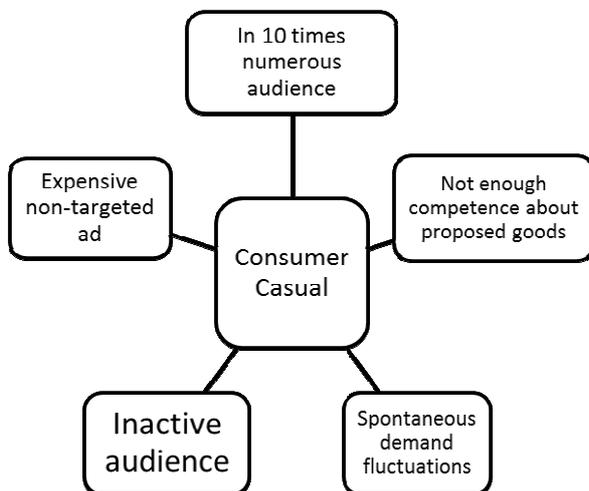
Thus, as it can be seen from the figure 1, other marketing aspects of casuals' market were as follows: customers were fickle, they could arrange a stir in the market, but also could quickly disappear if fashion changes, or find something more interesting. And in the end, the audience was very expensive and unpredictable: regular targeted advertising in the gaming press has not acted on it because they simply did not read it, so it was needed to spend money on television advertising. Without advertising almost there were not chances of success: these consumers are poorly versed in the nuances of the games and buy only what is on everyone's lips, or accidentally.

Therefore, exploding of this market bubble occurred without catastrophic losses, investment or forces being spent due to specificity of enclosure console platforms. So interfering was not allowed to large number of low-grade developers.

However, in the segment of PC, gaming portals competed against each other: the average price of casual games decreased from \$ 20 to \$ 7, and then the same audience finally moved to the new platform and this genre on PC almost disappeared (Igromania, 2014, p. 9).

Figure 1

**Characteristics of the consumer type «Casual»
 of video entertainment industry**



Source: Composed by author.

But the market potential remains. So that was taken into account by the head of firm-developer of computer games «Zynga» – M. Pincus, who also worked for six years in the financial sector. Moreover, before the advent of Facebook in 2003 he founded Tribe.net™, one of the first social networks in the world. In 2007, when the supply reoriented on casual games, «Zynga» studio started making cheap browser games for Facebook. By 2009 «Zynga» is the leading producer of social games for Facebook with a monthly audience of 40 million users. In 2010 from a small company it growth into a leader of the market: only in one this year it was purchased seven studios and opened a few their own, which increased the state almost by a half thousand people (Igromania, 2014, p.10).

At that point of time the market prospects seemed inexhaustible. On Facebook alone each month are playing quarter of a billion people, and the total number of players exceeds half a billion, and if we add integration with other social networks, the numbers will increase even more.

And all these hundreds of millions were not just potential consumer market. It is an audience gathered in one place and carefully sorted into segments:

from profiles we could learn age admiration of players, their friends list, and more. Also there were ready cheap communication channels: the effectiveness of banner was showing by traffic. In a compartment with internal free game goods (which does cost nothing to the company-manufacturer) with friends sharing/inviting policy it gave a phenomenal marketing results.

History repeated itself. Exorbitant profits attracted many developers that increased competition, and yet the trend in social video games turned over and casual consumers switched to tablets and smartphones. And those that remain have become permanent players and demanded more serious and high-quality games.

At present time there is an opinion, not unreasonably, that the market for smartphones and tablets is a very promising, and it recently began developing by powerful companies. In 2011 the number of mobile devices increased from three hundred to half a million. In 2013 smartphones and tablets based on iOS and Android reached quantity around two billion (Takahashi, 2013).

Although there are some specific features: there is a small number of reviews on mobile games, less persons read them, so choosing from hundreds of thousands proposals is not easy. As a result, even for the high-quality product it is difficult to stand out from the rest.

But the attractive features of this market are also significant: it is collected a numerous audience here, more than in social networks; touch control combines casual simplicity and accessibility as well as opens a huge scope for creativity; users are often in a vulnerable position (while on the road, in long waiting, etc.) and selling goes easier, according to the marketing concept of «customer touch points»; mobile devices have built-in payment system by cellular operators – this is extremely important; the relative backwardness of mobile hardware (versus specialized gaming devices) and small screens favorably affects budgets and prevents the technology racing; mobile devices are relatively constant enhancement of the client, which reduces the risks of loyalty.

For this reason the market attracted thousands of developers again, but the usual marketing methods failed: paid targeted advertising was set but there were no customers. The reason leads to thousands of similar offerings from competitors. Just in the «App Store» at the beginning of 2014 was a million applications, of which almost 200 000 were games. In addition, one average player spends two dollars per game. The formal uploading and presenting one's game on iOS costs almost three dollars (Igromania, 2014, p. 12).

