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STOCK MARKET REACTION TO THE CSR
ANNOUNCEMENTS OF AMERICAN FAST FOOD
COMPANIES
An Event Study

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ABSTRACT

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The purpose of this study is to examine whether Corporate Social Responsibility (CSR) announcements of the three biggest American fast food companies (McDonald's, YUM! Brands and Wendy's) have any effect on their stock returns as well as on the returns of the industry index (Dow Jones Restaurants and Bars). The time period under consideration starts on 1st of May 2001 and ends on 17th of October 2013. The stock market reaction is tested with an event study utilizing CAPM. The research employs the daily stock returns of the companies, the index and the benchmarks (NASDAQ and NYSE).

The test of combined announcements did not reveal any significant effect on the index and McDonald's. However the stock returns of Wendy's and YUM! Brands reacted negatively. Moreover, the company level analyses showed that to their own CSR releases McDonald's stock returns respond positively, YUM! Brands reacts negatively and Wendy's does not have any reaction. Plus, it was found that the competitors of the announcing company tend to react negatively to all the events. Furthermore, the division of the events into sustainability categories showed statistically significant negative reaction from the Index, McDonald's and YUM! Brands towards social announcements. At the same time only the index was positively affected by to the economic and environmental CSR news releases.

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1. INTRODUCTION

Today's world faces a set of complicated ecological and social issues that needs to be resolved. Governmental institutions, located at both the national and international level, encounter serious and structural difficulties in addressing these matters. Hence, this has raised an interest in undertaking Corporate Social Responsibility (CSR) for realizing public goals (Graafland et al., 2012,p. 378). Although there is a disagreement over an appropriate definition for CSR, the most commonly used term belongs to Belua & Manescu (2013, p.2751). They define it as corporations' responsibility to integrate Environmental, Social, and Governance (ESG) practices into their business model, beyond mandatory legal requirements.

As the considerations of social and environmental matters are growing in importance with regards to the business success of various companies, simply perfecting business processes is no longer enough (Bufoni et al. 2012, p.99). Most companies nowadays operate from an awareness of a 'triple bottom-line' that includes economic, social and environmental performance. Hence, many corporate managers view CSR as a strategic investment, which can help them increase the company's image in society (Fortunato, 2011,p.20). An example of that in non-publicly visible industry can be the case of Neste Oil in 2008, when Greenpeace accused the company of using Indonesian and Malaysian palm oil. This agro fuel was argued to be the key driver of deforestation, human rights abuse and climate change in those regions (Schaeffer, 2011). Thus, Neste Oil had to become more socially responsible in order not to lose the corporate image and not to decrease the value for shareholders.

However, there are some managers who believe that corporate community involvement can positively correlate with financial returns. Although, the empirical findings tend to be quite mixed, the majority of studies find a positive relation between CSR engagements and financial performance. Despite that, the engagement in negative CSR activities is most commonly argued to lead to the decrease in the firm's value and therefore the shareholders' wealth. Such was the case with British Petroleum (BP) in 2010, when the oil spill incident occurred

(Flammer, 2012, p.2). In a matter of two months the corporate stocks went down about half of its pre-incident value, from \$59.5 in April 2010 to \$28.9 in June 2010.

Therefore, since a company's financial performance is directly affected by investors' buying and selling behaviors, it is clear that in the example above the shareholders were urgently selling the stocks and most likely the reason for that was the public criticism with regards to the CSR practices (Wang et al., 2011, p. 127). Hence, it is critical to understand how investors perceive CSR to understand the relationship between a firm's CSR activities and its financial performance.

This subject has been an interest to scholars since mid-20th century. However, they failed to identify the definite relationship between CSR and financial performance of a company. More specifically, several various interrelations had been found. According to Becchetti et al. (2012, p. 1635) mostly a positive effect is observed, but negative and neutral reactions are also seen. Consequently, it can be said that the finance literature lacks any significant empirical research and results on this topic, especially from the perspective of investors.

Furthermore, since 1980s the relationship between food and sustainability has been an interest of some scholars. The food industry is a highly visible and important element of every economy and due to the nature of the business, food companies constantly face challenges (Rana et al., 2009, p. 2). In other words, in many occasions they encounter harsh criticism from stakeholders with regards to their participation in socially responsible activities.

Nevertheless, the scientific discussion of the CSR concept with a focus on the food sector is still scarce. More than that, Schroder & McEachern (2005, p.221) state that the fast food industry has received far less academic attention than general food industry, or practically no attention at all. It is quite surprising as the ever-increasing market power of global fast-food retailers, and their high visibility through branding have made them a target for governmental public interest campaigns, for citizens' and for consumer lobby groups.

Consequently, as far as it can be observed, the relationship between CSR of fast food companies and their financial performance are not explored. That is why this study aims at filling that gap through conducting a quantitative study for analyzing the stock market reaction to the CSR announcements of the three biggest US fast food companies. More specifically, the event study is performed in order to find out whether CSR announcements of McDonald's, YUM! Brands and Wendy's have any influence on their stock returns as well as on the returns of the industry index, Dow Jones Restaurants and Bars Index. Furthermore, the cross effect of these events on the competitors is also examined. In other words, the effect of McDonald's announcements on stock performance of YUM! Brands and Wendy's is looked at and vice versa.

In addition, to take the matter further, this research also examines the long term sustainability concept. Thus, all the overall events are divided into three categories based on the sustainability definition, Social, Economic and Environmental. Then, they are tested again against companies' stock returns as well as against the industry index. This allows for a more in-depth investigation of the issue in a sense that it allows to see whether any specific type of events has power over the returns or not. The period of the analysis starts with the very first and last CSR announcement of McDonald's on 1st of May 2001 and ends on 17th of October 2013.

The study found that in case of the all combined CSR events only YUM! Brands and Wendy's exhibit statistically significant cumulative negative reaction throughout the days -1 to +1, as their stock returns go down by 0.44 and 0.31 percent respectively. Moreover, for YUM! Brands this reaction holds even for the period of 2 days from 0 to +1, when its returns decrease by 0.46 percent.

Furthermore, the division of the announcements into company level groups revealed that to its own CSR releases McDonald's reacts positively over the period of 3 days (-1, +1) 0.32 percent. Plus the index appears to be affected by those announcements as well with the strongest positive reaction of 0.42 percent during the period from -1 to 0. On the other hand, the two competitors experience a negative effect of the McDonald's announcements. In other

words, the stock returns of YUM! Brands go down cumulatively by 0.28 percent and of Wendy's by 0.34 percent for the period from -1 to +1.

With regards to the CSR announcements of YUM! Brands, however, all of the companies plus the index react negatively for two periods -1 to +1 and -1 to 0. The strongest reactions occur in stocks of the announcing company (YUM! Brands) and Wendy's. They go down by 0.65 and 0.68 percent during the three day period -1 to +1. The mildest reactions however are of the McDonald's and Dow Jones Index from day -1 to 0 their stock returns decrease by 0.27 and 0.28 percent respectively.

Furthermore, a similarly negative reaction is observed in case of Wendy's CSR announcements. Although, the company itself does not appear to experience any effect from its events, both competitors and the index react negatively. Plus most of the effect takes place in the McDonald's stock returns as they react on the day of the announcement by going down 0.28 percent. More than that, during the two day period from 0 to +1 the stock returns of Dow Jones, McDonald's and YUM! Brands decline by 0.34, 0.35 and 0.44 percent respectively.

In this research it appears that all company level tests show that the competitors react negatively to the each other's CSR announcements. For instance, both McDonald's and Wendy's experience cumulative decrease in stock returns around the days of YUM! Brands' CSR releases and vice versa.

Moreover, the second separation of the events, into sustainability categories yielded some interesting results as well. When testing for social CSR announcements market tends to react negatively. More specifically, on the day of the announcement stock returns of McDonald's, YUM! Brands and Dow Jones Restaurants and Bars Index decline by 0.19, 0.23 and 0.19 percent respectively. Wendy's appear to be having no statistically significant reaction during any of the time periods.

Furthermore, when testing for economic CSR announcements the only statistically significant results occur in case of the Dow Jones Index. Throughout the periods from -1 to +1, 0 and

from 0 to +1 its returns go up by 0.26 percent in first two windows and by 0.30 percent in the last window.

Last but not least, the tests for environmental CSR events show some mixed results. Both YUM! Brands and Wendy's experience very strong cumulative decline in stock returns from day -1 to +1. They go down by 0.56 and 1.39 percent respectively. However, the Dow Jones Restaurants and Bars index appears to have a strong positive reaction on the day of the announcement. Its returns increase by 0.30 percent. This mixed effect might be due to the fact that majority of the environmental events (30 out of 40) belong to McDonald's. Thus, the other two companies react negatively to them. Nevertheless, these results clearly state that to a certain degree (economic and environmental) company's CSR engagements are viewed positively by the investors, but beyond that stage (social) the announcements are perceived as value destroying activities.

Consequently, this research tries to shed more light for the managers of the company on the issues regarding corporate social responsibility and sustainability in the long run. This study tries to help investors and the managers to better understand the relationship between CSR and value creation. This in its turn will allow the latter to conduct the relationships with corporate stakeholders in a better way without at the same time undermining the financial performance of the company. Plus the former will be able to get a better understanding of value creation in case of the fast food companies when it comes to investing.

2. LITERATURE REVIEW

This section introduces the concept of corporate social responsibility (CSR) together with the most acknowledged theories on this subject. Moreover, the concept of sustainability is also discussed in this chapter and then linked to the overall CSR model. Last but not least, the reviews of the recent scholarly work in the field of CSR and firm's profitability are discussed in this section.

2.1. Concept of CSR

Corporate Social Responsibility has become one of the major areas of concern for modern business firms both in the domestic and global markets. Companies have gradually recognized the importance of CSR. That is mainly because of increasing public awareness to various factors such as environmental degradation, human rights and social ethical matters that are likely to be affected by the firm's actions (Sharma & Mehta, 2012, pp. 69-70). In spite of the ever increasing public interest towards CSR, the concept continues to be difficult to define.

However, one of the most widely accepted definitions was created by The World Business Council for Sustainable Development. It defines CSR as the commitment of business to contribute to sustainable economic development, working with employees, their families, local community and society at large to improve the quality of life (Banerjee, 2008, p.60). Moreover, according to Saltaji (2013, p. 6) CSR is considered to be an open practice based on ethics, values, employees' rights, environmental and community principles.

It is thought that organizations in general favor corporate profitability over social responsibility as they need to maximize returns based on limited resources. The CSR may be viewed by companies as a cost and thus sidelined if acceptable levels of the financial performance are not evidenced. Meantime the stakeholders' expectations have been growing and are becoming increasingly multifaceted. The CSR engagements based merely on the financial performance aspect are no longer adequate (Hui, 2008, p. 457). Therefore, Jeurissen (2007, p.21) suggests that one of the leading ideas behind corporate sustainability is that

sustainability of the society in the end contributes to the business continuity and profitability as well, as businesses are part of the society.

Moreover, the demand for corporate social responsibility is international and comes from every segment of society. In other words, Governments call for it, NGOs (non-governmental organizations, like Greenpeace) call for it, and consumers call for it. Hence, Jeurissen (2007, p.10-12) identified several reasons for why businesses are called to account for their responsibilities today. One of them is the altering social role of the corporate world, which implies the transfer of duties and competences from government to citizens, social organizations and businesses in the form of deregulation. Another is globalization, which puts a heavy burden on corporate responsibility awareness with regards to differences in laws, protections, values etc. in the various countries. The third is the fast and complex technological development that cannot be fully traced by the governments alone, so the businesses have to get involved. Last but not least, the democratization of moral authority, which means that businesses are less likely to predict who will approve or criticize their actions and thus they have to publicly give account over their policies and practices.

Consequently, CSR has become increasingly popular among business leaders and is widely discussed in the national media, political debates, and business school education (Renneboog et al, 2008, p. 1731). According to the UN Global Compact-Accenture CEO study conducted in 2010, 93 percent of the 766 participant CEOs from all over the world declared CSR as an 'important' or 'very important' factor for their organizations' future success (Cheng et al., 2013, p. 1). However, Miras-Rodriguez et al. (2013, p. 3) indicates that while Anglo-Saxon and European companies have been carrying out CSR actions for decades and these are at the core of the strategy of their business, organizations from developing countries have only started to implement these practices in recent years in order to legitimate themselves.

Nevertheless, Sharma & Mehta (2012, p. 71) state that the existing practices show that under the umbrella of CSR generally companies work in the areas of Education, Health, Marginal section (Street children, senior citizens), Rural poor, Orphanages, Environment protection (Tree plantation, awareness camp).

Furthermore, with an increased attention to CSR by all stakeholders, it has now become imperative to have an integrated CSR model that flows through the corporate mission, vision and other activities. In other words, nowadays companies try to adapt the Strategic Corporate Social Responsibility (Sharma & Mehta, 2012, p. 73). This strategic approach to CSR could be seen as helping the firms grow their business and also make an impact on the issues affecting stakeholders, and ensure long-term viability along with strengthening the corporate image.

More than that, CSR initiatives can help to reduce wastage of resources and thus lower the costs. They also help to improve the goodwill and reputation, which in their turn will enhance the brand value of the organization. CSR may also straighten financial performance by an increase in sales and customer loyalty. Study of Sharma & Mehta (2012, p. 73) has also shown that there is a growing desire by customers to buy on the basis of value-based criteria, such as “child labor-free” manufacturing, products with lesser environmental impact (green goods), and absence of genetically modified products. In addition, companies which are perceived to have higher CSR focus are also able to attract and retain talented employees.

Consequently, a responsible image allows corporations to differentiate themselves from their competitors. Lin-Hi & Muller (2013, p.1929) believe that it can also positively affect the purchasing decisions of customers and strengthen customer loyalty as well as customer satisfaction. Furthermore, a responsible image can enhance the attractiveness of a corporation as an employer, increase organizational commitment, lead to positive effects on corporate reputation, and improve the relationships with local communities.

2.1.1. Theories on CSR and corporate performance

Research on the theoretical construct of corporate social responsibility could be traced back to the 1950s, which marked the era of CSR (Shengtian et al. 2010, p. 42). However, in the

literature, there are only few theories with regards to the strategic corporate social responsibility and its influence on company's performance.

The very first theory of CSR was proposed by Milton Friedman in 1970. He stated that the only social responsibility of business firms is to maximize profits (Galbreath, 2009, p.111). Thus, managers' acting in a socially responsible manner will in most instances go against the wishes of shareholders as managers are more often than not, contractually bound to increase profits and not to undertake socially responsible activities (Clacher & Hangendorff, 2012, p.253).

As Jeurissen, 2007 points out in his book (p.94), Friedman's argument against CSR was mainly based on the following two arguments:

- 1) In publicly listed companies the shareholders employ managers to oversee the operations of the company and thus serve the interests of the principals. This responsibility involves generating maximum profits without violating the moral and legal ground rules of the society. The primary focus on the social responsibilities is believed to cause harm to the legitimate interests of the shareholders and to violate the basis of trust of their principal-agent relationship.
- 2) In situation of perfect competition businesses do not have the financial resources to carry the extra costs involved in CSR. Consequently, according to Friedman corporate social responsibility is not only morally undesirable, but also economically unfeasible.

However, after the publication of Friedman's thesis, management scholars began to develop theoretical restraint around the social responsibilities of the firm. Therefore, in 1979 Archie B. Carroll created one of the first and still the most widely accepted conceptualizations of CSR (Galbreath, 2009, p.111). Plus, as described in the work of Hui (2008, p. 450) Carroll's four part framework suggested that the firms have economic, legal, ethical and philanthropic duties to fulfill in order to become good corporate citizens (See Figure 1 below).

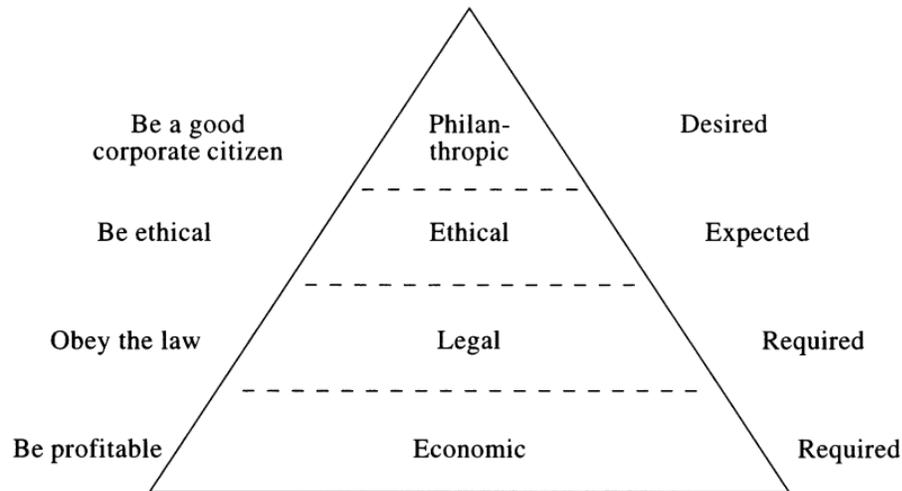


Figure 1: Carroll's Pyramid of Corporate Social Responsibility
Source: (Carroll, 1991)

Therefore, the purpose of this model is to conceptualize the firm's responsibilities, which include:

- 1) The economic responsibility to generate profits;
- 2) Legal responsibility to comply by local, state, federal and relevant international laws;
- 3) The ethical responsibility to meet other social expectations, which are not written as law. For instance this might include avoiding harm or social injury, respecting moral rights of individuals, doing what is right, just and fair.
- 4) The philanthropic responsibility to meet additional behaviors and activities that society finds desirable. For example, contributing money to various kinds of social or cultural enterprises (Galbreath, 2009, p.111).

This 'Pyramid of CSR', rests on the notion that the Essential motif of the firm is economically defined, by the foundation of the pyramid. All other responsibilities (legal, ethical and philanthropic) come after or from it, suggesting that the company will only ever be socially responsible if this fits in with its economic goal of maximizing profit. In other words, as Claydon (2009, p.261) points out, this model suggests that all actions which derive out of CSR

will inevitably be for economic purposes, which have always been and always will be the *raison d'être* of the firm.

Furthermore, it was also suggested by some scholars that companies who are economically weak are less likely to engage in acts of CSR as they have fewer resources to invest time, effort and money into it, are unlikely to meet the threshold for socially responsible behavior. They further stated that companies are less likely to act in socially responsible ways if it appears that it will be difficult for a firm to turn a profit in the short term (Claydon, 2009, p.262). More than that, the model shown in the Figure 1 made many companies to believe that philanthropy is the most important issue to address in order to be socially responsible (Lauesen, 2013, p.645). That is why in 2003 Schwartz and Carroll argued that the rigidity of the four layer pyramid made readers and businesses to misunderstand its purpose, which in turn lead them to think that if they only added philanthropic donations they were exercising a full concept of CSR.

Consequently, the traditional 'Pyramid of CSR' model did not seem to be sufficient for a comprehensive understanding of the ways in which CSR should be achieved. That is why in 2003 Carroll modified his initially four part model and made it a three part model as demonstrated in the figure below.

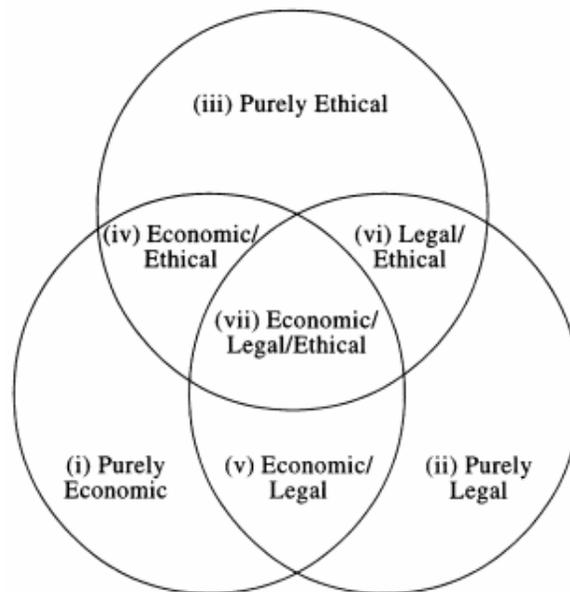


Figure 2: The Three-Domain Model of Corporate Social Responsibility

Source: (Carroll & Schwartz, 2003, p.509)

In general, these three domain categories are defined in a manner consistent with Carroll's four-part model, with the exception that the philanthropic category is subsumed under the ethical and/or economic domains, reflecting the possible differing motivations for philanthropic activities. Moreover, the form of the model supports the idea that none of the three domains is more important or significant to the others and that there might be combinations of the categories (Carroll & Schwartz, 2003, p.508). However, there are several assumptions to this model. Firstly, the three domains of CSR are assumed to be somewhat distinct, and all-encompassing. Thus, with regards to distinct some might question whether any action can be identified as "purely economic," "purely legal," or "purely ethical." In other words, some may argue that economic, legal, and ethical systems are all interwoven and inseparable. Moreover, with regards, to all-encompassing ability assumption, it is suggested that the model embraces all relevant aspects of CSR.

Nevertheless, beyond Carroll, other academics thought to equate the role of business in the society with responsibilities (Galbreath, 2009, p.111). Hence, the stakeholder theory created

by Edward Freeman in 1984 takes a very different perspective on the role of the corporation, and the corporate manager. It suggests that managers, while being mainly responsible to investors, also have direct responsibility to promote the interests of suppliers, employees, authorities and customers, who have both implicit and explicit claims on the organizational resources (Hui, 2008, p. 458). Hence, the theory states that by undertaking CSR activities, managers can, therefore, enhance the value of stakeholder relationships without disadvantaging shareholders and increase the value of the corporation (Clacher & Hangendorff, 2012, p.254). In other words, according to Harrison & Wicks (2010, p. 9) the theory suggests that the interests of various stakeholder groups of the company are joined. Thus, to create value one must focus on how value gets created for each and every stakeholder.

In addition, originally Freeman's model considered only seven stakeholders: the shareholders, the employees (both workers and management), the customers, government, competitors, suppliers and community. However, later he added another four stakeholders and also reclassified them all (Shengtian et al. 2010, p. 44). As can be seen from the Figure 3 below, now there are external (secondary) and internal (primary) stakeholders that play role in company's day to day operations. The latter are those who are essential to the operation of the business and the former are those who can influence the firm's primary stakeholders. In other words, Godfrey et al. (2009, p. 429) defines the primary stakeholders as those that make legitimate claims on the firm and its managers and have both urgency and power (utilitarian, coercive, or normative) to enforce those claims. The secondary stakeholders, however, are believed to have legitimate claims on the firm, but lack both urgency and power to enforce those claims.

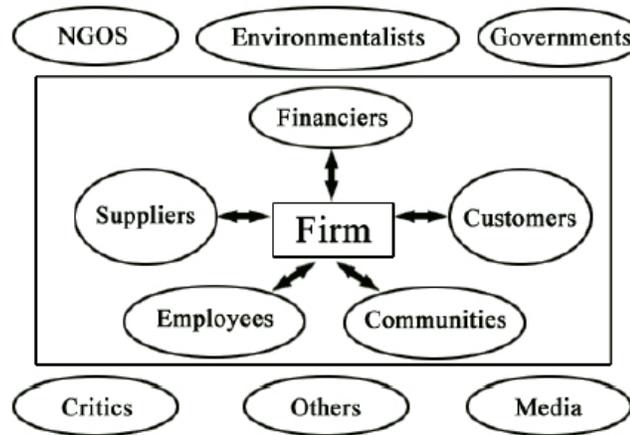


Figure 3: The adapted version of the stakeholder model

Source: (Shengtian et al. 2010, p. 51)

Moreover, the theory also recognizes that firms have explicit costs such as payments to bondholders and implicit costs such as environmental, human resource etc. costs. Therefore, as stated in work by Galbreath (2009, p.119) stakeholder theory predicts that if firms try to lower their implicit costs by acting socially irresponsible they will be more likely to incur higher explicit costs, which can result in competitive disadvantage.

