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# **INVESTOR'S ORDER AGGRESSIVENESS: AN EXPERIMENTAL STUDY OF THE IMPACT OF REGRET**

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## **ABSTRACT**

*This study examines the influence of regret experience and anticipation regret in deciding order aggressiveness when investors buy and sell. This study is an experimental research design with a mix between and within subjects (Experienced Regret-due to act versus Experienced Regret-due to not act) X (Anticipated Regret versus No anticipated regret). This study involved 40 undergraduate students. The results showed that experienced regret and anticipated regret impact order aggressiveness. Investors respond to the experience of regret and anticipation of the same emotions by showing risk averse behavior (low aggressiveness) and risk seeking behavior (high aggressiveness) when selling and buying.*

**JEL:** G110

**KEYWORDS:** Aggressiveness, Anticipated, Experienced, Order, Regret

## **INTRODUCTION**

Traditional finance assume that agents are rational and stock prices in capital markets reflect fundamental values, consistent with Expected Utility Theory and consistent with the Efficient Market Hypothesis. However, in capital market, investors are not fully rational. Those differences occur because there are behavioral aspects from investors and Expected Utility Theory fails to explain decisions taken by investors (Kahneman and Tversky 1979). The deviation on capital markets which is not explained by Expected Utility Theory and the Efficient Market Hypothesis encourages development of behavioral finance which examines the behavioral aspect of investors in capital markets. In capital markets, investors have to make decision when buying and selling stocks. There are two types of orders that can be submitted to capital markets, limit orders and market orders. A limit order is an order to buy/sell a pre-specified quantity at a pre-specified price that does not improve on the best opposing quote. A market order strategy is an order to buy/sell a pre-specified quantity at the best available price (Verhoeven et al., 2004).

Investors can decide on various level of order aggressiveness. Biais et al. (1995) propose a scheme that classifies orders according to their price and position in the order book. An aggressive order is an order which is allowed to "walk up" or "down" the book order. The least aggressive order is a cancellation where a pending limit order is removed from the book. Some researches argue what determines the order strategy is price change (Foucault 1999; Handa and Schwartz, 1996). A temporary change of stock price is the main cause the order selection. High price volatility encourages investors to choose a limit order rather than market order (Foucault 1999; Ahn et al. 2001; Bae et al. 2003). The overall investment decision is a series of decisions, in which experience and anticipation emotion influence the investor in decision making (Lee et al. 2009). One emotion that influence decision making is regret. Regret arises after knowing the result of an unchosen decision is better than the result of the chosen decision (Bell 1982). Regret also arises when

a previous decision is not justified (Connolly and Zeelenberg 2002). Regret Theory states that regret increases because of evaluating performance by counterfactual. It is evaluating results of experience by imagining what might occur now with another unmade decision, and then comparing it with the result gained now (Bell 1982). Someone who reckons regret in decision making will behave in regret reluctance which is behaving in certain way to lessen regret (Zeelenberg *et al.* 1996; Zeelenberg and Beattie 1997). This study is an empirical analysis of the impact of regret on order aggressiveness. To test this, a computer stock-market game was designed. Two round experiments and 16 sessions are used to expand our understanding. Overall, our results suggest that experience and anticipated regret effect order aggressiveness. This conclusion implies the investor who experiences regret due to not acting will anticipate the same emotion with a high aggressiveness order in the next buy and selling decision. Investors who experience regret due to acting will anticipate the same motion with a low level aggressiveness in the next selling decision and a high level aggressiveness in the next buying decision. The rest of the paper is structured as follows. The next section describes the relevant literature on regret and order aggressiveness. Next, we will discuss the data and methodology used in the study. The results are presented in the following section. The paper closes with some concluding comments.

## LITERATURE REVIEW

### Behavioral Aspects in Order Aggressiveness

The behavioral approach in explaining order aggressiveness was examined by Bian *et al.* (2012); Deuskar (2011) and Tykocinski *et al.* (2004). Investors are more likely to change their trading strategy after experiencing regret (Deuskar *et al.* 2011). The influence of regret in following order decisions is stronger if the prior order was executed rather than unexecuted (action leads to more regret than inaction). The decision influenced by regret produces low return and continues to display poor performance for at least 3 months (Deuskar *et al.* 2011). Various behaviors are displayed by investors in selling and buying stock. Investors show disposition effect behavior, which is selling stocks that give return (Bian *et al.* 2012). Investors being more aggressive tend to sell when the price up and investors tend to be unaggressive when price is down. At a certain point, aggressiveness in selling declines toward shares that give benefits. Aggressiveness that is disposed to decline was explained as house money effect behavior. After investors got some return, the investor is more willing to take risk. Unaggressive orders can also be categorized as a form of decision postponement caused by putting in a lower bid price or higher offer price than the best bid and the best offer. In this case the buy and sale realization will take time. A postponement in decision making is one form of decision avoidance (Anderson 2003).

### Regret

Regret is an emotional response to what could have happened had the individual made a different decision as opposed to what actually happened (Shefrin and Statman, 1985). A theory that explains feeling regret is Regret Theory (Loomes and Sungden, 1982; Bell 1982). Someone will feel regret if he compares “what is” and “what might have been and realize that “what might have been” is better than “what is”. This is a thinking mechanism known as counterfactual thinking. Experiencing regret makes someone anticipate the same emotion in the next decision or will anticipated regret. Kahneman and Tversky (1982) compared regret due to acts and nonacts. They find that subjects reported greater regret for acting than for not acting. People anticipated regret if they get full information about the outcome from a decision they take and don't take. In order strategy, experience regret and anticipated regret effect order aggressiveness since investors are not fully rational. Based on our theoretical and empirical review as well as issues presented, the hypotheses in this study are: Based on the counterfactual thinking system, someone will experience regret more deeply when his decisions show poor outcome (Nicolle *et al.* 2011). Deciding to act while continuing to transact intensely on stocks with high volatility is the form of regret anticipation. Investor will act aggressively because the investor feels if on the next decision he does not act aggressively, and the outcome

is poor, the investor will regret more. Investors who anticipate regret will be more aggressive than investors who don't anticipate regret both in buying and selling decisions. The theoretical and empirical results discussed lead us to the following hypothesis:

*H1: When transacting on stock with high volatility, some investors experience regret due to acting. On the following decision the investor anticipates regret and will use an order strategy with a high-level aggressiveness in both buying and selling decisions.*

Investors compare which regret they feel deeper about to determine whether he sells immediately. But in reality, the price is still increasing, or he does not sell immediately. By positioning the price, which is getting further from the best offer, to anticipate regret, the investor shows an increase of commitment. Someone steps up his commitment if withdrawal decisions lead to regret later rather than a decision of persistence (Wong and Kwong, 2007). The decision to be aggressive in a buying decision points out that the investor wants to be more intense in his decisions. A poor outcome can result from not acting which results in regret. This results in him changing his decision to be more intensive in making transactions on stocks traded. The decision to change his strategy falls under regret regulation theory. This theory states that in managing regret, someone will look at options which are different from the previous decision (Pieters and Zeelenberg 2007). Based on previous theoretical and empirical results we examine the hypothesis:

*H2: When transacting on stocks with high volatility, investors who experience regret due to not acting, and on the following decision anticipates regret, will use an order strategy with low-level aggressiveness in selling decisions and high-level aggressiveness in buying decisions.*

## DATA AND METHODOLOGY

### Experiment Design

This research uses a 2x2 experimental design. Manipulation is done toward two factors with two levels. These factors are regret experience factor (act and nonact) and regret anticipation factor (anticipate regret and not anticipate regret). The experiment was conducted by using a computer based stock market game. In this research, the within variable treatment is regret anticipation. The decision to act and not to act is the participants' between variable. Table 1 shows the 2x2 experiment design. Regret experience is divided into two components: regret experience due to acting and regret experience due to not acting. Regret anticipation is divided into two components: anticipates regret and does not anticipate regret. This experiment design is post test only control group. In this design subjects are randomly selected and assigned to two groups. Experimental study is using within subject and between subject designs. Between subject design compares the influence of the same treatment on different participants. Within subject design compares the influences of the different treatment to the same participants. To analyze this hypothesis we computed independent t-tests between Object 1 ( $O_1$ ) for hypothesis 1 and Object 3 ( $O_3$ ) for hypothesis 1 and independent t-test Object 2 ( $O_2$ ) and Object 4 ( $O_4$ ) for hypothesis 2.

### Treatment

Treatment used for regret experience is shaped by conditioning the presence and absence of opportunity to enter a price when doing purchase and selling transaction. In this scenario, regret experience due to not acting arises when participants don't have the opportunity to fill at a bid/ask price. Regret experience due to acting arises when participants have the opportunity to fill at a bid/ask price. The treatment used for regret anticipation is through the treatment of full feedback or partial feedback. In this scenario, the participant anticipates regret if they get information about stock performance for stocks they sell/buy or they don't sell/buy (full feedback). They will not anticipate regret if they only get information about stocks that they sell/buy. This treatment refers to the research done by Raeva and Van dijk (2009).

Table 1: Research Experiment Design

Annotation		Regret Experience	High Volatility
Regret Anticipation	Anticipate Regret	Due to act (Commission)	O <sub>1</sub>
		Due to Nonact (Omission)	O <sub>2</sub>
	Do Not Anticipate Regret	Due to act (Commission)	O <sub>3</sub>
		Due to Nonact (Omission)	O <sub>4</sub>

Table 1 shows the 2x2 design on the research. Regret experience is divided two classes, regret experience due to acting and regret experience due to not acting. Regret anticipation is divided two classes, anticipate regret and do not anticipate regret.

Participant

Participants in the trading game are undergraduate students who were recruited from a finance management class. They were randomly assigned to one of two conditions of experience regret (omission and commission).

Trading Game

We conducted a 2 round and 16 session experimental study. We displayed 10 data price movements of 20 companies. Every session needed 2 minutes. The scenario for round 1 (experience regret due to act) was as follows:

*Session 1 (Buy):* You should buy 10 of 20 stocks by filling in a bidding price. At the end of this session you will get information about stock performance of firms that you buy. You realize a loss if the recent price is below your buying rate, and you realize a gain if the recent price is over your buying rate.

*Session 2 (Buy):* You should buy 20 stocks by filling in your bidding price.

*Session 3 (Buy):* You should buy 10 of 20 stocks by pushing a bidding price. At the end of this session you will get information about the performance of stocks that you buy and you do not buy. You realize a loss if the recent price is below your buying rate, and you realize a gain if the recent price is over your buying rate. For stock you don't buy, you realize a loss if the recent price goes down and you realize a gain if the recent price goes up.

*Session 4 (Buy):* You should sell buy 20 stocks by fill in your bidding price.

*Session 5 (Sell):* You have 20 stocks and now you should sell 10 of 20 by filling in an asking price. You can decide at what level of price you want to sell. At the end of the session you will get information about the recent price of stocks that you sell. You realize a loss if the recent price is over your selling rate, and you realize a gain if the recent price is below your selling rate.

*Session 6 (Sell):* You should sell 20 stocks you have by filling in your asking price.

*Session 7 (Sell):* You have 20 stocks and now you should sell 10 of 20 by filling in the asking price. You can decide at what level of price you want to sell. At the end of the session you will get information about the recent price of stocks that you sell and stocks that you don't sell. You realize a loss if the recent price is over your selling rate, and you realize a gain if the recent price is below your selling rate. For stocks that you don't sell, you realize a loss if the price of a stock that you have goes down and realize a gain if the price gos up.

*Session 8 (Sell):* You should sell 20 stocks you have by filling in your asking price.

The scenario for round 2 (experience regret due to not acting):

*Session 1 (Buy):* You should buy 10 of 20 stocks by pushing the “buy” button. At the end of this session you will get information about the performance of stocks that you buy. You realize a loss if the recent price is below your buying rate, and you realize a gain if the recent price is over your buying rate.

*Session 2 (Buy):* You should buy 20 stocks by filling in your bidding price.

*Session 3 (Buy):* You should buy 10 of 20 stocks by pushing the “buy” button. At the end of this session you will get information about the performance of stocks that you buy and you do not buy. You realize a loss if the recent price is below your buying rate, and you realize a gain if the recent price is over your buying rate. For stocks you don’t buy, you realize a loss if the recent price goes down and you realize a gain if the recent price goes up.

*Session 4 (Buy):* You should buy 20 stocks by filling in your asking price.

*Session 5 (Sell):* You have 20 stocks. Now you should sell 10 of 20 by pushing the “sell” button. You can decide at what price level you want to sell. At the end of the session you will get information about the recent price of stocks that you sell. You realize a loss if the recent price is over your selling rate, and you realize a gain if the recent price is below the selling rate.

*Session 6 (Sell):* You should sell 20 stocks you have by filling in your asking price.

*Session 7 (Sell):* You have 20 stocks and now you should sell 10 of 20 by push the “sell” button. You can decide the price level at which you want to sell. At the end the session you will get information about the recent price of stocks you sell and stocks you don’t sell. You realize a loss if the recent price is over your selling rate. You realize a gain if the recent price is below your selling rate. For stocks that you don’t sell, you realize a loss if the price of stock that you have goes down and realize a gain if price goes up.

*Session 8 (Sell):* You should sell 20 stocks you have by filling in your asking price.

### Data

Data were collected from the trading game described above. Order aggressiveness refers to research done by Ranaldo (2004), Hall and Hautsch (2006) who determine the high bid price for purchase and low ask price for sale. Order aggressiveness is counted using this formula:

$$\text{Bid Aggresiveness Order} = \text{Log price best bid} - \text{log price incoming bid order} \quad (1)$$

$$\text{Offer Aggresiveness Order} = \text{Log price best ask} - \text{Log price incoming ask order} \quad (2)$$

In this case log price best bid/ask is a computer simulated price and price incoming bid/ask order is the price that participants fill in as part of the trading game. To test Hypothesis 1 we compare data that were collected in round 1 session 2 and 4 for bid aggressiveness orders. We compare data in round 1 session 6 and 8 for offer aggressiveness orders. To test Hypothesis 2 we compare data collected in round 2 session 2 and 4 for bid aggressiveness orders. We compare data in round 1 session 6 and 8 for offer aggressiveness orders. We have 400 data points for each session (20 bid/offer price of stock for 20 participants). Table 2 and 3 show the average order aggressiveness for each participant.