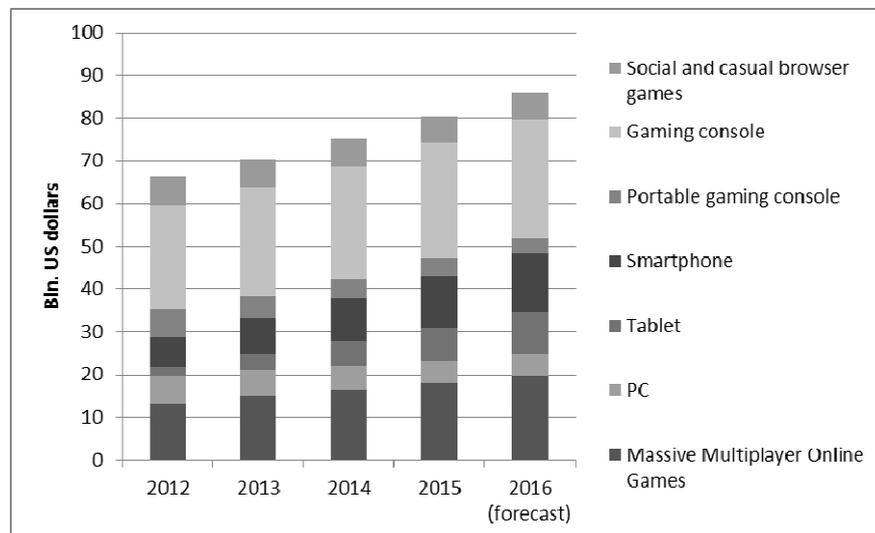
In addition, the market has entered into a phase of maturity, so the players need something more sophisticated, more serious now. The existing strong competition with exorbitant prices for advertising (which also grow on weekends and holidays twice or even three times) and saturated demand on trade services «Google Play» and «App Store» means that even a good product can be com-

pletely unnoticed. So for now on the mobile market remained large companies, along with several innovators, authors of the most successful products within the fact that financial success holds on the principle of monetization of gaming goods gameplay.

The illustration of the growth segment of mobile platforms is shown in Figure 2, as well as the forecast for the growth of the industry worldwide.

Figure 2

Dynamics of gaming industry market expansion and the market share of genres, devices and platforms for 2012–2015 with forecast on 2016 in billions of US dollars*



Source: Composed according to Galarna, 2014, Takahashi, 2013, The Entertainment Software Rating Board

However, we must note the fact that figure above may be interpreted only in the context of the prevailing segment of devices and that is not true understanding, because, for example, browser games also run on a PC, while multi-player – on most of these platforms.

It should also be noted that within some game economy can also be a «bubble»: investing additional funds in the game, which is already bought, allows user to gain access to exclusive content, which value increases sharply with increasing in-game interactions with other clients. We consider it appropriate to highlight three reasons for such a failure of investment: technical problem – when some game / product is not functioning properly; change of the trend and/or gaming progress when the good after a certain time becomes unpopular or user activity declines as well as purchased virtual thing ceases to have unique properties for the reason of the introducing of the new products (other case: mass distribution of the following item); loss within the game (due to players mistakes in unplanned massive battle in EVE OnLine™ has been lost (mutually destroyed) game items in the amount of 300 000 dollars) (EVE Online: Epic Battles).

Interesting trends seen in terms of consumer segments of video game market: there is an increasing number of female players (47% in 2014, compared with 42% in 2012) as well as increasing of the older generation by statistics in the US (Galanrea, 2014).

Conclusions

- It is appropriate to highlight the following approaches to mobile platform bubble: the first stands for exploding of this market bubble, the second – that it is in the process of formation. It is therefore necessary to outline future trends in the gaming industry. Speaking of smartphones and tablets, the number of PC-games developers and game console developers offers the ability to integrate devices, for example, a racing simulator core gameplay uses the big screen while on the auxiliary mobile device would be map, supporting information and more. Cross-platform strategy also seems stable at the moment (keeping gaming application on mobile platforms as well as browser game on social networks).
- Also a strong progress seemed in the release glasses of virtual reality Google Glass™ and Oculus Rift™, which move the picture of the digital entertainment industry to a whole new level. With a strong marketing campaign, developers also allow testing of their product by potential consumers on thematic exhibitions.
- The promotion policy is changing: quite a lot of games you can play for free, or at least try, then invest in their further development and improvement as opposed to pricing of top-goods, which requires pre-order before the official release.

- Do not deny the fact that in the world population of more than 7 billion only about two and a half billion people use the Internet. However, regions with low access to the worldwide network quickly increasing presence and offering new markets with their specific cultural segments attracting major developers and industry pioneers.

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