Hence, stakeholder theory is fundamentally a theory on how business works at its best and how it could work (Harrison & Wicks, 2010, p. 9). In other words stakeholder theory is about value creation and trade and how to manage the business effectively.

Although, there is a criticism about this theory, which is mostly focused on the ambiguity of its definition and difficulty to identify and manage it because of the context-specificity. It still remains the fundamental and useful unit of analysis about business's social responsibility (Shengtian et al. 2010, p. 44). Plus as the organizations nowadays are confronted with a unique set of moral issues requiring moral theory explicitly tailored to this set of matters, the stakeholder theory is a strong candidate for this job (Phillips, 2003, p.5). It helps managers to become more effective in identifying, analyzing and negotiating with the key stakeholders.

2.2. Concept of Sustainability

In a present world dominated by global challenges such as globalization, population growth, climate change, resource scarcity, recognition and response to sustainability issues is crucial for the corporate environment (Dragu & Tiron-Tudor, 2012, p.916). Hence, as believed by Nwagbara & Reid (2013, p.14) organizations should take matters of environmental protection and sustainability as well as social accounting serious in order to survive in this changing business time.

The concept of sustainable development emerged in the 1980s in an attempt to explore the relationship between development and environment. Despite its relatively long history there is still a search for how to understand and characterize it (Callado & Fensterseifer, 2011, p.44). However, it can be said that public perceptions of environmental problems together with increased environmental legislation were two key reasons why sustainable development became so important nowadays (Banerjee, 2008, p.66). There are over 100 definitions of sustainable development, but the most commonly used is the one by Brundtland Commission. It states that sustainable development is a process of change in which the exploration of resources, direction of investments, orientation of technological development and institutional change are made consistent with the future as well as the present needs of the society.

Nevertheless, nowadays it also can be seen that the corporate and public focus has shifted from an ideology of sustainable development to first sustainability and then to corporate sustainability (Banerjee, 2008, p.66). Thus, according to Saltaji (2013, p. 5) the latter is defined as a business approach that creates long-term value for shareholders by sweeping up opportunities and risk management of social, economic and environmental developments.

Maximizing profits has long been believed to be the fundamental goal of a business organization. However, due to the changing stakeholders' expectations, achieving corporate sustainability now requires a firm to pay attention to other wider corporate performance areas such as social and environmental implications and not only the economic one (Hui, 2008, p. 452). Thus, as defined by Danciu (2013, p.8) those are the three dimensions of the sustainability:

- 1) The environmental sustainability is concerned with the ability of a business to use the natural resources in a way that they last longer and to control the waste. It also means the ability of the business to reduce the negative impact of its actions on the environment.
- 2) The social sustainability refers to the social interaction, relations, behavioral patterns and values between people. Thus, its main goal is to maintain the social peace.
- 3) The economic responsibility of the business signifies its ability to make profit, in order to survive and benefit the economic systems at local, national and international scale. The goal of economic sustainability is to keep the quality of life.

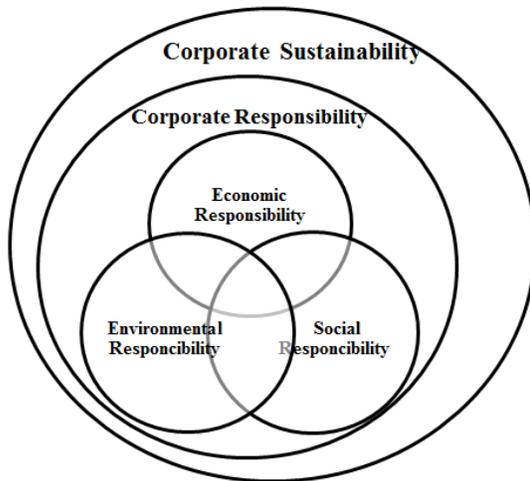
None these three parts can be sustainable by themselves. Hence, the sustainability of the business depends on the contribution of each interacting dimensions.

The companies that choose sustainable strategies and practices are believed to be in the position to drive value by growing revenues through new products and services, by reducing costs through eco-efficiency (Danciu, 2013, p.25). They are also believed to be able to manage operational and regulatory risks more effectively and build intangible assets such as brand, reputation and collaborative networks with customers, competitors and suppliers.

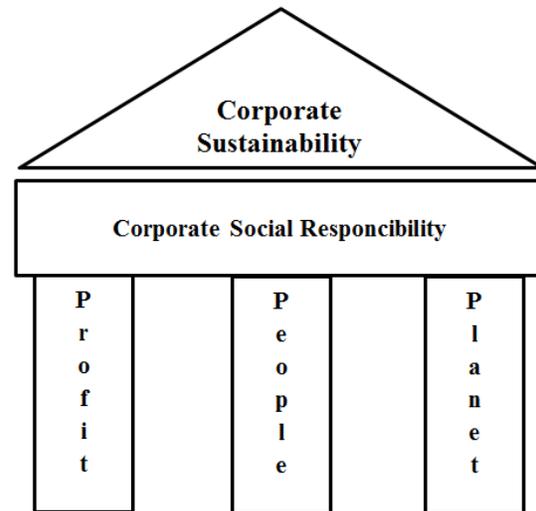
2.2.1. Sustainability and CSR

As it was shown in the previous sections, both CSR and Sustainability concepts have become increasingly important in the current turbulent times. In the past, however, Corporate Sustainability (CS) related to the environment only and CSR was believed to address only the social aspects, such as human rights, but now many consider them to be synonyms. Nevertheless, there is a small difference between these concepts. CSR can be associated with the communication aspect of people and organization, while corporate sustainability deals more with the agency principle. In other words, according to Marrewijk (2003, p.101-102) CSR relates to phenomena such as transparency, stakeholder dialogue and sustainability reporting and CS focuses more on value creation, environmental management, environmentally friendly production systems, and human capital.

In addition, CSR has been identified as a tool to contribute directly or indirectly to the company's triple bottom line of 3P (People-Social; Profit- economic and Planet – environmental) (Saxena & Kohli, 2012, p.41). (See figure 5 below)



**Figure 4: General model of CS/CR
and its dimensions**



**Figure 5: Relationship 3P, CS and
CSR**

Source: (Marrewijk, 2003, p.101-102)

Hence, many scholars believe that corporate sustainability is the ultimate goal of a company with CSR being an intermediate stage where the firm tries to balance the triple bottom line, as it can be seen from Figures 4 and 5 above. Therefore, the three aspects of sustainability are essential parts of CSR of any company. Plus, they all have to be addressed by the firm in order for it to reach the ultimate long-term goal of becoming sustainable.

Consequently, Petrovic et al. (2012, p.7) and many other scholars believe that as nowadays the responsible businesses are at the heart of society, companies that understand their links with the communities they operate in, and their impact on the environment, are most likely to prosper in the long-term.

2.3. *CSR and Corporate Performance*

The relationship between a firm's CSR and its financial performance has been the subject of debate among scholars since mid-20th century (Saxena & Kohli, 2012, p.50). Interest in the study of that relationship is believed to start with Moskowitz in 1972, and as it was pointed out in the paper by Miras-Rodriguez et al. (2013, p.2) this work has been continued for over several decades of research in which many articles have been published, and, among them, several literature reviews.

However, in general there are believed to be two types of empirical studies that investigate this relationship. The first one uses the event study methodology to assess the short-run financial impact (abnormal returns) when firms engage in socially responsible or irresponsible acts. The second set, however, examines the nature of the relationship between some measure of corporate social performance, CSP (a measure of CSR), and measures of long term firm performance, using accounting or financial measures of profitability (McWilliams & Siegel, 2000, p. 604). Nevertheless, the researchers have failed to strike a consistent relationship between these variables.

While a number of researches suggest that investment in CSR increases operating costs and makes the company less competitive, other stream of research argues that through investing in social responsibility companies can achieve competitive advantage by easily attracting resources and high-quality employees, differentiating its products and services, reducing its exposure to risk, etc (Vitezic et al., 2012, p.42). Hence, Dow Jones Indices are one of the many indicators that suggest that sustainability is profitable for the companies. In other words, according to McDermott (2009, pp. 288-289) organizations pursuing growth in the triple bottom line (Economic, Social and Environmental) tend to display superior stock market performance with favorable risk return profiles.

However, generally speaking the review of the previous literature revealed that financial performance is one of the most studied indicators of the strategic value of CSR (Rettab et al., 2009, p.375). Thus, a commonly identified positive relationship between CSR practices and

corporate performance suggests that CSR offers organizations the potential to increase sales and reduce costs. Nevertheless, prior research also presents a negative relationship with performance because of the costs involved to invest in CSR. Moreover, as Lindgreen et al. (2009, p.306) indicates the other point of view that can be traced in the literature is that there is no relationship between CSR and performance at all.

Therefore, a meta-analysis conducted by Margolis and Walsh's in 2001 found that 55 percent of the 160 studies examined identified a positive relationship between CSR and financial performance, 22 percent reported no relationship, 18 percent found a mixed relationship, and 4 percent a negative relationship (Rettab et al., 2009, p.375). Thus, the little evidence of negative relationship weakens the Friedman case of CSR having negative impact on financial state of the firm. In other words, the work by Banerjee (2008, p.61) suggests that there is little or even no evidence to state that CSR can harm the wealth generating ability of business firms, which should lead to alleviating concerns about shareholder value.

According to Husted & Allen (2007, p. 595) the reason for failure to identify the definite relationship between CSR and financial performance of a company is methodological: financial performance comes at the end of a long chain of mediating and independent variables. More specifically, too many variables influence firm financial performance for researchers to isolate effectively the impact of CSR activities.

In addition, previous literature also investigated the relation between firm's size and its CSR involvement. Thus, it has been proposed that the effect of firm size on CSR participation is U-shaped. It has also been argued that different combinations of firm visibility, resource access and scale of operations, result in different motivations for firm participation in CSR. More specifically, both very small and very large firms are likely to participate more in CSR initiatives, whereas mid-sized firms will have the least participation (Udayasankar, 2008, p.173). Another study on the influence of the firm size on the CSR engagement confirmed this idea. Thus, Erhemjamts and colleagues also found a U-shaped relation between firm size and corporate social responsibility, indicating that either very small or very large firms exhibit high levels of CSR strengths and concerns. (2012, p. 1).

Although a lot of research has been done on why the firms undertake the CSR activities, there is still room for investigating the motivations, moral and economic, that lead organizations to engage in those activities, and the implications for them in terms of, for example, financial performance and perceived societal legitimacy (Humphreys et al., 2008, p. 404). Therefore, some researchers take an economic-strategic view of CSR, stating that financial performance is a key variable in understanding social responsibility and that as with all corporate decision making, managers must attempt to measure both the short and long run financial impacts.

Moreover, many scholars strongly believe that engaging in corporate social responsibility initiatives can help organizations increase their image in the society. Hence, they suggest that an important element of a successful CSR campaign is communication and promotion of any efforts (Fortunato, 2011, p.20). In other words, as recommended by Hendarto & Purwanto (2012, p. 395) in developing a communications plan of CSR, “do not be shy”, when one does something without telling anybody about it, others are likely to perceive that one never does anything.

A general understanding is emerging that the reputation of a company and the welfare of distinct stakeholders are crucial to stockholders' wealth maximization and long-term survival. In such scenarios, the ultimate value of shareholder wealth may be linked to “maximizing the sum of various stakeholder surpluses” (Becchetti et al., 2012, p.1628). Previous literature reveals that investors are equally interested in such initiatives, as documented by the increased flow of funds into ethically managed mutual funds.

Therefore, one particular mechanism by which stakeholders can express their appraisals of CSR is via socially responsible investing (SRI). According to the Social Investment Forum, assets in socially screened portfolios grew to \$2.71 trillion in 2007, a 324 percent increase from \$639 billion in 1995. Socially responsible mutual funds numbered 260 in 2007, up from 139 in 1997, and reached approximately 11 percent of assets under management in the United States (Doh et al., 2009, p.2). Furthermore, in 2012 in the USA the sustainable and responsible investing accounted for more than one out of every nine dollars under professional

management (Danciu, 2013, p.20). It is interesting to note that Wang et al. (2011, p.128) found that institutional investors tend to be more sensitive to CSR performance than individual investors.

Thus, the study by Doh et al. (2009, p.17) examined the issue of institutional intermediaries such as the above mentioned funds and their role in market assessments of the company's CSR. The findings of the research were consistent with the notion that investors are concerned about the social performance of firms in which they invest and that third-party endorsement is one mechanism through which information is conveyed to investors, who then act on this information in making their investment decisions.

In addition, a research conducted by Cheng et al. (2013, p.1) provides evidence that both better stakeholder engagement and transparency around CSR performance are important in reducing capital constraints. By 'capital constraints,' they refer to those market frictions that may prevent a firm from funding all desired investments. This inability to obtain finance may be 'due to credit constraints or inability to borrow, inability to issue equity, dependence on bank loans, or illiquidity of assets'. Moreover, prior studies found that these constraints play an important role in strategic decision making by directly affecting the firm's ability to undertake major investment decisions and by influencing the firm's capital structure choices. On the other hand, the relaxation of capital constraints are believed to positively impact the ability of firms to undertake profitable strategic investments that otherwise they would not and it also was found to have a positive impact on stock market performance (Cheng et al., 2013, pp. 1-17). Consequently, the main finding of the study was that the positive CSR performance minimizes the constraints.

Moreover, some literature shows that firms with high CSR engagement have lower idiosyncratic risk, while others shows that firms with low level of engagement are more likely to experience financial distress. Furthermore, Cheng et al. (2013, p.3) suggest that the voluntary disclosure of CSR activities leads to a reduction in the firm's cost of capital while attracting dedicated institutional investors and analyst coverage.

What is more, some scholars have shown that measured by stock returns firms participating in sustainability indexes have better financial performance than do their peers that are not included in such indexes. This was the case in a study of 26 electricity utilities in the United States, conducted in 1999. Plus, a research held in 2003 showed positive association between the stock price and presence of Japanese companies in the ranking *Nihon Keizai Shimbun*, when Japan integrated the Kyoto Protocol (Schaeffer et al., 2012, p.935). In addition, the main findings of Becchetti et al. (2012, p. 1635) were that the impact of social responsibility related events (more specifically, additions and deletions from the Domini Index) has risen over time, and that the abnormal returns around the event date are significantly negative in the case of exit from the Domini Index.

Besides, a paper by Arya and Zhang (2009, pp. 1089-1099), investigates whether CSR initiatives by early mover South African corporations have a positive or negative impact on their stock prices, compared with late reformers. Hence, it was found that shareholders perceive that CSR initiatives during the initial phase of institutional reforms as unfavorable information regarding the general conditions of firms. However, the CSR initiatives in the late phase were found to be viewed positively by the investors.

Furthermore, when looking at a specific environmental aspect of the CSR it can be noted that simple economic logic suggests that a strict environmental standard can increase the production costs and thus hurt corporate profitability. However, a growing body of empirical literature reports a positive relation between corporate environmental performance and firm value. In other words, the empirical literature has recently begun to measure the relation between stock returns and environmental performance. For instance, Renneboog et al. (2008, p. 1732) documented a significant negative impact of the information releases on the use of toxic chemicals on stock prices in the US.

Similarly, other scholars found significant positive abnormal returns after a firm had received environmental performance awards and significant negative returns after environmental crises. Furthermore, some researchers show that a portfolio of firms with high environmental scores (based on positive screening) outperforms a portfolio of firms with low scores by 6 percent per

annum over the period 1997–2003 (Renneboog et al., 2008, p. 1732). More than that, a study by Danciu (2013, p.16) found that the companies that manage their environmental and social performance have superior financial performance and actually create more value for their stakeholders. They also do so by attracting and keeping better and more committed employees and have more loyal customers.

In addition, Flammer (2012, pp. 2-23) investigated the CSR effect on companies' stock prices with regards to the environmental aspect. His paper argues that as the norm of becoming green has increased tremendously over the past decades, the positive stock market reaction to eco-friendly initiatives has decreased over time, while the negative reaction to eco-harmful behavior has become more negative. In other words, with the help of event study the research found that the more becoming green is institutionalized as the norm and the more eco-friendly behavior is widespread across firms, the more shareholders punish companies for eco-harmful behavior. However, it cannot be said that the effect of eco-friendly announcements has completely disappeared. Thus, it is still positive and significant but it simply has been less strong in the recent decades.

Generally speaking, previous literature observed that costs of CSR in terms of higher care for stakeholders are more than compensated by positive changes in employee morale and productivity. Plus Wang et al. (2011, p.129) found that positive synergies exist between corporate performance and good stakeholder relationships and that there is a positive link among CSR, growth in sales, and returns on sales.

Consequently, it can be said that modern corporations are increasingly involved in CSR activities. However, the finance literature lacks any significant empirical research and results on this topic, especially from the perspectives of investors (Becchetti et al., 2012, p. 1635). This paper contributes to the literature by tracking the stock market reaction to CSR announcements of the three biggest American fast food companies. Thus, the section below gives an overview of the CSR practices in the food industry as well it presents the results of few empirical studies in this area.

2.4. *CSR in Food industry*

Throughout this paper it has been pointed out that a remarkable change for both investors and companies has been occurring. Thus, lately there has been the rapidly expanding support for CSR leadership, as well as sustainability reporting both by business and shareowners (Smith, 2011, p.105). Even though the relationship between a firm's CSR and its performance has been the subject of debate among scholars since mid-20th century. As pointed out by Rana et al. (2009, p. 2) the relationship between food and sustainability dates back only to the 1980s, when sustainable development became an overarching policy objective for all.

The food industry is a highly visible and important element of every economy. For instance, in 2004 it was estimated that the US food industry represented more than 12 percent of the total country's gross domestic product (Maloni & Brown, 2006, p.37). Furthermore, due to the nature of the business, food companies constantly face challenges and in many occasions harsh criticism from stakeholders regarding their participation in being socially responsible, despite rigorous and intensive work in implementing CSR initiatives (Rana et al., 2009, p. 2). Therefore, consumers' corporate social responsibility expectations in the food industry are high, taking into the account the fact that companies encounter such CSR issues as obesity, food/product safety, alcohol abuse and packaging management (Assiouras et al., 2013, p.109). In reaction to that, as indicated by Lee et al. (2013, p.695), food companies have started to take steps, including changes in package size, portions and recipes, and the provision of nutrition information through labels.

Previous literature defined eight areas of responsibility that food companies have to address in their CSR initiatives. (See Figure 6)



Figure 6: Eight areas of responsibility of food companies

The figure above illustrates the complexity of CSR in the food industry (Wiese & Toporowski, 2013, p.93). Hence, according to Hartmann (2011, p.298) the food companies face specific challenges in all eight areas for three main reasons:

- 1) The food sector has a high impact and strongly depends on natural, human and physical resources.
- 2) As food covers basic human needs people have strong views on what they eat. This leads to a complex set of requirements for the food sector regarding the production of the raw materials, the environmental and social conditions along the whole value chain as well as the quality, healthiness and safety of products.
- 3) The food chain has a unique and multifaceted structure.

Although many food companies nowadays engage in CSR, their effectiveness is not always successful. Thus, a study which analyzed the corporate social responsibility activities of 12 giant food companies (1980-2008) in promoting healthy food, indicated that some firms have performed consistently well in CSR and current pledges, while others have shown poor or

mixed performances (Assiouras et al., 2013, p.110). Moreover, Wiese & Toporowski (2013, p.93) found that the successes are mainly reported by the companies through CSR reports, CSR case studies, corporate governance principles and codes, or best practice recommendations.

On the other hand however, the failures to comply with CSR are usually brought to the public attention by NGOs and other stakeholders. For instance, companies such as Taco Bell and Campbell's Soup have been pressured by NGOs and laborers to improve wage conditions among produce farmers (Maloni & Brown, 2006, p.38). Plus, consumer scrutiny about food industry's impacts on the environment have led to the emergence of organic food products, which are generally characterized by use of sustainable farming practices and limited use of chemicals.

It is often multinational food companies, who are considered to be the key players in economic globalization, are held accountable for their impact on society and the environment. Hence, large food processing and retail companies such as Nestle and Coca Cola suffered in the past significant losses to their brands and their overall reputation because of inadequate labor conditions and/or lack of environmentally responsible conduct in their subsidiaries in developing countries (Hartmann, 2011, p.310-311). Therefore, given rising public scrutiny, it is obvious that especially leading food companies with strong brands and large multinational retailers are actively involved in CSR initiatives in the realms of environmental as well as social issues.

It is believed that for food products the consumer-oriented CSR is especially important. It involves intangible attributes such as a reputation for quality and reliability. The presumption is that firms that actively support CSR are more reliable and their products are of higher quality (McWilliams & Siegel, 2000, p. 605). In support of this idea, Gregory (2013, pp. 30-39) found CSR to be the fourth biggest driver of the brand. Hence, the ultimate conclusion of the research was that CSR contributes to the total brand experience, builds familiarity and favorability. It also improves key attributes especially investment potential as well as it contributes measurably to brand equity value.

Moreover, a recent analysis of the hotel and the restaurant industry companies listed on S&P 500 and Russell 3000 Indices revealed a positive impact of positive CSR activities on firm value measured by PER and Tobin's Q, while it did not show any significant impact of positive and negative CSR on profitability (Kang et al., 2010, p. 80). However, an event study of Chinese food companies and the influences of their CSR level on the investors' behavior found significant effects in post-event window. Thus, although the research did not manage to reveal any significant pattern between the level of firms' CSR and investors' trading behaviors in the pre-event window, in the post-event window, significant effects were detected (Kong, 2012, p. 331). Consequently, in case of Chinese food companies CSR was found to influence investors' trading behaviors at least in a short period of time after the event, but not before it.

Even though the environmental impact of food production, processing and distribution as well as the food safety and quality aspect or animal welfare issues has long received considerable attention in public, the scientific discussion of the CSR concept with a focus on the food sector is still scarce (Hartmann, 2011, p.298). Moreover, the fast food industry has received far less academic attention than general food industry. It seems to be quite surprising as the ever-increasing market power of global fast-food retailers, and their high visibility through branding has made them a target both for governmental public interest campaigns, for citizens' and consumer lobby groups (Schroder & McEachern, 2005, p.221).

It can be said that the worldwide expansion of fast-food markets, which accompanied the saturation of the US market, prepared the way for a rise in the number and power of multinational fast-food corporations (Schroder & McEachern, 2005, p.213). Hence, Fortunado (2011, p.20) points out that the necessity for corporate social responsibility activities is heightened when a company has to deal with the usage of its products being thought of as a behavior risk. Such is the situation for an organization in the fast food industry, because it comes under constant scrutiny for its role in contributing to obesity.

In addition, as there is an intense competition within the industry with many restaurants offering similar product choices and the restaurants are often in close geographic proximity.

CSR efforts help improve the overall brand image for fast food companies and that could be a variable for creating loyalty among customers (Fortunado, 2011, p.22). In other words, according to Hui (2008, p. 455) when a firm values corporate reputation highly and where its generous corporate philanthropies lead to better international recognition, they are to be highly motivated toward undertaking strategic CSR initiatives.

