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Why does the Great Game of Business program work?

Literature review and cross-case analysis

R.L. Katier University of Twente, the Netherlands

> Supervisors University of Twente: Prof. dr. C.P.M. Wilderom Drs. A.M.G.M. Hoogeboom University of Amsterdam: Dr. ir. B.A.C. Groen Great Game of Business Europe: D. Oyevaar M. Vermeer

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Author R.L. Katier (s0195782)

Master of Science Thesis in Business Administration Service and Change Management School of Management and Governance University of Twente

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Supervisors Prof. Dr. C.P.M. Wilderom Drs. A.M.G.M. Hoogeboom Dr. ir. B.A.C. Groen D. Oyevaar M. Vermeer

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ABSTRACT

In this study we examine why the Great Game of Business (GGoB) program works. The program of the Great Game of Business is in the literature referred to as open-book management (OBM). The GGoB program has proven itself over the years in the USA. Eight aspects are extracted from the literature about open-book management: games, information sharing, education in business literacy, empowerment and accountability, goal setting with employees, job security, and communication of results. Sixty-four reports of organizations were analysed in this study, to examine whether these eight aspects were often mentioned and pointed out as reasons why the implementation of the GGoB program was successful. Furthermore, the organizations are categorized by revenue, number of employees, number of years they participated in the GGoB program, and whether they won an 'All-Stars' award. For each category, is analysed how often the eight key aspects were mentioned in the reports. By doing so, it was possible to make assumptions about the implementation of the GGoB program. Also, included in the theory section are some difficulties and concerns, which are mentioned in the literature about OBM. The results of this study show that five out eight aspects were most important to explain why the GGoB program works. These five aspects are education in business literacy, games, bonus programs and employee ownership, empowerment and accountability, and goal setting with employees. Aspects shown to be less important for explaining why the GGoB program works are communication of results, job security, and information sharing. In the discussion section of this paper, theoretical implications with directions for future research and practical implications are drawn.

Keywords: Great Game of Business program, open-book management, games, information sharing, education in business literacy, empowerment and accountability, bonus program or employee ownership, goal setting with employees, job security, communication of results.

INTRODUCTION

For quite some time already, Springfield Remanufacturing Corporation (SRC) has played the Great Game of Business (GGoB) program. Since then, many organizations have followed this successful approach. John Case introduced the term open-book management (OBM) to this business approach (Case, 1995a). So, the GGoB program could be seen as the practical application of OBM. Until the late 90's, OBM has received little attention in the academic literature (Davis, 1998). At that time, academics focused on describing successful introductions of OBM in single organizations, and were mainly stressing the benefits of OBM (Davis, 1998). Large scale research was not conducted. Also, studies on difficulties and concerns about OBM were scarce. Since the late 90's, OBM received a considerable amount of attention in the United States of America. Still, there is a gap in the literature explaining the reasons for the success of OBM. To extend the literature about OBM, this study is conducted to examine why the Great Game of Business program works.

To answer why the GGoB program works, sixty-four reports of organizations that have implemented the GGoB program are analyzed. Until now, the Great Game of Business is quite unknown in Europe. For that reason, only organizations from the USA are studied. Many European organizations hesitate to join the GGoB program, since they still need to be convinced that it is also applicable to and delivers the same results in Europe. Therefore, only showing that the GGoB program is working in the USA will not be enough to convince European organizations to implement the GGoB program. Thus, it is important to examine why the GGoB program works, by explaining the aspects of the program, and how these could influence the organizational performance. By also discussing some of the most frequently asked questions and concerns about OBM, European organizations might also be convinced about the potential of OBM.

This paper starts with a theory section that presents an overview of the literature about OBM. Furthermore, several key aspects of the GGoB program are identified and discussed in the theory section. Difficulties and concerns that were mentioned in the literature about OBM are also mentioned here. In the method section, first we described the sampling and data collection and presented the categorization. After that, we explained how the key aspects were analyzed in the reports. The results are presented in the following section. In the discussion, the main findings are discussed to answer why the GGoB program works. Furthermore, theoretical implications and limitations are given. Also directions for future research are drawn. Finally, practical implications are discussed.

THEORY

In order to answer the question why the Great Game of Business (GGoB) program works, the literature on open-book management is reviewed. The following section starts with an overview of the theory about open-book management (OBM). Key aspects of the GGoB program are presented in the second part of this section. Furthermore, some difficulties and concerns are discussed, which were mentioned in the literature about OBM.

Open-book management

Open-book management (OBM) has four major practices or principles, which are sharing information, creating business literacy, creating accountability for outcomes, and giving members a stake in the success (Dixon, Hayes, & Stack, 2008). Jack Stack is credited with formalizing and implementing the first fully developed example of OBM (Davis, 1998). The first who introduced OBM in the business literature is John Case. OBM means opening the organization's financial statements to all employees and providing the education that will enable them to understand how the organization makes money and how their actions affect organizational performance (Aggarwal & Simkins, 2001). By sharing detailed operating information with employees and educating them about how to use this information, management provides the opportunity to contribute to organizational performance. In return, organizations practicing OBM give employees a stake in the business, through profit sharing plans, or some form of stock ownership (Davis, 1998). According to Stendardi & Tyson (1997), open-book management has a number of underlying fundamental principles. OBM organizations typically disclose detailed financial information to all employees, train them to interpret and use the data, empower them to make operational decisions, and tie a portion of their pay to the organizational performance, often through a bonus plan that is modified every year and an ESOP that is geared to the longer term (Stendardi & Tyson, 1997). Important to notice is that OBM is about opening the books to employees of the organization, and not necessarily about opening the books to everyone.

OBM is a system, which emphasizes on 'why' organizational performance should be improved and why employees should care about it. As a result, employees and managers want to discover 'how' they can improve organizational performance (Case, 1997). OBM is based on the principle that managers and employees, who know and understand financial performance and goals and share a stake in organizational success, are more likely to be highly effective and motivated in meeting those goals (Aggarwal & Simkins, 2001). OBM is not a quick fix because it is not a simple 'how- to' program, because it takes a long time to implement the system (Case, 1997). So, the power lies not only in the short term, but especially in the long term. It requires a sustained commitment to training employees about business operations and financial statements (Barton, Shenkir, & Tyson, 1999).

Further, non-scientific studies have also been conducted to gain more insight into OBM. A survey of Inc magazine's list, under the 500 fastest growing companies in the U.S., revealed that 40 percent of those companies used open-book management (Heymann, 2010). A study of 50 open-book organizations by the National Center for Employee Ownership and Inc. magazine indicated that open-book organizations grew 1.66% faster than their competitors (Kidwell & Scherer, 2001). Denison preformed a survey about the organizational culture and leadership, which is about the mission, the consistency, the involvement, and the adaptability of an organization. Twelve organizations that have implemented the GGoB program were compared with a sample of 1076 organizations. On each category, companies that implemented the GGoB program, scored almost maximum.

Barton, Shenkir, and Tyson (1998) developed a model displaying some aspects of OBM, which is presented in figure 1. In short, OBM is about sharing financial and other information with all employees, train them to understand the business, empower and trust employees, and reward success (Barton, Shenkir, & Tyson, 1998).



Figure 1. Source: Barton, T.L., Shenkir, W.G., & Tyson, T.N. (1998). Open-book management: Creating an ownership culture. Morristown, NJ: Financial Executives Research Foundation, p. 4

Key aspects

In the following section, eight key aspects that might explain why the GGoB program works are discussed. These key aspects were extracted from the literature about OBM, acquired materials from the Great Game of Business and observations and field notes made during a workshop, with organizations that were thinking about starting with the GGoB program.

As a starting point, multiple articles about open-book management were found to examine what aspects could be important to explain why the GGoB program works. Each aspect that was found has been written down. As a result, there was a list of aspects that could explain why the GGoB program works. Several aspects were almost the same, or seemed not imported based on observations and field notes made during a workshop of the Great Game of Business. Furthermore, Stack & Burlingham (1994) was studied to get a better understanding of the GGoB program. Thus, we were able to shorten the list to eight key aspects.

The following key aspects were found in Aggarwal & Simkins (2001): games; information sharing; education in business literacy; empowerment and accountability; bonus program and employee ownership; and goal setting with employees. The aspects information sharing; education in business literacy; empowerment and accountability; bonus program and employee ownership; job security; and communication of results were mentioned in Barton et al. (1999). From Buhler (2010) and Davis (1997), the following aspects were extracted: games, information sharing; education in business literacy; empowerment and accountability; bonus program and employee ownership; goal setting with employees; job security; and communication of results. The aspects information sharing; education in business literacy; empowerment and accountability; bonus program and employee ownership; and goal setting with employees were found in Stendardi & Tyson (1997). In Kidwell & Scherer (2001), the following aspects were mentioned: information sharing; empowerment and accountability; bonus program and employee ownership; and job security. The aspects games, information sharing; education in business literacy; empowerment and accountability; bonus program and employee ownership; goal setting with employees; and communication of results were described in Case (1997). From Dixon et al. (2008), the aspects information sharing; education in business literacy; empowerment and accountability; bonus program and employee ownership; and communication of results were extracted.

Games

In the literature about OBM, playing games is regularly mentioned. Games have duration of three months and focuses on improving a particular area. Playing games in business is getting

more and more popular. The findings in Faria & Nulsen (1996) showed that the business simulation game usage grows in academia and in business training programs, and further growth is expected. Simulation games can teach systemic knowledge, and they can enable participants to try out organizational changes (Hofstede, de Caluwe, & Peters, 2010). Playing games does work because satisfaction comes from figuring out how to win and then winning (Case, 1997). He argued that game playing depends on the entire context of OBM, which teaches employees to understand and care about the organization as a whole. In organizations that have implemented OBM, people understand that games are mostly a fun and interesting way to learn the business, the real payoff will come as the whole organization improves its performance (p. 126).

Moreover, Davis (1998) stated that many people view work as something that is not enjoyable and is better to avoid. He also mentioned that most people like to play games, so this will make their work more enjoyable. Important to note is that managers and employees have to work together as a team. Buhler (2010) agreed with Davis (1998), he concluded that employees need to see the business not as work, but more as a game. Then, they should understand that they could win the game together.

To summary, the GGoB program includes playing games, a growing trend in academia and in industry, which makes it possible for employees to turn business around in a fun way. By playing games, employees have the opportunity to focus constantly on improving the organizational performance. The games allow them to monitor the progress and challenge them to beat the results from the past. So, playing games may explain why the GGoB program works.

Information sharing

Opening the books and sharing financial and operating information with employees is one of the common principles of OBM (Davis, 1998). OBM starts with the first principle that all employees must receive information, not only to help them in doing their own jobs effectively, but also on how the organization is doing as a whole (Kidwell & Scherer, 2001). Only by knowing detailed financial data and operating results, employees may begin to see how the organization makes money (Davis, 1998). Having accurate, useful information enables people to be more effective (Pascarella, 1998). The distribution of decision rights among employees need to be aligned with the employees' access to appropriate information, in order to optimize the use of human and other capital in an organization (Aggarwal & Simkins, 2001). They argued that proper alignment requires that management practices satisfy

a number of conditions: first, employees need adequate information appropriate for business decisions combined with the power to make such decisions. Second, although such empowered individuals may be motivated by different factors, they need to work towards goals consistent with the rest of the organization. Furthermore, they need similar information on organizational performance and goals to reduce incongruence and prevent losses that may result from conflicting goals (p. 6).