Table 2: Order Aggressiveness of Investors Who Experience Regret Due to Acting

Investor	Buy		Sell		
	(1)	No Anticipate (Round 1 Session 2) (2)	Anticipate (Round 1 Session 4) (3)	No Anticipate (Round 1 Session 6) (4)	Anticipate (Round 1 Session 8) (5)
1		-0.004271	-0.007539	0.001143	0.002221
2		-0.005188	-0.007566	0.003443	0.003975
3		-0.003061	-0.005549	0.001660	0.007030
4		-0.005012	-0.006656	0.004558	0.005181
5		-0.005251	-0.007764	0.002741	0.006839
6		-0.006477	-0.011795	0.001829	0.007893
7		-0.005252	-0.010034	0.002385	0.008904
8		-0.002895	-0.008286	0.004539	0.003392
9		-0.005476	-0.008402	0.005878	0.002439
10		-0.004051	-0.009158	0.002348	0.004951
11		-0.006313	-0.008067	0.002059	0.004458
12		-0.005247	-0.010651	0.003979	0.005238
13		-0.001687	-0.009939	0.001961	0.005366
14		-0.003021	-0.007997	0.002163	0.004462
15		-0.004283	-0.007979	0.001944	0.006976
16		-0.005156	-0.008052	0.002960	0.004316
17		-0.007536	-0.009324	0.004759	0.004267
18		-0.008445	-0.010232	0.003351	0.007129
19		-0.005280	-0.008237	0.001471	0.006936
20		-0.006542	-0.010254	0.001619	0.008067
Average		-0.005022	-0.008674	0.002840	0.000550

The table shows average bid and offer order aggressiveness of 20 investors who experience regret due to acting. The data was taken from transactions at round 1 session 2, 4, 6 and 8. Column 1 shows the investor's number, column 2 shows bid order aggressiveness of investors who do not anticipate regret, column 3 shows bid order aggressiveness of investors who anticipate regret, column 4 shows offer order aggressiveness of investors who do not anticipate regret, column 5 shows offer order aggressiveness of investors who anticipate regret.

Table 3: Order Aggressiveness of Investors Who Experience Regret Due to Not Acting

Investor	Buy		Sell		
	(1)	No Anticipate (Round 2 Session 2) (2)	Anticipate (Round 2 Session 4) (3)	No Anticipate (Round 2 Session 6) (4)	Anticipate (Round 2 Session 8) (5)
1		-0.002625	-0.007766	0.006049	0.004562
2		-0.004036	-0.007532	0.007546	0.005202
3		-0.005166	-0.00851	0.007451	0.002871
4		-0.010472	-0.005497	0.006356	0.002003
5		-0.007041	-0.010792	0.008952	0.005062
6		-0.005161	-0.009623	0.009626	0.002871
7		-0.009316	-0.005352	0.006392	0.003921
8		-0.007233	-0.007433	0.006489	0.001649
9		-0.006022	-0.005645	0.006449	0.002643
10		-0.003664	-0.010650	0.006347	0.002637
11		-0.007227	-0.009656	0.005286	0.003943
12		-0.005969	-0.008384	0.006637	0.003663
13		-0.004989	-0.008412	0.006923	0.001909
14		-0.007092	-0.008351	0.005268	0.002834
15		-0.006999	-0.009455	0.008425	0.002734
16		-0.004991	-0.010760	0.005343	0.003727
17		-0.008115	-0.007461	0.006854	0.005031
18		-0.005744	-0.008668	0.008499	0.003045
19		-0.007101	-0.009486	0.008636	0.003276
20		-0.003909	-0.006393	0.010256	0.00288
Average		-0.006144	-0.008291	0.007189	0.003323

The table shows average bid and offer order aggressiveness of 20 investors who experience regret due to not acting that anticipate and do not anticipate regret in the next decision. The data was taken from transactions at round 2 session 2, 4, 6 and 8. Column 1 shows the investor's number, column 2 shows bid order aggressiveness of investors who do not anticipate regret, column 3 shows bid order aggressiveness of investors who anticipate regret, column 4 shows offer order aggressiveness of investors who do not anticipate regret, column 5 shows offer order aggressiveness of investors who anticipate regret.



RESULTS AND DISCUSSION

Independent t-tests were used to test Hypothesis 1 and 2. Table 4 displays the investor’s average order aggressiveness in buying and selling transactions who experience regret due to acting and not acting. Table 4 also displays the results of independent t-tests of Hypothesis 1 and 2. In selling decisions, for investors who experience regret due to acting and in the next decision does not anticipate regret the average order aggressiveness is 0.00284. For investors who anticipate the same emotion, the average order aggressiveness is 0.00550. In buying decisions, for investors who experience regret due to acting and in the next decision do not anticipate regret, the average order aggressiveness is -0.00502. For investors who anticipate the same emotion, the average order aggressiveness is -0.00867. In selling decisions, investor who experience regret due to not acting, and in the next decision do not anticipate regret, the average order aggressiveness is 0.00719. For investors who anticipate the same emotion, the average order aggressiveness is 0.00332. In buying decisions, investors who experience regret due to acting, and in the next decision do not anticipate regret, the average order aggressiveness is -0.00614. For investors who anticipate the same emotion, average order aggressiveness is -0.00829.

Table 4: Independent T-Test of Investor’s Order Aggressiveness Who Experience Regret Due to Acting and Not Acting

Transaction	No Anticipate Regret	Anticipate Regret	T-Statistic
<b>Panel A: Order Aggressiveness Who Experience Regret Due to Act</b>			
Sell	0.00284	0.00550	-5.194***
Buy	-0.00502	-0.00867	7.317***
<b>Panel B: Order aggressiveness Who Experience Regret Due to Non-act</b>			
Sell	0.00719	0.00332	-9.701***
Buy	-0.00614	-0.00829	-3.064***

*This table shows average order aggressiveness of investors who experience regret due to acting (Panel A) and not acting (Panel B) in selling and buying decisions. The fourth column reports t-statistic. \*\*\* indicate significance at the 1 percents.*

Table 4 Panel A shows independent t-test outcomes of sale transactions. Aggressiveness level implies that an investor who anticipates regret has a higher aggressiveness level with a significant difference compared to an investor who does not anticipate regret ( $t = -5.194$ ;  $sig. = 0.000$ ). The independent t-test outcome of purchase transaction’s aggressiveness level implies that an investor who anticipates regret has a significantly higher aggressiveness level than the investor who does not anticipate regret ( $t = 7.317$ ;  $sig. = 0.000$ ). The result of the first hypothesis test implies that investors who transact on stocks with high volatility, after previously experiencing regret due to acting and on the following opportunity anticipate regret, will use an order strategy with high aggressiveness in selling and purchasing decisions.

The behavior of an investor who sells his stock immediately after a price rise and fall, based on Regret Theory, is when doing transaction, the investor faces two choices that realize the expected utility from return received and expected utility from regret (Qin, 2012). A decision to leave the market will produce smaller regret than the decision to continue transactions. As a result, when facing confusion, the investor will prefer to sell his stocks and not do transactions. Therefore, to anticipate regret, investors will prefer to sell stock using an aggressive order. The aggressiveness behavior while purchasing can be explained by two arguments: regret anticipation due to postponement of risk and feedback expectation. In purchasing decisions, aggressive order strategy will reduce postponement risk. Thus, to anticipate regret of postponement risk, investors use an aggressive order strategy. Feedback from unmade decisions can carry expectations which leads someone to behave as a risk seeker (Zeelenberg 1999). Expectations can be a trigger of counterfactual thinking when the outcome gained is not what was expected (Sanna and Turley, 1996). Someone who cannot get what he expected is encouraged to think upward counterfactual, looking at the others better decision’s outcome, so someone will feel regret.

Emotion can also emerge when looking at the chance to realize a return. Therefore, order aggressiveness while purchasing is inseparable from the presence of investor expectations toward stocks with high volatility that could give a high return in a short time. Table 4 panel B shows independent t-test outcomes of sale transaction's aggressiveness level. The results imply that an investor who anticipates regret has a significantly higher aggressive level than the investor who does not anticipate regret ( $t = -9.701$ ; sig. = 0.000). Independent t-test outcomes of purchase transaction's aggressiveness level implies that an investor who anticipates regret has a significantly higher aggressiveness level than the investor who does not anticipate regret ( $t = -3.064$ ; sig. = 0.004). The result of second hypothesis test implies that investors who transacts on stocks with high volatility, after previously experiencing regret due to not acting, and on the following opportunity of anticipating regret, will use an order strategy with low aggressiveness in selling decisions and an order strategy with high aggressiveness in purchasing decisions.

More aggressive behavior during purchasing can be explained. The poor outcome gained because of a small effort makes someone regret more (Van Dijk *et al.* 1999). Regret is closely related to the sense of responsibility toward decision made. The greater sense of responsibility for the decision made, the greater the regret will be. Not acting shows that an investor does not make a big effort in doing transactions. If the outcome gained from that small effort leads to a poor outcome, the investor will regret it. The loss of opportunity to receive stock with high volatility will encourage investors to propose a higher price. In selling decisions, investor behavior shows low aggressiveness in selling. This implies the investor tends to hold stock himself. The decision to be unaggressive in setting the high price while selling can be explained after experiencing regret due to lack of intensity in decision making. Investors will increase commitment toward something owned. Stocks with high volatility are expected to give high returns. So by holding, the investor expects to realize a return from price increases and declines. Someone will step up his commitment if withdrawal decisions produce regret in the future, Wong and Kwong (2007). Increased commitment in selling decisions based on Regret Theory is related to the decision to increase commitment. Investor will compare which regret felt larger, being aggressive or being unaggressive.

## CONCLUDING COMMENTS

Traditional finance paradigm use models in which agent are rational. Trading behavior of investors are not easily understood based on this model. Behavioral finance tries to explain financial phenomena in which some agents are not fully rational. Decisions by investors in trading is decided based on the level of aggressiveness in bid or ask applied to the transaction. This paper investigates the effect of experience regret and anticipated regret on order aggressiveness. To test the effects we perform an experiment study with a computer trading simulation. Participant are undergraduates student. Through a 2 rounds and 16 sessions experiment study we report strong evidence that type of experience, regret and anticipated regret, have effect on order aggressiveness. An investor who has experience of regret due to acting, and on the following decision anticipates regret, will use an order strategy with high-level aggressiveness in both buying and selling decisions. When doing transactions on stocks with high volatility, investors who experience regret due to not acting, and on the following decision anticipates regret, will use an order strategy with a low-level of aggressiveness in selling decisions and a high-level aggressiveness in buying decision. Overall, investors consider regret in deciding. We believe that our research is useful to investors, policy makers and fund managers. Further research might consider positive emotion such pride in order aggressiveness.

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# **A CHINESE KANDI RECIPE: ONE PART SUSTAINABILITY AND ONE PART ENTREPRENEURIAL SPIRIT**

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## **ABSTRACT**

*The call for environmentally sustainable business practices is growing in momentum. As supplies of fossil fuels decline, damages from environmental disasters mount and radical climatic effects appear, the logical result is that organizations operate in a more eco-friendly fashion. This paper examines the efforts of one Chinese automobile company, Kandi Technologies Group, Inc., to deal with the level of air pollution in China. Kandi and various end users may be in the process of transforming the way consumers think about and use automobiles. The “Kandi Model” is one where customers no longer own, but rather lease or share electric vehicles. Implications for the number of privately owned vehicles, air quality, and urban congestion are provided.*

**JEL:** M41, M48, M49

**KEYWORDS:** Sustainability, Car Sharing, Electric Vehicle (EV), Kandi Technologies, Grid Stabilization

## **INTRODUCTION**

China has made a remarkable transformation from an agrarian economy to a 21<sup>st</sup> century manufacturing powerhouse. However, this rapid economic growth has come with a terrible cost. China’s air quality is some of the worst in the world. The current rate of growth is unsustainable without changes that reduce air pollution levels. This paper chronicles efforts by one Chinese company, Kandi Technologies Group, Inc., to introduce an innovative car sharing business model to consumers. Small, inexpensive electric vehicles are being made available for mass public transportation purposes under an innovative car sharing arrangement. If successful, this model should help to reduce air pollution levels caused by automobile exhaust. It would also further the Chinese government’s desire to become the dominant player in the global automobile industry.

*After a decade of nurturing China’s auto industry to become the largest in the world, this country’s leaders are having second thoughts. (Bradsher, 2011)*

*The day will come when the notion of car ownership becomes antiquated. If you live in a city, you don’t need to own a car. (Ford, 2011)*

Citizens emerge from their homes wearing surgical masks to help them breathe more easily. The sun is obscured behind a thick, smoky haze. The government orders certain factories to shut down operations for several days because the air quality is so poor. Is this a scene out of a science-fiction film? No. It is a day in the life of a Chinese citizen in Beijing, Shanghai or dozens of other mega-cities. After being considered a sleeping giant for many decades, China has recently experienced rapid urbanization and industrialization. In 1978, Deng Xiaoping began a series of economic reforms to initiate the process of

rapid industrialization and modernization. Previously, much of the Chinese economy was rooted in agriculture, a result of the “Cultural Revolution” started by Mao Tse Tung. At that time, approximately 84% of the population lived below the international poverty line of \$1.25 U.S. per day. (Barclays, 2011, p.5) In what many might call a modern day economic miracle, by 2010, China had emerged as the second largest economy in the world. It was also the world’s largest manufacturing producer, the largest luxury good market and the largest consumer of commodities. (Barclays, 2011, p.5) There was only one problem; the growth came at a horrific cost to the environment. China was and is acknowledged to have some of the worst air and water pollution in the world. In short, China’s economic growth, while rapid, was and is, unsustainable in its present form. (Barclays, 2011, p.2) Table 1, which follows, illustrates the level of air pollution faced by the citizens in Chinese cities, such as Beijing and others.