The findings of a study by Schroder and McEachern (2005, p. 221) conducted in the UK indicate that most of the survey respondents favored an involvement of global fast-food companies in CSR, whether in the context of providing healthy choices, ensuring animal welfare or the sponsoring of community activities.

Therefore, exploring CSR within the fast food companies can lead to comprehensive understanding of the area and the challenges that companies are facing today to resolve the persistent misunderstandings (Rana et al., 2009, p.3). Plus, as a firm's financial performance is directly affected by investors' buying and selling behaviors, to understand how investors perceive CSR is critical in understanding the relationship between a firm's activities in that area and its financial performance (Kong, 2012, p. 325). Thus, as up until now, there seems to be no academic paper focusing on the relation between CSR and firms' performance in the fast food industry. That is why this study aims at exploring this crucial matter.

More specifically, this research focuses on the three biggest US fast food producers, McDonald's, YUM! Brands and Wendy's. Hence, with the help of an event study the effect of their CSR announcements is examined on companies' own stock returns as well as on the returns of the Dow Jones Restaurants and Bars Index. In addition, the cross effect is also looked at. In other words, for instance, the influence of McDonald's events on YUM! Brands and Wendy's and vice versa. Last but not least, the announcements are also divided into groups based on the sustainability concept and then tested against the same securities.

The section below presents a detailed overview of how the study has been held as well as the criteria for selecting these particular companies and the index.

3. EMPIRICAL RESEARCH METHODOLOGY

This section describes the structure and methodology of the event study method that is utilized later in the research. In addition, this chapter covers the selection criteria for the companies and the data collection methods.

3.1. *Framework*

In this paper the event study methodology is used. Corrado (2011, p.209) defines it as a statistical technique that estimates the stock price impact of occurrences such as mergers, earnings announcements and so forth.

According to MacKinlay (1997, p.13) the usefulness of this technique comes from the fact that, given rationality in the market place, the effect of the event will be reflected immediately in security prices. This implies that a measure of the event's economic impact can be constructed using security prices observed over a short period of time, while the direct productivity related measures usually require many months and even years of observation. This is also a basic assumption of every event study.

Nevertheless, the general adaptability of the event-study methodology has led to its wide use in the scientific world (Campbell et al. 1997, p. 149). Both Corrado (2011, p.225) and MacKinlay (1997, p.13) claim that the event studies have made an enormous contribution to capital markets research since the beginning of 20th century.

Furthermore, it should be noted that there is no unique structure of an event study that would be globally accepted. However, there is a general framework of the analysis. Firstly, the event of interest has to be defined. Then the period, in other words the event window has to be set, over which the investors' response to the event is studied. Secondly, the firms to be examined in the study need to be selected. These initial steps are followed by an operational stage to notify the impact of the event (Pynnonen, 2005, p. 329). Thus, according to Campbell et al. (1997, p. 151) it is crucial to measure the abnormal returns (AR), which are the actual ex post

returns of the security over the event window minus the normal return of the company over the event window. Thus, the normal returns have to be estimated first via either the constant-mean-return model or market model.

The next step of the study is to estimate the AR and their significance by using a subset of the data known as the estimation window. It is the period over which how a stock normally relates to the market is estimated (Wang et al., 2011, p.130). It is crucial to note that usually the event period itself is not included in the estimation window in order for the event not to influence the normal performance model parameter estimates. The timeline of the event study used for this research is visualized in Figure 7 below.

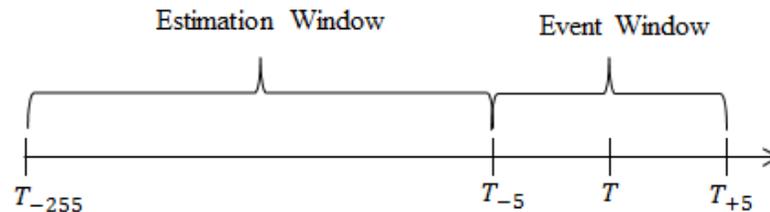


Figure 7: Timeline of the short-term event study

Last but not least, Campbell et al. (1997, p. 151) states that after estimation of the AR the basic empirical results and diagnostics should be presented. It is important to remember that number of event observations should be substantial for drawing general conclusions. Otherwise, the empirical results can be heavily influenced by one or two firms in the data set.

3.2. Assumptions of the model

Despite the simplicity of the event study, Clacher & Hangendorff (2012, p.264) identify several assumptions that have to be considered:

- 1) The variables should be normally distributed.
- 2) The samples have to be independent.
- 3) The market participants are rational economic operators.

Hence, it is believed that even though normality of the distribution of the return series is one of the requirements for the event study, it is not as important as the independence of samples. That is because test statistics in event study tend to converge to their asymptotic distributions rather quickly (Campbell et al. 1997, p. 177). Therefore, the correlation and covariance analyses are the most crucial to conduct in any event study that combines several stock returns in one model. However, as it can be seen in the sections below, the independence of samples is not important for this particular study, as all the securities are tested separately.

In addition, the rationality of the market participants is usually assumed to be true for the sake of the research. Consequently, this is the case in this study. This research assumes that the investors operating in American markets are rational and hence they make trading decisions based on the new information.

The section below discusses the companies and index selection process. Plus it gives a brief overview of the financial activities/results of the chosen corporations.

3.3. Companies selection

This paper aims at investigating the effect of the CSR announcements of the biggest US fast food companies on their own stocks as well as at measuring industry reaction to those announcements. Thus, the biggest players in the sector are McDonald's with revenues of more than \$27 billion in 2012, the Wendy's/Arby's Group with around \$2.5 billion in revenues for the same year, and YUM! Brands with revenues of more than \$13 billion (MarketLine 1, 2013, pp. 19-26).

Although, as can be seen from the Figure 8 below that the biggest part of revenues for YUM! Brands (75.4 percent) and McDonald's (68.4 percent) comes from regions outside USA, they are still the market leaders within the country. On the other hand, Wendy's revenues mostly come from US (89.1 percent) but at the same time the company is not the strongest player in the industry.

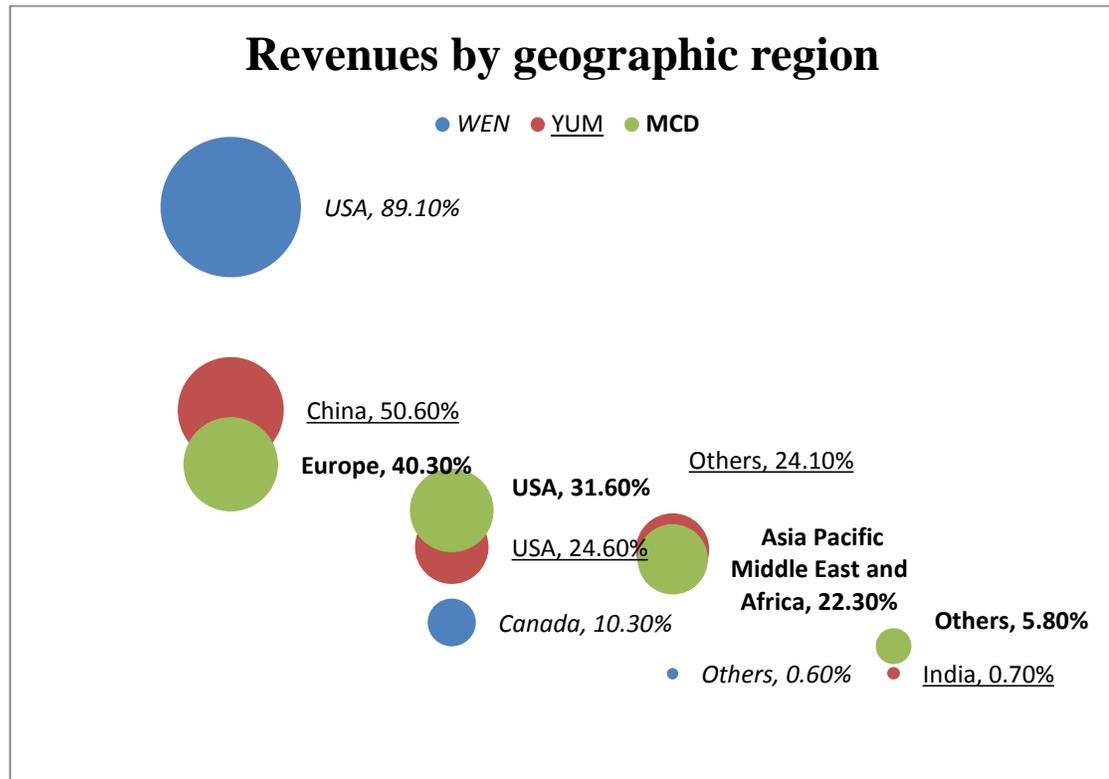


Figure 8: Revenues by Geographic Region 2012

(Sources: MarketLine 2, 3, 4)

Therefore, the biggest and most powerful company of the three is McDonald's with a history dating back to 1940. In 1965 it went public and currently has a market capitalization of \$ 96.23 billion and an enterprise value of \$107 billion (Yahoo! Finance 1; MarketLine 2, 2013, p.6).

The second biggest fast food producer in US is YUM! Brands which was formed in 1997 as a result of a spin-off from PepsiCo. Its most well-known corporate brands include the KFC, Pizza Hut, and Taco Bell (MarketLine 3, 2013, p.6). In addition, the company was listed for the first time in 1999 and at the moment has a market capitalization of approximately \$34.13 billion and an enterprise value of \$35.83 billion (Yahoo! Finance 2).

Last but not least, the Wendy's/Arby's was formed in 2008 as a result of the merger between Wendy's International, a restaurant operator, and Triarc Companies (Triarc), the franchisor of the Arby's restaurant system. (MarketLine 4, 2013, p.5) Nevertheless, the Wendy's International itself was founded in 1969 and was made public in 1981. At the moment the company has a market capitalization of around \$3.32 billion and an enterprise value of \$4.36 billion. (Yahoo! Finance 3)

When looking at the companies' debt and profitability ratios in Appendix 1, it can be seen that at least two of the organizations on average have similar results. For instance both McDonald's and Wendy's keep their debt level in a range of approximately 53-56 percent of the total assets. At the same time, although YUM! Brands has been having a significantly higher leverage over the last 5 years, it is noticeable that the company is gradually moving toward the level of debt ratio of the other two fast food producers.

With regards to the profitability of the companies both Return on Assets (ROA) and Return on Equity (ROE) indicators illustrate that Wendy's is the worst performer of them all even when comparing to the industry. This can be explained in a way that the company had negative Net Income for several years (2008 and 2010). In contrast both McDonald's and YUM! Brands appear to yield profitability results above the industry average. Moreover, with regards to the ROA for the last 5 years their indicators have been in the range from approximately 13 to 18 percent. However, when looking at the ROE the ultimate leader for the last 4 years seems to be YUM! Brands, but this is a result of the company's low level of equity. Therefore, when looking at profitability the best indicator in this case is the ROA.

Consequently, based on the ratio analysis, it can be summarized that all three companies are more or less on the same leverage and profitability level, and thus are quite comparable.

In addition, with regards to the selection of the index for the purpose of seeing the industry reaction to the CSR announcements, the Dow Jones Restaurants and Bars industry index was chosen. As all three companies belong to this particular sector, this index seems to be the best possible choice.

The section below discusses the time period chosen for the study and how and where the data for the research was collected.

3.4. *Data collection*

McDonald's is the pioneer in CSR engagements among the three chosen fast food companies. It made its first announcement in 2001 and that is why the time period for the investigation starts that year. The very first announcement used in the research occurred on 1st of May 2001 and the very last was on 17th of October 2013. They both belong to McDonald's. Nevertheless, the total amount of the company's announcements during this period comes to 72, including the 2 mentioned above. As for YUM! Brands and Wendy's for the same time frame their announcements totaled to 69 and 31 respectively. Therefore, in total 172 positive events were obtained mostly from the corporate websites as well as from a CSRWire networks. (See Appendix 5) However, due to the overlapping of some announcements only 137 of them were used in the first part of this study which covers the company level analysis. However, when testing for sustainability issues the overall 172 events were first classified into three categories and then each of them was filtered for overlapping. Hence, the total number of announcements used in the second part of this research comes to 157 CSR events of which the social aspect of sustainability is represented by 80 events, economic by 37 and environmental by 40. Table below clearly demonstrates the divisions.

Table 1: Division of the CSR announcements

| Type of the announcement | Amount |
|--|---------------|
| Total initial announcements | 172 |
| Overall announcements after filtering for overlapping 1 st time | 137 |
| - McDonald's | 69 |
| - YUM! Brands | 58 |
| - Wendy's | 30 |
| Overall sustainability announcements after filtering 2 nd time | 157 |
| - Social | 80 |
| - Economic | 37 |
| - Environmental | 40 |

When filtering for overlapping events the priority was given to the announcements of the bigger company. For instance, if the releases of McDonald's and YUM! Brands were made within 10 days period from each other the event of the former company was chosen to remain in the study. In addition, this research also assumes that all the announcements were made during the morning or day time of the working days and not on the weekends. Hence their effect takes place exactly on the day of the announcement and is not transferred to the next day.

The stock prices and Dow Jones Restaurants and Bars index data were gathered through Datastream. Plus the market benchmark for the calculations of alpha and beta of the company level tests was chosen to be NASDAQ Composite. That is because all three fast food producers are listed there. However, when it came to the assessing effect of the events on the industry level (Dow Jones Restaurants and Bars index) due to its comprehensiveness the benchmark was selected to be the NYSE index. Thus, the data for both of the benchmarks was also obtained through Datastream.

The section below elaborates more on the event study methodology with regards to formulas and computations.

3.5. Event study model

As previously mentioned, in order to examine how the stock market reacts to the CSR announcements of American fast food companies the event study methodology was chosen to be employed. Thus, the study itself was done in Microsoft Excel tool.

The very first step to conducting an event study is to define the event of interest and the period over which the security prices of the firms involved in this event will be examined (MacKinlay, 1997, p.14). Thus, in the particular case of this research the events are the CSR announcements of American fast food companies and the period in question starts in 2001 and ends in 2013. The next step is to define the event and the estimation windows. Hence, this study looks at an event window of 5 days prior to and after the event. According to MacKinlay (1997, p.15) this permits the examination of period surrounding the event and is considered to be helpful in capturing the effects of announcements which occur after the stock market closes on the announcement day.

As for the estimation window, it was chosen to be 250 days. This period generally does not include the event window and the event itself due to the potential of the announcement to influence the estimation of the model parameters, the selection of which is the next step in conducting the study (MacKinlay, 1997, p.15). Thus, for the sake of this particular research the Capital Asset Pricing Model (CAPM) was chosen. The main idea behind it is the relation of the return of any given security to the return of the market portfolio (see formula 2 below). This model makes it possible for removing the portion of the return that is related to the variation in the market's return, which in turn leads to the increased ability to detect the event effects.

In addition, when conducting an event study it is good to keep in mind that number of event observations should be substantial for drawing general conclusions. Thus, in case of study of several companies if the amount of events is not sufficient, the empirical results can be heavily influenced by one or two firms in the data set (Campbell et al. 1997, p. 151). Hence it is

generally believed that the amount of observations for an event study should not be less than 20.

Consequently, after defining all the needed parameters and the model, the event study can be conducted. Firstly, calculations of the logarithmic returns of the stock prices and benchmark with the help of formula (1) have to be done. R_t stands for the logarithmic daily return of the stock, P_t and P_{t-1} are the prices at the moment t and $t-1$, plus \ln means the natural logarithm:

$$R_t = \ln P_t - \ln P_{t-1} \quad (1)$$

Secondly, all the assumptions have to be checked. That is why the descriptive analysis of the return series has to be performed together with the correlation and covariance analysis. This is done in the EViews software. If the assumptions are fulfilled the next step is to estimate the parameters of alpha and beta for the estimation window of 250 days, which is later utilized in the CAPM. In other words, they are used to calculate the expected returns on those stocks, which is the next step in the study.

$$(E)R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (2)$$

The $(E)R_{it}$ stands for the expected return, α_i is the intercept, β_i - beta coefficient, R_{mt} - the market return at time t and ε_{it} is the error term at time t .

After that, the abnormal returns need to be calculated by subtracting the expected returns from the actual excess returns for the estimation window, the event window ± 5 .

$$\varepsilon_{it} = R_{it} - (E)R_{it} \quad (3)$$

In the formula (3) ε_{it} is the abnormal return, R_{it} is the actual excess return and $(E)R_{it}$ signifies the market expectation of the return.

Furthermore, in order to test the effect of the announcements on the stock prices the average abnormal returns have to be calculated for the whole time window.

$$\mu_t = \frac{1}{N} \sum_{i=1}^N \varepsilon_{it} \quad (4)$$

In the formula (4) μ_t stands for the average abnormal return and N is the number of the events, ε_{it} is the abnormal return.

The next step is to obtain the variance of abnormal returns through formula 5.

$$\sigma^2(\mu_t) = \frac{1}{N^2} \sum_{i=1}^N \sigma^2 e_i \quad (5)$$

The $\sigma^2(\mu_t)$ signifies the variance of the average abnormal returns and $\sigma^2 e_i$ is the variance of the residual of the market regression.

All this makes it possible for a J-test to be performed. However, in order to examine the cumulative effect of the announcements over the time of event window, the cumulative abnormal returns also have to be calculated.

$$CAR(t_1, t_2) = \frac{1}{N} \sum_{i=1}^N CAR(t_1, t_2) \quad (6)$$

The $CAR(t_1, t_2)$ stands for the average cumulative abnormal returns for the estimation period from time t_1 to t_2 . CAR is said to capture the sum of the day-to-day differences between the firm's actual and expected returns (Godfrey et al., 2009, p.433).

Thus, the cumulative effect of the announcements is usually examined with the help of J-test ratio over the time periods [-5, -1], [-1, +1], [-1, 0], [0, 0], [0, +1], [+1, +5].

$$J_1 = \frac{CAR(t_1, t_2)}{\sqrt{\sigma^2(t_1, t_2)}} \sim N(0,1) \quad (7)$$

The J_1 signifies the J-test ratio, $\sigma^2(t_1, t_2)$ stands for the variance of the cumulative returns and $N(0,1)$ is the normal distribution.

The section below presents the basis for the choice of the issues to be examined in this research paper as well as it presents the hypotheses to be tested.

3.6. Hypotheses development

The primary aim of this research is to measure the US stock market reaction to the CSR announcements of fast food companies. Thus, those events are first tested collectively against the Dow Jones Restaurants and Bars index returns in order to see the industry reaction. Plus, to observe the effect of all CSR events on each company the announcements are also be tested against stock returns of the firms.

In addition, the events are separated into company level groups and then are tested separately, in which case three different effects are looked at. Primarily, the event's influence on the returns of the company that made the announcement is examined. After that, the effect on two other companies (the biggest competitors) is investigated. Finally, the influence on the index is also looked at.

Furthermore, in order to examine more thoroughly the CSR and the Sustainability issues the initial 172 announcements are classified into three categories society, environment and economy. They all constitute the basis of sustainable development of any company and are equally important for achieving corporate sustainability in the long run.



Figure 9: Three pillars of Sustainability
(Lousier, 2010, p.1)

The Figure 9 above presents the components of each pillar of sustainability. Thus, social aspect involves social institutions and relations between them, including how communities can be strengthened and become more livable. It considers the decisions and actions that have an impact on quality of life, sense of community, safety, education, housing and social justice. On the other hand, the environmental category involves the corporate actions which result in pollution, deforestation, extinction, climate change and so on. The economic pillar, however, considers decisions that impact employment, pricing, trade, markets, industries, fair trade, affordable housing, food etc.

Therefore, as mentioned above based on the definition of those three pillars of sustainability, the 172 initial CSR announcements are divided into Social, Environmental and Economic categories. Hence they all are tested collectively against companies' returns and the index returns in the same manner it is done with the overall CSR events. Moreover, the tests

examine market level effect on the day of the events and time level effect during the period following the announcements (J-test).

Clacher & Hangendorff (2012, p.255) identified only few scenarios for the stock reaction, positive, negative and neutral. The negative statistically significant reaction is observed when the shareholders of those companies follow the Friedman's view of CSR. In other words the CSR engagement is considered to be an additional cost for the firm owners and a form of marginal excess. This means that these firms are believed to be at the competitive disadvantage relative to its corporate peers, because of the higher cost base with no concomitant increase in corporate value. Consequently, in this case the CSR engagements are considered to be a value destroying practice and are contrary to the investor objective of increasing shareholder wealth.

On the other hand, the positive statistically significant reaction is observed in the case opposite to the Friedman's view such as the stakeholders' theory. It suggests that CSR may be perceived by the market as value enhancing activity. Thus, from the perspective of a shareholder, if various stakeholder relationships are managed within the overall strategy of the firm, this could enhance the total value of the corporation. In that case CSR may be a source of competitive advantage if implemented in a way that is consistent with the underlying business goals and governance strategy of the firm (Clacher & Hangendorff, 2012, p.255). Consequently, the market may react positively to CSR announcements. In other words, those announcements would signal to the market that the expected future cash flows of the firm are more certain due to the lower risk, as costly lawsuits and fines are less likely to occur.

In addition, the third scenario is the absence of any statistically significant reaction to the announcements. In this case the market does not consider the information to be either beneficial or harmful to the company's value.

It is generally accepted for the null hypothesis in the event studies to assume that an event has no impact on the behavior of returns (MacKinlay, 1997, p.21). This is done for all the tests in this study. Hence, all the null hypotheses presented in the subsequent sections are formulated

in such a way. In other words, it is assumed that CSR announcements have no effect on either the returns of the companies' stocks or on return of the index.

The sections below present the hypotheses themselves together with the overview of what this research aims to test.

3.6.1. Hypotheses - Overall CSR

In this research there are only 4 main overall hypotheses with regards to the influence of the total CSR announcements. Hence, with their help the overall effect of the total announcements of McDonalds, Wendy's/Arby's Group and Yum! Brands is examined against their own stock returns as well as against the industry's index. Each hypothesis aims at identifying any significant reaction of stock returns over a period of time with the help of the cumulative analysis. Thus, the hypotheses are as follows:

*H1a: The CSR announcements of American fast food companies have no impact on the returns of **Dow Jones Restaurants and Bars index***

*H1b: The CSR announcements of American fast food companies have no impact on the returns of **McDonald's***

*H1c: The CSR announcements of American fast food companies have no impact on the returns of **YUM! Brands***

*H1d: The CSR announcements of American fast food companies have no impact on the returns of **Wendy's***

Therefore, the hypotheses 1 A intend to investigate the reaction of the Dow Jones U.S. Restaurants and Bars index to the announcements of the biggest players in the American fast food industry. It would be reasonable to assume that the market participants will tend to

respond to the initiative of the biggest industry players, in order not to be much behind the leaders. In this case the higher investment in CSR will most likely occur in the whole sector, which in its turn will lead to the overall industry reaction.

The rest of the hypotheses, however, look at the effect of the total CSR announcements on each company. This is the very first and basic step in order to see the effect. Nevertheless, the section below describes the more in-depth tests with regards to the company level reactions.

3.6.2. Hypotheses - Company level CSR

This study also intends to examine a company specific hypothesis. In other words, the CSR announcements of each company are tested against the stocks of announcing firm, against its two biggest competitors and against the industry index. Therefore, the hypotheses with regards to the biggest American fast food producer (McDonald's) are as follows.