Besides, results of a survey conducted by the accounting firm of Ernst and Young showed that communicating financial information would improve motivation in 86 percent of the survey respondents (Buhler, 2010). Sharing financial information and profits with low-skilled workers helps to boost both efficiency and profits (Heymann, 2010). He concluded that while sharing profits and financial data with top managers is common, it is rare at the bottom of the corporate ladder. In organizations that introduced OBM, all employees receive financial information as well as operating information.

Furthermore, one of the seven practices of successful organizations that were identified by Pfeffer & Veiga (1999) is about sharing information. Sharing information is an essential component of high performance work systems. By giving employees information about strategy, financial performance, and operational measures, it could convey employees that they are trusted (Pfeffer & Veiga, 1999). They argued that if the employees do not have information on key dimensions of achievements and education in how to interpret and use that information, even trained and motivated employees cannot contribute to improved organizational performance (p. 44).

Important to note is that within OBM system, good and bad news are shared. As Drickhamer (2006) stated: "It is not all about good news. We also have to share the bad news. We have to share when healthcare costs go up, and other changes that have a negative impact" (p. 39). OBM is a learning process, which requires a company to share bad news along with the good (Pascarella, 1998). Therefore, organizations have to be aware that OBM may not always be easy. If the organizational performance is not as it should be, or some problems have occurred, then they also have to be open about such information.

Thus, information sharing seems to be an important reason for why the GGoB program works, because employees could use the information for improving the organizational performance. Besides, organizations also have to be sharing the bad news along the good, because otherwise employees will not trust the management of an organization.

Education in business literacy

One of the principles of open-book management is educating employees in business literacy. Once the financial information is shared, employees must be taught how to read the financial statements. Open management involves truly educating employees. This means an internal training program is usual (Buhler, 2010). Teaching the basics of finance and business is the second step in implementing OBM into a business. The decision to convert to OBM requires a serious and ongoing commitment from management and employees to engage in continuing education and training (Aggarwal & Simkins, 2001). Davis (1998) agreed that investments in education and training are needed. An educated work force that speaks and understands the language of business is necessary for an organization to be successful (Stendardi & Tyson, 1997).

Moreover, employees should be taught how to understand the financial statements of the organization, by showing employees how their work influences financial results and by linking nonfinancial measures to financial results. So, to do this, it is important that the employees know how the company makes money (Davis, 1998). Drickhamer (2006) illustrated in his study why this is so important. He quoted a manager: "The assumption was that just because all the employees were busy, the organization was making money. The employees had no clue that in a couple of our locations we had actually lost a significant amount of money in the year prior" (p. 30). The example shows that just working hard does not mean the organization will make money too. The Shareowner Alignment Index, completed by 50 companies, revealed that companies frequently fell down due to underperformance in seven different areas (Ehrbar, 2001). One of these areas is that employees lack the requisite degree of business and financial literacy.

Furthermore, according to Pfeffer & Veiga (1999), many organizations have inadequate levels of training focused on the wrong things. Having a workforce, which is knowledgeable and has the necessary skills, is crucial for an organization. Pfeffer & Veiga (1999) argued that an essential component of high performance work systems is training, because these systems rely on frontline employee skill and initiative to identify and resolve problems, to initiate changes in work methods, and to take responsibility for quality. All of this requires a skilled and motivated work force that has the knowledge and capability to perform the requisite tasks (p. 43). OBM intends to include a lot of education, to give employees the knowledge and skills to identify problems, to resolve them and to take initiative to improve. Pfeffer & Veiga (1999) stated: "Training can be a source of competitive advantage in numerous industries for firms with the wisdom to use it" (p. 43).

In summary, education in business literacy is pointed out in several studies about OBM. It is likely that the GGoB program works due to the training and education in business literacy.

Empowerment and accountability

Empowering employees to make decisions and held them accountable for the results is one of the key aspects of OBM, based on the literature review. OBM is not just seeing and understanding financial and other numbers, OBM is about taking responsibility for making the organizational numbers move in the right direction and for helping organizations meeting its goals (Case, 1997). Employees should be empowered to make improvements. Because the management is providing extensive information, it shares a great deal of decision-making authority and power with its employees (Davis, 1998). Johnson (1992) emphasized the importance of informed bottom-up empowerment in developing high levels of customer satisfaction and long-run competitiveness (Aggarwal & Simkins, 2001). Results should be reviewed together and that employees should be held accountable for them (Davis, 1998). Aggarwal & Simkins (2001) concluded that OBM could be seen as a missing link in making many managerial methods more effective over the long run, because it empowers the employees and it gives them the necessary information to make decisions (p. 5).

Thus, empowering employees and keeping them accountable may also be important for the success of the GGoB program.

Bonus program and employee ownership

A crucial component of OBM is that employees have a direct stake in the company's success (Aggarwal & Simkins, 2001). In OBM systems, there are two ways to give employees a direct stake in the company's success. One is to literally making the employees owners of the company. It is also possible to make some kind of bonus program, which results from improving the organizational performance linking to a reward to the employees. This section will discuss both options, because both ways could be used inseparable or combined together. The aim is persuading every employee to think and act as a business owner. According to Stack (2002), in an ownership culture, every single budget line is owned by somebody inside the organization. Everybody understands what their contribution to the company's overall performance is. Employees realize that, together, they make up the community that is the business, and they are the ones who set the organizational standards and values (p. 3). As a result, employees' goals and actions can be more closely aligned with those of the owners,

greatly reducing the agency problem between employees and owners (Aggarwal & Simkins, 2001). An agency problem means there is a conflict between the interests of two parties, where one should act in another's best interest. All employees get a benefit when an openbook company makes a profit (Dixon et al., 2008). One option is a bonus system. According to Dixon et al. (2008), the bonus calculation in open-book management is well defined. Once a pre-specified percentage increase in net profits occurs, all profits beyond are placed into a bonus pool. The percentage of the bonus that is set aside for employees is then divided evenly among all workers, or is based on percentages of salary levels (pp. 107-108). The other option is giving the employees stock-options. According to Dixon et al., (2008), the creation of a stock-option, or shared equity plan has been repeatedly stressed by proponents of OBM (e.g. Case, 1995b; Stack, 1992, 2002) as a key variable to ensure long-term success in the growth of the organization (p. 109).

Due to the fact that the employees receive a share of the financial outcome they helped to create, and it is possible for the employee to track the numbers that determine their bonus, it takes the subjectivity out of the calculation and this will have a positive effect on the motivation of the employees (Davis, 1998). Profit sharing will not motivate employees when they see it as just another management gimmick, or when the organizations makes it difficult for employees to see how their own work is related to profits, or to understand how those profits are divided (Semler, 1989). According to Davis (1998), the employee stock ownership program that has been created by a large number of open-book organizations, resulted in having less emphasis on short-term bonus payouts, because the employees were the owners themselves (p. 12). Another positive effect of these employee stock ownership programs is that employees are less likely to leave, due to a closer connection between the employee and the organization (Davis, 1998). Stamps (1996) has shown that when organizations gave employees a say in running as well as owning the organization, this resulted in eight to eleven percent more sales (Stamps, 1996, cited in Stendardi & Tyson, 1997).

Furthermore, many successful organizations encourage share ownership. When employees are owners, they act and think like owners (Pfeffer & Veiga, 1999). However, Pfeffer & Veiga (1999) found little evidence that employee ownership, by itself, affects organizational performance. They argued that employee ownership works best as part of a broader philosophy that incorporates other practices. According to Pfeffer & Veiga (1999), merely putting in ownership schemes without providing training, information sharing, and delegation of responsibility will have little effect on organizational performance. Even if employees are more motivated through shared ownership, they do not necessarily have the skills, information, or power to do anything with that motivation (p. 43).

So, due to the focus of OBM on the combination of training, information, the responsibility and power to make a difference, combined with a employee ownership program, OBM may have a positive effect on the organizational performance. However, it is not necessary to give employees stocks. According to Kidwell & Scherer (2001), this success appears to lend itself to situations where employees own company stock, Case (1995a) argued that employee stock ownership is not necessary for open-book management to work (p. 120). They pointed out that when a company decides to go for just a bonus program, the company has to be aware of certain conditions, which are included in OBM systems. According to Buhler (2010), a direct relationship must be established between the work performed by the employees, their rewards and the organizational performance. Progress toward goals should be openly tracked so employees understand the results and know if they will be rewarded and to what extent (Buhler, 2010). She stated: "all bonus systems under OBM are directly tied to the organizational performance, which the employees themselves regularly monitor" (p. 16).

In summary, bonus programs and employee ownership were mentioned frequently in the literature about OBM. Therefore, it is likely that this aspect may explain why the GGoB program works.

Goal setting with employees

Another part of OBM that may explain the success of the GGoB program is about setting goals together with employees. On a regular basis, for example once a week, the so-called huddles will be held. Huddles are short meeting. During these 'huddles', results from the previous period will be presented and discussed. The second part of the huddles is used to give employees the opportunity to introduce new ideas about how to improve organizational performance. This could be a new way of working, doing some parts of the job differently, or reducing some actions. If these ideas are worth trying, and the other employees agree on the potential, the idea will be tested during the next period. The employees will set new goals for the next period, and by measuring the results, it is possible to determine whether the new idea will improve the results (Stack & Burlingham, 1994).

In addition, Groen (2012) has shown that employee performance could be improved by developing performance measures together with employees. In three different studies Groen (2012) displayed that employees as well as executives think that the quality of the performance measures was improved. These improved performance measures would allow employees to perform better, and they might help executives to discuss the results together with the employees (Groen, Wouters, & Wilderom, 2012). This corresponds with the concept of 'performance management' advocated by Anfuso (1995), which argues that employees and managers work together to set goals, coach each other, provide feedback, and set rewards together. In her study, Anfuso (1995) noted that companies using performance management reported better profits, cash flow, and stock performance (Stendardi & Tyson, 1997).

Moreover, employees of companies that have implemented OBM will be in a position to analyze how they can improve the organizational performance. Setting goals will enable employees to develop improved practices within the targeted areas (Davis, 1998). According to Barton et al. (1998), employees are likely to share organizational goals when they; understand how the organization makes money; possess a basic understanding of critical information about the organization; regularly receive reports and explanations of organizational operations; use their knowledge about the organization in their jobs to improve operations; celebrate exceptional performance together and; receive benefits when the organization does well (p. 38).

Thus, the GGoB program might include all of this, by letting the employees decide what to measure, what the goals are, and by having the opportunity to give feedback to each other. By measuring these results, it might be clear to the employees how they have performed the last period and whether changes have led to different results. As Semler (1989) concluded, "workers who control their working conditions are going to be happier than workers who don't, and letting people participate in the decision that affect their lives will have a positive effect on employee motivation and morale" (p. 77). So, setting goals together with employees may explain why the GGoB program works.

Job security

One of the effects that drove Stack to develop the Great Game of Business program was to provide job security for employees his employees. He felt himself responsible to make sure that his employees remained their jobs in 1983, when he took over Springfield Remanufacturing Cooperation (Stack & Burlingham, 1994). His goal was to make sure that his employees were able to know whether the company was earning money, or if it was likely that the company would go bankrupt. Within the GGoB program employees are informed about why, how and how much the company makes. Therefore, employees are able to know whether it is likely that there will follow forced layoffs.