Table 1: Air Quality Readings in Six Chinese and Two U.S. Cities on January 24, 2015

City	Air Quality Index (AQI)	Pollution Level
Beijing	153	Unhealthy
Chengdu	231	Very Unhealthy
Suzhou	173	Unhealthy
Guangzhou	160	Unhealthy
Nanjing	207	Very Unhealthy
Wuxi	175	Unhealthy
New York City	53	Moderate
Los Angeles	16	Good

*This table shows air quality readings in six Chinese and two U.S. cities. The first column identifies the city. The second column indicates the numerical air quality index reading. The third column indicates the qualitative assessment of the city’s air quality.*

Data for Table 1 were obtained on a weekend evening, when presumably most factories and industrial sites would be experiencing low levels of production. For the six Chinese cities, the Air Quality Index (AQI) ranges from a low of 153 (Unhealthy) in Beijing, to a reading of 231 (Very Unhealthy) in Chengdu. For comparison purposes, AQI’s were simultaneously obtained for two American cities, New York City and Los Angeles. The respective AQI readings were 53 (considered moderate) and 16 (considered good). Needless to say, the air quality of major Chinese cities is much worse than that of their American counterparts. In response to the widespread air pollution, Chinese government officials have introduced several initiatives to help improve the air quality. One such measure is the “Ten Cities Thousand Cars” program, which focuses on promoting public electric vehicles (EVs), such as buses and taxis. This program was implemented in 13 cities in 2009 and later expanded to include 25 cities in 2010 (Howell, Lee and Heal, 2014). Other measures have included a lottery system used to allocate permits to that can be used to purchase new license plates for automobiles.

Even after being selected by lottery, winning applicants must then pay in excess of the equivalent of approximately \$10,000 U.S. to actually obtain the new license plate (EVs are exempt from these license fees). Officials have also implemented a “yellow tag” system. Older (and presumably more polluting) vehicles are ticketed with a yellow tag. Once this happens, they cannot legally be driven and must be replaced with a newer vehicle. Hao, et al (2014) have also identified 2009 as the year of the introduction of the “Electric Vehicle Subsidy Scheme” to help promote the penetration of EVs into the market. The remainder of this paper is organized as follows. The next section, reviews work in the area of environmental sustainability. Following the literature review, a discussion of China’s efforts to promote the use of EVs and Kandi Technologies Group, Inc. (Kandi) and its potentially disruptive environmentally sustainable business model is presented. The paper ends with some concluding comments about possible future implications for China and its automobile industry.

## LITERATURE REVIEW AND BACKGROUND

There is a change afoot in the way younger people look at the world. In the past, societies, especially western ones, tended to view freedom in exclusionary terms. That is to say, by being able to exclude or include others, we were empowered. Such was the case with privately owned automobiles. They were available to us to use any time, to go anywhere we desired, with whomever, we pleased. This thinking led to assets that sat idle most of their lives and congested urban areas with polluted air. In short, it is a very inefficient approach to urban transportation. Young people who came of age along with the Internet, to a large extent are beginning to view the world through a different lens. According to Rifken (2014) they are more about inclusion rather than exclusion. They are motivated by having continuous access to others and being able to network by mechanisms, such as via Facebook and Twitter, rather than by being able to have exclusive use of property. A survey of drivers between the ages of 18 and 24, found that 46% would choose access to the Internet over car ownership (Chozick, 2012).

In a similar vein, about 80% of the members of car-sharing clubs who owned a car prior to car sharing sold it after joining the club and each car-sharing vehicle eliminates 15 personally owned cars from the road (Rifken, 2014). It is against this generational shift in views of car ownership that the phenomenon of car-sharing has come into existence. Car sharing is a system that allows people to rent cars on a short-term basis. A customer may use a car as-needed (hourly or daily), and only pay for the time and mileage used. The car share operator will provide any vehicle maintenance, repair (normal wear and tear), and insurance. Shaeen and Cohen (2012). Salodini (2014) observes that, “Sharing services and the general concept of shifting from ownership to service use is spreading worldwide”.

Car sharing has become popular among millennials. It reduces the sheer numbers of cars on the road as well as lowering carbon emissions. Sharing of vehicles has other advantages. Users no longer have the cost of purchasing vehicles, nor do they have maintenance, taxes, license fees, insurance, etc. In fact, a former vice president of research, development and planning at General Motors concluded that car sharing could save users more than 70% in operating costs and require them to invest less than one-fifth the amount needed to own a car (Burns, 2013). Car-sharing services are already engaged in the transition to EVs. Paris joined a car-sharing collaboration of 1,750 EVs and 750 charging stations spaced throughout the city and suburbs (Rifkin, 2014). The program operates very similar to bikeshare programs, like Verlib in Paris or Capital Bikeshare in Washington, D.C.

### Discussion

China is facing a major environmental crisis. China has only 44 passenger cars for every 1,000 people, while Germany has 517, Japan has 453 and the U.S. has 423. (World Bank, 2012) Yet, while it lags behind other nations, China’s rapid industrialization and urbanization has caused it to be home to seven of the ten most air polluted cities (Howell, Lee and Heal, 2014). A report by Barclays (2011) stated, “The current economic development pattern, however, is no longer sustainable”. (Page 2). One possible solution to the problem of air pollution is presently being explored by the Chinese. It is the use of EVs. EV adoption would aid in overall energy conservation and help to protect the environment (Tseng et al., 2013; Zhou et al., 2013). Since an EV does not burn gasoline or other fossil fuels, they would reduce tailpipe emissions (Hawkins, et al. (2013). However, one must consider that electrical power plants may burn fossil fuels to generate the electricity used to charge an EV’s battery. (This point will be discussed a bit later in the paper, during a discussion of the concept of “base load”.) However, before EVs can become part of the solution to the problem of dirty air, consumers must be willing and able to adopt them. Historically, there have been three issues that have prevented mass adoption of EVs.

These are the cost of batteries, inadequate driving range and the length of time to fully charge a battery. (Howell, Lee and Heal (2014, p 6). The high cost of EVs has been a real deterrent to their adoption.

Howell, et al. (2014) reported that, “For example, in 2010, BYD’s plug-in hybrid F3DM sedan, the only PHEV in China, sold for 149,800 yuan, compared with 59,800 yuan for the equivalent F3 conventionally-powered model”. (p19). One of the ways the Chinese government has been addressing the cost issue is through the use of subsidies. The federal subsidy in China varies with a vehicle’s battery capacity, up to a maximum of about \$9,400 (State Council, 2012). In addition, several provincial and/or local subsidies are in place to match the federal subsidy. Wan Gang, who is the Minister of Science and technology and an EV proponent, stated in 2013 that subsidies are “short-term solutions” and to create a sustainable industry would require improving technology and lowering costs (Howell, et al., 2014).

The second issue of range anxiety may be partially addressed by the availability of charging stations. Scarcity of available charging infrastructure is one of the major barriers to the mass adoption of EVs (Sweda and Klabjan, 2011). Zhang, et al. (2014) report that half of the automobiles have no parking places in Beijing at present, so they have to park on the street. If charging stations were readily available, drivers could be more confident that they would not run out of charge. Two approaches have been advocated to address the charging issue. The first, advocated by the State Grid of China Corporation, involves the swapping of a spent battery for a freshly charged one. This battery exchange system has been demonstrated in cities, such as Hangzhou China, and can be accomplished in about the same amount of time it takes a driver to fill up their tank at a gas station. Furthermore, the depleted batteries can be recharged slowly, a practice that extends battery life and puts little additional strain on the existing electrical grid. The disadvantage of the swapping method is that it would require a standard battery configuration, if it were to be efficiently implemented.. It would also require automobile manufacturers to give up a bit of control over their products, since they would no longer control the battery. It would also require a redesign to allow for the batteries to be exchanged. At present, most manufacturers are against battery swapping and favor a plug-in method of recharging. This allows them to maintain control over the battery and allows them to convert existing internal combustion models into EVs by simply modifying them to accept a battery that accepts a plug connection, rather than re-engineer them for replaceable batteries. Large oil companies, such as Sinopec favor plug-in recharging.

However, availability of charging stations, in and of itself, does not eliminate the problem. This is because once a station is located, the third issue with EV adoption becomes apparent. It may take several hours to recharge a depleted battery. This point is not lost on Becker et al. (2009) and Zhang et al. (2014) who believe that simply putting charging sites on city streets will not meet the demand for refueling. Furthermore, even if the third issue of time is dealt with by very rapidly charging a battery, it presently comes at the cost of a much shorter overall battery life. (Bashash et al. (2011); Botsford and Szcapanek (2009); CAERC (2013). Shortening the life of an already expensive battery brings us full circle back to the first issue of battery cost. Efforts by the Chinese government to battle air pollution by replacing internal combustion engine powered vehicles with EVs appear doomed to fail. Even allowing for decreased battery costs through the use of improving technologies and economies of scale in manufacturing techniques, we have the problem of physically parking and charging the vehicles.

If a slow charge approach is adopted, which improves battery life, drivers will be lined up at charging stations waiting for their turn to recharge. This leads to congestion, at best, and an overall unwillingness of consumers to adopt EVs. If a fast charge approach is adopted that would allow drivers to quickly recharge, it comes at the cost of a very short battery life, which makes an already expensive EV even more so. Zhang, Rao and Liang (2014), recommend a possible approach that China’s leaders could pursue to better promote EV usage. They suggest that promotion of EVs should start with low-end vehicles. As manufacturers begin to experience economies of scale with parts production, etc., these could eventually be upgraded to mid-tier and finally high-end vehicles. Inexpensive, short-range vehicles would be able to take care of most urban consumers’ needs and allow them to get comfortable with the idea of a new technology. In this way, consumers used to riding bicycles or possibly e-bikes could become comfortable with the idea of an EV usage. For example, in Beijing, 95% of drivers log less than 62 miles per day



(ICCT, 2013). The case for small, inexpensive, low-speed vehicles is probably best summed up by Howell, et al (2014), who state, “The hundreds of millions of Chinese who cannot afford conventional cars may present a powerful market for cheap, low-speed EVs”. (P21) Even Li Shufu, the founder and Chairman of Geely is a proponent. He stated at a 2013 press conference, “Low-speed electric vehicles have many advantages. They are suitable for short driving ranges.” (Perkowski, 2013) At that point, quality and driving range could be upgraded slowly due to economies of scale and forecasted improvements in battery technologies. These improvements could pave the way to incorporation into mid-level vehicles and eventually make their way to more upscale vehicles with longer driving ranges. In addition, starting with inexpensive, short-range vehicles in urban settings would allow time to build out the required charging station infrastructure necessary for longer range travel. This could help to solve the chicken and egg problem for EV adoption. That is, drivers don’t want to adopt EVs until there are adequate charging facilities to alleviate range anxiety while policymakers are reluctant to spend resources on charging facilities only being used to recharge a handful of cars.

Zhang, Rao and Liang (2014) state that the Chinese government needs to allow for private capital to be used to create charging stations. Since one of the biggest bottlenecks to the adoption of EVs by consumers is “range anxiety”, or the fear of running out of charge, the more charging facilities, the better for mass adoption. This point is echoed by Wang, Liu and Fu (2015) who believe the development of charging infrastructure not only affects the operating results of EVs, but also affects the purchase and use behavior of consumers. However, there is an alternative method to the use of plug-in charging of batteries. It’s possible to simply swap a depleted battery and replace it with a fully charged one. This swap process can be completed in roughly the same amount of time it takes to fill a conventional car’s gas tank. Battery swapping has multiple advantages. First, the range of the vehicle can be enhanced in a manner similar to what filling up at a gas station does to an internal combustion powered vehicle. Second, the depleted battery can now be recharged via the slow charge method, which greatly extends its usable life. Third, the charging could be done during non-peak demand times which would put less stress on the electrical grid and allow for the use of base load power generation. In fact, Wang, et. al (2015) believe the construction of a battery swapping network is the key to promoting the EV industry.

That is exactly the model being pursued by one innovative company based in Jinhua China. Imagine a vending machine that dispenses cars instead of food or drink. Not just any car, but a zero emissions electric vehicle, which individuals may rent for only a few hours at a time, if they desire. The car is then returned, recharged and reloaded back into the vending machine. Such is the vision of Kandi Technologies Group, Inc. In fact, it is not a dream, it is currently a reality. A large parking garage has been automated and set up to dispense small EVs to patrons. Documentary film maker, Aaron Rockett has dubbed this method of vehicle rental, “The Kandi Machine” (Rockett, 2013). According to Howell, et al (2014), “In April 2013, Kandi completed an EV assembly line with initial annual production of 100,000 vehicles. Kandi has increasingly gotten official sanction of its low-speed EV strategy, and is working with a number of cities...” (p.21)

The Kandi Machine is just one variation of the vision of Kandi’s CEO, Hu Xiaoming. Hu, prior to becoming CEO of Kandi, was the Chief government scientist in charge of the project to develop electric vehicle batteries. Mr. Hu is presently engaged in a plan to help ease urban congestion and clean up the air in China’s cities. Hu and his company are currently carrying out a program to rent inexpensive EVs for very short-term urban use. The model is patterned after Hangzhou China’s bike sharing program, the largest such program in the world (Shaheen and Guzman, 2011). The EV car share program allows users to rent a vehicle for only a few hours at a time. The user does not have to worry about paying license fees (sometimes amounting to thousands of U.S. dollars), having a parking space at home for a car (most Chinese urban dwellers live in high rise buildings with limited parking), insurance, and maintenance costs. In addition, by sharing one vehicle among many users, less resources and energy will ultimately be consumed in manufacturing vehicles and less congestion will result, due to fewer vehicles in use. The

user simply returns the EV to one of several locations interspersed throughout the city and the rental company will take care of recharging the vehicles' batteries.