H2a: The CSR announcements of McDonald's have no impact on the stock returns of McDonald's

H2b: The CSR announcements of McDonald's have no impact on the returns of Dow Jones Restaurants and Bars index

H2c: The CSR announcements of McDonald's have no impact on the stock returns of YUM! Brands

H2d: The CSR announcements of McDonald's have no impact on the stock returns of Wendy's

As McDonald's is the biggest firm in the industry it is reasonable to expect some reaction to its CSR announcements from sector's participants. However, YUM! Brands is the second

biggest American fast food producer and the same expectations are valid in its case as well. Hence the hypotheses are as follows.

H3a: The CSR announcements of YUM! Brands have no impact on the stock returns of YUM! Brands

H3b: The CSR announcements of YUM! Brands have no impact on the returns of Dow Jones Restaurants and Bars index

H3c: The CSR announcements of YUM! Brands have no impact on the stock returns of McDonald's

H3d: The CSR announcements of YUM! Brands have no impact on the stock returns of Wendy's

Last but not least, the effect of the CSR announcements of the third biggest American fast food producer, Wendy's, are looked at. Similar to the two other companies the events are tested against the announcing firm's stocks, against its competitors and against the industry index. The hypotheses are as follows.

H4a: The CSR announcements of Wendy's have no impact on the stock returns of Wendy's

H4b: The CSR announcements of Wendy's have no impact on the returns of Dow Jones Restaurants and Bars index

H4c: The CSR announcements of Wendy's have no impact on the stock returns of YUM! Brands

H4d: The CSR announcements of Wendy's have no impact on the stock returns of McDonald's

Consequently, all the hypotheses presented in this section test the effect of the company level CSR announcements on the stock returns of the announcing firm, on returns of its competitors and on the returns of the index. However, this paper intends to take the research even further, and that is why in the subsequent section all announcements are reclassified and tested based on the sustainability concept.

3.6.3. Hypotheses - CSR as a part of Sustainability

In order to conduct a more in-depth research about the effects of the CSR announcements on the stock returns of American fast food companies and the industry index, all initially obtained CSR events are divided into three categories on the basis of the definition of sustainability. Thus, one of the pillars of this concept is the social aspect of the corporate actions. Hence, the effect of social CSR announcements of the three biggest American fast food companies is tested with regards to their own stock returns as well as to the returns of the Dow Jones Restaurants and Bars index. The hypotheses are as follows.

*H5a: The Social CSR announcements of American fast food companies have no impact on the returns of **Dow Jones Restaurants and Bars index***

*H5b: The Social CSR announcements of American fast food companies have no impact on the returns of **McDonald's***

*H5c: The Social CSR announcements of American fast food companies have no impact on the returns of **YUM! Brands***

*H5d: The Social CSR announcements of American fast food companies have no impact on the returns of **Wendy's***

The other category of the corporate actions that sustainability concept looks at is the economic aspect. Therefore, all economic CSR announcements of the three biggest American fast food companies are also tested against their own stock returns and the industry index returns.

*H6a: The Economic CSR announcements of American fast food companies have no impact on the returns of **Dow Jones Restaurants and Bars index***

*H6b: The Economic CSR announcements of American fast food companies have no impact on the returns of **McDonald's***

*H6c: The Economic CSR announcements of American fast food companies have no impact on the returns of **YUM! Brands***

*H6d: The Economic CSR announcements of American fast food companies have no impact on the returns of **Wendy's***

Last but not least, the other pillar of sustainability is believed to be the environmental aspect of the corporate actions. Thus, the environmental CSR announcements of McDonald's, YUM! Brands and Wendy's are tested against their own stock returns and the returns of the industry index represented by Dow Jones Restaurants and Bars index. The hypotheses are as follows.

*H7a: The Environmental CSR announcements of American fast food companies have no impact on the returns of **Dow Jones Restaurants and Bars index***

*H7b: The Environmental CSR announcements of American fast food companies have no impact on the returns of **McDonald's***

*H7c: The Environmental CSR announcements of American fast food companies have no impact on the returns of **YUM! Brands***

*H7d: The Environmental CSR announcements of American fast food companies have no impact on the returns of **Wendy's***

Consequently, in total there are 28 hypotheses that are going to be addressed in this research. All of them are examined with the help of the cumulative analysis (J-test). It allows identifying market level reaction on the day of the event and the time level reaction on the period following the announcements.

The section below presents the empirical analysis conducted in this paper. It includes descriptive and correlation analyzes. In addition, the test results are given and discussed in the subsequent chapter.

4. EMPIRICAL ANALYSIS

This chapter of the study is dedicated to presenting the descriptive analysis of the data used as well as the results of the empirical tests. However, first it is crucial to get an understanding of how the stock prices of the three biggest American fast food companies and the index behaved over the period under investigation. Therefore, Figure 10 below graphically illustrates the movements of stock prices of McDonald's, YUM! Brands, Wendy's and Dow Jones Restaurants and Bars Index. Moreover, for better comparability all the historical prices were standardized, in a way that they all were adjusted to the starting price of 100 dollars.

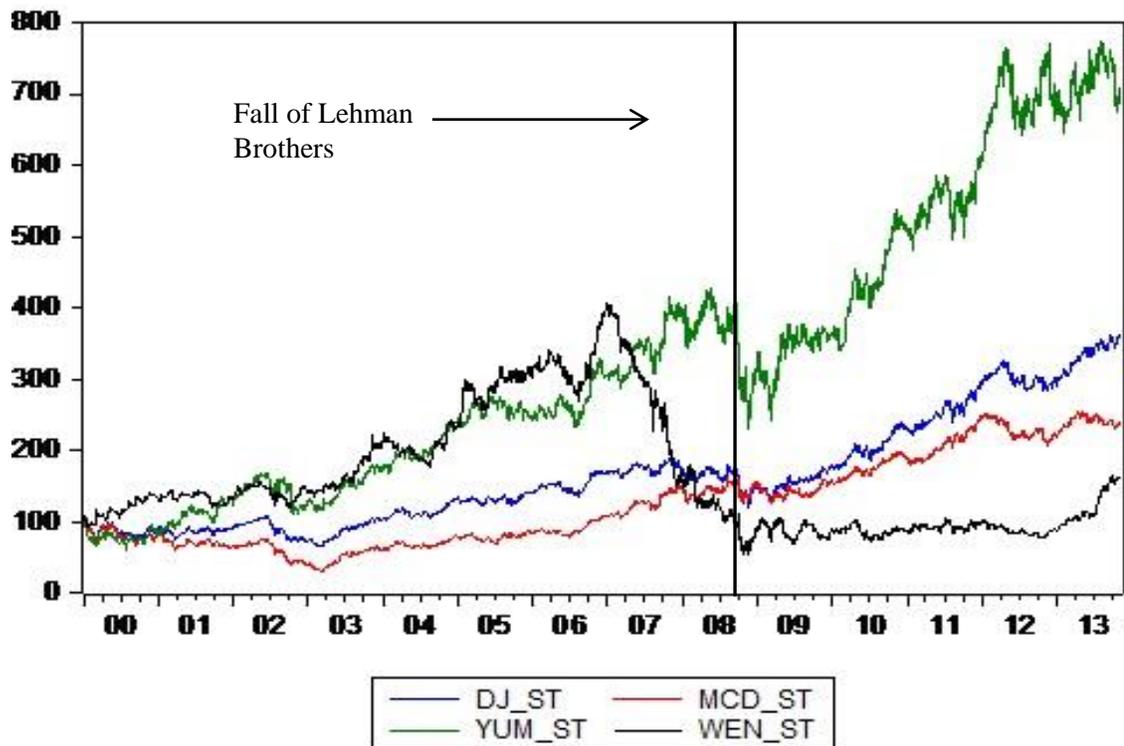


Figure 10: Standardized historical stock prices of Dow Jones Restaurant and Bars Index, McDonald's, YUM! Brands and Wendy's

Generally speaking, the most fluctuating stock in the graph below belongs to YUM! Brands, whose biggest drops occurred in 2008/2009 and 2012/2013. However, both McDonald's and Dow Jones Restaurants and Bars index appear to have similar fluctuations, which seem to be

quite insignificant in comparison to the drops and rises of YUM! Brands stock prices. For instance, from the graph it can be seen that starting from the end of 2011 YUM! Brands' stock price shot upwards. This can be due to the company's intention to take over China's largest hotpot restaurant chain, Little Sheep Group Ltd. Hence, as the mass media suggests in November 2011 Chinese government finally allowed the takeover to take place and thus this resulted in the upturn of the share prices (The China Perspective, 2011).

Moreover, the Wendy's stocks tend to have little fluctuation. They seem to have been almost leveling off since its biggest drop in 2006-2008. That drop clearly presents the troubled times the company was going through. More specifically, in 2007 the firm announced the accelerated share repurchase strategy for up to \$300 million (StreetInsider, 2007). However, the continuous buybacks started in 2006/2007 did not manage to deliver much value for the shareholders as the company's stock price continued going down until its acquisition by Triarc Companies on September 15 2008 (Business Wire, 2008). With regards to this study only three Wendy's CSR announcements appear to be made during this low period. Hence, due to their amount it is safe to assume that they do not have any dramatic impact on the overall test results.

Nevertheless, it can be seen that there appears to be little reaction to the extreme conditions in the market such as the financial crisis of 2007/2008 from either of the companies or the index. The food industry is generally considered to be quite insensitive to crises. It is very stable as far as its cyclical evolution is concerned. Hence, in times of both growth and recession, changes are relatively moderate, though definitely perceptible. According to Castañer (2009, p. 35-37) the impact of the financial crisis in 2008 has been found to be approximately 2 percent in food sector in developed countries, which absorbs 70 percent of global consumption. More specifically, a dramatic difference has been observed between the 31 percent decline in new car sales in the US in January 2009 and the 1.8 percent decrease in retail sales, which include food, hygiene and cleaning products. Furthermore, even though in 2008 US consumers decreased consumption of the out-of home the high-end retail products, the decline accounted only for 4.1 percent. Hence, it can be said that food industry is generally not very affected by the financial turmoil.

In addition, according to the Economist in 2009 sales at full-service restaurants in America fell by more than 6 percent, but total sales remained about the same at the fast-food chains (The Economist, 2014). Thus, the fast food sector is a one of the industries that has managed to be untouched by the crisis. As pointed out by Sipahi (2010, p.74) the industry had been and still is experiencing phenomenal growth that had been stimulated by the consecutive increases of consumer consumption and capital investment in many countries.

This phenomenon can be attributed to the comparative cost advantage and increasing young population (Bharat Book Bureau, 2010). Hence, when consumers need to cut spending, it is logical for them to buy cheap meals like Big Macs. According to The Economist (2010) such “trading down” proved true for much of the latest recession, when fast-food companies picked up customers who could no longer afford to eat at casual restaurants. Consequently, fast-food chains have weathered the recession better than their pricier competitors.

Although, the industry is quite insensitive to the economy business cycles, the ever growing attention to the corporate social responsibility practices makes it possible to expect some stock price reaction to the CSR announcements. That is because, the fast food industry is a highly visible element of every economy from both consumers and investors point of view. That is why all corporate social responsibility actions taken by the companies are usually thoroughly examined by the public. However, this effect of the CSR on the stock performance of fast food companies has not been paid enough attention to by scholars and that is why with the help of the event study this research aims at examining this matter.

4.1. Descriptive analysis

One of the assumptions of the event study is the normality of the distribution of return series. In other words it would mean that a variable should have zero mean and unit variance by subtracting its mean and dividing by its standard deviation (Brooks, 2008, p. 55). Thus, with the help of the EViews statistical software the descriptive statistics for the daily stock returns

in this study were obtained. Hence, all the needed basic statistics for Dow Jones Index, McDonald's, NASDAQ Index, NYSE index, Wendy's and YUM! Brands can be found in that table below.

Table 2: Descriptive statistics

| | McDonald's | YUM! Brands | Wendy's | NASDAQ | DJRB | NYSE |
|---------------------|------------|----------------|--------------|----------|--------------|---------------|
| Mean | 0.024% | 0.054% | 0.014% | -0.001% | 0.036% | 0.010% |
| Median | 0.013% | 0.000% | 0.000% | 0.035% | 0.023% | 0.031% |
| Maximum | 8.975% | 14.280% | 16.550% | 13.255% | 9.417% | 11.526 % |
| Minimum | -13.716% | -23.285% | - | -10.168% | - | 10.232 % |
| Std. Dev. | 1.558% | 1.928% | 2.225% | 1.724% | 1.352% | 1.297% |
| Skewness | -0.197 | -0.285 | 0.271 | 0.049 | -0.115 | -0.322 |
| Kurtosis | 9.131 | 13.431 | 11.362 | 8.132 | 6.990 | 12.315 |
| Jarque-Bera | 5678.053 | 16416.64 0 | 10560.9 0 | 3962.675 | 2403.1 20 | 13113. 200 |
| Probability | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% |
| Observations | 3610 | 3610 | 3610 | 3610 | 3610 | 3610 |

Note: The daily percentage stock returns are used in this table. Mean, Median, Maximum, Minimum and Standard Deviation in this table were multiplied by 100.

In addition, the histograms presenting the distribution of the return series together with descriptive statistics can be found in Appendix 2, Figure 19. Thus, although it appears that most of the data is shaped in a manner close to the bell shaped distribution, none of the return series are normally distributed. All of the indicators of normal distribution in this case are not valid. In other words, skewness statistics range from -0.32 percent to 0.27 percent, the means for all of the times series are far from zero, the standard deviations are far from being equal to 1 and the probability of the Jarque-Bera test results for all six series is statistically significant. Thereof, the assumption of normal distribution of the data is rejected.

Consequently, even though the initial data went through the logarithmic transformations it still does not appear to be normally distributed. However, it is commonly believed that the stock market data is almost always not normally distributed in spite of the fact that most techniques in econometrics assume that it is (Brooks, 2008, p. 3). More than that, although normality of the distribution of the variables is one of the requirements for the event study, it is not as important as the independence of samples. That is because, test statistics in event study end to converge to their asymptotic distributions rather quickly (Campbell et al. 1997, p. 177). Therefore, the correlation and covariance analyses are the most crucial tests to be conducted before executing any event study itself. Hence, they are presented in the section below.

4.2. *Correlation analysis*

For any type of analysis it is important to look at the correlations and covariance between the return series. With the help of Eviews they were constructed for the logarithmic returns of all three companies, the index and the two benchmarks (Table 3).

The correlation analysis measures the degree of linear association between two variables. When stated that y and x are correlated, it implies that y and x are being treated in a completely symmetrical way. However, it does not necessarily mean that changes in x cause changes in y , or vice versa. Consequently, according to Brooks (2008, p. 28, p. 107) this measure simply states that there is evidence for a linear relationship between the two return series, and that movements in the two are on average related to an extent given by the correlation coefficient, which must lie between -1 and $+1$ by definition.

Furthermore, while the correlation analysis is a measure of the degree of linear association between two variables as mentioned before, the covariance is an indicator of how much two random return series change together (Brooks, 2008, p. 107). Thus, the lower the coefficient is, the less likely they to change together.

As none of the companies are used together in one model the table 3 below gives an overall picture of their relation of linear association. In other words, in this particular study the correlation and covariance coefficients between daily returns of the companies, index and the benchmarks are not very important due to the separation of the tests. Plus, the statistically significant correlation between the benchmark and the companies is not an obstacle for conducting an event study.

Table 3: Correlations and Covariance of the Companies and the Benchmarks

| Covariance Correlation Probability | McDonald's | YUM! Brands | Wendy's | NASDAQ | DJRB | NYSE |
|---|-------------------|------------------------|----------------|---------------|-------------|-------------|
| McDonald's | 0.243 | | | | | |
| | 1 | | | | | |
| | ----- | | | | | |
| YUM! Brands | 0.139 | 0.372 | | | | |
| | 0.463 | 1 | | | | |
| | 0% | ----- | | | | |
| Wendy's | 0.091 | 0.148 | 0.495 | | | |
| | 0.263 | 0.344 | 1 | | | |
| | 0% | 0% | ----- | | | |
| NASDAQ | 0.093 | 0.139 | 0.147 | 0.297 | | |
| | 0.345 | 0.418 | 0.384 | 1 | | |
| | 0% | 0% | 0% | ----- | | |
| DJRB | 0.184 | 0.185 | 0.126 | 0.124 | 0.183 | |
| | 0.873 | 0.711 | 0.419 | 0.531 | 1 | |
| | 0% | 0% | 0% | 0% | ----- | |
| NYSE | 0.093 | 0.132 | 0.138 | 0.180 | 0.116 | 0.168 |
| | 0.462 | 0.527 | 0.477 | 0.805 | 0.660 | 1 |
| | 0% | 0% | 0% | 0% | 0% | ----- |

Note: The order in which the numbers appear is Covariance, Correlation and Probability. The values for covariance were multiplied by 1000.

Hence, in the table above it can be seen that none of the covariances appear to be big enough to indicate that any two time series change together. For instance, the highest covariance of 0.185 divided by 1000 seems to be between Dow Jones Restaurants and Bars Index and YUM! Brands, and the lowest of 0.091 divided by 1000 is between Wendy's and McDonald's. Although, the covariances appear to be very low between the securities returns, the

correlations are quite high and statistically significant in all of the cases as the probability is zero.

The strongest correlation can be observed between Dow Jones Index and the individual companies, McDonald's - 0.87, YUM! Brands – 0.71 and Wendy's – 0.42. However, the correlation between the index and the benchmarks are quite high as well, NASDAQ – 0.53 and NYSE – 0.81. More than that, the New York Stock Exchange benchmark appears to be also moderately correlated to all of the three companies, McDonald's – 0.46, YUM! Brands – 0.53 and Wendy's - 0.48. Nevertheless, the correlation between the companies themselves is not that high. The only moderate coefficient of 0.46 is between YUM! Brands and McDonlad's.

Consequently, the table above clearly presents the fact that majority of the return series have either mediate or strong linear association with each other. However, at the same time the results also indicate that none of them change together. Nevertheless, as none of the stock returns in question are utilized together in the same model the correlations between them are not crucial for this event study.

4.3. Empirical results and discussion

This section gives an overview of the empirical results obtained in this study and also discusses them. All 28 hypotheses examined in this research are either rejected or accepted (See Appendix 3). Furthermore, an appropriate significance level for rejection was chosen to be 10 percent. Plus, the results that are statistically significant and belong to the period from one day before the event and one day after are the only ones discussed in this section. That is because this study assumes that the markets are efficient and are able to anticipate the events fast enough. Hence, the CSR announcements are new to the market, and no information about them has been released before the date zero. Consequently, any stock reaction in the long period prior to and long after the events can be attributed to some other external factors.

4.3.1. Total company level CSR announcements

The very first tests, which this study aimed at doing, were to investigate the effect of the total CSR announcements of the three biggest American fast food companies on the stock returns of the firms as well as on the returns of the industry index (Dow Jones Restaurants and Bars Index).

Therefore, out of total 172 announcements 137 were used for company level analysis and 157 were utilized for sustainability issues. All tests performed in this study aim at identifying whether there is any impact of the CSR events on company's and index's stock returns on both a single day zero and cumulatively.

Therefore, the total company level CSR announcements of the three fast food companies do not seem to have any effect on the industry index and the biggest sector player (McDonald's) either on the day of the event or cumulatively over a period of time (Table 4).

On the other hand, however, j-tests statistics indicate that there is a definite and strongly significant (at 1%) reaction of YUM! Brands stock returns to the total CSR announcements. More specifically, cumulatively during both periods (-1, +1) and (0, +1) company's returns decline by 0.44 percent and 0.46 percent respectively. A similar reaction can be observed in case with Wendy's stock returns. Hence, during the period of three days (-1, +1) its returns decline by 0.31 percent (Table 4). Both of these results might, however, be due to the reaction to the announcements of McDonald's, as their proportion is quite high (69 out of 137). Nevertheless, only two hypotheses with regards to the effect of the total company level CSR announcements on the securities in question are rejected H1c and H1d. In other words, stock returns of both YUM! Brands and Wendy's react to the overall CSR announcements.

Table 4: : Summary of the J-tests for the cumulative effect of all CSR announcements on Dow Jones Restaurants and Bars Index, McDonald's, YUM! Brands and Wendy's

| 137 Events | DJRB | McDonald's | YUM! Brands | Wendy's |
|------------|--------------------|--------------------|-------------------------------------|------------------------------------|
| [t1,t2] | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) |
| [-5,-1] | 0.002% (0.495) | -0.142% (0.278) | 0.008% (0.490) | 0.789% (0.017)** |
| [-1,+1] | -0.001% (0.494) | 0.037% (0.367) | -0.444% (0.001)*** | -0.309% (0.032)** |
| [-1,0] | 0.107% (0.172) | 0.058% (0.352) | -0.077% (0.344) | -0.274% (0.123) |
| [0,0] | 0.072% (0.185) | 0.077% (0.239) | -0.090% (0.253) | -0.175% (0.147) |
| [0,+1] | -0.036% (0.374) | 0.055% (0.359) | -0.457% (0.009)*** | -0.210% (0.187) |
| [+1,+5] | -0.181% (0.157) | -0.164% (0.249) | -0.224% (0.230) | -0.158% (0.336) |

* Statistically significant at 10%

** Statistically significant at 5%

*** Statistically significant at 1%

In addition, the Figure 11 below presents the cumulative returns of the companies and Dow Jones Restaurants and Bars Index. Thus, on the day of the announcement both the industry index and McDonald's appear to experience a positive effect, while the other two securities negative. More than that, in all four cases right after the announcements the returns tend to go down. Hence first they decline slightly and then tend to level off.

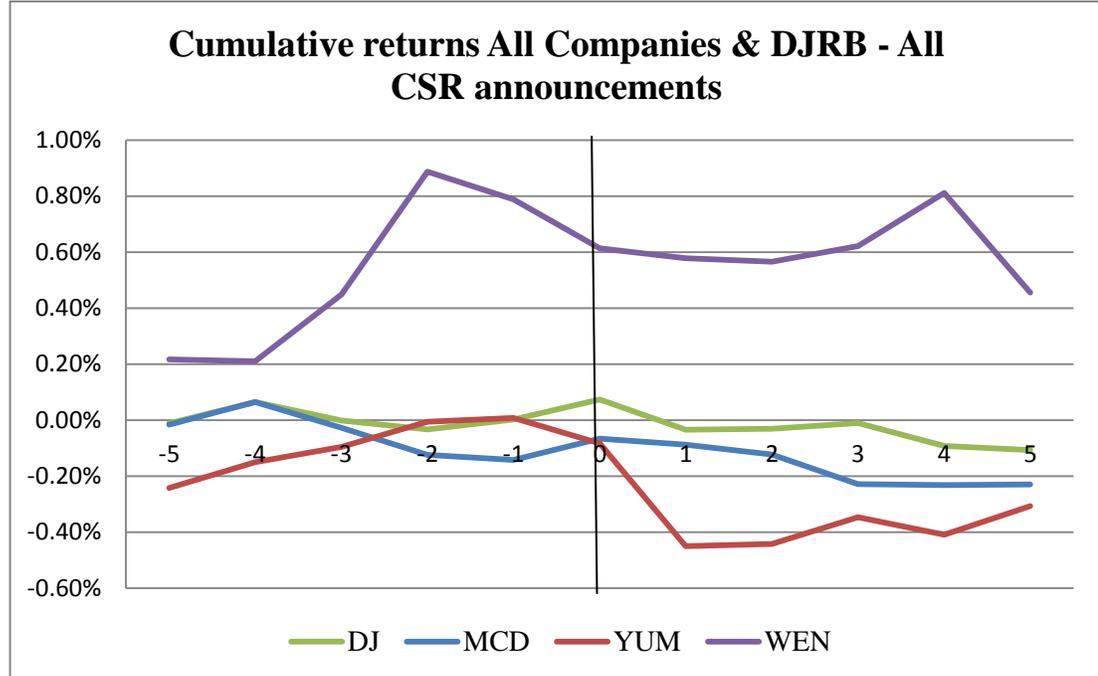


Figure 11: Cumulative returns of All Companies and Dow Jones R&B Index with respect to the Overall CSR Announcements

Consequently, based on the graph of cumulative returns and the test statistics it can be noticed that the overall company level CSR announcements have negative post effect on the stock returns of the three biggest American fast food companies as well as on the industry index. However, while in case of McDonald's and the index that effect is visible but not statistically significant, the effect on YUM! Brands' and Wendy's stock returns is both. It is also clear that a positive but statistically insignificant effect takes place on the day of the announcements for both DJRB and McDonald's.