Furthermore, work practices are not likely to sustain over time when workers fear that by increasing productivity, they will work themselves out of their job (Pfeffer & Veiga, 1999). According to Pfeffer & Veiga (1999), employment security is fundamental to the implementation of most other high performance management practices. Many additional benefits follow from employment assurances besides workers' free contribution of knowledge and their efforts to enhance productivity (p. 40). OBM allows employees to understand why innovations are necessary and what will happen if they do not take place. According to Kidwell & Scherer (2001), OBM puts information in the open, and rights and duties might both be served. Information is given to employees to understand the nature of their job security in a dynamic economy (p. 121). According to Kidwell & Scherer (2001), even in instances where layoffs are inevitable, an effective system of open-book management allows layoffs to happen without accompanying employee distrust. The need for workforce reductions is made clear due to the free flow of financial information (p. 121).

As a result of implementing the GGoB in Springfield Remanufacturing Cooperation, their employees were in a better position to make the necessary investments of time and money that could create a safe future for themselves and their families (Stack, 2002). So, it may be that job security is an important aspect for explaining why the GGoB program works.

Communication of results

Part of the OBM system is regular, open communication on favorable and unfavorable financial results (Barton et al., 1999). OBM uses scoreboards to communicate the results, which are developed in congruence with the participating company. According to Case (1997), the goal is enabling employees to take action in anticipation of future events. Scoreboards usually include forecasts of months to come as well as the results of past months (p. 123). Furthermore, Case (1997) explained: An open-book scoreboard is based on the shared understanding that business unit numbers are compiled from performance and financial data from each department. Thus, the departmental scoreboards help employees to understand the connection between their own efforts and the business unit's results (p. 124).

Moreover, Davis (1998) stated that most open-book organizations post performance results in a prominent place. Employees were able to compare their performance with other departments, and they are reminded daily of how close they were to hitting targets (Davis, 1998). He explained: "To maintain interest and excitement, successes were publicized in newspapers and magazines. All employees had the opportunity to distinguish themselves and to receive rewards and recognition" (p. 12).

So, communications of results may be an important explanation why the GGoB program works.

Difficulties and concerns

Davis (1998) explored some difficulties and potential concerns organizations might face when they want to implement the GGoB program. Stendardi & Tyson (1997) refuted five criticisms about OBM. Aggarwal & Simkins (2001) identified some concerns and potential problems with implementing OBM. The following section discusses some of these difficulties, criticisms and potential concerns, and also gives answers how to take away some concerns.

First concern discussed by Davis (1998) is about difficulties in older, larger organizations. He implies that it will be easier to implement the GGoB program in small organizations, such as start-ups. Multiple locations may also be an obstacle according to Davis (1998). He suggested that this could be solved by dividing the organization into smaller profit centres. Aggarwal & Simkins (2001) discussed whether all organizations benefit equally from OBM. Potentially, all organizations in competitive industries can benefit from implementing the GGoB program (Aggarwal & Simkins, 2001). However, more research is necessary to examine this. It is likely that every organization could profit from some aspects of the GGoB program, because the program focuses on improving performance. Still, the question has not been answered whether all organizations benefit equally from the GGoB program.

Furthermore, managers might fear the loss of control (Davis, 1998; Aggarwal & Simkins, 2001). Some might be threatened that they will not longer have a function in the organization. Others might be threatened because they feel like they are going to lose some of their authority. Aggarwal & Simkins (2001) suggested to start with small steps to try out the GGoB program. Also, it could be pointed out to managers that their role will become more as one who guides the employees into the right direction (Davis, 1998), and that implementing the GGoB program does not mean that they do not have any function anymore.

Moreover, one of the most mentioned concerns of the GGoB program is about sharing information, which could fall into the hands of competitors (Aggarwal & Simkins, 2001; Davis, 1998; Stendardi & Tyson, 1997). However, it is not likely that competitors will gain any competitive advantage from your financial statements (Aggarwal & Simkins, 2001). Stendardi & Tyson (1997) cited Jack Stack, who called this the number one great fear, by explaining that knowing your competitor's finances is at best a short-term tactical advantage, one that pales alongside the benefits that come from educating your employees about the

numbers (p. 37). Furthermore, participating in the GGoB program does not mean that all the financial data and information is shared. An organization should share financial results, but it is not necessary to share information about for example individual salaries. Besides, according to Aggarwal & Simkins (2001), information about classified projects and patented products and processes should also not be shared (p. 11).

Furthermore, concerns about the learning time that would be too long, training costs that are too high and special training that is needed to explain finance and accounting to non-financial executives are discussed in several studies (Aggarwal & Simkins, 2001; Davis, 1998; Stendardi & Tyson, 1997). According to Davis (1998), formal financial education and training is not a major expense, training does not consume the most time. The most valuable learning takes place in regular meetings and when employees study the figures by themselves (p. 14). However, Davis (1998) argued that it cannot be expected that every employee will immediately use all the financial data that is shared with them. It is important that the company is committed to the program and does not have too high expectations at the beginning (p. 15). In addition, Stendardi & Tyson (1997) mentioned that employees do not have to become experts in finance and accounting, they just need to understand the basics.

Another concern that exists about OBM is that it is difficult to link performance measures with financial statements (Davis, 1998). Financial statements can be developed for each separate department. This concern might be solved by joining the Great Game of Business program, because the GGoB has years of experience and the program is developed to help making financial statements for participating companies (Stack & Burlingham, 1994).

Also, a concern discussed by Davis (1998) is about the added burden on accounting. They will play an important role in the education of the other employees, and because the financial statements must be prepared weekly, it costs extra time and puts more workload on the accounting and finance staff. However, in the long term, it is likely that it brings accounting and finance staff into much closer touch with people in operations (Davis, 1998).

Finally, there were also some concerns mentioned about the bonus programs and employee stock ownership programs (Davis, 1998; Stendardi & Tyson, 1997). As mentioned in the section above, organizations should be aware of what their employees want, and they have to be sure that their programs are fair and the bonus is linked to the actual performance.

METHODS

Sampling and data collection

A lack of prior theorizing about a topic makes the inductive case study approach an appropriate choice of methodology for developing theory (Eisenhardt, 1989). Hence, to gain a deeper understanding why the Great Game of Business program works, we conducted indepth inquiries of 64 reports of organizations that have implemented the GGoB program. All the organizations are located in the USA. However, the organizations included in this sample are diverse. For example, several listed companies, some privately owned companies, a number of employee owned companies, and a few non-profit organizations were included. Furthermore, the organizations were active in different industries.

For this study, a request had been send to the GGoB to receive reports of organizations that have participated in the GGoB program. These reports are case studies that capture the business challenges and winning results experienced by organizations of varying sizes and industries that have implemented the Great Game of Business. In these reports, first a company background is given. Second, business challenges are discussed, which the company faced before they started with the GGoB program. Furthermore, the GGoB solutions are displayed. In these reports, little information is available about organizational performance and organizational characteristics. Nevertheless, in most reports information is available about the organizational revenue, and the number of years the organization is participating in the GGoB program.

In most reports, information was available about; total revenue, revenue growth, number of employees, number of years participating in the GGoB program. From 49 organizations the total revenue was known. Furthermore, from 54 organizations the number of employees was known. Moreover, in all reports was described in what year the company had started with the GGoB program, and until what year the results were measured. Therefore, for all 64 organizations could be determined how many years they have participated in the GGoB program. Besides, from 25 of the 64 organizations was known they had won a so-called 'All-Stars' award. Organizations can win an 'All-Stars' award, when they have implemented the GGoB program completely and successfully.

Therefore, the next section first starts with a categorization of the type of organizations included in the sample. The second part of following section describes the methods used for coding, storing, and analysing the reports.

Categorization

The 49 organizations of which the total revenue was known were divided into four different categories. The following categories were specified: 1 - 10 million dollars (n=11); 10 - 50 million dollars (n=20); 50 - 100 million dollars (n=7); and 100+ million dollar (n=10). Furthermore, organizations of which the number of employees was known (N=54) were divided into the following categories: 1 - 50 employees (n=8); 51 - 100 employees (n=11), 101 - 500 employees (n=18); and 501 and more employees (n=15). Moreover, 64 organizations were divided in four different categories, based on the number of years they were participating in the GGoB program. The following categories were specified: 1 year (n=15); 2 years (n=25), 3 - 5 years (n=13); and 6 - 10 years (n=11). Besides, from 25 of the 64 organizations was known they had won a so-called 'All-Stars' award.

Key aspects

For analyzing the reports of the 64 organizations, we started coding with ten categories. Eight categories are related to the theory section about key aspects: 'games'; 'education in business'; 'information sharing'; 'bonus programs en employee ownership'; 'goal setting with employees'; 'job security'; and 'communication of results'; and the categories 'quotes' and 'others'. All other data that seemed to be important, or seemed to be returning themes, were classified in the category 'others'. Several key words were identified for each category before the coding, and during the process of coding all data, some key words were added. During the coding of the reports, the technique of memoing is used, which means writing memos and notes that could be useful in the subsequent phase of the research. Some were about the code labels and their meaning, several were about different potential relationships among aspects, and others were about the collection of these data. We also made use of concept mapping, which is a graphic display of concepts and their interrelations. According to Babbie (2010), concept mapping can be useful in the formulation of theory. By doing so, we were able to make some connections among the key aspects, which may be interrelated.

After all reports were coded, all data had to be stored into a database. At first, we have stored all the coded data into this database. Next, we looked at the key words, the related memos, and the concept map. By doing so, we were able to decide whether the coded data really belonged to a category. After analyzing all the data that was stored in the category 'others', we decided that there were no real returning themes, which were important for this study. Therefore, no extra categories were added to the research. After all data was stored, we started with examining the frequencies of the key aspects that were mentioned in the reports. Moreover, the number of key aspects per report has been calculated, in order to inquire the distribution of the key aspects in this sample. The next step was to investigate how the key aspects were mentioned in de reports, divided by the total revenue, the number of employees, the years organizations were participating in the GGoB program and whether the organizations had won a 'All-Stars' award. The following step was to find some examples and interesting quotes about each of the key aspects, which were stored in the category 'quotes' and on the memos made during the coding of the data. These examples and quotes may provide some clarity.

To decide what aspects explain why the Great Game of Business program works, both the frequency, and the degree to which the aspects were explicitly mentioned in the reports, was rated. The two aspects that were reported most frequently, received four plus signs, the following two aspects three plus signs, and so on. Likewise, we have ranked the aspects to the degree of which they were pointed out in the reports as important for the success of the GGoB program. When the aspect appeared to be very important, it received four plus signs. When the aspect seemed to be important, it received three plus signs. When the aspect appeared to be not very important, it received two plus signs. When the aspect seemed to be not important, it received one plus sign.

As a result, the aspect with most plus signs should be most important in explaining why the GGoB program works. If several aspects scored the same number of plus signs, then the degree to which it was pointed out as important for the success, would be determinative for the rank, above the frequency.

RESULTS

Frequency

In 53 of the 64 reports of organizations included within the sample, education in business literacy was mentioned as an important aspect why the organizations had implemented the GGoB program successfully. Also, bonus program and employee ownership was noted in 53 of the 64 reports. Furthermore, communication of results was mentioned in 47 reports, playing games in 45 reports, setting goals with employees in 40 reports, empower employees and keep them accountable in 38 reports, and job security in 31 reports. See table 1 for a summary of these findings, in figure 2 these findings are displayed.