Since the rental company has complete control over how and when it charges the batteries of returned EVs, it can use a slow charging technique, which extends the life of batteries relative to that which would result from a quickly charged battery. In addition, batteries can be charged at night, putting less strain on the power grid itself. Finally, by charging during evening hours, the rental company is making use of the power grid's base load. The base load is the amount of power that utilities need to generate to meet the lowest level of potential customer demand. For example, the power company has to provide a certain level of power just in case a customer decides to turn on their lights at 3:00 AM. When the consumer flips the light switch, they expect their lights to turn on. In most cases, however, the base load of power is simply generated, run through the system and returned to ground, i.e. wasted. However, by charging EV batteries during off peak hours, this previously wasted electricity is now used. The result is a fully charged set of EV batteries without consuming any additional resources or causing any additional pollution. For those consumers who have access to parking, and therefore, the ability to use plug-in charging, Kandi offers what it calls the "Long Lease".

This runs for between one and three years and for about \$150 U.S./month, includes the use of the car, maintenance, and power (Rogowsky, 2013). In this version of Kandi's model, a consumer has access to a car anytime they want. It's as if they own the vehicle, the only difference is, the car in question is a zero emission EV and the consumer benefits by locking in a low cost lease. This model works because a normal internal combustion powered vehicle requires the owner to secure a license plate, recently costing in excess of \$10,000. That's assuming a plate can be obtained through the lottery system that's in place for the distribution of car licenses throughout most of China. In addition, one must add to the cost of the license, thousands of dollars of taxes that are levied on internal combustion cars but waived for EVs. Finally, conventionally powered cars are subject to driving restrictions (odd vs. even days, etc.) that do not apply to EVs. Kandi's micro-bus car sharing model originated in the city of Hangzhou. At present, it has expanded to eight additional cities of, Shanghai, Chengdu, Nanjing, Guangzhou, Wuhan, Chansha, Changzhou and Rugao. It is also expected to be adopted in several more cities during 2015. On December 19, 2014, the China Innovative Electric Vehicle Symposium was held in Hangzhou, China. Among those in attendance were representatives from the National Science and Technology Development and Reform Commission, the Ministry of Finance, the Ministry of Industry and other Chinese officials (d1ev.com/36422.htm., 2014, Translated from Chinese). One such official, Wan Gang, the Minister of Science and Technology and also the Vice Chairman of the Chinese People's Political Consultative Conference (CPPCC), addressed the conference attendees. In his speech, Gang indicated that the "Hangzhou micro bus mode affirmed". Furthermore, Minister Gang stated,

*The convening of this meeting, affirmed Condi "micro bus" mode, but also in the country to promote the follow-up and operations indicate the direction for "micro-bus." Important model Condi Micro bus" mode as Chinese electric vehicle for urban public transport model innovation, will play an important role in the development and improvement of China's electric vehicle industry of urban public transport. (d1ev.com, 2014, Translated from Chinese) [Note: Condi is the word that appears when Kandi is translated from Chinese].*

Shortly after the symposium concluded, Kandi, or more precisely, Kandi's CEO and founder, Hu Xiaoming was singled out for his contributions through Kandi's car sharing "micro bus" business model. The China Association of Automobile Manufacturers awarded Mr. Hu its 2014 China's Annual Green Car-Innovator Award. (d1ev.com, 2015-Translated from Chinese). The public recognition and accolades aside, how are Kandi's EVs being received by the Chinese public? According to a Morningstar news release,

*As of the end of 2014, there have been a total of 9,852 Kandi Brand electric vehicles (“EVs”) delivered to Hangzhou, 686 EVs to Shanghai, 1,020 EVs to Chengdu, 340 EVs to Nanjing, 700 EVs to Guangzhou, 612 EVs to Wuhan, 388 EVs to Changsha, 500 EVs to Changzhou, and 300 EVs to Rugao. With a total of 14,398 Kandi EVs delivered throughout the country as of the end of 2014, the Company believes it becomes the leading volume seller in the Chinese pure EV market. (Morningstar, 2015).*

One week after the Morningstar release, a follow-up press release appeared in Barrons. It stated, in part, “...(Kandi) today announced that the first 60 Kandi Brand electric vehicles (“EVs”) were delivered to launch another innovative EV business model, a “mini Police Car” Program. The EVs are designated for the first time use by the Hangzhou Uptown Public Security Bureau to facilitate performance of community safety patrols, population permit patrols, fire safety inspections, as well as other police duties.” (Barrons, 2015) It would be premature to draw any firm conclusions about the long-term adoption of EVs by the Chinese public. However, the early results appear promising for one particular EV business model, that of the “Kandi micro bus”. The car sharing model appears to have the backing and financial support (through subsidies) of the Chinese government. It addresses the underlying concerns of consumers about range anxiety and high purchase prices due to expensive batteries, by allowing users to rent by the hour, rather than buy their vehicles. The biggest constraint at the moment appears to be a lack of rental facilities, due to the high cost of acquiring real estate to build the rental garages. Even this is being addressed by targeting large housing complexes, which could include an EV charging area during construction, and allowing residents to sign up for long-term leases.

The early success of the Kandi micro bus mode is all the more encouraging when viewed along with the findings of Helveston, et al. (2015) who found that Chinese respondents were more receptive to battery electric vehicles than American respondents. They postulated this was because most Chinese car buyers were first time buyers with little experience with internal combustion cars. Many Chinese lived in densely populated areas and had no expectations of taking long cross country trips via car. In addition, many Chinese also have experience with owning or sharing bicycles, both electric and manual. To them, they are already accustomed to plugging in their bike after a short trip. In short, it appears that many Chinese consumers have already been conditioned to accept a program similar to that of micro bus car sharing.

## CONCLUDING COMMENTS

China is at a crossroads in its efforts to promote the widespread use of EVs. Its leaders have made zero emission vehicle adoption a priority out of necessity. In addition to providing economic subsidies to manufacturers, they have encouraged creative methods to get consumers to adopt EVs. One particularly promising approach has been undertaken by Kandi Technologies with its philosophy that it is providing transportation, rather than simply manufacturing vehicles. Kandi’s effort to create a variation of a bike sharing program for EVs is particularly promising. Early results appear to indicate that Chinese consumers are becoming more comfortable with the idea of sharing, rather than owning a car. As a result, many problems such as, parking, license fees, insurance, etc. are solved for the consumer. From a societal perspective, expansion of the Kandi Model appears to be sustainable in terms for reducing air pollution and urban congestion. Recent statements by high ranking Chinese government officials appear to indicate that the State is supportive of the micro bus car sharing mode of transportation and will provide financial assistance in the form of subsidies to help ensure its adoption and ultimate success.

There are several limitations to this study. First, only one company’s effort to get Chinese citizens to adopt EVs was examined in detail. Many other companies are also engaged in the manufacture and distribution of EVs. However, most are attempting to sell their vehicles to consumers, which is the traditional business model for car manufacturers. Second, the ultimate success of Kandi’s micro bus model, or any other manufacturer’s business model, may acutely depend on the continued backing of

Chinese government officials. Virtually any business in China operates at the pleasure of the Chinese government, should they suddenly decide to withdraw their support, the micro bus model will probably not succeed. Third, is the issue of EVs resulting in cleaner air for China. Several recent studies have found that the implications for air quality depend on the mix of fuels used by the power plants which generate the electricity used to charge EV batteries. If the dominant fuel is coal, there may not be any appreciable improvement in air quality and could even result in an increase in air pollution (Michalek, et al. 2011). Finally, due to the fact that Chinese policies and a Chinese company are being examined, much of the information has been translated from Chinese, a cumbersome process involving the use of machine translation.

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# **FOREIGN DIRECT INVESTMENT, CORPORATE SOCIAL RESPONSIBILITY AND POVERTY ALLEVIATION: EVIDENCE FROM AFRICAN COUNTRIES**

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## **ABSTRACT**

*During the past two decades, advances toward a truly global economy were driven by the role of Multinational Enterprises (MNE). The progress of Foreign Direct Investment (FDI) has raised many controversies in the ways these foreign investors conduct their businesses in developing countries. More attention has been given to Corporate Social Responsibility (CSR) in developing countries. Despite such attention, Africa is less represented than any other continent. MNEs, which embark on FDI, are faced with an important decision on how to enhance CSR to reduce poverty in their host countries. The authors reviewed extant literature exploring FDI, CSR and how FDI contributed to the reduction of poverty in the African developing countries of Nigeria, Ghana, and Cameroon.*

**JEL:** Z00

**KEYWORDS:** Foreign Direct Investment, Corporate Social Responsibility, Poverty Alleviation, African Developing Countries

## **INTRODUCTION**

In recent years, there have been great advances toward a truly globalized economy because of more involvement of Multinational Enterprises (MNE) and their activities worldwide. This situation has generated some controversies regarding the method these multinationals use to carry out businesses in developing countries, especially in the some developing African countries. More attention has been given to corporate social responsibility (CSR) in developing countries in recent years. Despite such attention, Africa is much less represented than any other continent. In addition, MNEs, which embark on Foreign Direct Investment (FDI), are faced with an important decision regarding how to enhance CSR to reduce poverty in their host countries. The problem addressed in this qualitative case study was that higher foreign direct investment in some African countries such as Nigeria, Ghana, and Cameroon have not led to higher levels of corporate responsibility and poverty reduction in the region. A general belief exists that the advent of globalization would pave the way in developing countries, especially in the African continent, to modernization and improve employment opportunities thereby improving the quality of life in the region. What is realized, in these countries is increased poor standards of living among the citizens due to lower involvement in corporate responsibility.

Two reliable sources of literature exist regarding CSR in Africa (Visser, 2006) and the Journal of Corporate Citizenship special issue on CSR (2005). “Academic institutions and researchers focus specifically on corporate citizenship in Africa remain few and underdeveloped” (Visser, 2005, p. 36). Visser (2006) confirmed, through a review of the CSR literature on Africa between 1995 and 2005, that only 12 of Africa’s 53 countries had any research published in core CSR journals, with 57% of all articles focused on South Africa, and 16% on Nigeria. The latter partly reflects the high media profile generated around corporate

citizenship issues and the petro-chemical sector. It is especially focused on Shell and their impacts on the Ogoni people (Ite, 2004).

In contrast to the socially-oriented focus of the literature on CSR in developing countries, business ethics dominates as a research topic in the region. Business ethics accounts for 42% of all articles on CSR in Africa from 2005 to 2012. A complementary CSR institution has an important impact on the way companies address the issue of poverty alleviation. Quality of governance is critical to poverty alleviation. For example, corruption has profound negative effects on investment and the quality of economic growth. Similarly, business organizations and broader coalitions between business, government, and civil society can considerably contribute to poverty alleviation. If businesses support broader economic and social development, they would turn poor and excluded people into customers and employees. Neglected areas would be transformed into new markets and new sources of supply. By improving local communities, greater quality and reliability is obtained from their partners in local supply chains.

The purpose of this study was to identify the level of FDI involvement in CSR in an effort to reduce poverty in the developing African countries especially in Nigeria, Ghana and Cameroon. Foreign investors in selected sectors were interviewed to determine their motivations and reasons for the few commitments to poverty reduction and less exercise of CRS. The remainder of this document includes three sections: a) a literature review, b) a data and methodology area, and, c) concluding comments. The literature review includes sections on FDI, the FDI inflow into developing African countries, poverty, FDI corporate power and corporate responsibilities, and FDI and poverty reduction. The method for obtaining the results and data is presented in tabular format with a brief explanation. An analysis of the data and whether the hypothesis was supported will be discussed. Finally, the researchers present their concluding statements and offer suggestions for future research.

## LITERATURE REVIEW

### Foreign Direct Investment

In the past two decades, advances were made toward a truly global economy, driven by the role of Multinational Enterprises (MNE) and their activities around the world (Pusterla & Resmini, 2007). FDI is the movement of both human and financial capital over national borders in such a way that they provide the investor full control over the acquired asset (Jigme, 2006). FDI is different from portfolio transactions, which may cross borders, without providing such a control over the capital acquired. Chee and Nair (2010) conducted an empirical study to examine if financial sector development is an important precondition for FDI to enhance economic growth in 44 Asia and Oceanic countries for the period 1996-2005. Chee and Nair examined if the effect is dependent on the stages of development of the countries. The results showed that financial sector development enhances the contribution of FDI on the economic growth in the region.

Ofori-Brobbe, Ojode, and Woldie (2010) and Ruskie (2007) asserted that FDI has positive effects on economic development. However, the reason for slow growth in these developing African countries is of great concern. Forgha (2009) and Njong (2008) studied FDI flow to Africa. Researchers concluded there is higher inflow of FDI in many emerging and developed countries, but significantly slower in African developing countries (Kumo, 2009). According to United States Bureau of Economic Analysis (BEA) (2009), the United States is the highest recipient of FDI among industrialized nations. More than \$325.3 billion in FDI flow into the United States was recorded in 2008 (UNCTAD, 2009). Nevertheless, in recent years, a slow but steady progress of FDI inflow has developed in Ghana and Nigeria. FDI inflows into the region reached \$53 billion in 2007 (UNCTAD, 2008). Although credible FDI data in developing African countries is not readily available, FDI continues in the economic development in the region (United States Department of State, 2009). The United States and France are the two major FDI participants in many developing African countries (UNCTAD, 2009).



According to the U. S. Department of State (2009), the U.S. FDI stock in countries such as Cameroon is rising. Most United States investments in these countries are in the petroleum sector. A typical project is the Chad-Cameroon pipeline, which runs from Chad's Doba oil field, and is considered one of the largest US investments in sub-Saharan Africa (United States Department of State). Exxon/Mobile and Chevron/Texaco teamed up with Malaysia's Petronas to undertake this giant project (United States Department of State). Dole Company, that has a large equity in a French firm to produce bananas, is one of many United States MNEs operating in the region. Del Monte, with a United States stake, is also producing bananas in Cameroon. In addition oral care, for both the region and local markets, is produced and distributed by Colgate-Palmolive in countries around this region (UNCTAD, 2008). France continues to be a significant source of FDI in these countries. In industries such as banking, France's banks are taking the lead in these former French countries in the region. According to the United States Department of State (2009), as many as 160 branches of French banks in Cameroon employ approximately 30,000 people and more than 200 enterprises owned by French nationals.

