

# What is a Quality Test Worth? The Influence of Advertising Budgets on Product Ratings and Consumer Spending

Jörg Müller-Lietzkow and Sandra Urban

Friedrich Schiller University Jena

**ABSTRACT** This study considers the ratings of games published in magazines devoted to computers and games and the influence they have on willingness to buy products. It explores the influences of the volume of advertising bought by the publishers of the games by analyzing 5 major German magazines for the special field of first person shooter (FPS) games and interviews with major game publishers. The findings indicate a strong correlation between advertising volume and ratings<sup>1</sup>.

**KEY WORDS:** product ratings, consumption, games

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In 1972 Nolan Bushnell founded Atari, the first commercial computer and video game company (Kent, 2001)<sup>2</sup>. The first best selling game was Pong, a tennis match with two sticks, a virtual net and a ball on the screen. Nobody ever questioned the quality of this breakthrough. Nowadays no one would risk producing a Pong game even with better graphics. The computer and videogame industry has become a 30-35 billion dollar software industry that is rapidly growing with a rate of over 10 % a year. Today there are many platforms for games like consoles (e. g. Playstation 3, Xbox 360), personal computers with special hardware, mobile solutions (e. g. Nintendo DS, Playstation Portable), and networked based systems (e. g. e-sport, massive multiplayer online role playing games).

For any kind of platform there are different special interest magazines (worldwide). Special interest magazines are the consumers' navigator in the game business but also an important tool for the

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<sup>1</sup> On explicit request the names of all examined game publishers, games and game magazines remain deliberately anonymous.

<sup>2</sup> For more information about the history of computer and video games see Kirremuir, 2006; Demaria & Wilson, 2004 and Kent, 2001.

publishers or even the developers (if they are not the same company). In fact the sales of a new title depend a lot on its rating score. In most German magazines the score varies between 0 (worst) and 100 (best) points or, when expressed in school marks, between 1 (best) and 6 (worst). The correlation of market success and good ratings, even if it sometimes fails, is normally strong (e.g. black & white 2). As a consequence every publisher has a great interest in high ratings.

The game magazines often present their well balanced rating systems for suggesting reliability. But why is it necessary to show the system in every issue? The logical question is whether these rating results can be influenced by anything else than the game? More precisely: is there also a correlation between advertising budgets and ratings in these magazines? Is advertising an indirect payment method? To answer these difficult questions we conducted an empirical study involving five major German magazines – Game Magazine (GM) 1, GM 2, GM 3, GM 4, GM 5 – which consciously remain anonymous in this paper as we do not wish to have a negative impact on their reputation<sup>3</sup>. Our research question was: *It is possible to influence ratings in game magazines through advertising budgets that produce bias in ratings.*

## THE MARKET FOR COMPUTER AND VIDEO GAMES

The market for computer and video games is one of the fastest emerging markets in the media sector.<sup>4</sup> Especially when a new console is launched, the sales increase rapidly (e.g. the Nintendo DS lite system this year; Xbox 360 last year). In the world market there are three main regions: North America, Europe, and the world's largest market Asia (Japan, Korea, China, and Malaysia). The amount of 30-35 billion US-Dollar Software revenues (2005, 2006) is only an estimate. Especially for the Asian market there is even less data.<sup>5</sup> When comparing long term data it is obvious that the whole European market is as big as the US-Market (Figure 1).<sup>6</sup> In Europe the two largest markets are UK (see also BBC, 2005) and Germany (see Figure 1). Obviously the whole European market is better comparable to the US market (in terms of growth rate and absolute volume).

For our research we focused only on the German market (see Müller-Lietzkow et al., 2006). Within this market data from GFK indicates the (great) influence of special interest magazines and their game testing for

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<sup>3</sup> We have chosen only PC game magazines as FPS are less likely to be played on console systems.

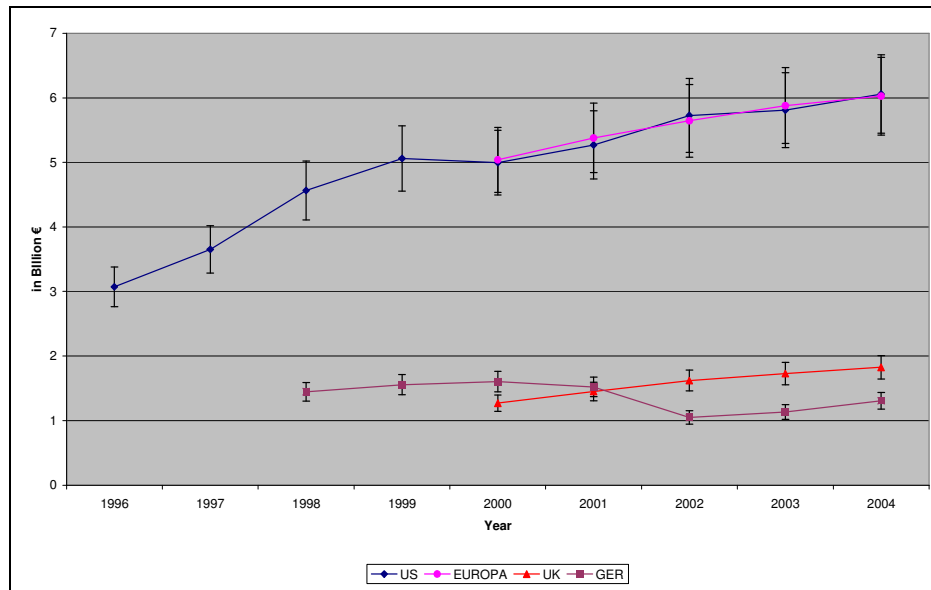
<sup>4</sup> Nearly all reports and surveys on digital media entertainment (digital games) show this (Kerr, 2006a; Alvisi, 2003; OECD, 2004; BBC, 2005; Müller-Lietzkow et al., 2006).