Key aspect	Times mentioned
	(N=64)
Education in business literacy	53
Bonus program and employee ownership	53
Communication of results	47
Games	45
Goals setting	40
Empowerment and accountability	38
Job security	31
Information sharing	24



Table 1. Key aspects times mentioned

Figure 2. Key aspects times mentioned

Looking at the frequency, 'education in business literacy' and 'bonus program and employee ownership' appeared to be most important in explaining why the Great Game of Business worked. Furthermore, the aspects 'communication of results' and 'playing games' were also frequently mentioned, so it seemed likely that these two aspects were important. In contrast, 'goal setting with employees' and 'empowerment and accountability' were mentioned less frequently, and therefore, appeared to be less important for success. Meanwhile, 'job security' and 'information sharing' were least frequently mentioned, so these two aspects seemed least important.

Frequency of key aspects, by organizational characteristics

Next step was to investigate whether there were differences in the frequency of the aspects mentioned within the reports, divided by: total revenue size; the number of employees; the years of participating in the GGoB program; and whether the organizations won an 'All-Stars'

Award. The following section displays these results. On average, 5.17 key aspects were noted per report.

Total revenue

Twelve organizations were included within the category '1-10 million dollars', on average 5.58 key aspects were noted in the reports of these organizations. Furthermore, 5.10 key aspects were mentioned in the category '10 – 50 million dollars' (n=20). Besides, within the category '50 – 100 million dollars' (n=7), on average 5.00 aspects were noted in the reports. Moreover, 4.80 aspects were pointed out within the category '10+ million dollars'. In addition, the organizations of which was unknown (n=15) what their total revenue was, mentioned on average 5.27 aspects in their reports. The results are displayed in figure 3.a.

Number of employees

Within the category '1 – 50 employees' seven organizations were included, on average 5.25 key aspects were pointed out in the reports of these organizations. Moreover, 5.15 key aspects were mentioned within the category '51 – 100 employees' (n=13). In the category '101 – 500 employees' (n=18), on average 5.17 aspects were noted in the reports. Furthermore, 5.13 aspects were pointed out within the category '500+ employees. In addition, the organizations of which was unknown (n=10) how many employees they had, mentioned on average 5.27 aspects in their reports. In figure 3.b, the results are shown.

Number of years participating in the GGoB program

Organizations that had started with the GGoB program for the first year (n=15), mentioned on average 5.07 aspects in the reports. Furthermore, 5.12 key aspects were pointed out on average in the reports of organizations which had implemented the GGoB for two years (n=25). Moreover, within the category '3 – 5 year' (n=13), on average 5.23 key aspects were noted. Besides, 5.36 key aspects were mentioned on average in the reports of organizations that had used the GGoB program between six and ten years (n=11). The results are displayed in figure 3.c.

'All-Stars' awards

From 25 organizations within the sample, was known that they have won an 'All-Stars' Award. These organizations pointed out on average 5.48 key aspects. In contrast, organizations that did not win an 'All-Stars' award (n=39), mentioned on average 4.97 key aspects. In figure 3.d, the results are shown.



Figure 3. Average number of key aspects mentioned in reports, divided by several categories

In reports of organizations that are smaller, based on the size of total revenue, the key aspects were mentioned more frequently compared to organizations with higher total revenue. The higher the total revenue of an organization, the less key aspects were found in the reports. Moreover, looking at the results of the number of key aspects, divided by the number of employees, it pointed out those relatively small organizations, with 1 to 50 employees, more frequently mentioned key aspects than organizations with more employees. Furthermore, there was no big difference within the other categories. Besides, the results of analyzing how many key aspects were mentioned, based on the years organizations have implemented the Great Game of Business, showed that organizations mentioned more aspects, when they were longer working with the GGoB program. Furthermore, the results of analyzing whether 'All-Stars' winning organizations were more frequently mentioning key aspects, showed that this was indeed the case.

Thus, based on these findings, it appeared to be that looking at the frequency of key aspects mentioned was reasonable.

The following part displays the results in regard to the key aspects extracted from the literature. Furthermore, some examples and quotes are given in this section. In addition, the degree to which each aspect was mentioned as important for the GGoB success is also displayed. Other quotes are included in Appendix 1.

Games

Many organizations played mini-games, with the goal to improve certain practices and processes, which could improve organizational performance. The following part will describe how organizations benefited from playing mini-games.

A retailer of natural and organic foods had used mini-games to improve food and service quality, merchandising, margins and economic value added. Furthermore, games were also played to streamline paperwork, to keep office expenses in line and to improve workflow efficiency, labor productivity, teamwork, and customer service. Besides, a provider of communication solutions increased revenue by seven percent and reduced targeted labor cost by eight percent, due to different mini-games. Moreover, mini-games have helped a manufacturing firm to drive down mistakes and increased profitability. In addition, a retailer in pet care played games to continue growth in sales, reduce costs and strengthen key processes and company website. Also, a combination of using mini-games and smart planning saved a software development company 'thousands' of dollars. Furthermore, an office products supplier successfully played games to: identify new sales opportunities; hire quality sales reps; increase website traffic and web-based leads; convert more leads to paying customers; increase new accounts; expand existing ones; and boost high-end product sales. Besides, a wellness salon increased traffic, sales, teamwork, business intelligence and workflow efficiency due to using games. Moreover, mini-games helped an online hotel broker to increase the number of affiliate websites and the level of efficiency in getting new affiliates up and running. Due to playing games, the organization was able to improve forecasting accuracy, expense control and customer service. In addition, a sugar processing company was able to reduce overall pallet damage by about twenty percent in three months, which helped saving thousands of dollars. Also, a merchandiser of tuxedos was able to increase the accuracy of forecasts, to exploit opportunities, and to squeeze out weaknesses due to playing games. Furthermore, two corporate games and dozens of in-store ones have helped a restaurant chain to shave food/beverage costs and improved their customer service, food quality, traffic and sales. Besides, by implementing a mini-game targeting on waste, a distributor of flowers was able to cut its waste from seven percent of sales to almost five percent by watching and tracking what they threw away, which putted some \$46,376 directly to their bottom line. Moreover, a wholesale distributor used mini-games to improve promotions, sales, service, team communication and housekeeping. In addition, an engineering firm improved shipping and reduced office costs and lost-time accidents due to playing games. Also, mini-games have helped employees of a consultancy firm to meet a string of ambitious contract-renewal goals, which ensured healthy profitability. Their clients were delighted because they won due to the games that were played. Furthermore, an air composite supplier benefited from using games because they boosted efficiencies and learned to teach employees decision-making skills. Due to one game, they reduced cash for shop supplies by \$12,000 in only sixty days. Besides, mini-games helped an insurance firm to reduce office costs and supercharged teamwork, financial and cultural literacy, quote activity, customer service, the policy retention rate and new business.

So, based on the findings it seems that 'playing games' is a very important aspect of the Great Game of Business program. There are lots of examples that illustrate how playing games have helped to improve all kinds of different parts within the organizations. Therefore, it appears like playing games could help to improve almost every situation, or solve every problem. Moreover, truly practical examples are given in the reports, about how games had improved the organizational performance.

Information sharing

Sharing information was mentioned in several reports. Organizations were using different ways to keep everyone well informed, such as newsletters, posters on bulletin boards, e-mail updates, teleconferences, websites, intranet, and special summits.

In several reports, was noted that employees demanded, or were asking for information. A CEO of a consultancy firm concluded: "The Great Game of Business created a strong demand for information. The more people learned, the more engaged they became." Furthermore, a manager from a call center stated: "What made our people business partners is that the GGoB created a demand for information. The more people learned, the more engaged they were." Besides, a manager from a food distributor noted: "To realize our dream of a community of successful businesses, we knew we had to document and share our best practices so we would not have to reinvent the wheel every time we launched a new business." Moreover, a co-founder and CEO of a food retailer explained: "We always wanted our stores to be autonomous, to innovate individually and to exchange information." In addition, in one report

of an export management company was pointed out that there was a different culture emerging after the company started with the GGoB program, because all employees cared and were sharing information and resources. Also, it was mentioned in the report of an IT service provider that all employees had a playbook where they kept track of the actions they did each day to contribute to the sales engine. The playbooks were shared with all employees to provide information and accountability. "The Great Game has taught us to have faith and courage when sharing information with employees. As a result, company loyalty, morale, and fun are surging," was stated by the manager of the IT service provider. Furthermore, one CEO of a beer brewery reported: "Shared ownership and fiscal transparency were always part of the plan. When we started sharing financial information, we really jumped off the cliff."

Thus, information sharing seemed important in some cases; in others it was not mentioned. Perhaps this is due to the fact that because they share financials with their employees, they did not mention them in the reports. Some organizations really pointed out that their employees had a demand for information. However, it appears like sharing information was not very important for organizational performance. Still, it should be mentioned that all organizations share some information with their employees, which is the basis of the GGoB program. So, it is likely that sharing information is more important than the organizations thought, or recognized.

Education in business literacy

Most organizations mentioned in their report that their employees had a much better understanding of the business literacy compared to before they implemented the GGoB program. Many organizations reported that they had several training programs for their employees, so the employees were able to make better business decisions and they could link their day-to-day work with financial results. In several reports was pointed out that it was not hard to teach employees business literacy. One manager of a research organization stated: "If someone knows how to do basic math, we can teach that person how we make money and where it comes from."

Several organizations pointed out that a focus on business literacy was the key of their success. In a motorcycle shop, the rate of business literacy had gone up dramatically. The manager stated: 'We were asking more sophisticated question.' That corresponds with a note that a CFO from an air composite supplier made in regard to business literacy education: 'Employees were asking questions they've never asked before.' Furthermore, one CEO of a call center reported: "We began to see great results not only in the financial reports, but also

in the way people interacted with one another and with customers. Their business decisions made perfect economic sense for the company." Besides, another manager of wholesale distributor of flowers stated: "Everyone at our company now sees the financials and they are taught how to read them and they clearly know what it takes to win. This has been the best thing we have done to turn our business around." Moreover, in the report of a call center was mentioned that business-literacy training helped employees to develop a common financial language. Customized line-of-sight training showed them how their daily work aligns with, and rolls up to, corporate goals. A manager from a research organization_stated: "Our people started to understand our business model and what we need to do to keep operating." In addition, according to the report of a manufacturing firm business literacy was a key part of the company's recipe for success, an effort the company has invested even more heavily in, especially when it transitioned from forty percent to a hundred percent ESOP company. Also, one manager of a sugar processing company stated: "Business literacy is the key to our success, and the Great Game of Business is an excellent tool for demonstrating it." Furthermore, financial training helped a consultancy firm to outperform all the previous year numbers in almost every category.

Besides, several organizations reported about their business literacy rate: "Nearing 100% at the hub"; "70% business literacy"; "Rising steadily as more employees participate"; "Climbing higher, thanks to regular financial- literacy classes and open-book training for new hires"; "100% participation"; "100% of employees have been trained"; "All associates at participating plants have been fully trained"; "90% of full-timers have taken customized classes on the P&L"; "Rapidly closing in on 100%"; "high thanks to formal training, diligent scorekeeping and daily pre-shift rallies"; "90% due to new-hire orientation, OBM tools, scorecards, forums and employee produced GGOB films used to teach OBM internally and externally"; and "About 80% of our people know how to move the numbers in the right direction".

Hence, it appears that business literacy is very important for organizations that have implemented the GGoB program. Their employees are able to make better decisions, ask better questions, and it is not hard to educate employees. As a consequence, employees of organizations included in this study had a better understanding of how their organization were making money, and how own their work influenced the organizational performance, the employees were more aware of their own role.