Buthe and Milner (2008) asserted that many economists have examined factors such as market size, per capita income, level of corruption and various other characteristics of the host market, as necessary for investors' decisions to invest in certain foreign markets. In addition, the larger the market of a country, the more encouraged are foreign investors to invest in the intended countries (Reiter & Steensma, 2010). Democracy, along with political and economic instability, are considered major determining factors that attract FDI (Buthe & Milner, 2008; Jajri, 2009). Frequent tribal wars, unfair election practices and unpredictable coup d'état in some African countries discourage many MNEs from investing in these developing African countries (Jajri). Although many researchers focus more on determinants attracting the inflow of FDI into developing countries (Forgha, 2009; Njong, 2008), few studies explored the effects of FDI inflow on economic growth and poverty alleviation in these countries especially in developing African countries. Recently, researchers have established that other factors such as democracy, GDP, and exchange rate stability attract more FDI into a country (Jajri, 2009; Jenson, 2006).

Developing countries especially African developing countries have a high respect and value towards FDI especially during the recent worldwide economic slowdown. These countries experienced shrinking foreign aid. Many developing countries, including those in Africa, are increasingly looking to FDI for their economic progress. The majority of developing African countries are now considering FDI as almost risk-free and their main option for foreign exchange and gaining access to new technology. FDI is highly recommended by emerging countries and international institutions such as the International Monetary Fund (IMF), the World Bank, and the Organization for Economic Corporation (OECD). They recommend FDI to developing countries as a sustainable source for their present and future economic progress (UNCTAD, 2008).

Many in developing African countries consider FDI as a needed source of economic growth and development in their countries. The effect of knowledge from multinational enterprises and host-country technology spillover, contribute to the productivity improvement of firms in the host country (Karim & Ahmad, 2009; Mora & Forte, 2009). Both multinationals and firms in developing countries understand the aim of knowledge transfer by multinationals is to improve the economic condition of the host country. This holds especially true for technological skills, which may result in increased GDP of the country (Varamini & Vu, 2007). Radical economic and political reforms by these African countries, have not resulted in increased FDI inflow into the countries. A few countries that have experienced more inflow of FDI such as Cameroon, have not seen a commensurate reduction of poverty and economic growth (UNCTAD, 2009). Even after reforming many economic policies necessary to attract more FDI, many developing African countries are yet to experience sustained economic growth (Lemi & Asefa, 2009).

### FDI Inflow into Developing African Countries

Many African countries including Nigeria and Ghana see FDI as important to their economic growth and development. They understand that FDI provides much needed capital for investment, provides aid to the local firms to be more stable and productive by adopting modern, and efficient technology or by investing in human capital (Karim & Ahmad, 2009; Johnson, 2010). Moreover, a majority of fast growing countries depend on capital from FDI to support the transformation of their growing economy. Developing countries from Africa, including Cameroon, need such investments to accelerate their economic development efforts (Johnson, 2010). It is the hope and belief of the developing African countries such as Cameroon that more FDI inflow into the region would improve the standard of living through the creation of employment opportunities. Most African countries instituted policies to attract FDI (UNCTAD, 2008). African leaders expect that FDI would produce external help in the form of technological transfer and spillovers (Wijeweera, Villiano, & Dollery, 2010). The pursuit of responsible macroeconomic policies, combined with an accelerating pace of liberalization, deregulation, and above all, privatization, were expected to attract FDI to Africa (Ajayi, 2008). Ajayi continued that despite many policy changes such as deregulation, and privatization, the continent of African has not benefited significantly from FDI to commensurate with its policies promoting FDI. A positive trend in FDI inflow in Africa has occurred in recent years.

Other developing countries such as Nigeria, Angola and South Africa, Congo Republic, and Equatorial Guinea continue to attract more FDI, largely because of their rich natural resources. Lately, FDI has diversified into other sectors such as manufacturing and services. Mauritius attracts FDI into the manufacturing sector through its textile industry (Ajayi, 2008). Ajayi also added that, in the last decade, Morocco has witnessed its share of FDI increase greatly in the manufacturing and service sectors. The sources of FDI vary largely due to the needs of foreign investors. According to UNTACD (2008), FDI from Germany has been mostly in manufacturing, British FDI in the service and manufacturing, and the United States in exploration and service. Lemi and Asefa (2009) reported that recent surveys of multinationals indicate that tourism, and natural resources industries have the greatest potential to attract more FDI into the region. In recent years, telecommunications has attracted more FDI into the region than ever. This is mainly because of privatization in the telephone companies in several African countries such as Nigeria and Ghana, and the emergence of a global system of communication (GSM) in some African countries (Ajayi). Despite many policy changes, laws and other legal instruments instituted in African countries including Cameroon and Ghana to attract more foreign investors, there is still disproportionate economic growth from FDI in the region.

### Poverty

Poverty and unemployment are two main problems facing developing countries such as Liberia, Sierra Leon and Cameroon (ILO, 2007). A high unemployment rate is the major factor responsible for low standards of living in developing countries (Ogunrinola, 2011). Poverty is widespread in both rural areas and cities in the developing countries. To support themselves, the unemployed resort to exploiting the income and themselves (Ogunrinola, 2011). Poverty is a complex concept. There was a study of the Russian informal economy by Khotkina (2007) on poverty reduction. The study found that female employment doubled that of male. To combat poverty, and unemployment, the Ghanaian government introduced a program called Skill Training and Employment Programme (STEP). The program was aimed to help the unemployed become independent entrepreneurs in the informal sector (blue-collar sector). The program achieved little success because, the trainees wanted formal sector jobs (white-collar sector jobs).

Poverty is considered by many as not literally lacking of money and food but also as inability to afford basic necessities of life such as health care, access to affordable education, security, and dignity (Elijah & Uffort, 2007). Poverty might also be viewed as the inability of a government or a group of people to satisfy their basic human needs in terms of employment, health care and economic stability (Elijah & Uffort). The

absence of labor, capital, markets and land affect the poor's inability to access employment and natural endowed resources. The decline in mean income and a disproportional shift in wealth distribution are partly attributed to the increase of urban poverty in Cameroon (Francis, 2006). Growth in household income would have a long-term effect on reducing poverty level in Cameroon (Francis, 2006). Recent data on worldwide poverty levels show that at least one in three person lives on less than 1 dollar per day (Cook, 2011).

### FDI Corporate Power and Corporate Responsibilities

Prior to the 20<sup>th</sup> century, MNEs were not known to be involved in the political realm of the host country. Rabet (2009) asserted that MNEs were regarded as “a sphere of private agreement, rational profit seeking and economic efficiency” (p. 3). In the 21<sup>st</sup> century, great corporations are deeply involved in political systems in their host country. Their social, market, and political influence go beyond economic activities (Gabriel, 2006). Many MNEs tend to have great influence in the legislative process in the host country. The ultimate goal of investors is a realization of profits. Profits are transformed into dividends for shareholders and as a necessary tool for the firm's expansion. Rabet (2009) observed that as firms make more profits, they wield more power to influence both political and economic systems to protect their investments.

The actions and behaviors of multinationals in foreign countries provide a hint of their interests, motives and goals. Many countries have strong strategic reasons to support foreign investors in their countries. Leaders of many countries prefer to use trade to advance their country's interests (Eden, 2009). Some leaders use the presence of MNEs in their countries to normalize political relationship with the firm's home country. Under this context, it is difficult to measure or rationalize the profit motive of the foreign country MNE operation. Like many political organizations, MNEs try to exert power in the host country to maintain their dominance and recognition. Many large multinationals are located in developed industrial countries (UNCTAD, 2007). However, MNEs find it necessary to explore the abundant natural resources available in emerging and developing countries. In addition, many mergers and acquisitions give multinationals the opportunity for inward flows of FDI into developing countries. A great number of small developing countries such as Cameroon, with natural resources, are now more attracted to MNEs. It matters to multinationals what laws and regulations are made in these countries. The success of these foreign firms depends on laws of the host country, and their influence on the government would also impact their profit margin. Rabet (2009) explained the qualities of Corporate Social Responsibility (CSR) as:

*A multi-faceted phenomenon, but one of its essential characteristic is the advocacy of voluntary codes of conduct, norms, conventions, standards and rules of behavior by corporations and other actors, which go beyond or complement existing public legislations or customary business behaviors. (p. 7)*

CSR is based on the premise that corporations voluntarily involve themselves in issues such as environmental protection, human rights, social change, and other activities that are of importance to the ecosystem and humanity (Clarke, 2007). According to Clarke, all multinationals communicate on and carry out CSR. Nevertheless, there is a continuous criticism that CSR are on policy manuals and not in action. In defense of corporations, it is reported that corporations do allocate large resources to CSR (Banerjee, 2007; Crane, McWilliams, Matten, Moon, & Siegel, 2008). It has been observed that some philanthropic actions by corporations originated decades ago (Peng, Wang, & Jiang, 2008). CSR originated in the United States in the 20<sup>th</sup> century and has dominated the international corporate world for the past 15 years (Clarke, 2007). Publications have examined CSR in depth in developing countries. However, Africa is less researched than other continents (Kolk & Lenfant, 2010). Empirical studies on African countries mostly concern South Africa and Nigeria (Kolk & Lenfant). However, the importance of FDI in the region is growing because, of available of natural resources.

In addition, the FDI increase has not reflected in CSR studies in these countries. More attention to MNEs and CSR in Africa is much needed. MNEs, which carry out FDI, can have profound effect on the local situations. MNEs should play vital roles addressing issues such as environmental pollution, inequality, and poverty (Kolk & Lenfant). MNEs are faced with dilemmas such as how to resolve conflicts particularly in the countries they invest in (Vissak & Roolaht, 2006). Vissak continued that economic responsibilities should be a top priority of their CSR; because FDI in Africa is in extractive industries with documented social and environmental impact (Kolk & Lenfant). In a study with a sample of 54 companies, 64% operated in the extractive industries (oil and gas, mining, oil and equipment services) and the remainder were spread over a variety of sectors (Kolk & Lenfant). Despite the world-wide economic down turn, most large corporations continue to give and carry out corporate socially responsible activities and are politically motivated (Shergolt, 2009). It is important to note that corporations voluntarily exercise CSR to maximum probability of survival and expansion in the highly competitive global market.

### FDI and Poverty Reduction

Most of emerging and developing countries in Africa, Latin America and Asia are now realizing that FDI is a source of employment, income growth, economic development and poverty reduction (Loayza & Raddatz, 2010). This is known from their continuous economic policy reforms aimed at creating a business atmosphere to attract more foreign investors. Such policy reforms include liberalization of foreign trade and investment regimes and privatization of many state companies (Lemi & Asefa, 2009). Since the Asian financial crisis in 1997 and the current global economic meltdown which began in fall 2007, many emerging and developing countries have undergone positive economic policy transformation with the intention to attract FDI. The leaders of these countries understand that more FDI needs to be attracted to alleviate poverty of these countries. However, despite the large increase in global flows, many emerging countries, especially the African countries, have not successfully attracted more FDI (Ajayi, 2006). The increase in FDI inflow into Cameroon and other developing African countries without better economic growth is a disappointment to the leaders who have reformed many economic policies necessary to attract FDI for sustained economic growth.

FDI can have profound positive effects on poverty reduction provided there are mechanisms to address it such as sound economic policies, great institutions, a flexible labor market and great regulatory frameworks (Karim & Ahmad, 2009). Widening access to labor would largely contribute to alleviating poverty. High domestic and foreign firm generated investment would create employment opportunities in a country. A higher economic growth than the rate of population growth would result in higher employment and higher income. Thereby improving the standard of living of the citizen thereby reducing the poverty level. UNCTAD (2008) noted that foreign and domestic investors are the main sources of capital formation. Capital is a great tool for economic development of a country and foreign direct investors are equipped with the necessary capital for economic improvement. Moreover, FDI may force the host country to improve the infrastructure such as roads, bridges, water and electricity supply. Locals would benefit from the investments through employment opportunities.

The process of poverty alleviation within this research begins with the relationship between FDI and economic growth (Loayza & Raddatz, 2010). The widely held notion that FDI positively affects exports in emerging countries stems from the fact that FDI provides some access to foreign markets and increases competition in the host country. Access of FDI to the global market is an opening opportunity for the host country to capitalize to increase exports (Loayza & Raddatz). Local firms affiliated with the foreign firms may gain knowledge and exposure from foreign firms to undertake when exporting their products. This action contributes to the economic growth of the country as more employment opportunities are created which helps alleviate poverty. Tambunan (2007) reported an IMF finding as follows:

*That the progress in raising real incomes and alleviating poverty has been disappointingly slow in many countries and the relative gap between the richest and the poorest countries has continued to widen. In Africa, the level of real per capita income in recent years is lower than it was 30 years ago. More broadly, the number of very poor (defined as those living on less than US\$1 per day) has remained roughly unchanged over the past decade, and only limited progress has been made in reducing the share of the world population living in poverty. (p. 10)*

FDI can have positive effects on poverty alleviation through taxation of foreign subsidiaries. Taxes from foreign firms raise the revenue of the host country, which can be used to develop social services, productive improvement and poverty reduction oriented programs. Certain conditions are taken into consideration for the corporate tax revenues to have major effects in the host country. In order to attract more FDI in Ghana and other emerging countries, the tax policy has to be attractive to foreign investors (Njong, 2008). If the corporate tax rate is high, especially for foreign firms, it may discourage FDI and would result in low potential tax revenues. In many developing countries, there is concern if there are specific agreements and policies in place to collect the corporate taxes (Kumo, 2009). Another major concern from the corporate tax benefit is whether the collected corporate tax benefits are used with the aim of alleviating poverty in the country.