<sup>5</sup> Only for the Korean market there are very precise information through the governmental KIPA department (<http://www.kipa.or.kr/kipahome/kipaweb/english/index.html>).

<sup>6</sup> For more information on the US-market see Crandall & Sidak (2006).

consumption decisions.<sup>7</sup> Before discussing this market impact in depth, a few more facts about the German and first person shooter (FPS) market should be mentioned:<sup>8</sup>

Figure 1: Long Term Market Development in Leading Nations



Source: Müller-Lietzkow et al., 2006, p. 47

- In Germany an estimate of 20-25 million people play more or less regularly with computer and video games. About 8-10 million play on a regular basis and nearly 3-4 million are so called core gamers (estimate based in Infratest data, May 2006).
- In contrast with American players, German players do favor strategy and simulation games. However, within the core group action games and especially FPS are very important. As Müller-Lietzkow (2004, pp. 228) pointed out, the estimated revenues for this segment are about 50 million € a year (5 % of which coming from the German market) and most of the games are played on the pc—the reason is that FPS are played best with keyboard and mouse.
- E-sport is getting more and more popular in Germany. The German e-sport Federation estimates 1.2 million players. A few

<sup>7</sup> For the German market analysis we revert to the following data sources: Enigma / GFK (2003, 2004); Sozioland (2005); VUD (2000, 2001, 2002, 2003, 2004) and ELSP/Screen Digest (2004).

<sup>8</sup> This list is based on the summary by Müller-Lietzkow et al. (2006). For more general information about the game industry structures and facts see Natkin (2006); Gershenfeld et al. (2003); Adams (2003); LaPlante & Schneider (1999); Laramée (2005); Irish (2005).

of the core games in e-sport are FPS (e.g. Counterstrike, Unreal Tournament and Quake). There are many special German leagues for these games. And there is also a great interest in multiplayer options of other shooters.

- In Germany there is a strong protection of minors, and therefore shooters are often rated only for adults (USK<sup>9</sup> 18). This leads to many discussions within the society about the sense of FPS and even makes them more attractive.
- FPS are the impulse generators in the game industry because they need a great amount of technological power (graphics, processor capacity, sound hardware etc.). One of the latest international German production successes was the FPS Far Cry which has earned worldwide respect for German game development. The successor Crysis is going to get one of the highest budgets in the German game development history.
- Last but not least, after Great Britain, Germany is the largest market in Europe and the software piracy rate is much lower than e.g. in Asia.

To sum it up: The German market is the fifth largest market in the world and therefore very important as well as attractive for the whole industry. Core gamers (even in Germany) favor FPS especially for multiplayer games (esports). With Crytek as the developer of Far Cry (Ubisoft, 2004) and Crysis (Electronic Arts, 2007) there are even German experts with a great international success on the production side.<sup>10</sup> These are all reasons why FPS generate a lot of attention in special interest magazines.

## MARKET IMPACT OF SPECIAL INTEREST MAGAZINES

Special interest magazines have a great influence on the consumer market as well as on the production side. Besides other tasks the main object for consumers is to get a specific help for their decision in buying a game. More precisely: many gamers only buy games that have a rating of 75 % or more in at least two magazines.<sup>11</sup>

With regard to computer and video games today there are many special interest magazines, which make up a total of more than 50.000 issues per month worldwide. This is the result of the game platform heterogeneity. In fact at least one special interest magazine exists for nearly every gaming platform. Most magazines are established for the pc,

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<sup>9</sup> The "USK" is the German self regulation association for computer and video games.

<sup>10</sup> The world most popular FPS are from id-software (Doom (1-3) and Quake (1-4)), Epic (Unreal (1-2) and Unreal Tournament (1-4)), and Valve (Half Life (1-2) and Counter Strike).

<sup>11</sup> The rating scales might differ. This rating is comparable to an international A+ to F rating.

followed by special interest magazines for the major consoles Sony Playstation 2/3 and Microsoft Xbox/Xbox 360. A few of them are called “official” which means that they are accepted and (strongly) supported by the manufacturers e.g. with demo versions of new games. Other magazines are “normal” ones, which means that they have independent editorial offices but a (strong) marketing relationship with manufacturers and publishers. Then there are so called independent magazines with weak or even poor marketing relations (e.g. the journal GEE) and supplements in other magazines (e.g. SFT), that mostly focus

Table 1: Focus of German Special Interest Magazines on Games

	PC	Xbox/ Xbox 360 (Microsoft)	Playstation 2 (Sony)	Gamecube (Nintendo)	Handheld (Nintendo; Sony)	All consoles	All platforms
“Official”		x	X	x			
Normal	x	x	X	x	x	x	x
Independent	x					x	x
Supplement	x						x

on information and electronic entertainment. The types and focus of magazines are show in Table 1. All together we estimate that there are about 40-50 special interest magazines in the German market in the field of game magazines.<sup>12</sup>

Game magazines normally do have five functions, which are a little bit different from other information technology test magazines:

1. They inform the players about new games, test, and rate them;
2. They have an entertaining as well as information function;
3. They test game hardware (in combination with the newest games);
4. They give additional (technical) advices, cheats, and hints to win the games;
5. They offer advertising and promotion space.