Empowerment and accountability

In most reports, empowering employees and making them accountable was mentioned. For example, it was referred to as: empowering; accountability; sharing responsibility; authority; participation; thinking and acting like owners; and decision-making power.

Some organizations reported that they have empowered employees. In one report, was described that a pizza restaurant chain empowered staffers to do whatever it takes to delight their own customers. Furthermore, one manager from an online hotel broker stated: "People were fully empowered to solve problems and innovate in ways that positively affected the bottom line." Besides, another manager from a book wholesaler mentioned: "We had given decision-making power to employees. They understood our critical number and key drivers and were able to think like owners." Moreover, a storage company started employee-run committees, which had the authority to do 'whatever it takes', to make the company stronger.

In addition, in several reports empowerment was mentioned together with accountability. "Empowering people and sharing the responsibilities and rewards of business led to continuous improvement and sustainable success," was stated by a manager from a retailer of natural and organic foods. Also, in a report of a distributor of pool covers was described that employees were empowered to make important business decisions and were kept accountable for them. Furthermore, one manager of a manufacturing firm stated: "The GGoB program empowered us to be responsible, to take charge of our company and our lives." Besides, employees of a fire-safety company were encouraged to innovate and assume loads of responsibility.

Moreover, some organizations held accountability meetings. In several reports, was described how certain departments and teams were held accountable, in others was mentioned that they had to find ways to make individuals accountable for their own actions and decisions. In some reports, the organizational success was explained through the power of the GGoB program to create, or transform the culture in one of accountability. One CEO of a protective coating manufacturer identified company heroes, rising stars and future leaders, which offered employees an increasing amount of personal responsibility. In addition, in the report of a wholesale distributor of recreational vehicle parts, was stated that 'accountability replaced excuses', after they implemented the GGoB program.

Also, in several reports was noted that employees were starting to think more like owners. In a coffee distribution company, members of a team questioned why they were still direct-shipping coffee to customers located along their delivery routes. Together they discussed others ways to do it, and they came up with great solutions. Furthermore, in a report of a producer of crude and natural gas was explained that employees do not thought they had 'jobs'; they worked like owners with purpose and passion. Besides, a brewery described that the new ownership mentality inspired everyone to find ways to make the brewery more profitable and sustainable. Moreover, a manager of a call center stated: "New ownership mentality created greater participation in the process."

So, empowering employees and making them accountable appeared to be very important for many organizations. However, it should be noted that it seemed like both facets should be included. If their employees get empowered to make decisions, but are not kept accountable for the results of their actions, then they will not care. If they receive a lot of accountability, but they do not have the power to change results, then it will not work either. This problem was mentioned in several reports, before they started with the GGoB. Due to the implementation of the GGoB program, they knew how to handle this. Therefore, empowering and accountability leads to employees who think like owners, which seem to be a very important aspect of the GGoB program.

Bonus program and employee ownership

Employees could receive rewards through a bonus system, or because they have stocks in the company that would be worth more, when the organization is performing better.

Most organizations included in this study had implemented some sort of bonus program. Different terms were used in the reports, such as: bonus pool; bonus program; gain-sharing programs; profit-sharing plan; reward and recognition program; performance-appraisal system; profit-driven bonus program; and incentive plan. An automobile dealership changed their whole reward system. Their sellers were no longer on commission because the new bonus program was more attractive. Furthermore, some organizations mentioned that the bonus program motivates everyone to constantly develop short-term goals, which strengthened the company's financials. Other organizations indicated that their bonus program helped to keep everyone focused on building long-term company value. One manager of a consultancy firm stated: "We needed to get everyone on the same team and working toward the same goal." Besides, a software development company used the bonus system to get the professional-development goals align with the organizational goals. Moreover, one manager from a purveyor of specialty foods stated: "People began to see what they had to do to get their bonus." Also, a non-profit organization used the bonus program to boost the rewards of their employees. One of their managers stated: "Our base pay was higher than most non-

profits, but significantly lowers than what our associates could make in the for-profit world. Paying them the bonus brought them closer to what their true compensation should be."

In addition, several organizations changed to employee owned-organizations. One manager of a retailer of food stated: "Empowering people and sharing the responsibilities and rewards of business led to continuous improvement and sustainable success." Furthermore, some organizations gave their employees stocks as a bonus. Other organizations used a buy-in program, which offered their employees a stack in the organization. Besides, a wholesale distributor of flowers needed the help of every employee to bring the company back to life. So, they made their employees owners of the company. The CEO stated: "Ownership putted our money where our mouth was and created a bonus program where the associates would receive half of the company's year-end profits."

Moreover, a consultancy firm increased its bonus pool every year since they implemented the GGoB program, topping out at a total of \$675,000 paid out its associates the last year. In addition, employees of a naval-architecture and marine-engineering firm earned an extra 100+ hours of bonus pay during six months. Also, the firm introduced a 10-20-30-40 distribution schedule, so if employees hit the quarterly goals, they shared ten percent of \$100,000, twenty percent of \$100,000 and so on. In three years, the bonus pool of another organization grew by almost twenty percent per year. Within the last year, they distributed \$60,000. The forecast for the following year was a distribution of \$120,000.

Thus, it appears that it is very important for organizations that participate in the GGoB program, to financially reward employees when they want to improve organizational performance. By making sure that everybody is working together to make the organization stronger, most of the organizations included in this study had bonus programs, which were sharing profits equally to the employees, or the organization was employee-owned. However, it should be taken into account that it is plausible those organizations think employees are more focused on receiving extra money than they really are. There were some examples of organizations with outstanding results due to the implementation of the GGoB program, where employees did not receive extra money. Some organizations donated a part of the extra profit to charity. Furthermore, there was also an example of a company that used a large part of its extra profit to search and develop new products. So, it is also possible that employees are more interest in others things, rather than receiving only a part of the profit. Thus, based on these findings, the aspect bonus programs and employee ownership seems to be important, but not necessary for success.

Goal setting with employees

Many organizations reported that they held weekly meetings, which most of them called 'huddles'. During these meetings, employees reviewed, discussed, forecasted and devised daily, weekly, monthly and sometimes yearly goals. Employees offered opinions and were explaining variances of lines.

Due to the high-involvement planning, organizations could ensure that everyone was committed to the goals. High-involvement planning made employees think more strategically, so plans were more detailed and accurate. A wholesaler of books explained that during highinvolvement planning, employees were surveyed about the five things, which concerned them the most. By doing so, goals were adjusted to certain changes that might occur inside the organization, or within the industry they were operating.

Furthermore, in many reports was mentioned that the forecast accuracy had become much better. One manager of a junk removal service franchiser stated: "I could not believe we had so much fun forecasting with the entire team." Besides, employees of a provider of education programs brought in their notebooks and calculators and helped building the income and cash flow statement, and helped setting goals for the following period. Moreover, in some reports was mentioned that employees had become more skilled at forecasting, setting goals and putting those projections to good use. A manager from an IT consultancy firm concluded: "It is not just the action of recording the forecasts that moved our business forward, it were the discussions we had in our Huddles about the numbers." In addition, a manager of a software provider stated: "As a result, we improved sales-forecasting accuracy from sub fifty percent at the beginning of 2006 to ninety-six percent at the end." Also, one CEO from an air composite supplier concluded: "Once a month, we also did an analysis of our variances where people came in and explained variances over five percent. Now those were interesting huddles."

Hence, it appears that setting goals with employees is an important aspect of the GGoB program for many organizations. It helped to ensure that people were committed to reach goals, they became better in forecasting, and employees had fun during the meetings where goals were set. However, it was not often explicitly mentioned as the key driver of the success of implementing the GGoB program.

Job security

Several repeating themes were found in regard to job security. Some organizations implemented the GGoB program to ensure the organization would be able to stay in business.

Other organizations started with the GGoB program to prevent forced layoffs. Several organizations wanted to give their employees insights in the organizational performance, which could provide job security due to the fact that employees were able to know whether forced layoffs would follow. In many reports, was mentioned that their employees wanted to stay with their organization, as they referred to a low voluntary employee turnover.

Furthermore, a supplier of medical equipment reported that an important goal was to secure jobs, when they started with the GGoB program. Besides, a construction company reported that their employees took a voluntary pay cut to keep their team intact. Moreover, export management company mentioned that rather than lay off staff during a downturn like most organizations, associates supported the implementation of company-wide pay cuts instead. In addition, in one report of an IT consultancy firm was mentioned that the CEO cut his pay in half, and the employees took a ten percent voluntary pay cut, to make sure there were no forced layoffs.

Also, several organizations mentioned an annual employee turnover far less than the industry average. One auto dealer reported a voluntary employee turnover of twenty percent a year, against an industry average of forty-four percent. Furthermore, a biomedical testing equipment company mentioned a voluntary employee turnover below three percent. The manager stated: "It was a revolving door before we opened the books." Besides, a human services agency reported that their turnover fell nearly fifteen percent, after seven years of increasing turnover. Moreover, a medical supplier described that their voluntary employee turnover has diminished substantially. In addition, according to a CEO from a software provider employee turnover remained well below industry norms because people trust leadership. He stated: "Our co-workers appreciate the frankness and candor of sharing results, good and bad. They see that we walk the talk." Also, a manager of a motorcycle shop reported: "People just do not leave, they love it here." Furthermore, a manager from a sport marketing consultancy firm stated: "Our team members really love being here. They feel that what they're doing is important, and that management is open and honest. Non-performers don't last here because of everyone's high expectations."

Hence, providing job security did not seem to be very important for many organizations, because it was not often mentioned explicitly as a key driver for success. However, based on the job satisfaction rates they described, and based on the low voluntary turnover at many organizations, it appeared like employees wanted to stay gladly and thought it was important that they knew their jobs were secure. Furthermore, based on the reports, it seems like many organizations do not see how important job security is for their employees. It

should say enough that many employees were prepared to cut their pays, just to make sure that there were no forced layoffs and teams could remain intact. So, job security appears to be important when the GGoB program is implemented. Not necessarily directly for the organization itself, but definitely for their employees.

Communication of results

In most reports, is mentioned that the company shared results with their employees, and gave them recognition for those results. Several methods were used to share the results. Most organizations used scoreboards; some used a booklet, a weekly trend report, newsletters, websites, or other forms to distribute the results.

Organizations used scoreboards for different purposes. Most used them to communicate the key performance; others used scoreboards for example to display the bonus pool. Furthermore, scoreboards were used to capture key performance indicators such as revenue growth, revenue per employee, gross margin, cash flow, or net profit. Besides, a wholesaler of books used scoreboards, which were maintained on a departmental basis and were used to share predictions and forecasts through department huddles and meetings - a practice that promoted accountability and awareness. Moreover, a storage company used colorful scoreboards, which showed mini-game wins and progress related to sales, receivables, efficiency, expense control, profit, and customer satisfaction. In addition, scoreboards were also used to display vacancies, turnover, and workers' compensation.

Furthermore, a CEO of a wellness center stated: "Posting individual numbers improved behavior overnight." Besides, a landscape management company reported: "The scoreboards made their employees aware of the ill effects of lousy weather and absenteeism, and going forward, they captured more line-item detail in an effort to better manage expenses." Moreover, a manager at a packaging plant noted: "The scoreboard helped us to better understand the costs of doing business and how we could affect the overall outcome." In addition, in an engine remanufacturing company a R&D scoreboard was used to keep the process of introduction new products flowing smoothly. The scoreboard also showed how product releases could be translated to future business growth and job security. Also, in one of the reports from an engineering firm was mentioned that the excitement of scorekeeping greatly improved organizational performance.