The tax revenue should be used to finance poverty reduction projects such as the creation of labor-intensive projects or encourage the development of a safety net for the poor. Despite the potential of FDI to enhance economic growth and poverty reduction in developing countries through the three ways as discussed above, there are at least two main issues of concern. Yuduo, Dan, and Wenshi, (2009) described FDI as a two-way sword; the monopolistic tendencies of foreign subsidiaries may displace domestic investment or industries, and thus the presence of FDI may increase instead of reducing poverty in host countries. Increased rivalry between domestic and foreign firms could be beneficial in terms of promoting competition, improving efficiency amongst inefficient firms, and ensuring the most productive allocation of scarce resources (Loayza & Raddatz, 2010). However, foreign firms, especially large multinational companies with superiority in technology, information, human resource, capital, marketing, distribution, and having advertising power, may create anticompetitive impacts, such as displacement of domestic firms or investment (Altomonte & Pennings, 2009).

It is a widely held view that FDI's contribution to poverty alleviation is through its impact on economic growth of the host country (Majeed & Ahmad, 2009). Some studies identify three possible ways which FDI may help to reduce poverty reduction. Winters and Cirera (2001) analyzed the effects of trade liberalization on poverty. They identified the following factors: distribution channel, enterprise channel, and government channel as possible factors that impact poverty alleviation. The distribution factor views the poor as the consumers. If businesses are to grow, the poor must become consumers. Prahalad (2002) argued that "By stimulating commerce and development at the bottom of the economic pyramid, MNCs could radically improve the lives of billions of people and help bring into being a more stable, less dangerous world" (p. 48). Prahalad strongly emphasized the importance of the untapped potential market of the underdeveloped economies, which mostly represent the poor markets.

The enterprise channel mostly concerns the effects in which employees of the FDI have directly on these companies. The enterprise channel may also have indirect effects by generating demands for local vendors (UNCTAD, 2008). This assumes that high demand for unskilled translates to a higher employment for the poor. According to research, the impact of FDI on poverty reduction is indirectly associated with its creating linkages with local vendors, mostly with subsistence agricultural firms. This indirect impact is limited where FDI mostly depends on highly skilled workers in the high technological sector. Locating FDI in poor states would indirectly improve the poverty reduction in such markets and vice versa (UNCTAD, 1999).

The third channel identified by Winters and Cirera (2001) is government revenue from the government of developing countries. The FDI in developing countries, mostly in the agricultural industrial countries contributes to revenue of their host countries in the form of taxes. Most of these countries use these tax revenues to embark on poverty reduction programs in society. However, the effect of this revenue depends on the size of the taxes and the willingness of the host governments to invest a large portion of these revenues to alleviate poverty in the country. Another limitation is the huge tax breaks given to FDI firms by the developing countries to attract the investors. This reduces the amount of tax revenues generated by these countries; hence, making a lower amount available for the poverty reduction programs.

## DATA AND METHODOLOGY

A qualitative approach was used with four company chief operation officers (COO) who were purposefully chosen from four different industries. The participants volunteered to participate in the study and were actively doing business in the three countries (Nigeria, Ghana and Cameroon) in the areas of energy, pharmaceuticals, technology, and services located in the United States. These companies were selected because of their popularity as MNCs with well-known negative or positive impacts or activities in social responsibilities and their leadership role in their respective industries.

Data for this study were from both primary and secondary sources and were collected between 2013 and 2014. The primary source was through telephone interviews through which the subjects volunteered to discuss poverty alleviation and their involvement. Secondary data were collected from the firms CSR reports, peer-reviewed articles, and other electronic sources of information.

From the four interviews, the following findings emerged. As countries with fewer advances in technology and limited capital to embark on social works, there should be better cooperation and communication between the local governments and multinationals. The host governments should work harder to engage the investors on hiring and training of both their skilled and unskilled labors. This study also uncovered that most multinationals' willingness to exercise their CSR was hindered by unnecessary laws, regulations, and corruption of local government officials. This raises questions regarding the willingness of the host government to help alleviate poverty and improve the poor standard of living of their citizens.

## RESULTS AND DISCUSSION

The issue of corporate social responsibility has dominated all facets of corporate involvement in society, ranging from environmental degradation to total disregard to child labor laws. However, it has been suggested that there are certain factors that might limit the desire of FDI to address CSR in developing countries in general. One such factor is bribery given to government employees. Discouraging bribery to government officials and more transparency in the government could increase revenue to the government. The realized revenue can be used to embark on necessary projects that would benefit the poor in the society.

To reduce poverty in developing countries and the world in general would take concerted effort from both corporations and the public sector. Programs aimed at helping the poor such as discounted goods to the poor and investing in programs to provide employment to the poor. The locations of many major local and multinational corporations do not cater to the welfare of the poor. These companies are mostly located in large metropolitans. The poor are primarily located in remote villages and are not able to gain even unskilled job opportunities from these companies. The poor, under these circumstances, are not considered in the location decision process by either their government or the companies. Hence, the poor do have a stake in such companies. In recent years, there is growing enthusiasm in the corporate community to achieve poverty reduction in developing countries. However, there is little or no effort to evoke CSR reforms that would favor a meaningful program to achieve or reduce poverty in the developing countries. A major limitation of this qualitative case study was that generalization of the findings may be challenged (Yin, 2009) because

of its convenient four sample size. Although 16 participants was a good sample size for qualitative research, a larger sample size would have been more representation. Conducting such a study with larger sample could have created difficulties and the data analysis would have been cumbersome and could bias the outcome. When conducting a qualitative research, there is that expectation that academic rigor and methodological principles would be met (Kirk & Miller, 2006).

## **CONCLUDING COMMENTS**

The goal of this paper was to explore the willingness of foreign investors operating in developing African countries to contribute to reduce a lingering poverty problem, which has plagued the continent for decades. A qualitative approach was used for this study. Four company chief operation officers (COO) from four different industries were purposefully chosen. The participants were actively doing business in three developing African countries (Nigeria, Ghana, and Cameroon) in the areas of energy, pharmaceuticals, technology, and services. The COOs voluntarily agreed to participate in this study. These companies were selected because of their popularity as MNCs with well-known negative or positive impacts on social responsibility activities. Data collection for this study was from both primary and secondary sources and was collected between 2013 and 2014. The primary source was through telephone interviews, which individuals volunteered to discuss poverty alleviation and their involvement. The secondary data collected firms CSR reports, peer-reviewed articles, and other electronic sources of information.

The result was very vital to both the leadership of these countries and the organizations involved and may not be generalized. As countries with fewer advances in technology and limited capital to embark on social works, there should be better cooperation and communication between the local governments and multinationals. The host governments should work harder to engage these investors on hiring and training of both their skilled and unskilled labors. This study also uncovered that most multinationals' willingness to exercise CSR was hindered by unnecessary laws, regulations, and corruption of local government officials. This raises questions regarding the willingness of the host government to help alleviate poverty and improve the poor standard of living of their citizens. A major limitation of this qualitative case study was that generalization of the findings may be challenged (Yin, 2009) because of its convenient four sample size. Although 16 participants was a good sample size for a qualitative research, a larger sample size would have been more representative. However, conducting such a study with larger sample presented difficulties. The data analysis would have been cumbersome and could bias the outcome.

Another limitation of this study was the difficulty of finding and selecting the four company executives from five different industries actively doing business in these three countries. The industries chosen were energy, pharmaceuticals, technology, and services located in the United States. Getting the participants to respond freely without being biased to the interview questions was also a limitation. The lack of inclusion of representatives from these countries, to gain a balanced understanding of the effects of FDI on corporate responsibility and poverty reduction in the region was another limitation. The willingness of participants to voluntarily be interviewed was significant to this study. The COOs agreed to create and execute transparent and cooperative activities for sustainability and long-term companies' involvement in poverty and social responsibilities in the region. They recognized that poverty is a reality, which if not controlled, would affect their future success in these countries. A qualitative research method provided clear knowledge of the involvement of FDI in CSR and poverty reduction through the interview method. Findings from this study may not be generalized to other developing African countries with regard to the issue of poverty alleviation and CSR. It is therefore recommended that future studies should explore multiple developing African countries with varying degrees of poverty and corporate involvements. Secondly, a larger sample of COOs should be considered as participants in future studies.

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Dr. Andree Swanson (andree.swanson@ashford.edu) is a full-time Assistant Professor in the Forbes School of Business at Ashford University. She earned a Bachelor's degree in Business Administration and Management from the University of Maryland European Division, a Masters of Human Relations from the University of Oklahoma, a Masters of Arts in Organizational Management from the University of Phoenix, and a Doctorate in Educational Leadership from the University of Phoenix. She has specialized in distance learning, and values teaching students with diverse backgrounds and schedules. "Having earned my degrees from both traditional classrooms and online learning systems, I value the interactive and responsive instructor." In addition to acting as an educator, Dr. Swanson has worked as a corporate trainer, at one point becoming the national training manager for a rental company. Andree and her husband, Craig, enjoy their family, genealogical research, Facebook, and travel. The couple has one son. They also own three champion Irish Setters, Wilson, Stewie, and Kamikaze Ozzie.



# THE ROLE OF FINANCE IN QUALITY PRINCIPLES

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## ABSTRACT

*Creating a financial advantage is important in today's competitive business world. When looking at critical reasons for success, a great deal can be learned by the role finance plays in a quality movement. Each quality movement has priorities. Financial management's importance varies by program. In some quality movement's, financial management is very important and dictates to the group financial objectives. While other programs see financial management less important using a focus on quality or end users. Of key interest, is finding out the proper financial focus. The 50 articles reviewed for this study are a subset of research completed by Aboelmaged (2010) whose review of over 417 journal articles resulted in eight definitions for Six Sigma. An ingredient absent from each definition was finance. This resulted in a need to understand the role finance plays within the design and application of the Six Sigma program. The research found that applying a balanced approach to financial measurements is integral to the success and longevity of the Six Sigma program.*

**JEL:** M110, D210

**KEYWORDS:** Six Sigma, Financial Impact, Process Costing, Innovation

## INTRODUCTION

In today's competitive environment, businesses are continuously seeking an edge over the competition (Kennedy & Widener, 2008). Organizations regularly put into action quality principles (Laux & DePew, 2014) including Quality Circles, Statistical Process Control, Theory of Constraints, Just-in-Time Inventory Management, Total Quality Management, Six Sigma, and Total Preventive Maintenance (Grasso, 2005). This paper seeks to understand impacts on program success or program failure.

Having lasted for over 35 years, Six Sigma, another quality program, is more than a temporary fad. Cited as the strength of the method, the primary goal is to lessen defects (Samuels & Adomitis, 2003). To those involved with Six Sigma, quantitative analysis is not enough to ensure success (Easton and Rosenzweig, 2012). Incorporation of techniques impacts program effectiveness (Gopnik, 2013) and translate into financial results (Kennedy & Widener, 2008). Cost-benefit analysis is one good measure to find out if implementation has a positive effect for shareholders (Ehighie & McAndrew, 2005). This paper contributes to the current literature by making a comparison of many different quality programs and linking their success to the role finance plays in their implementation. The balance of this article includes a description of the Six Sigma system, a literature review, research and methods, some preliminary findings and future research, as well as concluding comments.

Aboelmaged's research (2010) provides a review of over 417 journal articles. Yet still today, Six Sigma is still without an official definition (Laux & DePew, 2014). Aboelmaged settles with eight alternative definitions for Six Sigma. These definitions involve Six Sigma as a business improvement program that seeks to reduce mistakes. Of the definitions used in the research, none cite financial accountability as part of the Six Sigma design (Aboelmaged, 2010). In a representative sample of fifty of the original 417 articles

referenced, all identified a financial ingredient to Six Sigma. This comparison displays that although Six Sigma does not have a definition that includes finance there is a financial factor.

There are three measures that define Six Sigma. These measures include: defects per million opportunities (DPMOs), error-free yield (EFY), and sigma level. These unique measures are important in controlling an organization's efficiency. An organization can achieve a well-rounded balance by knowing and understanding these three measures. Knowledge of one measure provides a basis for calculation of the other two (De Mast & Lokkerbol, 2012).

The use of the three measures of Six Sigma success directly impacts a firm's financial performance. Management of measures is necessary to ensure it does not fall into an extreme. Left unchecked, one could easily be too financially driven or not financially driven enough. For example the DPMO is not looking for perfection by warranting a 3.4 ratio. This 3.4 means that organizations aim to only incur 3.4 errors for every one million items produced. By striving for perfection (0) the firm could unnecessarily spend money that will not amply return financial results. Alternatively, a DPMO of 10 might create too many quality issues and dissatisfied customers.

Naturally, any improvement program needs proper adoption. Six Sigma will not produce satisfactory results if performed in a vacuum. Top-down programs carried out by a Chief Executive Officer or a Chief Financial Officer will not be successful without acceptance of employees. Similarly, bottom-up employee driven programs need acceptance and support of executives. According to Samuels and Adomitis (2003), success under Six Sigma depends on four key attributes, which reflect a much broader management philosophy and approach. First, senior management needs to commit and support the implementation change. Second, access to significant data needs to be readily and continuously available. Third, operations should study the impact on profit centers, inventory, central supply, medical records, support departments, and nursing. Fourth, their needs to be access to expert knowledge about Lean Six Sigma (Lean reduces unprofitable work in an organization) to help control the remaining profitable work. Six Sigma lessens process defects through successful execution of these four attributes.

This paper serves as a literature review on the role of finance in quality programs. Several programs are researched. Six Sigma is a strong candidate for research because of its longevity and impact. This paper includes several examples to ensure a practical focus.

## LITERATURE REVIEW

Why is Six Sigma's focus on finance good? When looking at the strengths of Six Sigma, understanding financial ramifications is important. A firm's finances often improve by lessening waste. There is a limit to how much waste removal is necessary and at what cost (De Koning, De Mast, Does, & Vermaat, 2008). Elimination of waste can include the capacity to lessen paperwork by creating meaningful reports (Fullerton, Kennedy, & Widener, 2013). Management should seek to understand the impact of a project before adoption. Creating reports that measure the actual impact should be post execution (Fullerton, Kennedy & Widener, 2008).