Therefore, at this point in the research it can be said that generally investors appear not to like when American fast food companies release their positive CSR announcements and that is why the returns tend to go down after the event. Nevertheless, as all the tests presented above looked at summed CSR announcements, it is possible that that combination has canceled out some of the important effects. Therefore, as mentioned above, the reactions obtained might have resulted from the effect of competitor's CSR announcements. In other words, as out of

137 company level events 107 belong to McDonald's and YUM! Brands it is possible that their influence on Wendy's returns dominates, and hence it reacts negatively.

Furthermore, in case of YUM! Brands most of the announcements (99 out of 137) belonged to its competitors and hence the company's returns experiences the decline. That is why this research first divides those 137 announcements into company level categories and then into groups based on the sustainability pillars. These measures are expected to shed more light on the investor's attitude towards the CSR press releases of the three biggest American fast food companies.

4.3.2. *McDonald's CSR Announcements*

The second intention of this research was to examine the CSR announcements on a company level data. Thus, the 69 events of McDonald's were tested against its own stock returns, against its competitors' stock returns and against the industry index returns.

Consequently, the results of these particular testes are summarized in Table 5 below and Appendix 3. Thus, McDonald's CSR announcements appear to have a single day effect as well as a cumulative effect on the Dow Jones Restaurants and Bars Index. In other words, on the day of the event a statistically significant increase occurs in the index returns of 0.28 percent. Moreover, the events affect the returns cumulatively as well, as there are very strong positive increases of 0.30 percent and 0.42 percent during the periods of three (-1, +1) and two days (-1, 0) respectively. Therefore, the hypothesis for this test is rejected. (Appendix 3, Table 12)

In addition, although no statistically significant single day effect for the stocks of McDonald's itself can be observed, there is a cumulative reaction of the company's returns to its own CSR announcements. Hence, during the period from -1 to +1 firm's returns go up by 0.32 percent. A somehow opposite picture can be seen in case of Wendy's stock reactions. Thus, there is a cumulative drop in company's returns during the period (-1, +1) as the stock returns tend to

decline by 0.34 percent. Similarly, the stocks of YUM! Brands also react to the CSR announcements of its biggest competitor negatively. In other words, there is a cumulative reaction negative over the periods from -1 to +1 and from 0 to +1, 0.28 percent and 0.42 percent respectively. This indicates that the after effect of the McDonald's CSR events is bigger than the one prior to or on day of the announcement.

Table 5: Summary of the J-tests for the cumulative effect of McDonald's CSR announcements on Dow Jones Restaurants and Bars Index, McDonald's, YUM! Brands and Wendy's

| 69 Events | DJRB | McDonald's | YUM! Brands | Wendy's |
|------------------|------------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| [t1,t2] | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) |
| [-5,-1] | 0.103% (0.351) | -0.225% (0.280) | 0.193% (0.342) | 0.101% (0.413) |
| [-1,+1] | 0.297% (0.007)*** | 0.316% (0.034)** | -0.280% (0.094)* | -0.341% (0.049)** |
| [-1,0] | 0.419% (0.007)*** | 0.303% (0.107) | 0.154% (0.304) | -0.209% (0.237) |
| [0,0] | 0.275% (0.011)** | 0.208% (0.114) | 0.011% (0.480) | -0.057% (0.390) |
| [0,+1] | 0.153% (0.184) | 0.221% (0.183) | -0.424% (0.080)* | -0.189% (0.258) |
| [+1,+5] | -0.110% (0.341) | -0.124% (0.374) | -0.122% (0.399) | 0.018% (0.485) |

* *Statistically significant at 10%*

** *Statistically significant at 5%*

*** *Statistically significant at 1%*

The graph below supports the tests findings through providing a graphical representation of the cumulative stock returns reaction to the announcements. Hence, it can be seen that the strongest reaction occurs in case of Dow Jones index and YUM! Brands. The former has a very strong positive upturn on the day of the event, while the latter has a similarly strong decrease. Both reactions are statistically significant at 1 percent level. In addition, it is worth

noting that even though the reaction of both McDonald's and Wendy's is statistically significant at 5 percent level, it still can be observed in the graph.

Furthermore, the graph also shows that the day after the event the returns of most of the securities tend to go down and then go up on the day +2. An exception however, appears to be McDonald's itself, as it has an opposite reaction. In other words, as on day of the announcement on day +1 its returns increase, but then on day +2 they sharply go down.

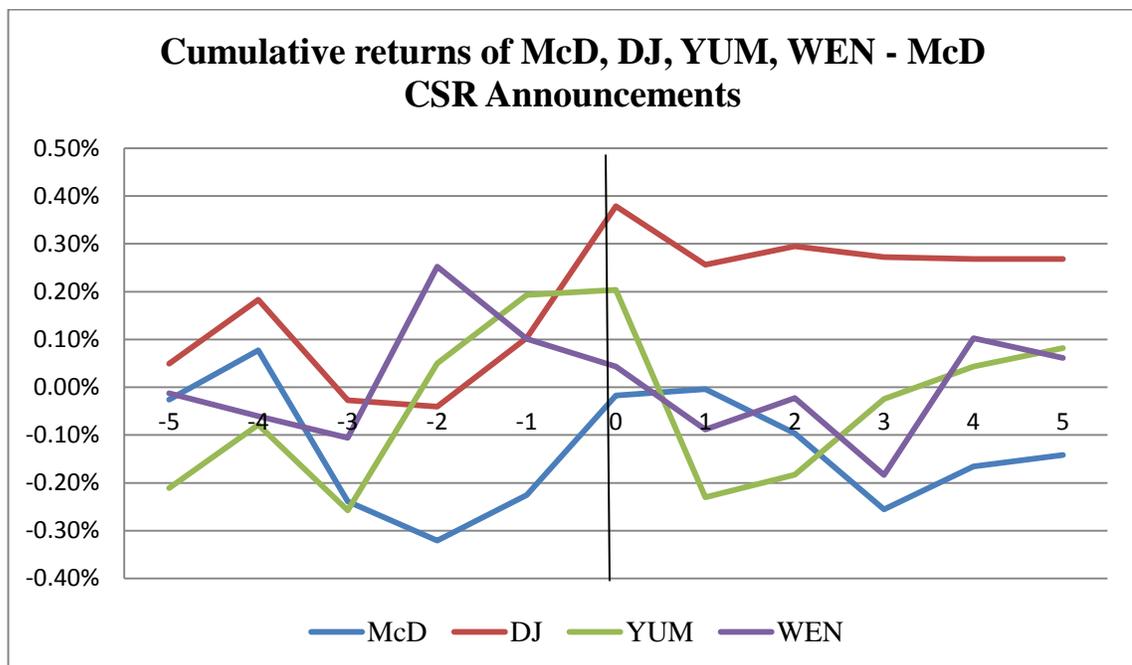


Figure 12: Cumulative returns of McDonald's, Dow Jones Index, YUM! Brands and Wendy's to the McDonald's CSR announcements

Consequently, based on the test results and the graph of cumulative returns it can be concluded that the market reacts positively to the CSR announcements of the biggest industry player as well as its own investors believe the releases to be a positive sign. However, both competitors react negatively. This can be explained in a way that as McDonald's is doing better at CSR the investors are more willing to invest in it and not in the two other companies.

More than that, the fact that the share of foreign investors in case of McDonald's is as high as 69.4 percent with 40.3 percent coming from Europe might have an influence on the reaction. As investors in Europe are more CSR oriented they are more likely to react positively to the announcements. Hence, in this case the CSR engagements are seen by investors as positive thing to do. In other words, they appear to follow the stakeholder's theory, which states that CSR is one of the fundamental company's obligations and it does bring value to the firm.

4.3.3. YUM! Brands CSR Announcements

There are three companies in the study and the second biggest in the industry is YUM! Brands. Thus, its 58 CSR announcements were tested against the firm's own stock returns, against stock returns of its two biggest competitors and against the Dow Jones Restaurants and Bars index.

Consequently, the results of the cumulative tests are presented in Table 6 below. Hence, in cases of all four securities the effect takes place during two periods, (-1, +1) and (-1, 0), plus all the reactions are negative.

Therefore, it can be seen that returns of the announcing company (YUM! Brands) and Wendy's have the strongest negative reactions of all. For the former it happens in between -1 to +1 and for the latter it occurs during the period from -1 to 0. Hence, the stock returns of YUM! Brands tend to go down during the three day period by 0.65 percent, while Wendy's stock returns decline by 0.77 percent during the two day period.

Moreover, the same cumulative negative effect of the YUM! Brands' overall CSR announcements can be seen in case of the industry index and McDonald's. However, it is noticeable that the events have a weaker effect on those two securities. More specifically, during the period from -1 to +1 the returns of Dow Jones decline by only 0.26 percent while McDonald's stock returns go down by 0.25 percent. Similarly, during a period from -1 to 0 the former decreases by 0.28 percent and the latter by 0.27 percent. In contrast, during the same

two day period the stock returns of YUM! Brands and Wendy's decline by 0.48 percent and 0.77 percent respectively.

Table 6: Summary of the J-tests for the cumulative effect of YUM! Brands' CSR announcements on Dow Jones Restaurants and Bars Index, McDonald's, YUM! Brands and Wendy's

| 58 Events | DJRB | YUM! Brands | McDonald's | Wendy's |
|-----------|------------------------------------|-------------------------------------|------------------------------------|------------------------------------|
| [t1,t2] | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) |
| [-5,-1] | 0.057% (0.414) | -0.064% (0.438) | -0.229% (0.245) | 0.969% (0.077) |
| [-1,+1] | -0.263% (0.013)** | -0.649% (0.000)*** | -0.246% (0.049)** | -0.681% (0.013)** |
| [-1,0] | -0.284% (0.044)** | -0.478% (0.034)** | -0.272% (0.097)* | -0.765% (0.038)** |
| [0,0] | -0.095% (0.209) | -0.156% (0.200) | 0.071% (0.316) | -0.423% (0.082) |
| [0,+1] | -0.074% (0.328) | -0.327% (0.106) | 0.097% (0.321) | -0.338% (0.216) |
| [+1,+5] | -0.139% (0.299) | -0.119% (0.387) | -0.122% (0.356) | -0.026% (0.484) |

* Statistically significant at 10%

** Statistically significant at 5%

*** Statistically significant at 1%

In addition, the Figure 13 below demonstrates the progression of cumulative returns of YUM! Brands, its competitors and the industry index. Thus, despite the above described results of j-tests, no strong reaction on the day of the event can be seen in case of the announcing company, its biggest competitor McDonald's and DJ index. On the contrary, Wendy's cumulative returns stand out, as there is a very strong positive reaction two days prior to the event after which the returns tend to go down until the event occurs and then they start rising afterwards. In case of the other securities, however, the returns tend to either level off (McDonald's and Dow Jones) or slightly but continuously go down (YUM! Brands itself) after the event.

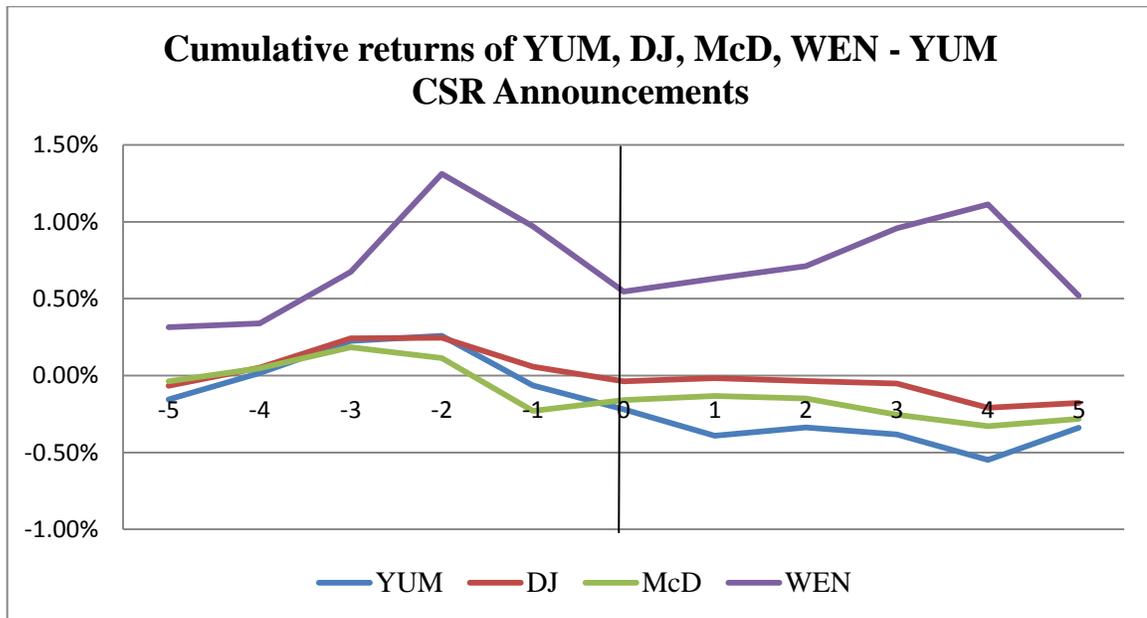


Figure 13: Cumulative returns of McDonald's, Dow Jones Index, YUM! Brands and Wendy's to the YUM! Brands CSR announcements

Consequently, the examination of the effect of total CSR announcements of the second biggest American fast food company showed that there is a definite cumulative negative market reaction that starts on the day before of the event and continues until the day after. In case of McDonald's and Wendy's reaction, it is quite reasonable for the returns to go down, as they are not the ones engaging into CSR. However, it is surprising that investors consider company's CSR announcements to be something negative for the announcing company as well. Hence, it can be supposed that in this case investors follow Friedman's ideology, which says that CSR engagements are burdensome for the company and thus, non-value creating. In other words, the more company engages into corporate social responsibility the less it creates value for the investors.

4.3.4. Wendy's CSR Announcements

Last but not least, the third company whose influence of CSR announcements was investigated in this study is Wendy's. The company had 30 events tested against its own stock, its competitors' stocks and the industry index. Hence, cumulatively the CSR announcements of the third biggest American fast food company appear to have some influence on the industry index and two of its competitors. On the exact day of the announcement McDonald's stock returns go down by 0.28 percent, while during the three day period from -1 to +1 they cumulatively decrease by 0.31 percent. More than that, at 10 percent significance level the company's stock returns cumulatively go down by 0.35 percent over two day period (0, +1).

A similar picture can be seen in case of the Dow Jones Restaurants and Bars Index with regards to its response to the CSR announcements of Wendy's. During the period from -1 to +1 its returns cumulatively go down by 0.23 percent and during the two day period (0, +1) they decline by 0.34 percent. Nevertheless, this index response might be due to the correlation between McDonald's and DJRB. In other words, as the former is the biggest company in the industry, it has a big part of the index. Hence their reactions are similar.

The second biggest company in the American fast food industry responds to these events in a comparable way. Thus, the stock returns of YUM! Brands cumulatively decline by 0.44 percent and by 0.72 percent over the period of two days (0, +1) and a period of five days (+1, +5) respectively.

In addition, even though the CSR announcements of Wendy's appear to have positive effect on the company itself, none of them are statistically significant. Nevertheless, the events do appear to negatively influence the returns of both its competitors and the industry index.

Table 7: Summary of the J-tests for the cumulative effect of Wendy's CSR announcements on Dow Jones Restaurants and Bars Index, McDonald's, YUM! Brands and Wendy's

| 30 Events | DJRB | Wendy's | McDonald's | YUM! Brands |
|------------------|-----------------------------------|---------------------------|------------------------------------|-----------------------------------|
| [t1,t2] | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) |
| [-5,-1] | -0.222% (0.251) | 0.852% (0.135) | -0.140% (0.356) | -0.539% (0.157) |
| [-1,+1] | -0.228% (0.061)* | 0.287% (0.203) | -0.306% (0.035)** | -0.345% (0.075) |
| [-1,0] | -0.039% (0.426) | 0.187% (0.351) | -0.239% (0.158) | 0.036% (0.458) |
| [0,0] | -0.146% (0.162) | 0.154% (0.328) | -0.284% (0.046)** | -0.058% (0.404) |
| [0,+1] | -0.335% (0.055)* | 0.254% (0.301) | -0.351% (0.071)* | -0.438% (0.098)* |
| [+1,+5] | -0.098% (0.383) | 0.013% (0.493) | 0.107% (0.389) | -0.722% (0.089)* |

* *Statistically significant at 10%*

** *Statistically significant at 5%*

*** *Statistically significant at 1%*

Moreover, in order to see how the stock returns progress around the event date a graph of cumulated returns was created. (Figure 14) Thus, generally speaking it reveals that the overall CSR announcements of the third biggest American fast food company have little or no effect on either the stock returns of the company itself, or on returns of Wendy's two biggest competitors, or on the industry index.

Nevertheless, a little positive effect can be seen in case of the announcing company (Wendy's) on the day of the event and the day after, but as indicated by the test results this effect is not even slightly statistically significant. For the rest of the securities, however, there appears to be the opposite but still barely noticeable effect as well. Hence, as it was shown by the j-tests

above, both company's competitors and the industry index tend to react negatively to the events and this reaction lasts for up to two days after the announcements.

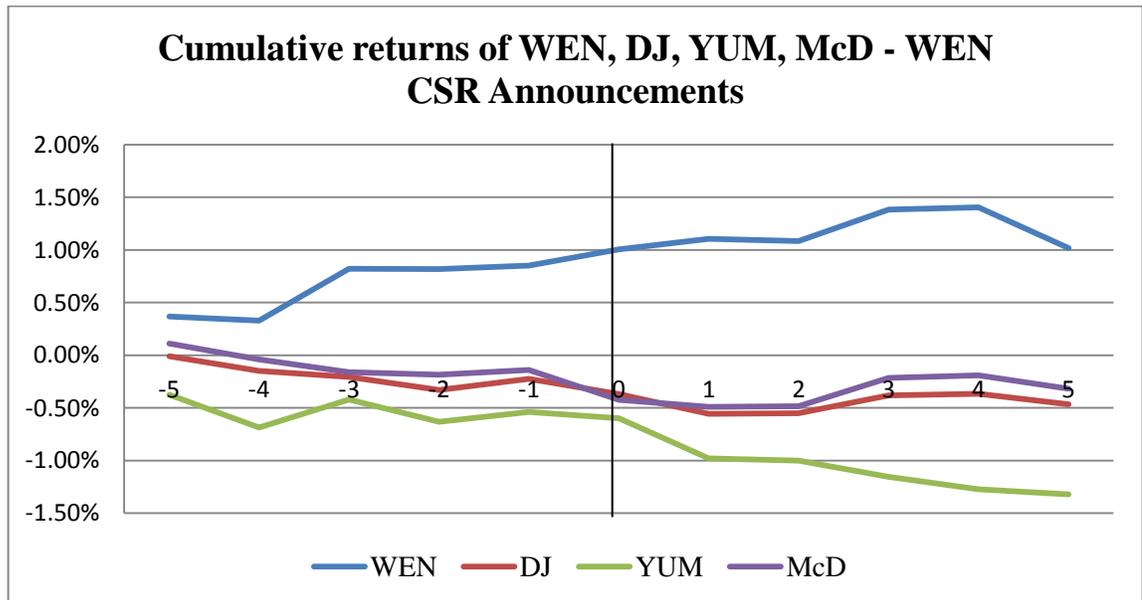


Figure 14: Cumulative returns of McDonald's, Dow Jones Index, YUM! Brands and Wendy's to the Wendy's CSR announcements

Consequently, similar to the findings in case of the CSR announcements of other two fast food companies, the competitors stocks tend to react negatively to the events. In other words, the market believes that the company that is not releasing its CSR practices, like the one that is tested will create less value for investors. Thus, the competitor's stock returns go down. On the other hand however, the overall industry also appears to react negatively to the CSR announcements of Wendy's, but that might be due to the influence of McDonald's on the index.

To sum up, when testing for the overall effect of the CSR announcements of the three biggest American fast food companies no statistically significant effect could be observed in case of the industry index and its biggest player, McDonald's. However, for both YUM! Brands and Wendy's investors believe the CSR releases to be value destroying, as their stock returns tend

to decrease cumulatively over a period of up to three days (-1, +1). These results are assumed to be due to the portion of the competitor's announcements in the overall test. In other words, as the majority of the total events belonged to competitors, the negative impact might have come from that. Hence, the most reasonable thing to do was to divide those announcements into a company level groups and test them again.

Thus, after dividing the events the following results were obtained. Both announcements of McDonald's and Wendy's have positive effect on the corporate stock returns. However, in the latter case the effect is statistically insignificant. Contrary to these findings, the events of YUM! Brands strongly negatively affect the company's stock returns during the days around the announcements.

Furthermore, the only positive influence of the CSR announcements on the industry index could be observed in case of McDonald's. In two other cases however, the effect is negative. Hence, it is possible to assume that investors believe the CSR engagements of biggest player in the industry to be beneficial and value creating, but an opposite is believed to be true for the other two companies. However, it might also be the case that due to the Index and McDonald's correlation the reaction of DJRB can be biased.

Therefore, it is probable that the size of the company and the market capitalization plays a role in the market reactions. However, due to the assumption of this study of all three companies being equal in size does not allow this theory to be checked. Nevertheless, it is difficult to generalize these findings and say that, in case of the industry reaction, on average market sees the CSR engagements of American fast food companies as value destroying activities, and therefore follows the Friedman's theory. Hence, it is clear that more tests with different Industry Indices need to be conducted in order to clarify this issue. On the other hand, however, in case of the stock returns of the announcing companies in one out of three cases investors believe CSR to be value creating activity for the firms and hence they follow the Stakeholder's theory.

Moreover, in all of the tests with regards to the competitors, the statistics revealed a definite negative influence. Thus, CSR announcements of McDonald's negatively affect stock returns of YUM! Brands and Wendy's and vice versa. This supports the idea that in the combined (first) group of test the negative reactions of YUM! Brands and Wendy's were due to the proportion of the competitors' announcements. This result is quite straight forward due to the findings described above. Hence, as investors consider CSR to be value creating for the announcing companies, it is logical that the competitors' stock returns should go down as they are not releasing any CSR announcements on those particular days.

4.3.5. CSR and sustainability analysis

To take this research one step further, as discussed in previous chapters, it was decided to divide all the CSR announcements into three groups on the basis of the pillars of sustainability. Thus, the initial 172 announcements were categorized into Social, Economic and Environmental groups and then filtered for overlapping. After that, the same procedure as in the sections above was followed for each of these pillars in order to identify whether the events have any influence on either companies' stock returns or the Dow Jones Restaurants and Bars Index.