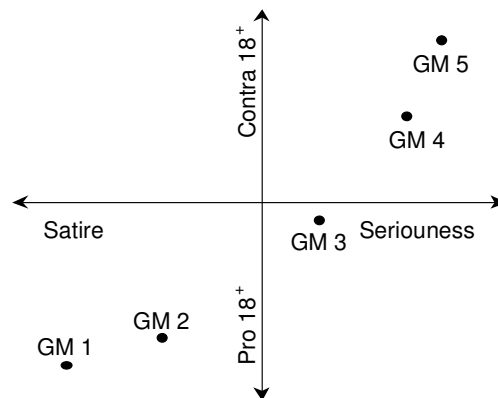
Although all game magazines do have nearly the same functions, they want to differentiate from each other. Criteria for this differentiation are:

- Writing style: Style differs between serious, funny or satiric
- Main focus: Focus differs between core as well as casual gamers and their games
- Picture and word balance: Balance differs between 2:1 and 1:2

<sup>12</sup> Because the mortality rate of the magazines is very high a final number of journals cannot be acclaimed. Besides the printed magazines there are hundreds of online magazines.

- Price: Pricing of game magazines in Germany is between 2,99 € and 5,99
- Cover-CD/Cover-DVD, inlays, posters and other supplements
- For our analyzed magazines we found out a different positioning for each of them. On two scales we divided between satire and seriousness (x-coordinate) and between the responsibility for younger readers (< 18) and adult readers (> 18) (y-coordinate) (see Figure 2). Information and entertainment are expressed by the usage of language.

Figure 2: Positioning of the Five Magazines



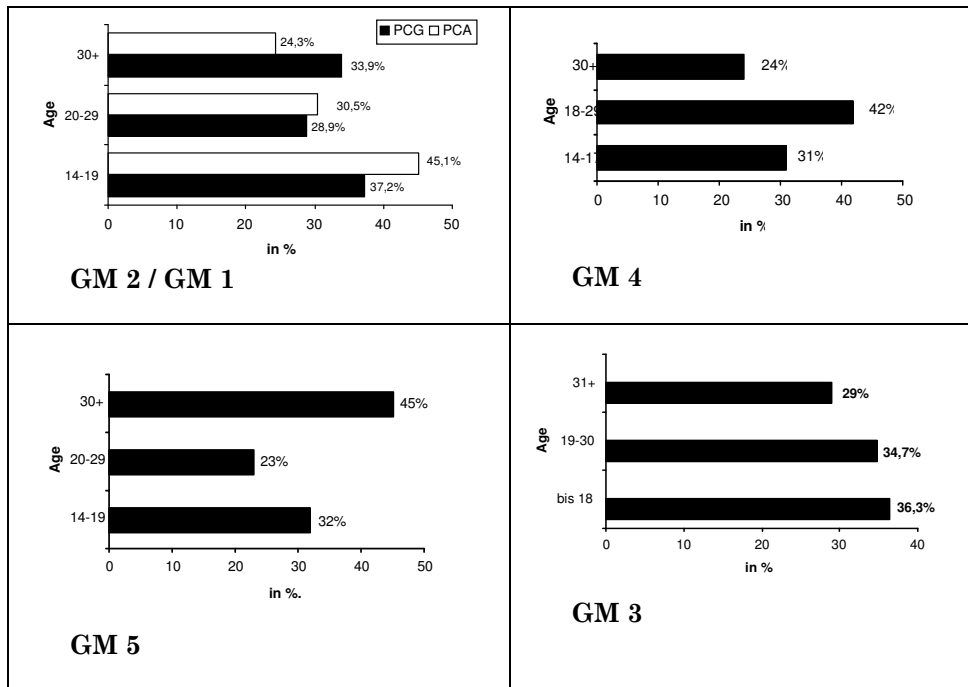
Source: Urban, 2006, p. 60

All game magazines have a different target group. GM 3 is preferred by the younger players GM 5 has the elder readers who want to be informed about computer and video games. A clear indicator for that, besides the presentation form, is the language. While the style of the GM 3 is relatively neutral in terms of entertaining and information, especially in GM 5 nearly everything is being translated (e. g. joystick as “Spielesteuerungsgerät”) so that anyone can understand the meaning of it. For this, the focus on seriousness and objectiveness applies to the magazine’s social responsibility as many parents are part of their target group. By contrast, in the GM 1 a very satirical and informal style of language is used which puts an emphasis on entertainment and fun. This applies with their target group: the core gamers and enthusiasts of action games (see Table 3).

To sum it up: Our research material is clearly positioned. The game magazines differ in language style, presentation form, and their target group. However, as the analysis will show later on, GM 2, GM 1 and GM 4 are similar in their structure and characteristics. The high circulation of the investigated magazines demonstrates how high the consumption

willingness in their target group and the impact of the magazines really are. To give an example, the globally sold and popular Playboy only has a circulation of 210,000 pieces in Germany in comparison with half a million popular game magazines. All investigated magazines have a monthly release and are equipped with a full version of a game either on CD or DVD. In addition to the tests in magazines, there are test videos for highlighting blockbuster games. If all game magazines were considered, the structure would not be very distinctive as video game magazines clearly differ according to their platform.

Figure 3: Reader Structure of the Research Material



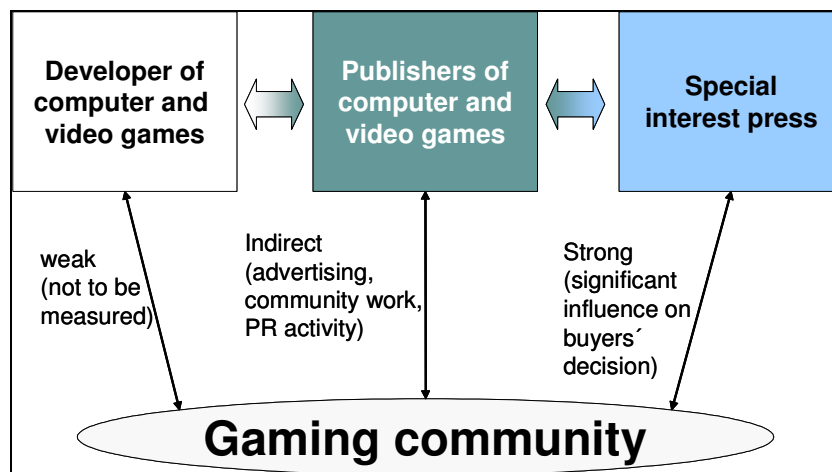
Sources: Media data on the games magazines websites and Urban, 2006; (Alter = age)