To show this point, one might consider whether to spend \$500 dollars to save a penny. The early reaction to spending \$500 in employee time and organization resources to save a penny would be a waste of shareholder investment. An organization's mission can be hampered if cost continuously outweigh the benefits. If the cost savings occurred for each item and 500 products are impacted, the result is different. The break-even point occurs in one month and all cost savings after that produce positive results.

Quality Programs that are too financially driven often fail. A program is "too financial" when an organization is too aggressive in chasing projects that do not produce financial results. Others will expect

a focusing on nonfinancial measures will lead to financial results (DeBusk, 2012). Costs are often analyzed inappropriately in an attempt to justify the project. For example, an organization working to develop new software may have an estimated fixed cost of \$300,000 and an annual cost of \$50,000. The new software would replace the current program that had a fixed outlay of \$500,000 and annual costs of \$100,000. Acceptance was based on this information. Project costs, however, were updated with significant changes. The new estimate reflected that another \$250,000 was needed to complete the new program and annual cost savings reduced to \$25,000. In this situation, it is inappropriate to consider the first \$300,000 for decision making. Regardless of completion, these project dollars are unrecoverable.

Quality programs often fail if not financially driven. Inadequate financial impact occurs when an improvement is “not financial enough.” An example is when consultants encourage a “quality-focused” culture creating only slogans to promote a quality focus. A consultant who offers even basic training on methods for documenting quality improvement will create greater awareness than any slogan. A lack of financial impact can pull employees away from their responsibilities, negatively impact production and create costs without financial benefits (Samuels & Adomitis, 2003).

A weakness of lean manufacturing initiatives includes a lack of focus on nonfinancial items. Baines and Langfield-Smith’s (2003) research finds a firm uses Total Quality Management and Just-in-Time for nonfinancial information. Kennedy and Widener (2008) found evidence of a relation between nonfinancial measures, quality, and productivity. They also found that those same firms relied more on nonfinancial measures such as productivity rather than on financial measures like profitability and return-on-investment. Organizations often use nonfinancial measures with team based management (Baines & Langfield-Smith, 2003).

Quality Programs that include finance have more success. The goal when implementing Six Sigma is to adopt a project that is “just right.” Six Sigma recognizes the significance that defect reduction has on financial performance. Six Sigma ensures that projects performed aim to meet the needs of both executives and employees. It also defines the tasks necessary to produce value for shareholders. By working as a team with employees, financial managers can begin to implement changes early in a process at minimal cost by preventing errors from becoming much more costly problems later (Samuels & Adomitis, 2003).

The health care industry is a good example of how Six Sigma can strengthen an organization. Six Sigma application can be more difficult in the health care industry because of the industry’s complexity, human interaction, and issues of diagnosis. Hospitals are non-routine causing analysis to be more difficult. As a result, hospital processes involve much more human and educated intervention than manufacturing. At every stage of a healthcare process, critical quality factors exist that directly affect some or all of these areas (Samuels & Adomitis, 2003).

The hypothesis is that Six Sigma is longer lasting and effective by nature due to its having a financial focus but not being principally financially driven.

## **RESEARCH DESIGN AND METHOD**

Research was completed by reviewing existing literature across several quality programs. A focus was given to Six Sigma due to its longevity and evidence of financial impact. The research looks at the key drivers for program success, differences across the programs and drawbacks. The quality programs analyzed include Total Quality Management, Lean Manufacturing, Six Sigma, Cost Reduction Programs, Quality Circles, Just-in-Time, and Total Preventative Maintenance. The research looks into the key drivers for different program’s success and lays them out in a table format. A program is considered financially driven if the financial management team controls the quality process. In this situation, controlling cost is often the most significant feature.

## RESULTS

The following table summarizes the reviewed articles. The programs included: Total Quality Management (TQM) (Ehigie & McAndrew, 2005), Lean Manufacturing (Osterman & Fundin, 2014), Six Sigma (Aboelmaged, 2010), Cost Reduction Programs (Labro, 2006), Quality Circles (Funk, 1995), Just-in-Time (JIT), and Total Preventative Maintenance (Brandolese, Franci, & Pozzetti, 1996) to decide impact on an organization.

Table 1 shows whether a business role impacts a quality program. The analysis includes using the following departments: finance, production, quality, customer service, and decision management. A “Yes” means the characteristic directly applied to the program.

Table 1: Comparing Quality Programs by Business Function

Quality Program/ Business Function	TQM	Lean Manufacture	Six Sigma	Cost Reduction Programs	Quality Circles	JIT	Total Preventative Maintenance
<u>Finance</u>		Yes	Yes	Yes			
<u>Production</u>	Yes	Yes	Yes		Yes	Yes	Yes
<u>Product Quality</u>	Yes		Yes		Yes		Yes
<u>Customer Service</u>	Yes		Yes				
<u>Management</u>	Yes	Yes	Yes				

*This table shows the relationship between a business function and a quality program. A signal of “Yes” means the business function has a direct focus with a quality program. A black space means there is not a strong focus.*

After reviewing several articles, five primary business functions were identified to explain the effect of the various quality programs. The five business roles include: finance, production, product quality, customer service, and management. After looking at several articles, these departments emerged as the ones most impacted by quality movements. From this table it can be seen that Six Sigma is the only program that includes all five business functions (Aboelmaged, 2010). Program longevity is an important consideration of program effectiveness. Program termination is a key signal that a program is no longer effective. For example, quality circles are in little use today. As a result, it is important to see what fundamental business ideas cause businesses to stop using certain programs.

Overemphasis on finances can hurt goal attainment. Traditional budgeting creates annual financial targets and are often negotiated between operating managers and the budget committee. Financially driven programs focus on organizational financial performance while quality or customer needs are often forgotten. This can sacrifice long-term financial performance (McVay & Cooke, 2006).

Though budgets are good, budgets are not perfect. There are several common problems with budgets and the budgeting process. Some of these problems include: re-estimations, become outdated, involve judgment, are time-consuming, and focus on finances (McVay & Cooke, 2006). Six Sigma allows for better decision making by providing analysis with greater detail and timeliness. The program also aids decision making by providing separate financial data for management analysis and for corporate reporting (DeBusk, 2012).

## CONCLUDING COMMENTS

The goal of this research is to learn the role finance plays in a quality movement. The review of 50 articles used in prior research completed by Aboelmaged in 2010, provides the based for this research. From this, seven quality programs were identified as significant within the industry. Quality programs are impacted



by five business roles. An analysis of each quality program against each business role was performed. The research found Six Sigma is the only program impacted by all five roles.

The research found that quality programs with financial measures focus on cutting out waste through process improvements. A company can do this by measuring its costs today, estimating its projected costs, and continuing to measure its costs through and after implementation of a new process. Additionally, break even analysis must be performed to bring balance to cost cutting efforts. Quality programs that are too financially driven and fail just as badly as those with no or little financial focus. This highlights a key to program success; finding a balanced approach to the value of financial measurements. Success is measured by meeting the needs of employees, management, and shareholders alike.

This research was limited by a focus on existing research rather than new data. No financial performance reports or other qualitative data were drawn upon for conclusions.

This research is important as it identifies the interdisciplinary nature of Six Sigma. Also, it recognizes the role of finance in quality processes. The body of knowledge improves by uncovering the critical success factors for Six Sigma and the role of finance. This is different from other research that looks at what Six Sigma makes successful. Key importance is Six Sigma's balanced approach to the value of financial measurements.

Future research could include several options. First, researchers could review the input financial staff have at different levels of a project. Here the research could include the financial people themselves and their impact on quality program success. Second, the skill of the decision makers could be analyzed. Decision makers all have different strengths and weaknesses. Understanding the different competencies of leadership is important. For example, are they financial deciders, Black Belts, or Green Belts. Third, the accountability of project success based on financial drivers could be analyzed.

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# **TARGET SECURITY: A CASE STUDY OF HOW HACKERS HIT THE JACKPOT AT THE EXPENSE OF CUSTOMERS**

Dorothy A. McMullen, Rider University  
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## **CASE DESCRIPTION**

*For most people, the word cybercrime invokes getting individuals' personal information through Internet hacking. For this reason, many people are wary about making online purchases, concerned about the security of their personal data and the rise in identity theft. However, the recent breach of security at Target, when customers made in store holiday purchases, indicates the pervasiveness of this terrible crime. In late December 2013, Target announced that hackers, through point of sale terminals in stores, had successfully stolen data for up to 40 million credit and debit cardholders. Target later revised the estimate to 110 million cardholders, citing that the breach included encrypted pin information as well as purchases made more than a decade ago. This case allows students to analyze the Target security breach and propose ways that the attack could have been prevented or at least detected more quickly by Target management, internal and external auditors. This case is suitable for an undergraduate class or a graduate business class.*

**JEL:** M40, M42

**KEYWORDS:** Cybercrime, Target, Fraud, Security Breach

## **CASE INFORMATION**

The word "cybercrime" can instill fear in many people. It is a hot topic, even the topic of a new hit television show. Many people are wary about making purchases on the Internet, concerned about the security of entering personal data. However, the breach of security at Target and the huge number of customers impacted by buying things at one of their stores indicates the huge scope and pervasiveness of this terrible crime. According to the Nilson Report, the leading payment industry newsletter ([www.nilsonreport.com](http://www.nilsonreport.com)), the U.S. accounted for almost half of the \$11.3 billion credit card fraud losses that occurred in 2012, and that was a 14% increase over the prior year. According to an April, 2015 speech by U.S. Assistant Attorney General Leslie R. Caldwell at the Criminal Division's Cybersecurity Industry Roundtable, 76% of all data breaches world-wide were in the United States and cybercrime costs the U.S. at least \$400 billion annually (see <http://www.justice.gov/opa/speech/assistant-attorney-general-leslie-r-caldwell-delivers-remarks-criminal-divisions>).

In late December 2013, during the height of the holiday season, Target officials announced that hackers had successfully stolen data from up to 40 million credit and debit cards from consumers who had shopped at Target retail stores nationwide between November 27 and December 15, 2013. On January 10, 2014, Target announced that up to 70 million cardholders were affected and that the information, including encrypted bank pin information, could go back several years. Personal information including names, mailing addresses, email addresses and phone numbers was also stolen. According to

KrebsonSecurity, credit and debit card information immediately began to go up for sale on underground websites for \$20 to more than \$100 per card (Krebs, 2013).

### Security Breach

Internal Control includes those policies and procedures adopted by management to ensure the following: reliability of financial reporting, safeguarding of assets, including data stored on a network, and compliance with laws and regulations. They are considered critical for the management of risk and detection of fraud in a company. In early November 2013, hackers targeting American retailers found that Target's system lacked necessary internal controls, which could prevent cyberfraud. The network lacked virtual walls and motion detectors that are typical of secure systems. It appears that cybercriminals were able to breach Target via one of Target's vendors. According to KrebsonSecurity, the crime began with a malware phishing attack on an HVAC firm that did business with Target (Krebs, 2014). The criminals apparently were able to access Target via the HVAC company's vendor portal. A simple Google search was able to reveal a wealth of information about how vendors interact electronically with Target and the thieves may have exploited this information. Once the criminals accessed Target's systems, they installed malware on the point of sale systems to steal information from customers. This was the opening the thieves used to wreak havoc on Target's system and actually get moved beyond the server to the in-store point of sale systems, where customers swipe their cards. Data was taken directly off of the magnetic strips on customers' card and stored on Target's server until the thieves gave instructions on where the information would be used, in other words sending the card information to the black market for individual credit card sales or just using the card information themselves to make unauthorized purchases.

Secret Service, monitoring suspicious credit card activity in December, notified Target of the high incidence of purchases made at Target. Target was aware of the potential problem and was drafting a press release, when a prominent cybercrime security blogger, KrebsonSecurity, started asking about a big data breach. When Target officials did not respond, the blogger posted the story on his site. Target is not the first retailer to have credit card data stolen by a hacker. In 2007, TJX Companies, the parent company of TJ Maxx, Marshalls and HomeGoods, announced that its computer security had been breached and customer information stolen. The difference with the Target breach is that it occurred through the point of sale systems used to process customer payments in stores. The fact that the breach affected people making purchases in a store, rather than online, has really shaken the general public. "Data breaches like this one, and past breaches such as at T.J. Maxx and Sony PlayStation, raise important questions about the responsibilities corporations have to protect consumer data and inform their customers when data have been compromised" stated Senator Al Franken of Minnesota. As a result of the Target breach, Senate Judiciary Committee chairman Patrick Leahy introduced the Personal Data Privacy and Security Act for the fourth time since 2005. The measure would establish a national policy with regard to data privacy protection and cybersecurity, since right now a comprehensive set of national standards does not exist.

### Aftermath

In a survey conducted by the American Institute of Public Accountants (AICPA, 2013), US accounting professionals felt that securing the IT environment and ensuring privacy were the second and fourth most important technology initiatives for companies to handle. Yet it appears that Target Corporation, a Fortune 500 company with sophisticated systems, was not capable of doing this. The cyber attacks being conducted now are orchestrated by organized criminals, who have a vast array of knowledge, skill and resources. If these hackers can infiltrate the data at a Fortune 500, then small businesses are even more at risk. The announcement of the security breach opened a floodgate of angry consumers as well as class action lawsuits by consumers as and bank/financial institutions negatively impacted by the breach. In March 2015, Target agreed to a \$10 million settlement in a class action suit by consumers who shopped at Target during the data breach (See the settlement agreement here:

<https://targetbreachsettlement.com/mainpage/SettlementAgreement.aspx>). In April 2015, Target reached a settlement with Mastercard to pay up to \$19 million to financial institutions for costs associated with the data breach. It is interesting to note what happened to Target's stock price. Following the data breach, the stock price took an approximately 11% hit. However, the stock price recovered within a few months and as of May 2015, the stock price is actually up 24% from its December 2013 high.