One of the pillars of sustainability is the social aspect of any company's actions. Hence, the 80 social announcements of the three biggest American fast food companies of which 28 belonged to McDonald's, 30 to YUM! Brands and, 22 to Wendy's were checked for any effects on the companies' stock returns and the Dow Jones Restaurants and Bars Index.

Therefore, j-tests (Table 8) point out that there is a definite negative industry reaction to the announcements both on a single day of the event as well as cumulatively. Hence, the test shows that under significance of 5 percent the social CSR announcements of the three fast food companies make the returns of the index go down by 0.19 percent. In addition, there is a cumulative negative after effect of the events. In other words, over a period of two days (0,

+1) the returns of Dow Jones Restaurants and Bars Index tend to go down by 0.22 percent. Hence, both hypotheses examining the index are rejected. (Appendix 3, Table 15)

Furthermore, the returns of the biggest player in the industry appear to react in a similar manner to the Dow Jones index. Thus, on the day of the social CSR announcements McDonald's stock returns tend to decline by 0.19 percent. A quite comparable picture can also be seen in case of YUM! Brands. More specifically, on the day of the event its returns go down by 0.23 percent. However, the company also experiences some cumulative effects. In other words, during the period of three days (-1, +1) the returns decline by 0.54 percent and during (0, +1) by 0.52 percent. In addition, the cumulative test did not reveal any significant impact of the social CSR events on the stock returns of third biggest fast food company in the USA.

Table 8: Summary of the J-tests for the cumulative effect of all Social CSR announcements on Dow Jones Restaurants and Bars Index, McDonald's, YUM! Brands and Wendy's

| 80 Events | DJRB | McDonald's | YUM! Brands | Wendy's |
|-----------|------------------------------------|-----------------------------------|-------------------------------------|--------------------|
| [t1,t2] | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) |
| [-5,-1] | -0.072% (0.377) | -0.306% (0.153) | -0.096% (0.401) | 0.774% (0.060) |
| [-1,+1] | -0.116% (0.131) | -0.002% (0.494) | -0.536% (0.001)*** | -0.032% (0.443) |
| [-1,0] | -0.085% (0.281) | -0.082% (0.331) | -0.247% (0.154) | -0.173% (0.291) |
| [0,0] | -0.189% (0.034)** | -0.193% (0.074)* | -0.231% (0.089)* | -0.214% (0.168) |
| [0,+1] | -0.220% (0.066)* | -0.113% (0.276) | -0.520% (0.016)** | -0.073% (0.408) |
| [+1,+5] | 0.161% (0.242) | 0.159% (0.298) | -0.009% (0.491) | 0.296% (0.276) |

* Statistically significant at 10%

** Statistically significant at 5%

*** Statistically significant at 1%

More than that, in order to see how the returns of the securities progress around the event date a graph of cumulated returns was created (Figure 15). It graphically confirms the findings of the tests above. Hence, there is a distinct decline in returns of all four securities on the day of the social CSR announcements. However, in case of McDonald's and Wendy's this decline takes an upturn on the next day, unlike the returns of Dow Jones and YUM! Brands, which continue going down up to day +1. Nevertheless, starting from the second day after the announcements all the securities returns tend to have a positive reaction.

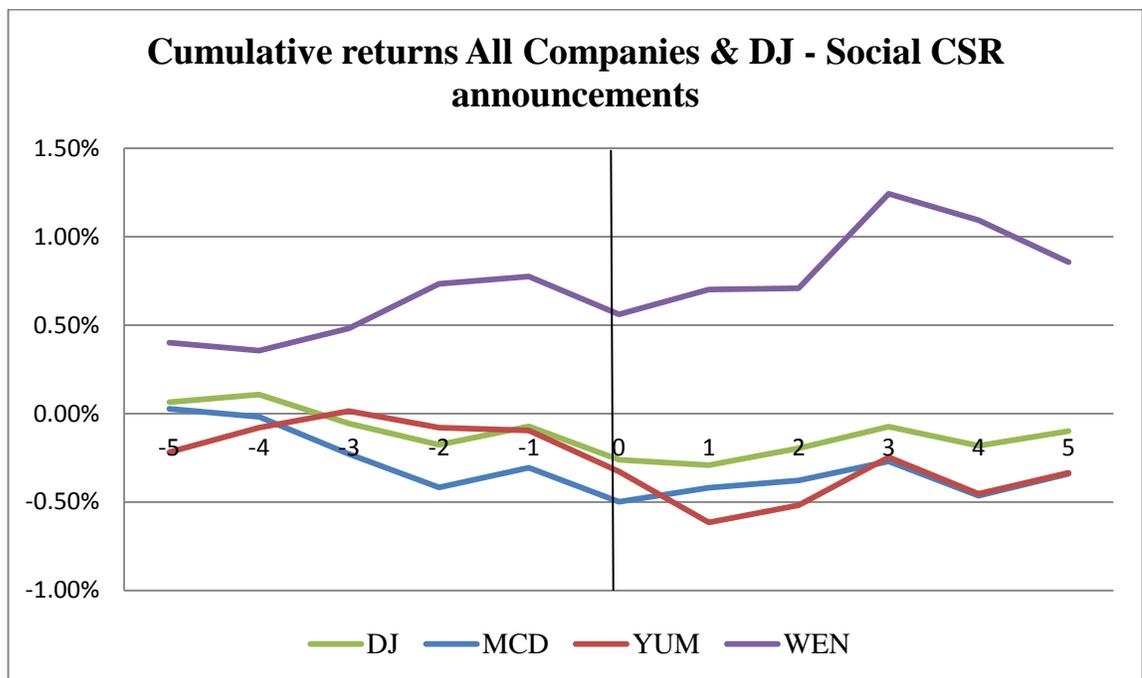


Figure 15: Cumulative returns of All Companies and Dow Jones Index to the Overall Social CSR Announcements

Consequently, based on the results of the tests and the graph of cumulated returns, it can be concluded that generally the stock market reacts negatively to the social CSR announcements of the three biggest American fast food companies. Hence, the CSR engagements are viewed by the investors as extra cost to the companies which do not add extra value. It implies that in this particular case the investors adhere to the Friedman's theory, saying that the only responsibility of a company is to generate profits.

The second pillar of the sustainability is economic aspect of any company's actions. Thus, out of total of 172 CSR announcements 37 were classified as economic of which 13 belong to McDonalds, 23 to YUM! Brands and 1 to Wendy's . Hence, they were tested against the stocks of the three fast food producers and the Dow Jones Restaurants and Bars Index.

Therefore, the cumulative analysis shed some light on the issue. (Table 9) The only statistically significant (10 percent) effect of the economic CSR announcements can be observed in case of the Dow Jones Restaurants and Bars Index. More specifically, the returns of the index tend to cumulatively respond to the events both during the period before and after the announcements. Plus on the day zero the returns go up by 0.26 percent. They also grow by the same percent over the period from -1 to +1 and by 0.30 percent during the two day period (0, +1). Nevertheless, the table below also indicates that in a long run (+1, +5) the returns of the index are affected negatively by the economic CSR announcements (-0.57 percent).

In addition, even though, none of the other j-tests yielded any statistically significant results, from the statistics it can be seen that both McDonald's and YUM! Brands respond to the events positively. Wendy's on the other hand, experiences an opposite effect, especially on the day of the event, as the returns go down. This might be attributed to the fact that most of the economic CSR announcements belong to its competitors and hence have a negative effect. Furthermore, the j-test also showed that Wendy's stock returns tend to go up by 1.35 percent during the five day period (-5, -1). This result however, is not relevant to this study, as it occurs before the announcements and might be caused by some external factor.

Table 9: Summary of the J-tests for the cumulative effect of all Economic CSR announcements on Dow Jones Restaurants and Bars Index, McDonald's, YUM! Brands and Wendy's

| 37 Events | DJRB | McDonald's | YUM! Brands | Wendy's |
|-----------|-----------------------------------|--------------------|--------------------|-----------------------------------|
| [t1,t2] | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) |
| [-5,-1] | 0.216% (0.270) | 0.090% (0.429) | 0.584% (0.163) | 1.346% (0.038)** |
| [-1,+1] | 0.256% (0.052)* | -0.065% (0.386) | 0.206% (0.219) | 0.307% (0.182) |
| [-1,0] | 0.217% (0.165) | 0.026% (0.468) | 0.269% (0.237) | 0.261% (0.293) |
| [0,0] | 0.258% (0.051)* | 0.288% (0.102) | 0.246% (0.178) | -0.142% (0.338) |
| [0,+1] | 0.297% (0.091)* | 0.197% (0.269) | 0.183% (0.313) | -0.096% (0.421) |
| [+1,+5] | -0.572% (0.052)* | -0.496% (0.163) | -0.522% (0.190) | -0.601% (0.214) |

* Statistically significant at 10%

** Statistically significant at 5%

*** Statistically significant at 1%

In addition, the cumulative returns graph below supports the trend found by the j-tests, saying that every security apart from Wendy's stocks experiences an increase in its returns on the day of the economic announcements. However, after the event only the returns of the industry index continue to grow up until day +1, after which they join the rest of the securities in their slow decline.

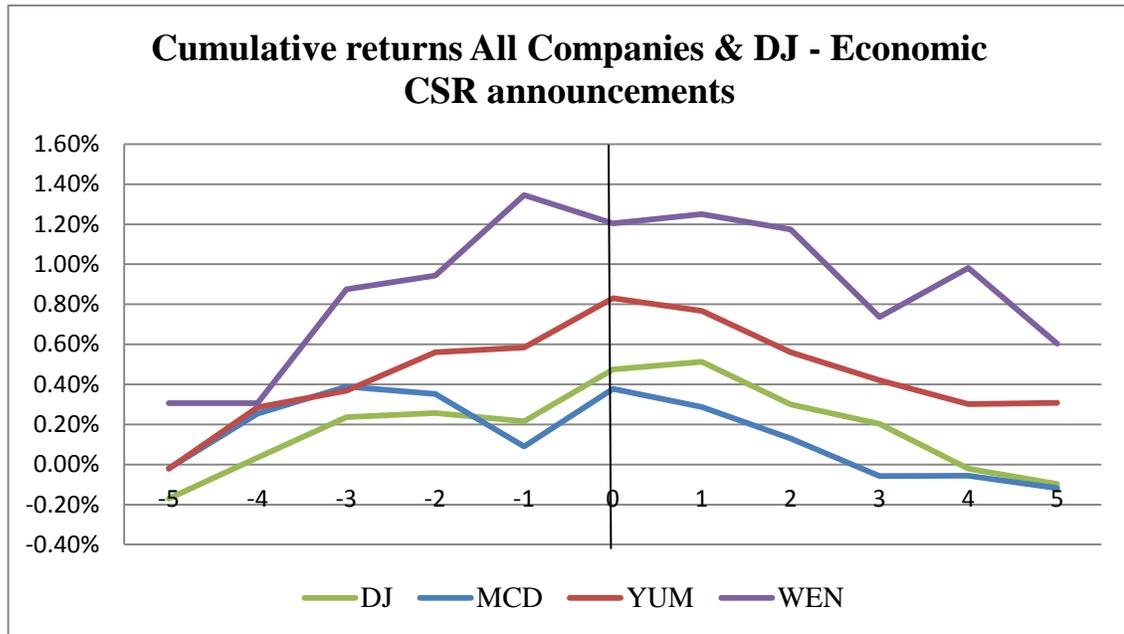


Figure 16: Cumulative returns of All Companies and Dow Jones Index to the Overall Economic CSR Announcements

Consequently, the total economic CSR announcements of three biggest American fast food companies were not found to have any statistically significant influence on the stock returns of the companies themselves. Nevertheless, both statistics and the graph of cumulative returns showed that their stock returns do respond to the events, but this response is not statistically significant.

However, in case of the industry index a positive effect was observed on the day of the announcement as well as cumulatively one day before and after the event. Despite that, both companies' stock returns and the index returns tend to decline cumulatively for 5 days after the announcement, but these results again, are not statistically significant. Therefore, it can be said that in this particular case the investors view CSR announcements as a value creating initiative. That is due to the nature of the events. In other words the economic aspect of the companies' actions is by definition supposed to bring more financial value as well as sustainability to the firms.

The third pillar of sustainability concept is the environmental aspect of any company's actions. Hence, out 172 overall CSR announcements 40 were classified to have an environmental focus, of which 30 belonged to McDonald's, 5 to YUM! Brands and 5 to Wendy's. Consequently, they all were tested against the Dow Jones Restaurants and Bars Index as well as against the companies' stocks.

Therefore, j-tests (Table 10) indicate that on the day of the environmental CSR announcements the industry's returns tend to increase by 0.30 percent. Moreover, they appear to start increasing even one day before the event. Thus, cumulatively during a two day period (-1, 0) they grow by 0.31 percent. In contrast, during a period of five days (+1, +5) the returns decline by 0.50 percent. An identical picture can be seen in case of the biggest American fast food company. However it is not in any case even slightly statistically significant.

Moreover, the YUM! Brands reacts similarly on average, as on the day of the event there is a positive effect, but it is not significant. On the other hand, the company's returns tend to decrease cumulatively by 0.56 percent and 0.57 percent over the periods of (-1, +1) and (0, +1). In addition, Wendy's stock returns appear to have a very similar but somehow stronger negative cumulative reaction. Thus, during the period of three days (-1, +1) its returns go down by 1.39 percent and over the period of (-1, 0) by 1.01 percent.

Therefore, both of the companies experience strongly significant negative effect of the environmental CSR announcements. In a way this can be explained by the majority (30 out of 40) of the events tested belonging to their biggest competitor, McDonald's. Hence, similarly to the all previous tests described above the competitor's CSR events appear to negatively influence the returns of the companies.

Table 10: Summary of the J-tests for the cumulative effect of all Environmental CSR announcements on Dow Jones Restaurants and Bars Index, McDonald's, YUM! Brands and Wendy's

| 40 Events | DJRB | McDonald's | YUM! Brands | Wendy's |
|-----------|-----------------------------------|--------------------|------------------------------------|-------------------------------------|
| [t1,t2] | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) | CAAR (P-Value) |
| [-5,-1] | 0.125% (0.354) | 0.197% (0.328) | -0.392% (0.247) | -0.474% (0.234) |
| [-1,+1] | -0.116% (0.219) | 0.088% (0.328) | -0.563% (0.014)** | -1.391% (0.000)*** |
| [-1,0] | 0.305% (0.075)* | 0.306% (0.138) | 0.049% (0.447) | -1.009% (0.007)*** |
| [0,0] | 0.298% (0.023)** | 0.222% (0.131) | 0.041% (0.436) | -0.014% (0.481) |
| [0,+1] | -0.122% (0.281) | 0.005% (0.493) | -0.571% (0.058)* | -0.395% (0.170) |
| [+1,+5] | -0.503% (0.066)* | -0.479% (0.140) | -0.360% (0.265) | 0.197% (0.382) |

* Statistically significant at 10%

** Statistically significant at 5%

*** Statistically significant at 1%

In addition, the Figure 17 presents the progression of the cumulative returns of the four securities in question around the time of the announcements. It supports the results of the tests described above. Thus, it can be seen that environmental CSR announcements tend to increase returns of both McDonald's and the industry index on the day zero and then drive them down the next day. However, only in case of Dow Jones Restaurants and Bars Index these results are statistically significant, while in case of the biggest industry player they are visible but not significant. Moreover, the two other fast food producers also experience decline in their return the starting on the day before the event and ending the day after.

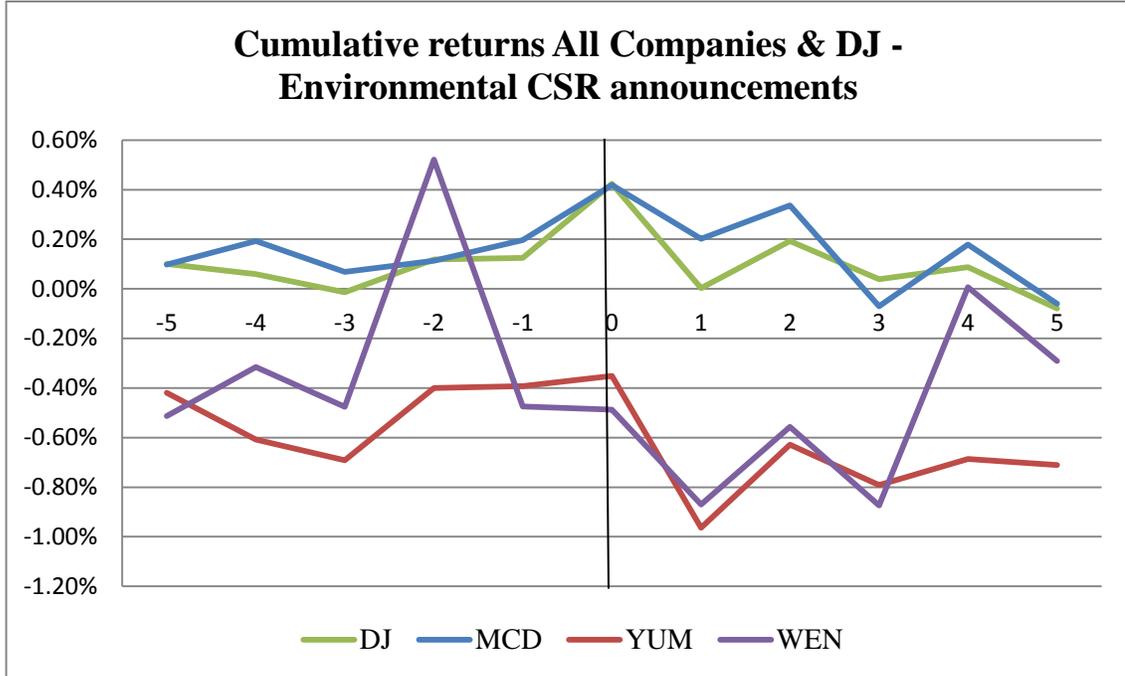


Figure 17: Cumulative returns of All Companies and Dow Jones Index to the Overall Environmental CSR Announcements

Consequently, the overall environmental CSR announcements of the three biggest American fast food companies were found to have a strong effect on the industry index. More specifically, on the day zero the index returns went up and the next day they plummeted. However, for both YUM! Brands and Wendy's the announcements inflicted the negative cumulative stock returns around the dates of the events. This might be due to the fact that majority (30 out of 40) of the environmental announcements belonged to McDonald's and might have had an opposite effect on the rival companies, similarly to the findings for the other tests above.

Nevertheless, the tests with regards to the environmental aspect of the corporate social responsibility support the idea that investors/market views the CSR engagements to be positive and value creating activity of the American fast food companies. That is why both Dow Jones index and McDonald's returns experience positive effect and the other two companies negative.

5. DISCUSSION

To sum up, as the tests for effect of total 137 CSR announcements on the industry index and the companies themselves did not yield many results, it was decided to divide the events into company level groups and test again. Hence, when examining the events of the biggest American fast food company (McDonald's) there is a clear positive effect both on the firm and the Dow Jones Restaurants and Bars Index and clear negative effect on the competitors. Furthermore, in all other tests the stock returns of the rivals react negatively to the events. However, in cases of both YUM! Brands and Wendy's announcements the Index also experiences a negative effect along with McDonald's. This might be due to the share McDonald's holds in that particular index. Thus, the correlation analysis revealed that Dow Jones Restaurants and Bars Index is 0.87 percent correlated with McDonald's.

This can obviously explain why in cases with YUM! Brands and Wendy's the index reacts negatively and not positively like in case of McDonald's. In spite of that, it is quite clear that any American food or restaurants index is heavily dominated by McDonald's as it is the biggest company in the industry. Hence, similar results would have been obtained in cases with other industry indices. Nevertheless, the division of the events into the company level categories showed that it is impossible to generalize the investors view on the effects of CSR announcements on the announcing company as all the findings are quite controversial. More specifically, as described in sections above while McDonald's stock returns had positive reaction to its CSR announcements, Wendy's returns were unaffected and YUM! Brands stocks reacted negatively. However, these tests clearly presented the fact that competitors' stock returns always decrease around the period of the events.

The second separation of the CSR announcements, however, was based on the theory of sustainability. Thus, all initially obtained events (172) were divided into three categories and then filtered for overlapping. Those groups included social, economic and environmental. They all were tested against the companies' and industry index stock returns. Consequently, the tests for the social aspects of CSR revealed negative effect taking place around the event date in all four securities. However, in the case of Wendy's the effect was not statistically

significant, but still visible. Furthermore, the examination of economic CSR announcements yielded statistically significant results only from the Dow Jones Restaurants and Bars Index, which were positive. In cases with other securities the returns also experienced positive drift, but were not statistically significant.

Last but not least, the corporate social responsibility initiative with a focus on the environmental aspect was also tested. It is good to mention, that while in other two categories the share of company level announcements was quite equally distributed, in the group with regards to the environment 30 out of 40 events belonged to McDonald's. Therefore, while both the industry index and the biggest fast food producer experience positive effect from the events, the returns of the other two securities (YUM! Brands and Wendy's) went down dramatically. The latter effect can be attributed to the dominance of the McDonald's CSR announcements in this test, as this study has already shown the there is a negative effect of the competitor's events.

Consequently, the second division of the CSR announcements of the three biggest American fast food companies revealed that mostly investors view social CSR as value destroying activity, but both the economic and the environment as value enhancing ones. Hence this findings support the study by Renneboog et al. which found that significant positive abnormal returns after a firm receives environmental performance awards (2008, p. 1732). Moreover, the nature of the economic CSR events also clearly correlated to the investors' biggest requirement from the companies. In other words, the economic CSR is the one that by definition is intended to bring more value to the stakeholders.

The overall findings of this study can contribute to management's' strategic decision-making in fast food restaurants industry (Kang et al, 2010, pp. 80-81). For instance, the managers' willingness to undertake major investment and their choices of the firm's capital structure can be seen as crucial strategic decisions. In other words, this research provides evidence that CSR is helpful in enhancing firm value through increasing socially responsible activities. This can be observed in the case of McDonald's CSR engagements as well as in the Economic and Environmental aspects of the sustainability initiative.

Furthermore, as just not all market-based projects create value for the firms, not all CSR projects are able to create value either. Many of them, in fact, increase costs, and although they may be positively evaluated by different stakeholder groups, stockholders may see the value of their shares diminished (Husted & Allen, 2007, p. 597). This appears to be exactly the case with the social CSR engagements, according to the results obtained in this study.

Therefore, from a perspective of a potential investor the American fast food companies that engage in Economic and Environmental sustainability issues are more attractive than the ones investing in social issues and hence are more likely to be invested in.

Generally speaking the overall positive perception of the CSR announcements found in this research supports the idea pointed out by Becchetti et al. (2012, p.1635) that CSR leads corporations to refocus their strategic goals from the maximization of shareholder value to the maximization of the goals of a broader set of stakeholders.

6. CONCLUSIONS

This chapter summarizes the research conducted in this study. It also describes the theoretical contribution this research brings to the scholars and the managers in the field of corporate social responsibility. Last but not least, this section presents the limitations of this study and matters for future research.