Also, one facet of communicating results that was mentioned in several reports was about sharing negative results. One manager from a wholesaler of books_stated: "We also learned that the times we did not met our goals could also be valuable because we learned
how to talk to each other to do better." Furthermore, several other ways to display results and remind employees on the GGoB program were described in the reports. One example was given by a manager from an insurance company: "At a certain moment, we had frogs on mugs, magnets, and scoreboards. There was even a live frog around here somewhere. Our mascot helped to keep our minds on the Great Game of Business program."

So, many organizations mentioned that they were sharing results through different channels, especially through scoreboards. Several organizations mentioned that they thought sharing results through scoreboards was a key driver of their organizational success. However, there were not many examples that could underpin that assumption. It appears to be more likely organizations overestimated 'communicating the results', since the success came more likely due to other reasons, such as discussing the results, or setting new goals based on known results. Therefore, it seems not likely that the success of the GGoB program is very dependable of the communication of results.

Overview results

The key aspects were rated, based on the frequency, and the degree to which the aspects were mentioned as important for the GGoB success. By adding both ratings, we came to a total score per aspect. The results are displayed in table 2.

	Frequency	Degree of importance	Total
Education in business literacy	++++	++++	8
Games	+++	++++	7
Empowerment and accountability	++	+ + + +	6
Goal setting with employees	+++	+++	6
Bonus program and employee ownership	++++	++	6
Communication of results	++	+++	5
Job security	+	+++	4
Information sharing	+	++	3

Table 2. Aspects rated based on frequency and the degree to which the aspects were important for the GGoB success.

The frequency of which the key aspects were mentioned seemed to be a good indicator of how important the aspects were for the success of the GGoB program. Since the organizations described how they had implemented and worked with the GGoB program, it is likely that they mentioned the most important aspects that they thought that were determinative for success. Therefore, the key aspects 'education in business literacy' and 'bonus program and employee ownership' were most frequently mentioned, before 'communication of results' and

'games'. 'Goal setting with employees' and 'empowerment and accountability' were less often noted; and 'job security' and 'information sharing' least frequently.

In addition, we have analyzed to what degree the aspects were mentioned as important for the GGoB success. So, 'games', 'education in business literacy' and 'empowerment and accountability' seemed to be very important for the success of the GGoB program. Furthermore, 'goal setting with employees', 'communication of results' and 'job security' appeared to be important. In contrast, 'information sharing' and 'bonus program and employee ownership' were not very important for organizations to explain why the GGoB program was successful.

DISCUSSION

Main findings

The purpose of this study was to examine why the GGoB program works. The GGoB program has proven itself in the USA, and the Great Game of Business recently started with the introduction of the program in Europe. Therefore, by analyzing 64 reports of organizations that have implemented the GGoB program, we were able to determine what aspects are most important to answer why the GGoB program works.

So, based on both the frequency, and the degree to which the aspects were mentioned for explaining the GGoB success, the results of this study showed that education in business literacy is the most important aspect in answering why the Great Game of Business program works. As a result, employees are asking better questions, they are able to understand how their organization makes money, and they are able to make better decisions. Furthermore, playing games is also a very important aspect to explain why of the GGoB program works, because it makes situations and problems easier to handle. Therefore, situations and problems are made practical and applicable for every employee in the organization. Moreover, empowering employees and making them accountable is the third most important aspect of the GGoB program, because it ensures that employees are going to start to think like owners, which will have a positive effect on the organizational performance. The fourth most important aspect for explaining why the GGoB program works is about setting goals together with employees. This helps organizations getting employees more committed to the goals, to increase the forecasting skills, and to create excitement. Furthermore, this study shows that having a bonus program and making employees owners is also an important aspect in why the GGoB program works. Through giving employees a direct financial stake in the organizational performance, they will be extra motivated to improve the practices and procedures. Moreover, communication of results seems to be important for explaining the success of the GGoB program, but not as important as the aspects mentioned above. Besides, 'job security' have not shown to be very important for explaining why the GGoB program works. Although it is important for employees to know their jobs are secure, it is not a necessary aspect for successfully implementing and participating in the GGoB program. Information sharing seemed to be the less important, based on the results from this study. It was less frequently mentioned and not explicitly noted as important for why the GGoB program worked. However, a remark should be made here, because this may be due to information sharing seemed so normal for organizations participating in the GGoB program.

Therefore, they might forget to mention this aspect. So, it could be possible that information sharing is much more important for explaining why the GGoB program works, than the results showed.

Furthermore, based on the outcomes from this study several assumptions could be made in regard to the size of a company. Looking at the total revenue, it is easier for smaller organizations to implement the GGoB program than organizations with larger total revenue. In addition, based on the number of employees, the results indicate that when an organization has 50 employees or less, it results into easier implementing the full GGoB program. When an organization has more employees, it is harder to fully implement the GGoB program. Moreover, in regard to the number of years an organization is participating in the GGoB program, it pointed out that the longer an organization is participating, the more key aspects they had implemented. This seems logical, since organizations cannot implement the whole program at once. Thus, organizations should be committed to continue participating in the GGoB program.

Theoretical implications and limitations

An additional effect of this study could be creating even more awareness in the literature about the Great Game of Business program. Hopefully, this study will lead to more research on this topic, especially in Europe. As Dixon et al. (2008) concluded, the process of openbook management needs more empirical investigation. Some suggestions for further research will be presented in the following section.

During a conference call with: Frank Shipper, professor of management at the Salisbury University; Richard Hoffman, professor of management at the Salisbury University; Bianca Groen, assistant professor management accounting at the University of Amsterdam; Duncan Ooyevaar, founder and co-owner of Great Game of Business Europe; and Rick Katier, MSc-student Business Administration; several possibilities for future research were discussed and collaboration opportunities were explored. For example, suggestions were given about creating a short questionnaire to measure: how fast employees of participating organizations are able to learn the GGoB program; how organizations monitor the results; and on what aspects participating organizations are most focused on. Some of the other suggestions are discussed in the next section. Additionally, first contacts for future collaborations at the University of Michigan.

As a starting point from now, especially the effect that the GGoB program has on organizational performance should be investigated. Therefore, a data request to receive information for measuring the effects on the organizational performance is included in Appendix 2. Such a study could start with the effect on the revenue, on the profit and on cash flows. In fact, a first impression can be found in Appendix 3. Data of the organizations included within the sample of this study are used for these results, but due to the small sample, it was not possible to come up with significant evidence. However, it might inspire others to start with such a study.

Furthermore, future research could also investigate whether the aspects identified for this study, are covering the whole GGoB program. Of course, it could be reasonable to question whether all aspects were identified. Therefore, this study might serve as a starting point for an extensive discussion about what aspects explain why the Great Game of Business program works. Also, due to limitations because of the relatively small sample size, it is recommended to include more organizations that started with the GGoB program in future research. In a later stadium, researchers might also analyze the effects of different aspects on organizational performance. Therefore, a first analysis is made based on the sample used in this study, which is included in Appendix 4. Furthermore, a study could be conducted by examining the relationship among organizational performance, the key aspects and organizational characteristics such as: the total revenue; the number of employees; the years of participating in the GGoB program; and winning an 'All-Stars' award.

Moreover, during analyzing the reports, we noticed that many organizations were supporting charities, or they were focusing on other forms of corporate social responsibility (CSR). It seemed that organizations participating in the GGoB program were remarkably corporate social responsible. It might be interesting to investigate whether there is a relationship between organizations that have implemented the GGoB program and the degree of corporate social responsibility.

Besides, another study could be conducted about whether different cultures require different forms of the GGoB program. Admittedly, it is reasonable to argue that organizations from the United States of America might response differently on the implementation of the GGoB program, than organizations in Europe, Asia and other parts of the world with a different culture. Therefore, extra research could examine the link between culture and the effect of the GGoB program.

Due to the fact that this research was conducted by one researcher, it could be argued that researcher bias may play a role. By following the guidelines from Strauss & Corbin (1998) about grounded theory, the researcher was able to be scientific and creative at the same time. These guidelines are: think comparatively; obtain multiple viewpoints; periodically step back; maintain an attitude of skepticism; and follow the research procedures. In particular, systematic coding is important for achieving validity and reliability in the data analysis (Babbie, 2010). By following the guidelines from Strauss & Corbin (1998) and by making sure the coding was done systematically, researcher bias is reduced.

Practical implication

The Great Game of Business can use the results from this study to evaluate their program. For example, they can use the results about information sharing. Their customers might forget that they have to continue sharing information, not only financial information, but also information about strategy, and organizational policies. Furthermore, the Great Game of Business can use the results from this study to convince potential clients who have concerns and difficulties with the GGoB program. Several concerns were discussed in the theory section, which were already mentioned in the literature about OBM. Other difficulties and concerns might be taken away by using the results from this study to convince potential clients why the GGoB program works. Besides, a questionnaire has been prepared for the Great Game of Business itself, to evaluate how they deal with difficulties and concerns. Therefore, the GGoB could use the outcomes of such a questionnaire to anticipate on questions potential clients might have. These difficulties and concerns were mainly extracted from the literature about OBM, and some were added based on observations during a workshop. This questionnaire can be found in Appendix 5. Furthermore, the Great Game of Business could conduct surveys with clients and potential clients, to find out what their main difficulties and concerns are in regard to the GGoB program. Therefore, they could respond to the results of such a survey, by adjusting their program and their workshops.

Moreover, based on observations during a workshop, the Great Game of Business Europe is advised to get the USA aspect out of their workshops. Several potential clients were quite skeptical during the presentation, because they thought the program could only work for organizations in the USA. Furthermore, advice in regard to the workshop is about learning business literacy to employees. Potential clients assumed that their employees would have too many difficulties with understanding the financial numbers of their organization. The GGoB can respond to this, by giving some examples about how they make business literacy easy to learn for employees of organizations that are starting to implement the GGoB program. As was found in this study, education of business literacy was very important in explaining why the GGoB program works, so it is advised that the Great Game of Business should put more focus on this aspect during their workshops. Moreover, some potential clients had difficulties with thinking about a bonus program, or a reward system that could be suitable for their organization. The GGoB can respond to this, by giving some examples of bonus programs they have implemented in organizations that recently started with the GGoB program. Our last advice is about playing games during workshops. As shown in this study, games were a very important aspect to explain why the GGoB program works. Many potential clients became enthusiastic about the GGoB program, after they played a small mini-game. At that point, they started to understand how the GGoB program works. By starting with an example of a mini-game, the Great Game of Business may take away several difficulties and concerns from the beginning of a workshop. By doing so, they can show the potential of the GGoB program from the start of the workshop.

Besides, potential customers may benefit from the results of this study, due to the fact that they could determine whether implementing the GGoB program can be beneficial for them. Because this study was not conducted on behalf of the Great Game of Business, the independence of the researchers can be guaranteed. Therefore, potential clients can make an enhanced decision whether participating in the GGoB program would work for their organizations. Furthermore, any organization can use the results from this study to evaluate how they are performing. They may not want to disclose financial information about their organization, but they can benefit from this research by using it as an evaluation tool. It may help them to get insights about how they are performing on each separate aspect. For example, they can ask themselves the question whether the business literacy of their employees is high enough, or they may start thinking about setting goals more often together with their employees.