### IMPACT OF TEST RATINGS AND COMPETITION FAIRNESS

In the last paragraph we emphasized the role that the game magazines have for consumers. Besides informing and entertaining gamers, journalists assess the quality of digital games through their test ratings. This should protect consumers and can reduce their uncertainty risk of buying bad products. In fact, consumers are unable to fail a rational decision when the quality or benefits of a product cannot be obtained before the consumption. The aim of the test rating is the reduction of information deficits between the supplier and consumer as well as transaction costs. So for what reasons might the ratings of digital games

be influenced by the publishers' advertising budgets? To give an explanation to this question, consumers can only orientate themselves towards the information given by the publishers or the test ratings published in game magazines. In our interviews it is widely accepted by PR and marketing managers that positive ratings above the 75 percent stimulate the demand. Whereas negative results in terms of less than 70 percent are even more damaging and often lead to collapsing turnovers. Those test ratings do not only indicate quality to consumers, but also to the retail, that might consider their range of full-price games with a short selling window. It is further possible that biased ratings have a negative effect within the entire digital games industry: if less financially strong publishers and developers are restricted in marketing their products through the media it can limit competition, innovation, and the quality of products. These assumptions are shown graphically in Figure 4

Figure 4: Basic Assumptions in Community Influence



This leads to the question whether the impact of advertising on editorial output applies to computer and video game magazines? – Because of the growing demand for digital games over the last decade, many special interest magazines have appeared in the German print market. In this respect, our five investigated German game magazines (GM 1 – GM 5) are faced with declining issues and advertising revenues in a long term as the number of competitors grows (IVW, 2006). Particularly unfair competition is a core issue to such magazines as they are partly financed by advertising revenues. Journalists are trying to find a balance between consumer protection and dependency on advertising money. Thus, they are possibly willing to create a more comprehensive coverage, to use more attention seeking language, and pictures or even give extra rating points for an additional advertisement. In order to protect consumers and further competitors, Germany has introduced regulations such as the law against unfair competition

Table 2: The Extent of the Test Coverage

Game Magazine	Articles Researched	Mean value	Standard deviation
GM 1	23	5.22	2.78
GM 2	18	4.78	2.69
GM 3	23	3.48	1.62
GM 4	23	3.01	1.61
GM 5	18	3.00	0.84
Total	105	3.9	2.22

Source: Urban, 2006, p. 82

(UWG), the broadcasting treaty (Rundfunkstaatsvertrag) or the press codes which provides guidelines for the editorial staff.

Overall the strong correlations between advertising budgets and the test ratings represent the strong relation among publishers and journalists. These correlation ratings are problematic as they could represent the failure of the media regarding its self-regulation as a result of a missing monitoring and sanctioning system. But what is more, the consumer is the one who suffers most. If the ratings are biased and magazines turn into PR instruments the consumer will decide against his individual welfare on the basis of wrong information. In a long run he will lose trust in those test magazines. For this, it is obvious that none of the editorial staff will verify our results as they would ruin the relationship to their target group.

## EXEMPLARY SURVEY ON FIRST PERSON SHOOTERS

For our investigation we have chosen five major German game magazines (see section 1). Except the GM 5 all journals focus on PC games and hardware. Only GM 5 reports intensively about video console games, but another main focus here lies on pc games. With regard to the other four magazines there are additional special interest magazines of the same publisher for console games. The reasons why we have chosen these five magazines were reports about First Person Shooters (FPS) games. In this genre, most of the games are positioned in the full-price segment because of the high development costs. For this, there are great expectations regarding high sales revenues. If there is a measurable influence of advertising on ratings it can be obtained in this field. Furthermore, the chosen magazines point out rating systems. Otherwise we would not have been able to draw a comparison among them. The circulation is also an important fact to advertisers (see Table 3).

Table 3: Circulation and Target Groups of Research Material

Game Magazine	Monthly circulation	Target Group	Positioning Ego-Shooter
GM 1	80.000	14-19 (Core Gamer)	Strongly supporting
GM 2	220.000	14-19	Supporting
GM 3	120.000	<30	Lightly supporting
GM 4	300.000	18-19	Lightly rejecting
GM 5	550.000	30+	Strongly rejecting

Source: IVW 2006

For two good reasons we have chosen FPS as a research topic: on the one hand, FPS are the most preferred game genre in the US. A survey by E-Poll/Gigex (2004, see Table 4) significantly shows this preference by US-payers. Besides the US-preference, core players all over the world normally favor FPS. So there seems to be a very big market for FPS worldwide. On the other hand, exactly these games have been criticized a lot by politicians and scientists because of possible negative media effects on behavior (e.g. Anderson et al., 2004). Considerable research has been made over the last 20 years but results are still inconsistent. So this is a further reason why FPS are even getting a lot of public attention which will continue in the near future.<sup>13</sup>

Table 4: Preferences of US-players 2004 (in percentage)