6.1. *Summary*

In today's hypercompetitive and socially conscious environment, managers face ever growing pressures to balance shareholder value with societal welfare. Indeed, if CSR is seen to have a significant influence on the financial value, it can motivate companies to focus on maximizing the positive and minimizing the negative social implications of their actions and strategies. Unfortunately, the issue of whether there is a positive or negative CSR effect on the financial value of firms remains a topic of intense debate among scholars (Mishra & Modi, 2013, p.433). This subject has been of an interest to scholars since mid-20th century. Nevertheless, they failed to identify the definite relationship between CSR and financial performance of a company. Although, Becchetti et al. (2012, p. 1635) found mostly a positive effect, but the negative and neutral reactions are also observed.

Furthermore, one of the most criticized industries in the world has not been a subject to many researches by scholars. Although, since 1980s the relationship between food and sustainability has been studied, the fast food sector has not received a proper attention yet. This is surprising due to the ever-increasing market power of global fast-food retailers, and their high visibility through branding has made them a target both for governmental public interest campaigns, for citizens' and consumer lobby groups (Schroder & McEachern, 2005, p.221).

Therefore, the goal of this research was to fill in this gap through conducting a quantitative study for analyzing the stock market reaction to the CSR announcements of the biggest US fast food companies. In other words, an event study methodology with a Capital Asset Pricing Model was employed to find out whether the CSR announcements of McDonald's, YUM!

Brands and Wendy's have any effect on their own stock returns as well as on the returns of the industry index (Dow Jones Restaurants and Bars Index). The daily returns of the stocks, the index and the benchmarks (NASDAQ and NYSE) were used in this research. Furthermore, the study also examined the cross effect of the events among the companies. In addition, the events also underwent a categorization according to the sustainability principles. Hence, the three groups of announcements (social, economic and environmental) were tested for having any effects on the companies as well as on the index.

As a result, it was found that investors partly adhere to the stakeholder's theory, which states that the interests of various stakeholder groups of the company are joined. Thus, to create value one must focus on how value gets created for each and every stakeholder (Harrison & Wicks, 2010, p. 9). In other words, this study showed that while in some of the cases the investors believe the CSR announcements of American fast food companies to be a value creating activity, in others they were perceived as value decreasing activities. Hence, there is a definite positive effect on the stock returns of the announcing company in case with McDonald's. However, the opposite picture can be seen in case with YUM! Brands and no reaction was observed when it came to Wendy's CSR announcements. Moreover, the study also revealed that when testing for company level announcements the stock returns of the competitors always decline during the period from one day before the event to one day after.

In addition, the tests examining the CSR announcements with regards to the sustainability pillars also yielded some interesting insights. For instance, the social CSR initiative was perceived by the investors as value destroying activity as all four securities in question experienced negative returns around the time of the events. However, both environmental and economic CSR initiatives were perceived to be value creating activities, as in both cases the industry index experienced increase in its returns.

Consequently, as mentioned above in some of the tests the investors were found to believe the stakeholder's theory to be true. However, in case of only social CSR events they appeared to follow the Friedman's or Carroll's theory. In other words, in certain areas like economic and

environmental the CSR engagements are considered to be beneficial to the company, but in on the more philanthropic level such as social CSR, they are viewed as value destroying factors.

6.2. Theoretical contributions

The overall findings of this study contribute to management's' strategic decision-making in fast food restaurants industry. This research provided evidence that CSR is helpful in enhancing firm value through increasing socially responsible activities.

However, it was found that not all CSR projects are able to create value. By some scholars it is believed that some CSR projects, may increase costs for the company, and although they may be positively evaluated by different stakeholder groups, stockholders might see the value of their shares diminished (Husted & Allen, 2007, p. 597). Hence this study found this to be true for the social CSR engagements of the three biggest American fast food companies.

Consequently, the findings of this research have potentially significant implications for many areas of management including strategy, innovation, entrepreneurship, and corporate venturing. For example, since shareholders value economic and environmental CSR initiatives, managers and boards of directors may find it worthwhile to design and implement effective CSR policies and engagements in those fields. Moreover, this study puts investors in a better position for diversification as now they know how the stock returns of the three biggest American fast food companies react to the CSR announcements in total and with regards to the different sustainability categories.

6.3. Limitations and future research

Generally speaking, one of the biggest limitations the event study as pointed out by Wong (2013, p.11) is the assumption of an efficient market. This tends to be not valid in many of the situations. The length of time required for individual investors to respond to event signals is

random and therefore, the implication is that markets could exhibit market inefficiencies because prices do not instantly or fully reflect all available information.

Moreover, the results of an event study are sensitive to the changes in the research design. In other words the choice of R_m will affect the abnormal returns and the choice of the estimation window in its turn will affect the alphas and betas (Wong, 2013, p.11). Furthermore, as described by Sitthipongpanich (p.65) in an event study, the precise estimation periods and estimation windows are not easy to determine. Thus, it makes it difficult to control for other confounding effects that might occur in during that period.

Nevertheless, in the context of this particular research there are several limitations. Primarily this study assumes that the stock prices reaction of the Dow Jones Restaurants and Bars Index represent the general picture for the whole sector, even though it is highly correlated with the biggest company in the industry, McDonald's. Secondly, it is assumed that all three companies in question should react to the announcements in the same manner.

Thirdly, this study assumed that all the events took place on work days and during morning and day time, so that their effect is not transferred to the following day and not visible on the weekends. Moreover, this research looks only at the positive CSR announcements that were released by companies themselves. Hence, a future study should investigate the effect of negative CSR releases on the companies and the index.

Last but not least, the results of this research only portray the short-run stock market reaction. Hence, future research should consider looking at how and if CSR announcements affect shareholder value and firm performance in the long-run. To examine this matter, one could regress long-run measures of firm value and firm performance such as return on assets and net profit margin against proxies for CSR. Moreover, the future study can also have a look the effect of CSR announcements on the companies' revenues in order to see customers' perspective on corporate social responsibility.

In time when there is reasonable amount of social, economic and environmental CSR announcements released by each company, future research might consider further dividing the sustainability pillars into the company level categories. Last but not least, the future research should examine the events with respect to their intensity over the years/months/weeks and their effect on the stocks during low and high intensity periods.

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APPENDICES

Appendix 1: Debt and profitability ratios



Figure 18: Debt, ROE, ROA ratios

(Sources: MarketWatch 1,2,3; Stock Analysis On Net 1,2; CSIMarket 1,2)

Appendix 2: Descriptive statistics

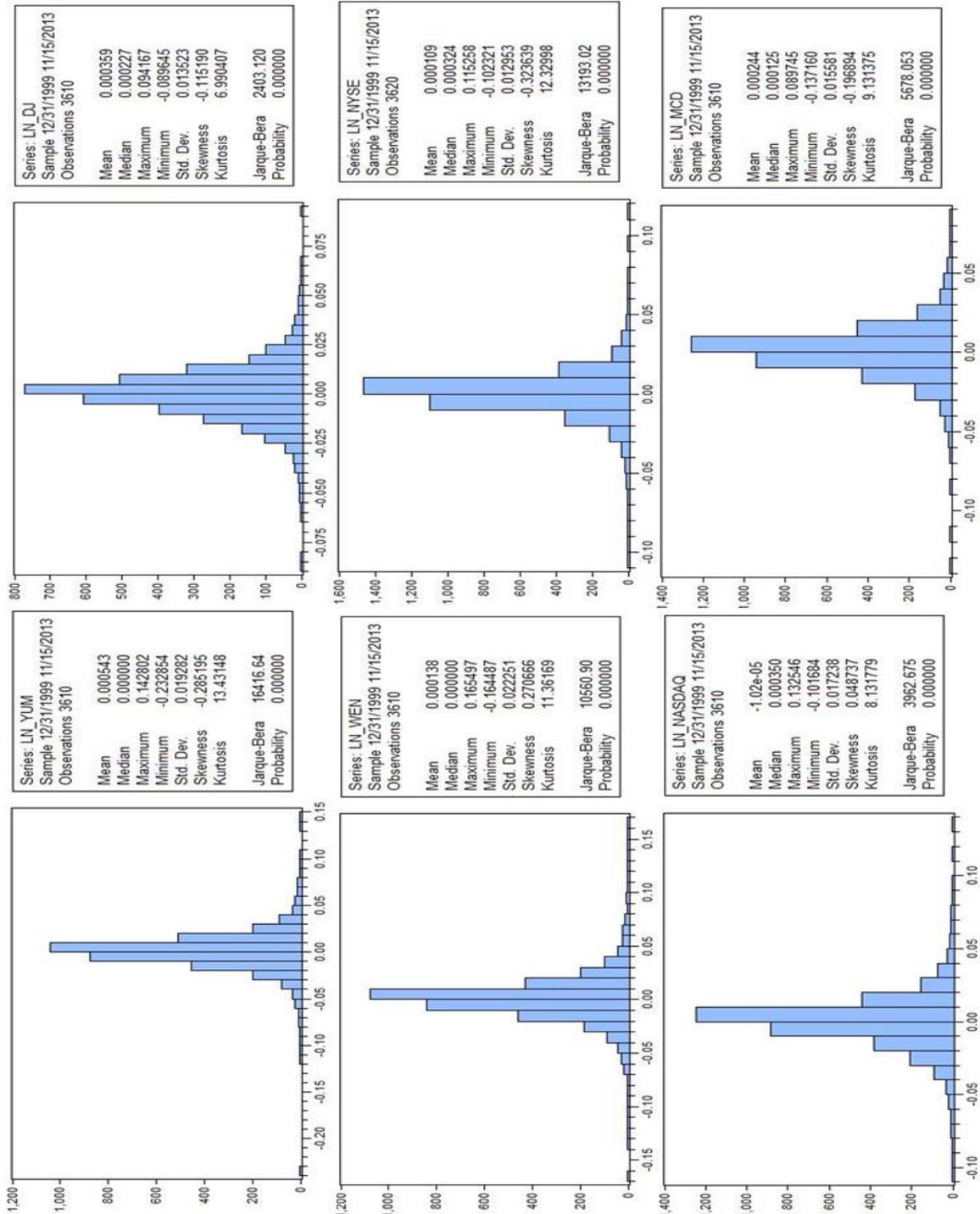


Figure 19: Descriptive statistics-Histograms

Appendix 3: Overview of the Hypotheses

Table 11: Summary of hypotheses about total CSR announcements

| Overall CSR announcements | | |
|---------------------------|---|-------------|
| Hypothesis | | Test result |
| <i>H1a:</i> | <i>The CSR announcements of American fast food companies have no impact on the returns of Dow Jones Restaurants and Bars index</i> | Accepted |
| <i>H1b:</i> | <i>The CSR announcements of American fast food companies have no impact on the returns of McDonald's</i> | Accepted |
| <i>H1c:</i> | <i>The CSR announcements of American fast food companies have no impact on the returns of YUM! Brands</i> | Rejected |
| <i>H1d:</i> | <i>The CSR announcements of American fast food companies have no impact on the returns of Wendy's</i> | Rejected |

Table 12: Summary of hypotheses about McDonald's CSR announcements

| McDonald's CSR announcements | | |
|-------------------------------------|---|--------------------|
| Hypothesis | | Test result |
| H2a: | <i>The CSR announcements of McDonald's have no impact on the stock returns of McDonald's</i> | Rejected |
| H2b: | <i>The CSR announcements of McDonald's have no impact on the returns of Dow Jones Restaurants and Bars index</i> | Rejected |
| H2c: | <i>The CSR announcements of McDonald's have no impact on the stock returns of YUM! Brands</i> | Rejected at 10% |
| H2d: | <i>The CSR announcements of McDonald's have no impact on the stock returns of Wendy's</i> | Rejected |

Table 13: Summary of hypotheses about YUM! Brands' CSR announcements

| YUM! Brands' CSR announcements | | |
|---------------------------------------|--|--------------------|
| Hypothesis | | Test result |
| H3a: | <i>The CSR announcements of YUM! Brands have no impact on the stock returns of YUM! Brands</i> | Rejected |
| H3b: | <i>The CSR announcements of YUM! Brands have no impact on the returns of Dow Jones Restaurants and Bars index</i> | Rejected |
| H3c: | <i>The CSR announcements of YUM! Brands have no impact on the stock returns of McDonald's</i> | Rejected |
| H3d: | <i>The CSR announcements of YUM! Brands have no impact on the stock returns of Wendy's</i> | Rejected |

Table 14: Summary of hypotheses about Wendy's CSR announcements

| Wendy's CSR announcements | | |
|----------------------------------|--|--------------------|
| | Hypothesis | Test result |
| H4a: | <i>The CSR announcements of Wendy's have no impact on the stock returns of Wendy's</i> | Accepted |
| H4b: | <i>The CSR announcements of Wendy's have no impact on the returns of Dow Jones Restaurants and Bars index</i> | Rejected at 10% |
| H4c: | <i>The CSR announcements of Wendy's have no impact on the stock returns of YUM! Brands</i> | Rejected at 10% |
| H4d: | <i>The CSR announcements of Wendy's have no impact on the stock returns of McDonald's</i> | Rejected |

Table 15: Summary of hypotheses about Social CSR announcements

| Overall Social CSR announcements | | |
|---|--|--------------------|
| | Hypothesis | Test result |
| H5a: | <i>The Social CSR announcements of American fast food companies have no impact on the returns of Dow Jones Restaurants and Bars index</i> | Rejected |
| H5b: | <i>The Social CSR announcements of American fast food companies have no impact on the returns of McDonald's</i> | Rejected at 10% |
| H5c: | <i>The Social CSR announcements of American fast food companies have no impact on the returns of YUM! Brands</i> | Rejected |
| H5d: | <i>The Social CSR announcements of American fast food companies have no impact on the returns of Wendy's</i> | Accepted |

Table 16: Summary of hypotheses about Economic CSR announcements

| Overall Economic CSR announcements | | |
|---|--|--------------------|
| Hypothesis | | Test result |
| H6a: | <i>The Economic CSR announcements of American fast food companies have no impact on the returns of Dow Jones Restaurants and Bars index</i> | Rejected at 10% |
| H6b: | <i>The Economic CSR announcements of American fast food companies have no impact on the returns of McDonald's</i> | Accepted |
| H6c: | <i>The Economic CSR announcements of American fast food companies have no impact on the returns of YUM! Brands</i> | Accepted |
| H6d: | <i>The Economic CSR announcements of American fast food companies have no impact on the returns of Wendy's</i> | Accepted |

Table 17: Summary of hypotheses about Environmental CSR announcements

| Overall Environmental CSR announcements | | |
|--|---|--------------------|
| Hypothesis | | Test result |
| H7a: | <i>The Environmental CSR announcements of American fast food companies have no impact on the returns of Dow Jones Restaurants and Bars index</i> | Rejected |
| H7b: | <i>The Environmental CSR announcements of American fast food companies have no impact on the returns of McDonald's</i> | Accepted |
| H7c: | <i>The Environmental CSR announcements of American fast food companies have no impact on the returns of YUM! Brands</i> | Rejected |
| H7d: | <i>The Environmental CSR announcements of American fast food companies have no impact on the returns of Wendy's</i> | Rejected |

Appendix 5: Description of CSR announcements

Table 18: Total CSR Announcements of McDonald's

| CSR Announcements of McDonald's | | |
|--|---|-----------------|
| DATE | EVENT | CATEGORY |
| 01.05.2001 | McDonald's Offers \$50,000 in Grants to Help Teachers Promote Family Involvement in Education | Social |
| 13.08.2001 | McDonald's USA Provides Updated "Natural Flavors" Information for Customers | Environmental |
| 11.09.2001 | Ronald McDonald Models Milk Mustache | Environmental |
| 12.09.2001 | McDonald's Responds to National Tragedy | Social |
| 26.11.2001 | STARBRIGHT's General H. Norman Schwarzkopf And Ronald McDonald House Charities® Unveil Innovative Interactive Healthcare Programs For Seriously Ill Children | Social |
| 05.12.2001 | Ronald McDonald House Charities Named One of America's Top 100 Charities by Worth Magazine | Economic |
| 05.02.2002 | 11 Local High School Athletes Nominated for the McDonald's All American Basketball Team, 2002 Will Mark 25th Anniversary and Inaugural Girls Game | Social |
| 19.02.2002 | Olympic Greats Mike Eruzione and Johann Olav Koss Join McDonald's® World Champion Crew for Dedication of New Salt Lake City Ronald McDonald House® | Social |
| 14.04.2002 | McDonald's Issues First Worldwide Social Responsibility Report: | Economic |
| 19.07.2002 | UNICEF, McDonald's® and Ronald McDonald House Charities® Team up to Raise Funds for Children | Social |
| 16.08.2002 | Ronald McDonald House Charities® Annual "Awards of Excellence" Gala to Feature All Star Line-Up Including Celine Dion, Enrique Iglesias, Josh Groban, Nita Whitaker and Nick Carter | Social |
| 03.09.2002 | New U.S. Oil to Bring 48% TFA Reduction in McDonald's Fries in Early 2003 | Economic |
| 05.11.2002 | McDonald's® Restaurants Worldwide Finalize Plans for Global Fundraiser on November 20th | Social |
| 18.11.2002 | Olympic Athletes to Visit Hometown McDonald's® Restaurants on World Children's Day™ November 20 | Social |
| 30.12.2002 | McDonald's® World Children's Day™ Raises Estimated \$15 - \$20 Million in 24 Hours for Children in Need | Social |
| 07.01.2003 | Celine Dion, Enrique Iglesias, Josh Groban, Nick Carter Among Those Featured in New "Concert For World Children's Day" DVD | Social |

| | | |
|------------|---|---------------|
| 07.01.2003 | Ronald McDonald House Charities Again Named One of America's Top 100 Charities by Worth Magazine | Economic |
| 15.01.2003 | McDonald's Denmark Opens World's First HFC-Free Restaurant | Environmental |
| 21.01.2003 | McDonald's U.S.A. Honored by Rainbow Push Marks the Celebration of Martin Luther King, Jr. Birth | Social |
| 05.02.2003 | McDonald's® Celebrates Centennial Anniversary of Corporation Founder Ray Kroc | Social |
| 27.02.2003 | McDonald's Brazil Issues Its First Social Report | Economic |
| 09.03.2003 | Newman's Own® and McDonald's® Announce Exclusive Alliance | Economic |
| 27.03.2003 | McDonald's Announces Plans to Launch Healthy Lifestyles Activities Offering Even More Choice and Information for Customers | Environmental |
| 02.05.2003 | McDonald's Social Responsibility Report: One-Year Global Update | Economic |
| 15.05.2003 | McDonald's Reaches Animal Welfare Milestone: 500 Global On-Site Audits | Environmental |
| 22.05.2003 | McDonald's Announces Members of Global Advisory Council on Healthy Lifestyles | Environmental |
| 16.06.2003 | McDonald's® Announces Worldwide Sponsorship of Olympic Day Run | Social |
| 19.06.2003 | McDonald's Calls for Phase-Out of Growth Promoting Antibiotics in Meat Supply, Establishes Global Policy on Antibiotic Use | Environmental |
| 01.07.2003 | McDonald's(R) Tops Fortune Magazine's Sixth Annual List of Companies That Make Workplace Diversity a Priority | Economic |
| 05.08.2004 | McDonald's Corporation Highlights Global Results in Comprehensive 2004 Corporate Responsibility Report | Economic |
| 14.02.2005 | 2004 Worldwide Corporate Responsibility Report | Economic |
| 31.01.2006 | McDonald's(R) Reaches Goal to Raise \$50 Million for Children of the World in Honor of Its 50th Anniversary; Sarah Ferguson, Duchess of York and Global Ambassador for World Children's Day(TM) Accepts Check on Behalf of Children in Need | Social |
| 25.07.2006 | McDonald's pledges to help protect the Amazon | Environmental |
| 13.09.2006 | McDonald's New Worldwide Corporate Responsibility Report Now Available | Economic |
| 03.04.2007 | Survey Finds America Divided When It Comes to Giving Back | Social |
| 22.10.2007 | McDonald's® Launches DreamWorks' "Bee Movie® Global Happy Meal® Promotion; Encourages Kids to "Bee Good to the Planet;" Extends Environmental Partnership with Conservation International to Reach | Environmental |

| | | |
|------------|--|---------------|
| | Children Worldwide | |
| 29.04.2008 | Celebrity Friends of Ronald McDonald House Charities(R) (RMHC (R)) Host A Special Day For Moms Staying At A Ronald Mcdonald House In Honor of Mother's Day | Social |
| 10.06.2008 | McDonald's(R) and Conservation International Team Up to Protect China's Panda Habitats | Environmental |
| 26.06.2008 | McDonald's(R) Funds \$100,000 Scholarships to Four Hispanic Students | Social |
| 22.10.2008 | McDonald's(R) USA Names First-Ever Supplier Sustainability Award Winner | Environmental |
| 29.10.2008 | McDonald's All-Digital Corporate Responsibility Report - Metrics and Milestones Include Environment, Sustainable Food and Community Outreach | Environmental |
| 14.01.2010 | McDonald's Contributes to Disaster Relief Efforts in Haiti | Social |
| 26.01.2010 | McDonald's Reports On Advances In Sustainable Food Supply, Nutrition And Well-Being And Environmental Practices | Environmental |
| 11.02.2010 | Olympic Legends Team Up With McDonald's To Kick-Off Vancouver 2010 Olympic Winter Games | Social |
| 03.05.2010 | McDonald's Announces "Global Best Practices" in Sustainable Supply and Green Initiatives | Economic |
| 13.05.2010 | McDonald's Launches Shrek-Themed Happy Meal to Motivate Kids to Eat More Fruits, Vegetables and Dairy | Environmental |
| 4.06.2010 | McDonald's® USA Voluntarily Recalls Shrek Forever After™ Glassware | Environmental |
| 15.11.2010 | McDonald's Corporation: Partnering For Success (report) | Economic |
| 15.11.2010 | McDonald's and Environmental Defense Fund Mark 20 Years of Partnerships for Sustainability | Environmental |
| 01.12.2010 | McDonald's and Health Care/Senate Committee | Environmental |
| 09.03.2011 | McDonald's Announces Commitment to Certified Sustainable Sources; Releases 2010 Corporate Responsibility Report | Economic |
| 14.03.2011 | McDonald's Contributes to Disaster Relief Efforts in Japan | Social |
| 8.06.2011 | McDonald's to Bring Sustainable Fish to Millions in Europe | Environmental |
| 20.07.2011 | McDonald's Unveils Sponsorship Plans for London 2012 Olympic Games | Social |
| 26.07.2011 | McDonald's USA: Commitments to Offer Improved Nutrition Choices | Environmental |
| 04.08.2011 | McDonald's USA: President Jan Fields Kicks Off McDonald's® Listening Tour with Parents at BlogHer | Social |
| 19.10.2011 | McDonald's Joins Roundtable on Sustainable Palm Oil | Environmental |
| 21.12.2011 | Shares 2011 Progress Led by Menu & Food Sourcing | Environmental |

| | | |
|------------|--|---------------|
| | Advancements | |
| 13.01.2012 | McDonald's Announces Eight-Year Extension of Top Olympic Sponsorship Through 2020 | Social |
| 13.02.2012 | McDonald's Takes Action Toward Ending Gestation Stall Use; Humane Society of the United States Supports Effort | Social |
| 13.03.2012 | McDonald's Suppliers Make Impressive Progress Addressing Challenges Across the Globe | Environmental |
| 26.03.2012 | McDonald's Worldwide Suppliers Make Strides in Sustainable Practices -- Receive 2012 "Best of Sustainable Supply" Awards | Environmental |
| 04.04.2012 | McDonald's Previews Sustainability Actions for London 2012 Olympic Games | Social |
| 18.04.2012 | McDonald's Celebrates 90 Groundbreaking Advancements in Environmental Practices Around the World | Environmental |
| 31.05.2012 | McDonald's USA Outlines 10-Year Plan for Ending Gestation Stall Use | Environmental |
| 26.07.2012 | McDonald's Takes Olympic Stage to Announce Advances in Children's Well-Being, Menu Innovation and Access to Nutrition Information | Environmental |
| 13.08.2012 | McDonald's CEO Don Thompson Announces KaBOOM! Playgrounds Partnership | Social |
| 02.11.2012 | McDonald's Makes Donation to Hurricane Sandy Disaster Relief Efforts | Social |
| 27.11.2012 | Ronald McDonald House Charities and AT&T Award College Scholarships to Disadvantaged Students | Social |
| 17.01.2013 | McDonald's Launches New Global Packaging Designs | Environmental |
| 24.01.2013 | McDonald's USA First National Restaurant Chain To Serve MSC-Certified Sustainable Fish At All US Locations | Environmental |
| 04.03.2013 | McDonald's USA, McDonald's Canada, And Their Franchisees Will Invest Over \$6.5M In Agricultural Technical Assistance Program As Part Of Efforts To Increase Coffee Sustainability | Environmental |
| 26.09.2013 | Alliance for a Healthier Generation and McDonald's Announce Groundbreaking CGI Commitment to Promote Balanced Food and Beverage Choices | Environmental |
| 17.10.2013 | Tri-State Toyota Dealers Association Funds Energy Efficiency Renovations at the Philadelphia Ronald McDonald House Through CBS EcoMedia | Environmental |