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APPENDIX

1 - Quotes

"A huge opportunity awaits any business that opens its books, as secrecy in the workplace limits growth and creativity. When employees are in the know, the result is better alignment, communication and cooperation."

"We couldn't imagine managing any other way."

"The best thing about open-book management is that you hear about things before they're out of whack. In retailing anyone can walk into your store and copy what you're doing, so you have to constantly improve and innovate. The open-book approach makes that entirely possible."

"We said from the beginning, 'Look, this is a journey. We're all learning this together for the first time. Let's have some fun with it.' The fun has made all the difference to us."

"We believe the Great Game can help us tackle whatever challenges lie ahead, whether tactical or strategic. And we're energized to continue spreading the word on open-book management."

"Our business is a perfect example of when you give people a little information, they always want more. People also like it when they can bring information about the future, not just past results, home to their families."

"Our employee-owners can win when they're fully vested, and not just in the technical ESOP sense. To us, fully vested means we understand our mission and core values. We know who our internal heroes are—and how to become one. We have positive internal buzz, and we participate in an engagement track that shows us how we make profit. When we fire on those four cylinders, everybody wins."

"When the stock value came out and people saw their balances grow by so much, it created a whole lot of excitement around here. But it was also motivating and has launched us on a whole new trajectory for future success."

"We've been playing The Game for about five years now, and it's changed all of us for the better. It's helped us grow as a company and as individuals. It's kept us out of trouble, too."

"Our Great Game is something we take great pride in."

"Financial success for a company like ours is often considered contradictory to the spirit of human services. Through the Great Game of Business, we've learned that the reverse is true—that being a successful business is one of the best ways to serve individuals with disabilities and their families. And they agree."

"The games raised our understanding of how the business works and got us asking the right questions. Surprisingly, our tech people were really interested in profit and what drives it."

"What I began to realize was that open book was more than just a financial methodology."

"The increased trust has had an impact on business success in many ways. Employees are comfortable asking tough questions, and managers give them tough answers."

"While it may be difficult to tie all of these results to open-book management, employees tell us they value the program more than any other."

"People can't change or improve without knowing how The Game of Business is going. Here, they know."

"Sales growth is on the rise, and employee engagement and buy-in are as high as they've ever been."

We're communicating much more than ever before, in ways that matter to profitability. That's the difference. [The Game] has given us transparency and a heightened focus on our key drivers of profitability."

"While I can't say that all of our growth this year was due to the Great Game, certainly 50% of it was. More important, perhaps, is that we now have a team that is much more company focused, and we're seeing that we will continue our profitable growth in 2005."

Early on, I worked at places where bonuses were pennies from heaven. This organization ties incentives to things our people can control. Since we pull together, not competing against each other and we all have skin in the game, it's amazing what we can accomplish."

"They did a fantastic job. We learned some valuable lessons about game design, and people became much more aware of why we need to be hitting the targets we set."

"Stock options are great, but we needed The Great Game to complete the whole package. Sharing financial information, updating the scoreboards, playing mini-games, all of that tie everything together."

"Who knows how to do a job better than the person who's actually doing it? So we'll continue to ask associates for ideas, and we'll listen to their responses."

"The GGOB has helped us evolve from being technical consultants to becoming business consultants because everyone now understands the financial impact of the decisions they make."

"When people take pride in their work and workplace, this feeling manifests itself in ways that don't always show up directly on the financial statements."

"I think there's a direct connection. As employee-owners, we know the ESOP is what we've got to retire on. The financial training and constant communication helps everyone see how they can grow that amount, that they have at least some control over their financial destiny."

"The turnaround wouldn't have been possible without the hard work and daily contributions of folks who know, teach, and practice the rules."

"Now everyone understands that every little bit counts, from selecting the most efficient and economical way to communicate with offices and clients abroad to just turning off the lights on the way out the door."

"With renewed commitment to exceeding our financial goals, people are much happier and working harder than ever."

"The Game is significantly credited with driving our amazing turnaround. We're in the most profitable six-month period in the history of the organization. Employees have a greater sense of pride in the hospital and in themselves, which carries over into their personal lives."

"I was trying to do something like this for years, but I couldn't get it all together. I didn't have the tools to do it. The GGOB is simple enough that even a guy like me can do something with it. And the results speak for themselves."

"Our openness in sharing financial results internally gives these large clients the confidence that we manage intelligently and cautiously, and that we'll still be in business ten years from now."

"We've grown up with Great Game concepts. They've become part of our organizational DNA. The simple fact that we've been able to organically grow our company from \$100,000 in sales ten years ago to \$8 million today, without external investment, can be traced directly to our practice of The Great Game."

"One of the company's long-term goals is becoming less dependent on its major suppliers. If employees continue to post such glittering results, they'll be well on their way to achieving that lofty goal."

"It's taken us two years to get here, but implementing the GGoB program is the smartest thing we've ever done. It's really an efficient way to run a company."

"Why would you not want your employees to know how your company makes money? I know that I can't be involved in every decision my colleagues make on a daily basis. But, by

creating a sense of mutual obligation, we can encourage everyone to make good decisions when it comes to impacting the bottom line."

"Open-book management and ownership opportunities for everyone make our company feel very transparent. There are no big blocks or barriers between us, the founders, and our co-workers. In the marketplace, that gives everyone the impression that we're a good business, that you can trust us. We're proud of that."

As we move into the next year, we are no longer a company that just plays the Great Game, we live it. We're building employee forums and group sessions to train each other and new employees. The economy no longer dictates our success or failure. We do."

"Success comes from an unwavering commitment to getting the basics right. Sound strategy, fanaticism around culture and principles, and rigorous attention to detail and execution."

"Our culture is based on our employees acting like owners, which is a direct result of our adopting The Great Game. They've been empowered to make the difficult decisions necessary to successfully run their own business and be profitable. They all feel they truly have a stake in the outcome and continually strive to make the business better."

"OBM translates to intelligence, integrity, honesty and transparency. There's no question it's a clear differentiator for us in our market."

"Now that team members can clearly see how their effort affects the financials, they can focus on what's most important to business success."

"People are constantly asking me if the GGOB can be used in every kind of business and our organization proves that the answer is yes. Even when you have people like carpenters out in the field, you can use the Game to communicate better."

"Employees told us the best aspect of 2002 was the Great Game of Business. Across the board, employees told us they liked learning about the business and knowing exactly where we were and where we were going."

"The interesting thing is that prior to implementing open-book training, most employees tended to think the owners were cutting a fat hog. People were kind of shocked that we were not as well off as they thought – especially when it came to servicing our debt. Opening the books helped put things in perspective."

"Through The Great Game of Business, we have realized wonderful success. Our employees feel much more involved and, as a result, morale has increased."

"We really couldn't imagine managing any other way."

2 - Data request

Data Necessary to Investigate Why the Great Game of Business Works

- 1. Name of the organization
- 2. Matching criteria
- a. Industries in which the organization is operating (preferably written as a SIC code)
- b. Is the organization a for-profit organization?
- c. Is the organization listed on a stock exchange? (If so, on which stock exchange?)
- d. Number of employees
- 3. Data about the Great Game implementation
- a. When did the organization start with the GGoB?
- b. Is the organization still participating in the GGoB program?
- c. If applicable: when did the organization stop participating in the GGoB program?
- d. Is the whole organization involved in the GGoB?
- e. Any data that will help us identify the extent to which the GGoB has been implemented. It might, for example, be useful to know whether the organization is rated as an "all stars company" and for us to be able to interpret this, we need to know what the criteria are to be qualified as an all star company. Perhaps we should discuss together what type of (available) data would be valuable in this respect.
- f. Data that indicates in which year the company focused on which of the three main numbers: profit, growth or cash flow.

4. Financial variables (if possible 5 years before and as many as possible years after the organization started implementing the GGoB)

- a. Total assets (=Balance Sheet total)
- b. Debt (=Balance Sheet total Equity)
- c. Equity (=Balance Sheet total Debt)
- d. Earnings before interest and tax (EBIT) (a.k.a. operating income, income from operations)
- e. Income before taxes (a.k.a. pretax income)
- f. Net income (a.k.a. net profit; bottom line)
- g. Sales

- h. Net sales
- i. Current liabilities
- j. Current assets
- k. Inventory
- l. Cash and marketable securities
- m. Trade receivables
- n. Average total liabilities
- o. Net cash flow
- p. Interest expense
- q. Cash flow from operations before investment in working capital and interest payments
- r. Cash flow from operations after investment in working capital
- s. Free cash flow available to debt and equity holders
- t. Free cash flow available to equity holders
- u. Cash flow from operations
- v. Total revenues
- w. Share price
- x. Number of shares

5. Non-financial outcome variables

- a. Customer loyalty
- b. Customer satisfaction
- c. Employee engagement
- d. Employee turnover
- e. Employee development

Why do we need this?

1. Name of the organization

With the name of the organization, we will be able to collect missing data for example from annual reports and websites. Moreover, it will ensure us that we have no double entries and we know that we should exclude this company from the list of non-GGoB organizations that serves as a control group. Of course we will treat the data confidentially and we will never publish these names.

2. Matching criteria

We need this information to set up a control group which is comparable to the GGoB organizations.

3. Data about the Great Game implementation

- a. c. These data show us which the most important years to investigate are. We want to compare the performance of the organizations before and after the implementation of the Great Game.
- d. If not, it may be difficult to interpret the results.
- e. To also get more insight into why Great Game organizations perform better, it would be useful to compare the performance of the Great Game all stars with organizations that have implemented only parts of the Great Game. This gives insight in what parts of the Great Game are the most important.
- f. Necessary to see if the performance effects are indeed found in the corresponding area.

4. Financial variables

These variables are used for two purposes.

1) We can use these data to see if the chosen control group is comparable to the GGoB organizations.

2) Based on these data we can calculate the financial outcome variables we use to assess if Great Game organizations perform better than other organizations. In case some of these variables are missing, it is recommended to report any available data on the outcome variables. We want to include the following outcome variables in our study:

a. Profit

The starting point to analyze a firm's performance is its return on equity (ROE). The return on assets (ROA) tells us how much profit a company is able to generate for each dollar of assets invested. The return on sales (ROS) indicates how much the company is able to keep as profits for each dollar of sales it makes.

- Return on Equity (net profit / equity)
- Return on Assets (net profit / assets)
- Return on Sales (net profit / Sales)
- b. Cash flow

The liquidity is a company's ability to meet its short-term obligations. The following ratios are useful in evaluating the risk related to a firm's current liabilities, because they compare a firm's current liabilities with its current assets that can be used to repay those liabilities.

- Operating Cash Flow Ratio (Cash Flows From Operations / Current Liabilities);
- Current ratio (current assets / current liabilities);
- Quick ratio (Cash and marketable securities + Trade receivables / current liabilities; OR Current Assets – Inventory / Current Liabilities);
- Cash ratio (Cash and marketable securities / current liabilities);

The solvency is the company's ability to meet its long-term financial obligations. To evaluate the mix of debt and equity in a firm's capital structure, the following ratios are useful:

- Cash Flow from Operations/Average Total Liabilities;
- Debt-to-equity ratio (Debt / Equity);
- Debt-to-assets ratio (Debt / Assets);
- Interest coverage (net profit / interest expense);

The ratio below shows to what extent the company is able to generate cash from its sales.