	All	13-17 years	18-24 years	25-34 years	35+ years	Casual Gamer	Standard-Gamer	Core-Gamer
<b>FPS</b>	66,1	74,4	71	58,2	55,6	37,8	62,5	75,9
<b>Strategy</b>	56	57,3	55,2	60,5	50,6	46,8	51,4	62,7
<b>Action-Adventure</b>	55,2	64,6	56,6	47,1	46,4	39,4	50,9	63
<b>Roleplaying Games</b>	46,3	49,2	49,3	49,9	35,8	21,8	39,1	58,9
<b>Beat'em'ups</b>	43	56,2	44,6	34,2	28,5	30,9	39	49,6
<b>Racing</b>	40	48,1	43,2	34,9	28,8	28,7	38,2	44,2
<b>Sport</b>	36	47,1	38,7	32,2	19,7	24,5	33,4	41,1
<b>Family Games</b>	14,5	10,8	9,2	17,5	22,5	22,3	14,7	12,6
<b>Else</b>	2,6	1,7	0,7	3,5	4,7	7,4	2,8	1,2

Source: E-Poll/Gigex 2004

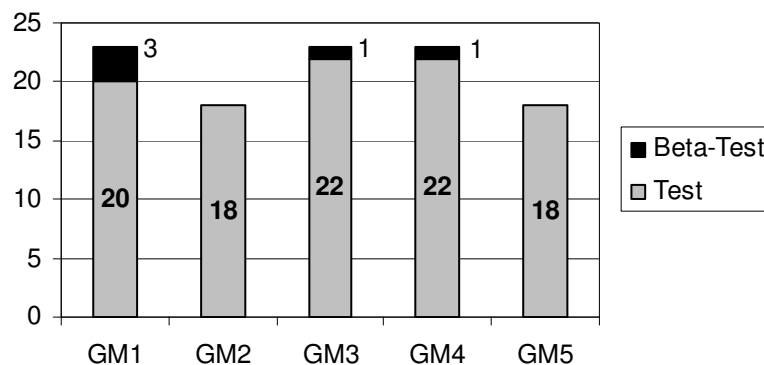
For special interest magazines new FPS are an important content to inform their readers about because of the great attention mentioned above. Editorial contents are represented by the latest developments, new features, the capabilities of the 3D-graphics engine or community

<sup>13</sup> FPS are often associated with the events in Erfurt (Germany), Emsdetten (Germany) and Littleton (USA). In these cases scientists believe that there are effects on reality behaviour through violent first person shooters games.

discussions. Magazine issues with beta tests or even reports as a cover theme about the continuing development process of a potential blockbuster game (e.g. Quake 4, Doom 3, Half Life 2, Crysis etc.) sell much better than “normal” issues with only cover stories about strategy or adventure games. Like in the daily (yellow) press the word-picture combination is very important. Because of this well known fact, FPS are more than once the cover story of all major game magazines. During our research period (1/2005-4/2006<sup>14</sup>) there were 22 new FPS game releases. Nine of these games were sequels to commercially successful FPS games (9 = 40%).

Within the research period we identified 105 articles in those five magazines (100 tests and five beta-reports) about the 22 games (see Figure 5). Two publishers released three FPS, five two, the others only one FPS. Nearly every leading German computer game magazine (not only the researched ones) had stories or test reports on those shooters.

Figure 5: Report/Test Allocation in the Research Material



Source: Urban, 2006, p. 81

FPS are dominated by a few scenario types as listed in Table 5. One important thing is that in every FPS the hero normally does have a military or even “trained” background. Most FPS can be played in a single and multiplayer (online) mode. For our research we focused on single player versions. Every relevant game magazine test is about the single player mode. Even if the multiplayer mode is important, ratings are primarily based on the single player mode.

<sup>14</sup> Issue 1/2005 is the December 2004 issue and 4/2006 is the same for march 2006. We used the 1/2005 issues for pretesting.

Table 5: Thematic Scenarios of the Researched FPS

Scenario	Frequency	Percentage
World War II	5	22,7
Vietnam war	1	4,5
Different war scenario	1	4,5
Anti-Terror-/SWAT	5	22,7
Science Fiction	9	40,9
Satire	1	4,5
<b>All</b>	<b>22</b>	<b>100</b>

Source: Urban, 2006, p. 88

The scenarios of these games as well as the reports normally do attract young male players (Kline et al., 2003). Besides consumer surveys, this can be seen in the male/female-reader-relationship of our investigated magazines (Table 6). It seems that in those game magazines publishers as well as game publishers have a very clear definition on their target group.

Table 6: Distribution between the Sexes of Game Magazine Readers

Game Magazine	Male	Female
<b>GM 1</b>	92 %	8 %
<b>GM 2</b>	88 %	12 %
<b>GM 3</b>	93,2 %	6,8 %
<b>GM 4</b>	87 %	13 %
<b>GM 5</b>	79 %	21 %
<b>Mean</b>	<b>87,8 %</b>	<b>12,2 %</b>

Sources: publishers websites (May 2006)

From this data, the following fundamental facts result: FPS are being described in many special interest magazines that focus primarily on a male target group, especially the core gamers. The scenarios are aligned with the *“militarized masculinity”* (Kline et al., 2003). As FPS are a) controversial and b) very expensively produced they enjoy an exceptional position. Apart from the game content the graphic is one of the highlights of a game. Therefore, reports about FPS are disproportionately high accentuated with pictures. Because of high product investments games are generally expected a) to have marketing investments above the average and b) that the quality of the graphic is also above average. Furthermore, FPS are primarily played on PCs. For this, our field of research can easily be reduced to the computer game market. For the reasons mentioned above, FPS can be used to examine the correlation between advertising and ratings in special interest magazines for the PC market.