Table 19: Total CSR Announcements of YUM! Brands

| CSR Announcements of YUM! Brands | | |
|---|---|-----------------|
| DATE | EVENT | CATEGORY |
| 26.06.2003 | YUM! BRANDS RECOGNIZED IN FORTUNE'S TOP 50 "BEST COMPANIES FOR MINORITIES" AND TAKES NUMBER ONE SPOT FOR MANAGERIAL DIVERSITY | Economic |
| 18.05.2004 | Yum Brands' Shareholders Vote on Resolution Supporting Workers' Rights | Economic |
| 18.06.2004 | YUM! BRANDS CLIMBS TO 15TH PLACE IN FORTUNE'S TOP 50 "BEST COMPANIES FOR MINORITIES," TAKING TOP SPOT FOR MANAGERIAL DIVERSITY | Economic |
| 28.12.2004 | HAPPY HOLIDAYS AMERICA: JUMPSTART YOUR NEW YEAR'S RESOLUTION TO GET IN SHAPE WITH A GREAT GIFT | Social |
| 07.06.2005 | YUM! BRANDS ANNOUNCES 2ND ANNUAL HUNGER RELIEF MARATHON ON NATIONAL HUNGER AWARENESS DAY: JUNE 7 | Social |
| 14.06.2005 | YUM! BRANDS RECOGNIZED IN BLACK ENTERPRISE'S "30 BEST COMPANIES FOR DIVERSITY," RANKING HIGH FOR WORKFORCE DIVERSITY | Economic |
| 29.07.2005 | YUM! BRANDS & URBAN INFLUENCE MAGAZINE PARTNER TO CREATE "INFLUENCERS" MOVEMENT | Economic |
| 23.08.2005 | YUM! BRANDS RECOGNIZED IN FORTUNE'S "TOP 50 EMPLOYERS FOR MINORITIES" FOR THIRD CONSECUTIVE YEAR | Economic |
| 13.12.2005 | YUM! BRANDS RECOGNIZED IN FORTUNE'S "TOP 50 EMPLOYERS FOR WOMEN" | Economic |
| 06.06.2006 | YUM! BRANDS ANNOUNCES 3RD ANNUAL HUNGER RELIEF MARATHON ON NATIONAL HUNGER AWARENESS DAY: JUNE 6 | Social |
| 12.06.2006 | YUM! BRANDS RECOGNIZED IN BLACK ENTERPRISE'S "40 BEST COMPANIES FOR DIVERSITY," RANKING ONE OF "10 BEST IN WORKFORCE DIVERSITY" FOR SECOND CONSECUTIVE YEAR | Economic |
| 25.10.2006 | YUM! BRANDS RECOGNIZED IN FORTUNE'S "TOP COMPANIES FOR MINORITIES" FOR FOURTH CONSECUTIVE YEAR | Economic |
| 23.02.2007 | KFC/TACO BELL RESPONDS TO ISOLATED GREENWICH VILLAGE, NY PEST CONTROL INCIDENT | Environmental |
| 02.03.2007 | YUM! BRANDS ENGAGES PEST CONTROL EXPERT FOR URBAN SETTINGS | Environmental |
| 30.04.2007 | YUM! BRANDS ANNOUNCES NEW "YUMFECTA" \$1 MILLION BONUS FOR KENTUCKY DERBY WINNER THAT BEATS BARBARO'S WINNING DISTANCE OF 6 ½ LENGTHS | Social |
| 13.06.2007 | YUM! BRANDS RECOGNIZED IN BLACK ENTERPRISE'S "40 BEST COMPANIES FOR DIVERSITY," FOR THIRD CONSECUTIVE YEAR | Economic |

| | | |
|------------|---|---------------|
| 09.10.2007 | YUM! BRANDS - WORLD'S LARGEST RESTAURANT COMPANY AND PARENT OF KFC, PIZZA HUT AND TACO BELL - LAUNCHES GLOBAL MOVEMENT TO STOP WORLD HUNGER IN SUPPORT OF U.N. WORLD FOOD PROGRAMME | Social |
| 19.10.2007 | CELEBRITIES, EMMY AWARD WINNING COMPOSER AND ATHLETE JOIN ONE MILLION YUM! BRANDS EMPLOYEES IN GLOBAL MOVEMENT TO STOP HUNGER DURING "WORLD HUNGER RELIEF WEEK" | Social |
| 20.12.2007 | YUM! BRANDS INAUGURAL "WORLD HUNGER RELIEF WEEK" EFFORTS SPUR UNPRECEDENTED GLOBAL AWARENESS; FOUR MILLION VOLUNTEER HOURS AND \$15 MILLION IN OVERALL DONATIONS | Social |
| 21.03.2008 | YUM! BRANDS CHINA NAMED ONE OF TOP 10 BEST EMPLOYERS BY CHINA CENTRAL TV; YUM! ONLY RESTAURANT COMPANY TO RECEIVE "COMPANY WITH MOST LEADERSHIP CHARISMA" AWARD | Economic |
| 24.06.2008 | YUM! BRANDS RECOGNIZED IN BLACK ENTERPRISE'S "40 BEST COMPANIES FOR DIVERSITY" FOR FOURTH CONSECUTIVE YEAR | Economic |
| 24.09.2008 | YUM! BRANDS - THE WORLD'S LARGEST RESTAURANT COMPANY AND PARENT OF KFC, PIZZA HUT AND TACO BELL - LAUNCHES WORLD HUNGER RELIEF CAMPAIGN TO RAISE AWARENESS, VOLUNTEERISM AND FUNDS | Social |
| 25.09.2008 | YUM! BRANDS ANNOUNCES FIVE-YEAR, \$80 MILLION COMMITMENT AT CLINTON GLOBAL INITIATIVE TO HELP WORLD FOOD PROGRAMME PROVIDE 200 MILLION MEALS TO SCHOOL CHILDREN IN DEVELOPING COUNTRIES | Social |
| 01.10.2008 | YUM! BRANDS ANNOUNCED U.S. DIVISIONS WILL PLACE CALORIES ON ALL COMPANY RESTAURANT MENU BOARDS | Environmental |
| 24.11.2008 | YUM! BRANDS ANNUAL WORLD HUNGER RELIEF CAMPAIGN BUILDS MORE AWARENESS AND ENGAGEMENT THAN EVER TO HELP STOP WORLD HUNGER; FIVE MILLION VOLUNTEER HOURS AND \$17.5 MILLION IN OVERALL DONATIONS AND STILL COUNTING | Social |
| 9.12.2008 | YUM! BRANDS ISSUES FIRST CORPORATE RESPONSIBILITY REPORT: "SERVING THE WORLD" REVIEWS THE COMPANY'S GLOBAL SOCIAL, ENVIRONMENTAL AND ECONOMIC IMPACT | Economic |
| 29.12.2008 | FOR ALL THOSE WITH NEW YEAR'S RESOLUTION TO GET IN SHAPE, YUM! BRANDS, KFC, PIZZA HUT, TACO BELL, LONG JOHN SILVER'S AND A&W RESTAURANTS LAUNCH FREE, GLOBAL ONLINE PERSONAL FITNESS TRAINING PROGRAM | Social |
| 06.03.2009 | YUM! BRANDS' KFC AND TACO BELL OPERATE FIRST | Environmental |

| | | |
|------------|--|---------------|
| | GREEN RESTAURANT AS PART OF COMPANY'S ON-GOING CORPORATE RESPONSIBILITY | |
| 10.03.2009 | Pizza Hut(R) BOOK IT! Beginners(R) Kicks Off 2009 Reading Program With 'Charlie and Lola' Book Series By Lauren Child | Social |
| 18.06.2009 | YUM! BRANDS' ENVIRONMENTALLY-FRIENDLY KFC AND TACO BELL RESTAURANT AWARDED LEED GOLD CERTIFICATION | Economic |
| 23.06.2009 | YUM! BRANDS RECOGNIZED IN BLACK ENTERPRISE'S "40 BEST COMPANIES FOR DIVERSITY" FOR FIFTH CONSECUTIVE YEAR | Economic |
| 15.07.2009 | CHRISTINA AGUILERA LENDS POWERFUL VOICE IN FIGHT TO END HUNGER AS GLOBAL SPOKESPERSON FOR WORLD HUNGER RELIEF EFFORT THIS FALL | Social |
| 31.07.2009 | YUM! BRANDS RECEIVES INNOVATIVE PROGRAM AWARD FROM EMPLOYEE SERVICES MANAGEMENT ASSOCIATION FOR EARTH WEEK PROGRAM | Economic |
| 20.08.2009 | YUM! BRANDS RECEIVES 2009 BRILLANTE AWARD FOR CORPORATE EXCELLENCE FROM NATIONAL SOCIETY OF HISPANIC MBAS | Economic |
| 10.09.2009 | YUM! BRANDS AND CARGILL TO LEAD NEWLY-LAUNCHED BUSINESS COUNCIL TO END GLOBAL HUNGER | Social |
| 23.09.2009 | YUM! BRANDS, KFC, PIZZA HUT, TACO BELL LAUNCH WORLD HUNGER RELIEF EFFORT TO RAISE AWARENESS, VOLUNTEERISM AND FUNDS WITH CHRISTINA AGUILERA AS CAMPAIGN'S GLOBAL SPOKESPERSON | Social |
| 24.09.2009 | MULTI-GRAMMY AWARD WINNER CHRISTINA AGUILERA RECEIVES VARIETY'S POWER OF WOMEN HONOR FOR PHILANTHROPIC EFFORTS TO FIGHT HUNGER AS GLOBAL SPOKESPERSON FOR YUM! BRANDS WORLD HUNGER RELIEF CAMPAIGN | Social |
| 17.12.2009 | YUM! BRANDS' WORLD HUNGER RELIEF RAISES RECORD-BREAKING \$22.5 MILLION IN DONATIONS TO HELP UNITED NATIONS WORLD FOOD PROGRAMME AND OTHER HUNGER RELIEF AGENCIES PROVIDE MORE THAN 90 MILLION MEALS TO HELP END WORLD HUNGER | Social |
| 14.01.2010 | YUM! BRANDS DIRECTS \$500,000 TO HAITI THROUGH ITS WORLD HUNGER RELIEF EFFORT | Social |
| 26.01.2010 | YUM! BRANDS' ENVIRONMENTALLY-FRIENDLY KFC AND TACO BELL RESTAURANT FEATURES SOLAR WALL RENEWABLE ENERGY TECHNOLOGY | Environmental |
| 29.01.2010 | YUM! Brands Is WFP's Partner Of The Year | Economic |
| 17.03.2010 | PR WEEK ANNOUNCED YUM! BRANDS' WORLD HUNGER RELIEF INITIATIVE TO RAISE AWARENESS, VOLUNTEERISM AND FUNDS WINS TOP HONOR AS "CAUSE-RELATED CAMPAIGN OF THE YEAR 2010" | Social |

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| 09.04.2010 | YUM! BRANDS RECOGNIZED IN CORPORATE RESPONSIBILITY OFFICER MAGAZINE'S "100 BEST CORPORATE CITIZENS" LIST | Economic |
| 27.04.2010 | Taco Bell Foundation for Teens Awards \$1.8 Million to Teen Serving Organizations Fighting America's High School Drop-Out Crisis | Social |
| 07.06.2010 | Taco Bell Foundation for Teens and Mark Wahlberg Youth Foundation Join Forces to Tackle Teen Graduation Crisis | Social |
| 28.06.2010 | YUM! BRANDS RECOGNIZED BY BLACK ENTERPRISE MAGAZINE'S "40 BEST COMPANIES FOR DIVERSITY" LIST FOR SIXTH CONSECUTIVE YEAR | Economic |
| 20.09.2010 | YUM! BRANDS ON TRACK TO BEAT FIVE-YEAR CLINTON GLOBAL INITIATIVE HUNGER RELIEF COMMITMENT TO RAISE \$80 MILLION AND HELP WORLD FOOD PROGRAMME PROVIDE 200 MILLION MEALS TO SCHOOL CHILDREN IN DEVELOPING COUNTRIES | Social |
| 21.09.2010 | YUM! BRANDS FOUNDATION UNDERWRITES PEACE GARDEN INITIATIVE AS EXTENSION OF ITS WORLD HUNGER RELIEF EFFORT | Social |
| 23.09.2010 | YUM! BRANDS, TACO BELL, PIZZA HUT AND KFC LAUNCH ANNUAL WORLD HUNGER RELIEF EFFORT WITH CAMPAIGN SPOKESPERSON AND NEW WORLD FOOD PROGRAMME AMBASSADOR, CHRISTINA AGUILERA | Social |
| 15.12.2010 | YUM! BRANDS' WORLD HUNGER RELIEF RAISES RECORD-BREAKING \$24.5 MILLION IN DONATIONS TO HELP UNITED NATIONS WORLD FOOD PROGRAMME AND OTHER HUNGER RELIEF AGENCIES PROVIDE MORE THAN 98 MILLION MEALS TO HELP END WORLD HUNGER | Social |
| 16.12.2010 | YUM! BRANDS ISSUES 2010 CORPORATE SOCIAL RESPONSIBILITY REPORT: "SERVING THE WORLD" | Economic |
| 21.02.2011 | Taco Bell Foundation for Teens and NBA Cares Award Karen Batani from Westminster, California With \$30,000 Scholarship at the NBA All-Star 2011 TACO BELL(R) Skills Challenge | Social |
| 20.07.2011 | YUM! BRANDS RECOGNIZED BY BLACK ENTERPRISE'S "40 BEST COMPANIES FOR DIVERSITY" LIST FOR SEVENTH CONSECUTIVE YEAR | Economic |
| 27.07.2011 | CHRISTINA AGUILERA LENDS POWERFUL VOICE IN NEW PUBLIC SERVICE ANNOUNCEMENT FOR YUM! BRANDS' WORLD HUNGER RELIEF EFFORT THIS FALL | Social |
| 17.08.2011 | YUM! BRANDS DIRECTS FIRST \$1 MILLION OF WORLD HUNGER RELIEF FUNDS TO HELP FIGHT HUNGER IN THE HORN OF AFRICA | Social |
| 20.09.2011 | YUM! BRANDS' WORLD HUNGER RELIEF EFFORT REPORTS \$67 MILLION RAISED OVER THREE YEARS TOWARD CLINTON GLOBAL INITIATIVE | Social |

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| | COMMITMENT; NEARLY \$85 MILLION COLLECTED FOR WORLD FOOD PROGRAMME AND OTHERS SINCE 2007 | |
| 23.09.2011 | YUM! BRANDS, KFC, PIZZA HUT AND TACO BELL LAUNCH ANNUAL WORLD HUNGER RELIEF WITH GLOBAL SPOKESPERSON CHRISTINA AGUILERA LENDING HER POWERFUL VOICE IN NEW PUBLIC SERVICE ANNOUNCEMENT | Social |
| 18.12.2011 | Procter & Gamble and UNICEF Top Honorees at 2012 Cause Marketing Forum Conference | Economic |
| 13.04.2012 | TOMORROW'S LEADERS FIND SOLUTIONS TO FIGHT WORLD HUNGER TODAY BY LEVERAGING PRINCIPLES IN YUM! BRANDS CHAIRMAN AND CEO DAVID NOVAK'S BESTSELLING BOOK: TAKING PEOPLE WITH YOU: THE ONLY WAY TO MAKE BIG THINGS HAPPEN | Social |
| 10.07.2012 | Shareholder Resolutions Spur U.S. Companies to Act on Sustainability During 2012 Proxy Season | Environmental |
| 01.08.2012 | CHRISTINA AGUILERA USES VOICE FOR GOOD IN NEW PUBLIC SERVICE ANNOUNCEMENT FOR YUM! BRANDS' WORLD HUNGER RELIEF EFFORT THIS FALL | Social |
| 24.09.2012 | YUM! BRANDS RECEIVES GOLD AWARD FOR EXCELLENCE FOR "TAKING PEOPLE WITH YOU" EMPLOYEE LEADERSHIP TRAINING PROGRAM FROM PRESTIGIOUS LEARNING AND DEVELOPMENT ORGANIZATION BRANDON HALL GROUP | Economic |
| 27.09.2012 | AGUILERA URGES PEOPLE TO HELP THE NEARLY 1 BILLION HUNGRY WORLDWIDE; VISIT FROMHUNGERTOHOPE.COM | Social |
| 02.10.2012 | YUM! BRANDS LAUNCHES DEFINING GLOBAL VOLUNTEER MOVEMENT-HUNGER TO HOPE VOLUNTEER CHALLENGE ENCOURAGES LOCAL COMMUNITY SERVICE | Social |
| 24.10.2012 | YUM! BRANDS FOUNDATION UNDERWRITES PEACE GARDEN INITIATIVE AS EXTENSION OF WORLD HUNGER RELIEF EFFORT THROUGH PARTNERSHIP WITH NATIONAL GARDENING ASSOCIATION | Social |
| 20.05.2013 | ST. FRANCIS EPISCOPAL DAY SCHOOL IN HOUSTON WINS TOP HONOR; YUM! BRANDS FOUNDATION AWARDS NEARLY \$250,000 IN GRANT PRIZES TO 140 SCHOOLS FOR U.S. HUNGER RELIEF CHARITIES | Social |
| 12.09.2013 | YUM! BRANDS, KFC, PIZZA HUT AND TACO BELL LAUNCH WORLD HUNGER RELIEF EFFORT FEATURING GLOBAL SPOKESPERSON CHRISTINA AGUILERA IN NEW PUBLIC SERVICE ANNOUNCEMENT | Social |
| 03.10.2013 | FORMER PRESIDENT JIMMY CARTER, CHRISTINA AGUILERA, AND MICHAEL BOLTON HONORED; SIX | Social |

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| | YOUNG ADULTS FROM AROUND THE WORLD RECEIVE MUHAMMAD ALI CORE PRINCIPLE AWARDS; MARK HOGG OF WATERSTEP RECEIVES MUHAMMAD ALI KENTUCKY HUMANITARIAN AWARD | |
| 10.10.2013 | YUM! RECOGNIZES GLOBAL VOLUNTEERS WITH HUGE HEART CHAMPION AWARDS-\$250,000 USD in Grants to be Awarded to Qualifying Non-profit Agencies | Social |

Table 20: Total CSR Announcements of Wendy's

| CSR Announcements of Wendy's | | |
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| DATE | EVENT | CATEGORY |
| 05.07.2001 | Wendy's History Demonstrates Commitment To Animal Welfare | Environmental |
| 20.06.2007 | Wendy's Customers Celebrate Father's Day with a Frosty; Raise More Than \$1 Million for the Cause of Adoption | Social |
| 14.06.2008 | Wendy's Father's Day Frosty Weekend | Social |
| 19.08.2008 | Rio Secco Golf Club To Host 2008 Wendy's 3-Tour Challenge | Social |
| 10.09.2009 | Awards program to showcase nation's esteemed Scholar-Athletes | Social |
| 11.02.2010 | Wendy's Restaurants to Collect Donations for Orphans in Haiti | Social |
| 12.04.2010 | Exceptional scholar-athletes have the opportunity to carve their names in Heisman history | Social |
| 09.07.2010 | Four New Salads Deliver High Quality Ingredients, Freshly Prepared | Environmental |
| 16.09.2010 | Exceptional scholar-athletes have the opportunity to carve their names in Heisman history | Social |
| 10.12.2010 | Two Seniors, Selected From Nearly 55,000 Applicants, Honored at 17th Annual Awards Ceremony | Social |
| 31.05.2011 | Wendy's Kicks Off 18th Annual Awards Program for 2011 All-Star Scholar-Athletes | Social |
| 13.06.2011 | Wendy's® Father's Day Frosty Weekend | Social |
| 03.10.2011 | Wendy's and Veterans Advantage Honor Veteran and Military Families | Social |
| 26.10.2011 | Children served by the program are more than 1.7 times more likely to be adopted | Social |
| 22.11.2011 | Wendy's Awards \$100,000 to Central Ohio Charities | Social |

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| 09.12.2011 | Wendy's Supports Needy Children in Central Ohio | Social |
| 13.03.2012 | Wendy's Kicks Off Its Application Phase for the 19th Annual High School Heisman Awards Honoring All-Star Scholar-Athletes | Social |
| 22.03.2012 | Wendy's Raises Animal Welfare Standards for Chicken, Pigs | Environmental |
| 12.06.2012 | 6th Annual Wendy's® Father's Day Frosty Weekend Counts on Public Support to Benefit the Dave Thomas Foundation for Adoption and its signature program Wendy's Wonderful Kids | Social |
| 16.07.2012 | Info to Go: Wendy's® Releases Mobile Nutrition App | Environmental |
| 10.09.2012 | America's 100 Best Adoption-Friendly Workplaces Recognized by the Dave Thomas Foundation for Adoption | Economic |
| 13.11.2012 | ESPN, Los Angeles Athletic Club and Wendy's Join Forces to Provide Season-Long Coverage of College Basketball's Prestigious John R. Wooden Award® | Social |
| 26.11.2012 | Wendy's Names Twelve Outstanding Scholar-Athletes Finalists for 2012 High School Heisman Program | Social |
| 30.11.2012 | The 14th Annual "A Home for the Holidays with Rascal Flatts," an Entertainment Special Celebrating the Joys of Adoption, to be Broadcast Wednesday, December 19 on the CBS Television Network | Social |
| 07.12.2012 | 19th Annual Wendy's High School Heisman Award Winners Announced | Social |
| 18.12.2012 | Wendy's Gives New Meaning to 'Family Time' This Season through Sponsorship of CBS's 'A Home for the Holidays' Adoption Special | Social |
| 01.05.2013 | Wendy's is Serious about Salads | Environmental |
| 10.05.2013 | Wendy's Kicks off Its Application Phase for the 20th Annual High School Heisman Awards Honoring All-Star Scholar-Athletes | Social |
| 11.06.2013 | Wendy's Raises a Cone (or Cup) to Fathers During a Frosty-Filled Weekend | Social |
| 03.09.2013 | America's 100 Best Adoption-Friendly Workplaces Honored By The Dave Thomas Foundation For Adoption | Social |
| 19.09.2013 | Last Call for Wendy's® High School Heisman® Award | Social |