• Cash Flow Margin Ratio (Cash Flows From Operations / Net sales)

To be able to attract equity, organizations need to have enough cash to pay dividends. An important ratio to assess the relative value of the firm is:

• Price / Cash Flow Ratio (Share price / Operating cash flow per share)

c. Growth

To evaluate the growth of a company, it is important to have data from several years. We could take several variables to measure the growth.

Growth rate = (value year 2 - value year 1) / value year 1

- Revenues
- Sales
- Number of employees
- Net profit
- Share price

5. Non-financial outcome variables

These data are interesting to also evaluate other outcomes. If GGoB already has data on these topics, it would be interesting to include it in the database. If not, we could discuss how to measure these types of variables in a later phase of the research.

3 - Revenue growth in last year – divided by categories

Method

Total revenue

The 49 organizations of which the total revenue was known are divided in four different categories. The following categories are specified; 1 - 10 million dollars; 10 - 50 million dollars; 50 - 100 million dollars; and 100+ million dollar. From the 49 organizations of which the total revenue was known, 12 organizations felt in the category 1 - 10 million dollars. Of these 11 organizations, in 8 reports was known what the average revenue growth in the last year was. 20 organizations felt in the category 10 - 50 million dollars, in 17 reports the average revenue growth in the last year was known. In the category 50 - 100 million dollars, 7 organizations were included; in 6 reports the average revenue growth was known. 10 organizations had total revenue more than 100 million dollar, of which in 7 reports was known what the average revenue growth in the last year reported was.

Number of employees

The 54 organizations of which the number of employees was known are divided in four different categories. The following categories are specified; 1 - 50 employees; 51 - 100 employees, 101 - 500 employees; and 501 and more employees. From the 54 organizations of which the number of employees was known, 8 organizations felt in the category 1 - 50 employees. Of these 8 organizations, in 6 reports was known what the average revenue growth in the last year was. 13 organizations felt in the category 51 - 100 employees; in 11 reports the average revenue growth in the last year was known. In the category 101 - 500 employees 18 organizations were included; in 13 reports the average revenue growth was known. 15 organizations had more than 500 employees, of which in 11 reports was known what the average revenue growth in the last year reported was.

Number of years participating in the GGoB program

The 64 organizations are divided in four different categories. The following categories are specified; 1 year; 2 years, 3 - 5 years; and 6 - 10 years. From the 64 organizations, 15 organizations have implemented the GGoB one year. Of these 15 organizations, in 13 reports was known what the average revenue growth in the last year was. 25 organizations had implemented the GGoB program 2 years; in 16 reports the average revenue growth in the last

year was known. In the category 3 - 5 years 13 organizations were included; in 9 reports the average revenue growth was known. 11 organizations had implemented the GGoB between 6 and 10 years; of which in 9 reports was known what the average revenue growth in the last year reported was.

All Stars Award

From 25 of the 64 organizations was known that they have been awarded the so-called 'All-Stars' award. In 17 reports the average revenue growth in the last year was known for the 'All-Stars' award winners. From the other 39 organizations, in 28 reports the average revenue growth in the last year was known.

<u>Results</u>

Data analysis

In 45 reports it could be determined what the revenue growth was in the last year reported. The average revenue growth in the last year reported over these reports was 21.5%.

Total revenue

For organizations with total revenue between the 1 and 10 million dollars, the average revenue growth reported in the last year was 18.4%. For organizations between 10 and 50 million dollars, the average revenue growth was 17.9%. Organizations with total revenue between 50 and 100 million dollars had an average growth of 51.0%. For organizations with total revenue over 100 million dollars, the average revenue growth reported in the last year was 20.3%. In figure 4 the average revenue growth in the last year is displayed, divided by the total revenue.



Figure 4. Average revenue growth divided by the total revenue.

Number of employees

The average revenue growth of organizations with 1 - 50 employees was 15.2%. Organizations with between 51 and 100 employees reported an average revenue growth of 24.7%. The average revenue growth of organizations with 101 - 500 employees was 17.3%. Organizations with 501 employees or more reported an average revenue growth of 16.9%. In figure 5, the average revenue growth in the last year is shown divided by the number of employees.



Figure 5. Average revenue growth divided by the number of employees.

Number of years participating in the GGoB program

Organizations within this research that implemented the GGoB program for the first year have reported an average revenue growth of 10.6%. Organizations which had implemented the GGoB program for 2 years, reported an average revenue growth of 24.5 in the second year. Organizations which are participating between 3 and 5 year had an average revenue growth of 31.3% in the last year reported. Organizations that have implemented the GGoB program between 6 and 10 years had an average revenue growth of 21.7% in the last year reported. In figure 6, the average revenue growth in the last year is displayed, divided by the number of years the GGoB program is implemented.



Figure 6. Average revenue growth divided by number of years participating in the GGoB program.

All Stars Award

For organizations which have been won an 'All-Stars' award, the average revenue growth reported in the last year was 25.4%. Organizations who did not won an 'All-Stars' award, displayed an average revenue growth of 19.2%. Figure 7 displays the average revenue growth in the last year, divided by whether or not the company have been awarded an All-Stars' award.



Figure 7. Average revenue growth divided by winning an 'All-Stars' Award

Discussion

Data analysis

The average revenue growth in the last year reported over 45 reports is 21.5%. One must bear in mind that these results are about the revenue growth, which does not necessarily mean that the profit or the cash flow will rise and the company is more successful. However, in this study revenue growth is seen as a benefit for the company.

Total revenue

Organizations with total revenue between 50 and 100 million dollar have the highest average revenue growth in the last year. This might implicate that these organizations could benefit most from implementing the GGoB program. The average revenue growth of all organizations is 21.5%, so organizations in the other categories are not far below this average. There aren't very big differences in these categories, which implicate that implementing the GGoB program, could be beneficial for small as well as for large organizations.

Number of employees

Organizations with 51 until 100 employees have the highest average revenue growth in the last year. The average revenue growth of all organizations is 21.5%. These results could indicate that organizations with a total of employees between 51 and 100 might benefit most

from implementing the GGoB program, but as the table displays, the average revenue growth in the last year do not differ very much between the categories. So, based on these results, one could argue that an organization might benefit from implementing the GGoB program, regardless of the number of employees the company has.

Number of years participating in the GGoB program

In the first year organizations implement the GGoB program, an average revenue growth of 10.6% is realized. Compared with other years, this is less positive. This could be explained due to the time it costs to implement the GGoB program and the time it costs to get employees used to the new way of working and to train them the business literacy. Still, 10.6% revenue growth is a good results and this allows a company to get and keep employees and other stakeholders motivated to continue with the GGoB program. In the second year, an average revenue growth of 24.5% is realized. Due to the fact that the whole company is more used to the new way of working, the results are getting better. In the third, fourth and fifth year the revenue is on average still growing more, which indicates that the program is still working to improve cannot grow faster forever. Still, an average revenue growth of 21.7% is a good result, and in absolute numbers the revenue growth is spectacular.

All Stars Award

organizations which have been awarded a 'All-Stars' award have an average revenue growth of 25.4%, which is well above the average revenue growth of organizations which have not. This is not a spectacular outcome, because in general 'All-Stars' awards are been given to companies which have really successfully implemented the GGoB program. Still, organizations which did not win an award, performed on average good. This indicates that an organization does not have to be the perfect example, to still benefit from the GGoB program.

4 - Relationship between key aspects and revenue growth in last year



Number of key aspects – revenue growth last year

Figure 8.- Revenue growth in the last year divided by number of key aspects



Games - revenue growth last year

Figure 9. Revenue growth in the last year divided by whether games were mentioned



Information sharing - revenue growth last year

Figure 10. Revenue growth in the last year divided by whether information sharing was mentioned



Education in business literacy - revenue growth last year

Figure 11. Revenue growth in the last year divided by whether education in business literacy was mentioned



Empowerment and accountability - revenue growth last year

Figure 12. Revenue growth in the last year divided by whether empowerment and accountability was mentioned



Bonus program and employee ownership - revenue growth last year

Figure 13. Revenue growth in the last year divided by whether bonus program and employee ownership was mentioned



Goal setting with employees – revenue growth last year

Figure 14. Revenue growth in the last year divided by whether goal setting with employees was mentioned



Job security - revenue growth last year

Figure 15. Revenue growth in the last year divided by whether job security was mentioned



Communication of results - revenue growth last year

Figure 16. Revenue growth in the last year divided by whether communication of results was mentioned

	1	2	3	4	5	6	7	8
1		16,3%	21,2%	18,3%	19,14%	16,89%	18,26%	20,31%
2	16,3%		19,95%	19,91%	19,26%	15,46%	12,06%	20,09%
3	21,2%	19,95%		26,37%	23,11%	27,74%	19,81%	25,93%
4	18,3%	19,91%	26,37%		18,44%	28,8%	19,99%	17,99%
5	19,14%	19,26%	23,11%	18,44%		22,40%	17,85%	21,42%
6	16,89%	15,46%	27,74%	28,8%	22,40%		24,21%	24,55%
7	18,26%	12,06%	19,81%	19,99%	17,85%	24,21%		21,18%
8	20,31%	20,09%	25,93%	17,99%	21,42%	24,55%	21,18%	

2 Key aspects combined - revenue growth last year

Table 3. Revenue growth in the last year divided by two key aspects combined which were mentioned

- 1: Goal setting with employees
- 2: Games
- 3: Bonus program and employee ownership
- 4: Job security
- 5: Education in business literacy
- 6: Information sharing
- 7: Empowerment and accountability
- 8: Communication of results

5 - Questionnaire for GGoB, for difficulties and concerns

- 1. Wat gebeurt er als het topmanagement het moeilijk vindt om financiële gegevens te delen met de werknemers en bang is om de besluitvorming te delegeren?
- 2. Wat gebeurt er als klanten (leveranciers) gegevens over de kosten van onze producten verkrijgen en ze proberen te gebruiken om lagere (hogere) prijzen te onderhandelen?
- 3. Wat als onze concurrenten onze jaarrekening krijgen en proberen om deze informatie te gebruiken om zodoende een concurrentievoordeel te behalen?
- 4. Kan een bedrijf te veel informatie weggeven over haar activiteiten?
- 5. Profiteren alle bedrijven in gelijke mate van OBM of is het beter voor bepaald type bedrijven?
- 6. Is Open Book Management wel geschikt voor oudere en/of grotere bedrijven?
- 7. Zijn managers niet bang dat zij hun macht en controle verliezen?
- 8. Zijn werknemers wel te vertrouwen om hen de informatie over het bedrijf te geven?
- 9. Zal de informatie niet naar concurrenten worden gelekt?
- 10. Duurt het niet veel te lang, om werknemers de financiële gegevens te leren begrijpen?
- 11. Kost het niet veel te veel, om werknemers de financiële gegevens te leren?
- 12. Duurt het niet veel te lang, voordat werknemers actief deelnemen aan OBM?
- 13. Is het niet moeilijk om niet-financiële indicatoren te koppelen aan financiële resultaten?
- 14. Is het niet moeilijk om prestaties van bepaalde werknemers (bijv. Secretaresse) of groepen werknemers (bijv. ondersteunende ICT afdeling) te koppelen aan de financiële resultaten?
- 15. Worden de accountants door OBM niet zwaar overlast met het wekelijks opstellen van de resultaten?
- 16. Zijn bouwprogramma's wel zo effectief?
- 17. Leiden bouwprogramma's niet enkel tot succes op korte termijn, en zijn die daardoor niet in conflict met de lange termijn doelen?
- 18. Ligt de nadruk niet teveel op de cijfers?