## MAIN HYPOTHESIS AND RESEARCH DESIGN

*"Bullshit"* was the comment on the question if game journalists are independent in their ratings by a well experienced manager of the game industry. *"You can buy any rating of 80 plus."* (Interview with Manager A, August 2006). Another comment by a German top manager was: *"Yes we know that we always pay for our 75 plus. But we don't know the price per rating-point."* (Interview with Manager B, September 2006). On the contrary, some managers of game publishers strictly reject in interviews that it is possible to buy ratings—or that at least they will do so. But they admit that competitors might act this way. *"Well, I think our competitors might do that but we never will."* (Interview with Manager C, September 2006). It seems to be ambivalent even within the publishing industry whether it is possible to "buy" ratings.

The main hypothesis was that there is a link between the advertising budgets and the test results in special interest magazines. In addition to the knowledge of the direct influence on consumer preferences, good test results normally lead to better sales rates. An unwritten law<sup>15</sup> is that a rating of 75 points generally means achieving a positive financial break-even-point, an 80< rating means a profitable game, an 85< a very profitable one, and a 90< means normally a bestseller.<sup>16</sup> It is obvious how important these ratings are for the market success of new games. In more explorative interviews (n=15) the dialog partners have confirmed that they look after the results of competitive products to outrank them with their ratings.

To evaluate and proof the main hypothesis we used the following research design: We focused on a sample of five major special interest magazines and reviewed their issues for a period of 15 months. This means 15 issues. Within this period there were 105 product based tests reports on 22 FPS that were released by 11 publishers. For any comparison we had to transform the point based rating into a school mark system ("1" stands for best; "6" means worst).

Generally, the FPS receive one test report per magazine (see Table 7). Some products also had an additional beta-test report (Urban, 2006, p. 117) or alternatively a further extended coverage (especially after localization). This might have an important impact on the commercial success of those games.<sup>17</sup> For analyzing this correlation, it is important to

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<sup>15</sup> This law is concentrated on full price games not on casual games. They do have their own rules.

<sup>16</sup> This "unwritten law" is not a manifesto. There are still games with highest ratings which the consumers did neither like nor buy. Financial success is today also related to the number of illegal copies. If there are too many of them, even a game valued with 85 points can be a financial disaster.

<sup>17</sup> Despite additional coverage supplementary tests or tests that are based on the localized versions represent a disadvantageous consequence on sales. Because of the strict protection of minors in Germany, the localized versions mostly differ so much to the original products, which the users actually wish to have (e.g. the localized version of QUAKE 4 only had little turnover).

know whether advertising was followed by a test report (C1) or not (C2). As a result, these cases indicate that more than 60 % of the new FPS advertising has been taking place. Strikingly, the low mark for the GM 5 results from their target group as there are less gamers of FPS. Therefore, advertising is obviously less important in this magazine. Another possible reason could be that journalists at GM 5 are more independent which determines a less strong relationship with publishers of the examined FPS.

Table 7: Relation between Advertising and Tests in the Research Material

Case	C1: ad. and test	C2: No ad. and test
<b>GM 1</b>	68,2%	31,2%
<b>GM 2</b>	<b>80%</b>	10%
<b>GM 3</b>	68%	31%
<b>GM 4</b>	63,6%	36,4%
<b>GM 5</b>	<b>55%</b>	40%

Source: Urban, 2006, p. 91

After converting our ratings into comparable homogeneous marks, the mean value of the test coverage was ascertained (Table 8). The average was 19 test reports as a fundamental basis. As assumed in our research hypothesis, in those cases with no advertising for FPS, the average rating in our core magazines noticeably fall (C1-C2).

Table 8: Average Test Ratings with and without Advertising (School Marks)

Magazine	Average test result		
	C1	C2	C1-C2
<b>GM 1</b>	1.46	2.56	<b>1.1</b>
<b>GM 2</b>	1.68	2.64	<b>0.96</b>
<b>GM 3</b>	1.74	1.77	<b>0.03</b>
<b>GM 4</b>	1.80	2.37	0.57
<b>GM 5</b>	2.09	2.06	<b>0.03</b>

Source: Urban, 2006, p. 93

Is this insight enough for assuming a strong correlation? At least it is visible to some extent that advertising has a positive effect on journalists' rating attitudes. But it has to be taken into account that this is not a proof for a general causality because we only have done research on FPS. After conversion, the average test ratings show (see Table 9) that FPS basically received a good till very good rating. As a result, FPS with an age-restriction to 16 years receive better results than those restricted to 18 years. Strikingly, three out of five magazines (GM 1, GM 2 and GM 4) award similar ratings to FPS with an age-restriction to 16 years. Despite the magazine specificity as well as different test conditions journalists from game magazines supposedly have a similar perception of the games.

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This does not mean that test objectivity exists. To sum up the results from those three tables, as a basic principle FPS in combination with advertising seem to have a more positive valuation than others. Giving

Table 9: Average Test Results (Divided by FSK-audits)

Game Magazine		GM 1	GM 2	GM 3	GM 4	GM 5
Mean Rating FPS	16+	1.6	1.57	1.91	1.61	1.98
	18+	2.02	2.09	1.87	2.20	2.17

Source: Urban, 2006, p. 96

an explanation, journalists are rarely forced to consider issues regarding the protection of minors.

As indicated, we were not contented with our general insights. In our next step our intention was to assess the correlation between advertising specific to the product and the test ratings. To find out more about this relation, we had to know the advertising budgets spent by the game publishers in the examined magazines. We counted the ads and estimated the budgets through media data with a disagio (because of advertising packages) of the special interest magazines. Presenting the results to different marketing and PR managers within the game industry they authenticated that our estimations are closely to the true amounts. We estimated the advertising budgets specific to the product as well as specific to the publisher<sup>18</sup>. Table 10 shows the volume specific to publishers and the number of their game releases.

According to the accumulated advertisements for FPS, the GM 2, GM 1, and GM 4 obviously seem to be the most important advertising media for the game publishers in this genre. Knowing the fact, that GM 1 and GM 2 are part of the same publishing house puts an emphasis on the impact on their target group. For journalists it becomes more important a) not to disappoint the target group (positive expectations and attitude regarding FPS) and b) to anticipate the reader's knowledge as they will interpret the given results on the basis of their needs (e.g. the graphic is more important than the individual rating). As mentioned before, the influence of the publishers' total budget on an individual rating was in our interest. For this purpose we calculated the budgets on the basis of

<sup>18</sup> The advertisements per game title and per publisher were accumulated and then according to size multiplied with their price and the media data of each magazine. In the event of the publishers total advertising budget of the year 2005 price reductions were subtracted. But those reductions could not be taken into account for the product specific budgets.

our data. Against the background of the individual publishers' market size, each total budget is proportionally spread as follows: small publishers proportionally invest less and more on product specific advertising than major publishers. However the industry giants feature

Table 10: Estimated Product-Based Advertising Budgets (in Euro)

Publisher	GM 1	GM 2	GM 3	GM 4	GM 5	Releases
Pub1	125300	94200	43100	87300	34800	4
Pub2	74000	102600	70200	69300	47200	3
Pub3	6900	17670	0	0	11600	3
Pub4	6900	22800	15600	21300	11600	2
Pub5	11177	14900	23400	32500	46400	2
Pub6	42400	71900	31200	32400	34800	2
Pub7	82800	136800	15600	34560	11600	2
Pub8	139104	37700	7800	33600	46400	1
Pub9	62100	102600	15600	10500	0	1
Pub10	0	11400	0	10500	11600	1
Pub11	15249	16302	8200	6825	0	1
<b>Accumulated budget on FPS</b>	<b>565930</b>	<b>628872</b>	<b>230700</b>	<b>338785</b>	<b>256000</b>	<b>22</b>
<b>Accumulated publishers budgets spent in 2005</b>	<b>837.244</b>	<b>1.260.385</b>	<b>473.803</b>	<b>690.205</b>	<b>850.636</b>	

Source: modified after Urban, 2006, p. 89 and Appendix

a noticeably higher variance and advertising volume. Consequently, they can be defined as the core clients of the magazine publishers. With the available financial data we are able to conduct appropriate correlations among games, advertising and their ratings in game magazines. Anticipating legitimate criticism we need to admit the usage of estimated values as well as the homogenization of ratings. In contrast to this, it has to be taken into account that a) this investigation was the first of its kind and b) the market figures are not open to the public by means of GFK, which could be used otherwise to determine the impact of the ratings considerably more accurately. For the publishers for games and magazines having more transparency would clearly lead to a more specified statement. It is a moot point though whether this would lead to different results.

## EXPLAINING THE CORRELATION OF ADS AND RATINGS

This section will explicitly indicate that there is a clearly calculative correlation at product and publisher level between the advertising budget and ratings (the negative correlation results from the fact that the German grade 1 is the best). We have ascertained that this high calculative correlation cannot easily be interpreted as a result as additional advertising volume involves instantaneously neither a linear nor declining upper rating. We also need to point out that only one genre was examined. It needs specification to what extent the calculative correlation can be seen as the actual reason of test results. However, if the correlation turns out to be in fact of strong and consistent nature (after a broader investigation than the already existing one), an obligation to labeling can be discussed against the background of the separation commandment regarding journalistic coverage and advertising (Fechner, 2003; IQ-Forum, 2005; Beck, 2003).

### **Product Based Correlations**

FPS games are very popular for pc gamers. Especially products from id software (Quake and Doom series); Epic Games (Unreal and Unreal Tournament series) or as newer brands Far Cry (Crytek) or Prey (Take2 / 2K) get a lot of attention in special interest magazines. These products do normally have a great production budget (5-20 million US-Dollar). These investments are guided by heavy marketing and promotion. So it is not surprising that there are many advertisements in the game magazines.

Except for GM 3 the high and significant figures indicate a strong correlation (Table 11). Even so, it needs to be kept in mind that good ratings are still dependent on journalists. Most of them are core gamers, who can be seen as having a great affinity for FPS. But without any genre to compare with no definite statement can be made. Anyhow, many valuation criteria of magazines support the ratings for this kind of genre because FPS are usually leading the market regarding their graphic. That is why the graphic is often highly assessed. Despite these facts the correlations are impressively high.

Table 11: Product-Based Correlation

		Average test result			
Budget 2005		Correlation total	N	Correlation specific	N
	GM 1	-0.732**	10	-0.525**	20
	GM 2	-0.787**	10	-0.177	19
		-0.338		-0.033	
	GM 3	-0.711**	11	-0.509**	22
	GM 4	-0.852**	11	-0.323	22
GM 5		9		18	

\*\* significant alpha=0.01 (1-sided).

### **Company Based correlations**

Much more clear seems to be the correlation between ratings and advertising at company level. In informal talks with a few companies that invest a lot in advertising in special interest magazines PR experts and marketing managers do not negate that they normally expect a rating above 75 points in the 100 point scale and even a broader coverage. For them this results from the combination of their products—normally produced with higher budgets—and their long term relationship with the magazines. This might be a good explanation why the correlation between GM 3 and publishers is insignificant as GM 3 is a young magazine (only two years old) and does not have so well established ties within the industry and significance for the consumers. Similar to the product based ratings, it is striking that there is a high correlation between the ratings and the publishers' total budgets (except for GM 3) (Table 12). Looking at the total budgets of the publishers during the analyzed period, it could be interpreted that especially the high budget volumes of major publishers have an increasing effect on our correlations. But since among smaller publishers almost the same correlations can be found, this explanation is suitable only to a limited extent. It can be assumed that at least the knowledge about the importance of the advertiser and their financial strength is having an impact on the “kindness of the valuation”. This indeed must not lead to the false conclusion that it is possible for publishers to position *every* title/product through their financial power.<sup>19</sup> Therefore, it is fatal if the publishers solely rely on advertising and pay less attention to the quality of their products.

Table 12: Specific Magazine Publisher-Based Correlation

	Pages of report/test				
		correlation total	N	correlation specific	N
Budget 2005	GM 1	0.659*	11	0.530**	22
	GM 2	0.573*	11	0.470*	22
	GM 3	0.093	11	0.109	22
	GM 4	0.499	11	0.605**	22
	GM 5	0.115	11	-0.181	22

\*\* significant alpha=0.01.

\* significant alpha=0.05.

### **Alternative explanations**

Even if the results are looking impressive there is still the question whether they are valid and reliable. There are a few good reasons to

<sup>19</sup> One example is the game “The Godfather” published by Electronic Arts which received relatively low ratings in almost all magazines.

think that the strong correlation might be a nonsense correlation. Firstly, we have tested a game genre where graphics are very important for test results. If in a FPS the graphics and the graphical engine are weak or even bad this normally means lower ratings. The good tested and rated games are the better ones of that genre where developers use more expensive graphic engines or even have a greater budget for producing more impressive games. In other words: There is a natural budget-quality-relationship. Very expensive games do normally get higher ratings. Secondly, the game journalists usually are players themselves. Core gamers as Müller-Lietzkow et al. pointed out (2006) are very interested in FPS. A huge shooter normally gets better ratings than e.g. casual games or edutainment games. Thirdly, we need to bear in mind the results of our explorative interviews. They show that there are different opinions on the existence of a connection. This could result from different business practices which would mean that the discovered effects are based on pure chance: if a publisher is perceived to get better results through advertising, other important advertisers will be preferentially treated even though they are not having any expectations themselves. Based on the interviews this scenario can be seen as realistic by all means. On the contrary we cannot say for sure that this applies to all analyzed magazines. Probably, the size and the market power of the game magazines as well as the publishers have to be taken into account. From our researched material we found indicators that larger magazine publishers might be more independent from the game publishers' intentions.

### ***PR or Editorial Contents?***

The question about the role of PR in this context has been consciously left out so far. It is absolutely logical to speak of a relationship of close ties in terms of PR and advertisement in the game market (see Siegert & Brecheis, 2005; Siegert, 2005; Szyska, 2005), whose success is also depending on the special interest press. PR in the context of the relation with journalists means that the ratings underlie a subjective factor (long-term relationships, friendships, and personal interests). How central this point is can be shown by the circumstance that all important publishers do have at least one PR-Manager along with a comprehensive marketing department per country. Insofar, there is a great chance that good ratings are influenced by this. It has to be considered that game magazines are only able to exist on a long-term base, if the advertising revenues are secured. Accordingly, "only" PR will surely not be able to guarantee success in the long run. Consequently, there is at least a cross relation with brand and product PR (Szyska, 2005, p. 142 ff.). In contrast with the relation between advertising and ratings this kind of business relation cannot easily be operationalized.

## CONCLUSIONS

The findings are not definite. On the one hand, there are good reasons to believe that ratings and rankings are influenced by advertising budgets. On the other hand, publishers that normally invest a lot in advertising also invest more in their products. As a well known fact from the game industry the financial wealth of the company normally leads to better quality products. The relationship possibly can be measured by a diminishing function of quality and invested capital. But this relationship seems to fail for media products. A disillusioned result for game consumers is that their beloved magazines might not be always a great help for buying a new game. If our results are not far from the truth, consumers can sometimes better rely on other consumer experiences shared on internet forums than on special interest magazines. Although it seems that ratings are influenced by advertising, game magazines remain indicators for the quality of the rated games. Comparing them usually gives a biased but fair average which helps consumers to find the game they really want. Considering this result and the fact that our research is not complete yet – the methodological problems are obvious as we only worked with estimated values –, we finally want to make a few suggestions about the major topics upon which future research should concentrate:

1. The measured relationship has to be proven by looking at video game magazines and other genres, for which production is cheaper. There could be a measure of bias for FPS games. This is not unlikely because these games are very expensive in their production. So it is possible that for investment protection reasons game publishers invest a lot more in advertising than other genres.
2. Further, it is not very clear whether advertising in game magazines has an influence on the publishers or the journalists. Even if there is still a general agreement between the game publishers and the magazine publishers it is not always for sure that the journalists keep these conditions. Opportunism or personal matters can foil the agreement. How problematic this issue is can be seen by looking at journalists' comments (mostly in boxes) and the ratings. There are sometimes great differences.
3. The quality criteria often used in game magazines has to be inspected. Is a 100 points in computer game magazines the same 100 points in video game magazines? Our suggested ranking through marks (1 to 5) is a first step into a comparable direction. And: What are 100 points in comparison to other games from the same genre? A game from 2004 will not get the same rating – even if there is a relationship between advertising and rating – in

2006. There are kinds of fashion for a game genre meaning better ratings. This has to be reflected.

4. Last but not least, more qualitative empirical research is necessary. On the one hand, we tried to speak to top managers in the game industry. Not all of them seem to answer honestly the questions. Much more interesting would be interviewing the journalists of the game magazines themselves. In more explorative talks at least one editor in chief admits that his journal is positioned as a public relations and test magazine. Greater advertising amounts mean automatically a broader presentation with a more friendly writing style and more pictures. The question is whether journals can survive without industry friendly reporting.

At least one thing is for sure: game magazines need advertising customers and the game industry needs a marketing instrument that seems to be objective for gamers. One thing is obvious: the symbiotic system is much tighter than consumers believe. Especially for marketing and public relations experts in the game industry a mathematical function linking ratings, marketing costs, and sales rates would be the golden key.

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