### Lessons for Consumers

Cybercrime and identity theft are a huge threat in today's world. However, consumers can take some basic steps to help protect themselves. Everyone should monitor their credit reports regularly. By law, one may obtain a free credit report on themselves once per year. Consumers should examine all records of debit and credit cards transactions closely. Beware of "phishing" emails and phone calls and never give out personal information such as social security numbers. Use a cross-cut shredder to shred any documents with personal information on them. Opt out of prescreened credit offers by mail. Collect the mail from your mailbox daily, or even better would be to get a locked mailbox. Protect your personal information that you store in your home from others including housekeepers, repair men, babysitters, etc. Taking these small precautionary measures can go a long way in keeping yourself safe.

### QUESTIONS

1. Provide a timeline of the major events that took place beginning in November with regard to the Target breach. Was Target's response and when it was given correct, based on what you know? Support your answer.
2. A major institutional shareholder called for the resignation of the members of Target's Audit Committee. What role should the Audit Committee and Board of Directors play with regard to risk assessment of IT processes and systems as well as the controls that are in place to mitigate those risks?
3. What role should Senior Management play in assessing risks and creating controls. Target had a CIO, Beth Jacob, at the top of the breach. Research her background. Was she qualified for this position? Are there any other officers that Target should have had as part of IT governance, given the size and complexity of their system? Has Target done anything in that regard subsequent to the scandal?
4. Discuss some of the risks associated with complex database computer systems? Which of these risks was not addressed in the Target Security Breach?
5. Internal Audit is charged with overseeing and testing controls in the system. What tests might have uncovered the problems with the system at Target and its vulnerability?
6. External auditors sign off on the internal control system as well as the financial statements. What type of audit opinion did the external auditors issue for Target's financial statements? What type of audit opinion did the external auditors issue for Target's internal controls over financial reporting? What is the external auditor's responsibility when it comes to IT controls and risks?

# TARGET SECURITY: A CASE STUDY OF HOW HACKERS HIT THE JACKPOT AT THE EXPENSE OF CUSTOMERS

## TEACHING NOTES

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## CASE DESCRIPTION

*For most people, the word cybercrime invokes getting individuals' personal information through Internet hacking. For this reason, many people are wary about making online purchases, concerned about the security of their personal data and the rise in identity theft. However, the recent breach of security at Target, when customers made in store holiday purchases, indicates the pervasiveness of this terrible crime. In late December 2013, Target announced that hackers, through point of sale terminals in stores, had successfully stolen data for up to 40 million credit and debit cardholders. Target later revised the estimate to 110 million cardholders, citing that the breach included encrypted pin information as well as purchases made more than a decade ago. This case allows students to analyze the Target security breach and propose ways that the attack could have been prevented or at least detected more quickly by Target management, internal and external auditors. This case is suitable for an undergraduate class or a graduate business class.*

## GENERAL COMMENTS

The primary objective of the case is to expose students to issues related to IT security and cybercrime. A secondary objective is to explore the role of both the internal auditor and the external auditor. This case provides students with a rich context to explore a variety of real world issues. Traditional textbook discussion of IT security can be dry and a difficult concept for students to grasp. This case was designed with the notion that most college students have shopped at Target and most of them are familiar with Target's data breach, at least on some minimal level. We have found that students are quite interested in this case and eager to discuss it.

This case has been used in both introductory level accounting courses and upper level Auditing courses. It could also be used in a capstone course, as it covers a variety current real world issues. When used in an accounting course, the case should be assigned to students after the topic of internal controls has been introduced. When used in an upper level Auditing class, the case should be assigned after the topic of fraud detection and deterrence has been discussed. The instructor should allow approximately 15 minutes to introduce the case. Students should have approximately least one week to complete the case outside of class. Case questions may be assigned all at one time or as relevant topics are discussed in class. Feedback from students based on both surveys and informal discussions indicate that the students better understand the risks associated with cybersecurity after completing the case.

## QUESTIONS

**Question 1:** Provide a timeline of the major events that took place beginning in November with regard to the Target breach. Was Target's response and when it was given correct, based on what you know? Support your answer.

**Solution 1:** Students can easily conduct an internet search to provide a timeline of the Target security breach. The timeline provided by the *International Business Times*, February 22, 2014 follows:

*Nov. 27 - Dec. 15, 2013:* Personal information, including names, mailing addresses and phone numbers, of 40 million customers who used credit and debit cards at U.S. stores are exposed to fraud.

*Dec. 13, 2013:* Target executives meet with the U.S. Justice Department.

*Dec. 14, 2013:* Target hires a third-party forensics team to investigate the breach.

*Dec. 15, 2013:* Target confirms that criminals had infiltrated its system, installed malware on its point-of-sale network, and potentially stolen guest payment and credit card data. Target removes malware from "virtually all" registers in U.S. stores. The public is not made aware of the data breach.

*Dec. 18, 2013:* Data and security blog Krebs On Security first reports the data breach. The Secret Service investigates.

*Dec. 19, 2013:* Target publicly acknowledges the breach, saying it is under investigation and the information accessed included credit and debit card numbers and card expiration dates, with no indication that PIN numbers were impacted, according to a spokesperson. The information was not prominently displayed on Target's website. Customers jam Target's website and customer service hotlines.

*Dec. 20, 2013:* Target says very few credit cards compromised by the breach have resulted in fraud and offers U.S. customers a 10 percent discount off in-store purchases for the last weekend before Christmas. Target also announces it has no indication that birth dates or Social Security numbers were accessed in the breach.

*Dec. 21, 2013:* JPMorgan Chase & Co. (NYSE:JPM) places daily limits on spending and withdrawals for its debit card customers affected by the Target breach, begins reissuing cards and opens some branches on a Sunday to help Target customers.

*Dec. 22, 2013:* Transactions at Target fell 3 percent to 4 percent compared to the year earlier on the last weekend of holiday shopping before Christmas. Other retailers report strong results.

*Dec. 23, 2013:* Target's general counsel hosts a conference call with state attorneys general as the company works with the U.S. Department of Justice, Secret Service and others.

*Dec. 27, 2013:* An ongoing investigation by a third-party forensics unit finds that encrypted debit card PIN information was accessed during the breach, but Target says it believes PIN numbers remain secure.

*Jan. 10, 2014:* Target says an additional 70 million customers had personal information stolen during the breach, including emails. The company lowered its forecast for its fourth quarter, saying sales were meaningfully weaker than expected after news of the breach.

*Jan. 22, 2014:* Target lays off 475 employees at its headquarters in Minneapolis and worldwide and leaves another 700 positions unfilled.

*Feb. 4, 2014:* Target CFO John Mulligan testifies before the U.S. Senate Judiciary Committee, mentioning the ongoing investigation but offering no new information on who might have hacked the data. Mulligan says Target has invested hundreds of millions in data security and rejects claims that its systems weren't up to par. Other witnesses discuss the benefits of chip-and-PIN technology, used widely

in Europe but not in the U.S., where banks and retailers have balked at the expense.

*Feb. 18, 2014:* Costs associated with the data breach topped \$200 million, a report from the Consumer Bankers Association and Credit Union National Association finds.

*Mar. 7, 2014:* Target lets its employees wear jeans and polo shirts to work in an effort to boost morale after layoffs and the sales-killing data breach.

*April 30, 2014:* Target says it has committed \$100 million to update technology and will introduce chip-and-PIN technology for its debit and credit cards by early 2015.

*May 5, 2014:* There is a change in top management at Target. Bob DeRodes, a former tech adviser in several federal government agencies, takes over as Target's chief information officer. Target CEO Gregg Steinhafel resigns.

Most experts agreed that Target did not react well to the breach initially and the consequences were apparent in their most recent earnings report, which estimated the cost of the data breach at \$148 million for Q2. The security breach originated on November 13, and though the network security firm FireEye sent alerts to Target on November 30th and December 2nd, Target did not take action nor was it the first to break the news to the public-- Krebs on Security broke the story a week later. Once the breach was made public, customer service phone lines were busy for hours and Target's initial announcement on its website was not prominently displayed. A security breach should be handled by taking responsibility and be completely transparent with users. Communication and immediacy are important to minimizing the damage. Specifically, make sure customer communications are posted prominently, where customers will see them and increase your customer support efforts so your company can take a proactive approach in helping customers reset passwords and address customer concerns. Also, trust can help be restored by communicating the security measures your company is implementing to prevent a future data breach.

**Question 2:** A major institutional shareholder called for the resignation of the members of Target's Audit Committee. What role should the Audit Committee and Board of Directors play with regard to risk assessment of IT processes and systems as well as the controls that are in place to mitigate those risks?

**Solution 2:** Background: Institutional Shareholder Services (ISS) recommended ousting Target's Audit Committee due the risk management failure associated with the security breach. However, Target's internal technology team was warned of the vulnerability and decided that the risk was worth accepting – not the Board. It was Target's management who were involved in the project and accepted the risk of losing 70 million records.

In general, the Audit Committee's role is to review and challenge, where appropriate, the company's risk profile and ensure that risk management processes are in place, especially those affecting financial reporting and reputational risks. With respect to risk assessment of IT processes: The Audit Committee should focus on the company's plans for achieving any information technology milestones, especially for IT transformation projects, given the importance of IT to most organizations; Understand the use, if any, of emerging technologies (such as cloud computing), their relevance to the company and the associated risks; Understand whether IT security processes are updated as appropriate and are in line with the strategy of the company; Review whether processes to evaluate acquisitions include an assessment of controls at the acquired entity, such as tone at the top and controls around IT risks.

**Question 3:** What role should Senior Management play in assessing risks and creating controls. Target had a CIO, Beth Jacob, at the top of the breach. Research her background. Was she qualified for this position? Are there any other officers that Target should have had as part of IT governance, given the



size and complexity of their system? Has Target done anything in that regard subsequent to the scandal?

**Solution 3:** It is senior management's responsibility to have processes in place to assess IT security risk and to have effective controls to mitigate the risk of security breaches. At the time of the breach Beth Jacob was Target's CIO. Ms. Jacob's biography posted on the website <http://people.equilar.com> is as follows:

*Beth Jacob is executive vice president of Target Technology Services and Chief Information Officer for Target. In 1984, Jacob joined Target's department store division (Dayton's) as assistant buyer. Jacob left the department store division in 1986 and returned to Target in 2002 as director of guest contact centers. In 2006, she was promoted to vice president, guest operations. She was promoted to her current position in 2008. She is a board member of the United Way, Greater Twin Cities. Jacob graduated from the University of Minnesota with a bachelor's degree in retail merchandising in 1984 and a Masters of Business Administration in 1989.*

*Source:* Target Corp. on 12/31/2013 It would appear that Ms. Jacob does not have the proper qualifications for the position of CIO even though she had just completed her fifth year in this position for Target just before the security breach was made public. Target has made significant changes subsequent to the scandal. In addition to accepting the resignation of Ms. Jacob, Target hired a new CIO, Brad Maiorino. The new CIO led this critical function at two of the country's largest corporations and he is widely recognized as one of the nation's top leaders in the complex, evolving areas of information security and risk. In the months following the 2013 data breach at Target, the company detailed significant steps it took to enhance its information security systems and processes while transforming its security and compliance structure and practices. Examples of this included enhancing monitoring, segmentation, logging, and security of accounts and installation of application whitelisting on point-of-sale systems.

**Question 4:** Discuss some of the risks associated with complex database computer systems? Which of these risks was not addressed in the Target Security Breach?

**Solution 4:** A complex database computer system requires complex controls and security measures. A main risk is the company's process to validate, reconcile and consolidate data (VRC). Other risks include information unavailability and confidentiality vulnerabilities. The risk of unauthorized access was the risk that played such a big role in Target's breach. Penetration testing may help identify and prioritize security risks.

**Question 5:** Internal Audit is charged with overseeing and testing controls in the system. What tests might have uncovered the problems with the system at Target and its vulnerability?

**Solution 5:** Since the enactment of Sarbanes-Oxley in 2002, the role Internal Audit plays in the testing of controls has become extremely critical, particularly in light of the many technological changes that have resulted in Enterprise Resource Management (ERM) database systems, that are shared by not only all divisions and subsidiaries of a company, but also, in part, with third parties, such as customers and vendors. This interconnectedness of systems leads to concerns about improper access to confidential information. The Internal Audit profession is well aware of the growing risk of and consequences associated with data breaches. Retailing companies, with their system linked to those of vendors, credit card companies and other external parties, can easily be penetrated through one of these third party networks, which is linked to theirs. In the case of Target, the hackers gained access to the 40 million customers' data by using the credentials of one of Target's vendors.

Depending on the course, students are not always comfortable concerning IT controls and risks. The following are some basic types of tests that could have prevented or at least detected earlier the breach at Target. These general procedures would apply to all audits of systems.

Some procedures that Target's Internal Audit could have performed to discover the system's vulnerability to attacks include: Testing the network and its applications for possible intrusions and vulnerabilities. This can be done by using logs of network activity to look for anomalies such as failed log-in attempts, unexpected volume of traffic between systems, unexpected activity or volume in one specific account. Also, they should see how exception listings were followed up and explained over the year by IT staff. In other words, is there adequate staff to maintain system security?; Check the firewalls in place and make sure that systems are segregated and accounts limited to a certain portion of the network. This segregation of duties is critical to prevent access across different portions of the network; Check the credit card payment system for vulnerability by having vendors run a virus check and also ensure that vendors are using encryption; Ensure that systems are patched up to date for known viruses; Check to see if passwords changed regularly and maintained separately for each account.

Also, check that passwords for sensitive accounts stored in an encrypted files; Determine the change management procedures being used with regard to system software, application systems and data, i.e. ensure adequate separation of duties so that programmer who develops the change does not update the actual system, rather someone in operations updates program after it has been approved by programmer's supervisor. This is critical to prevent all types of fraud; Since so many transactions are being done using many types of mobile devices, test that encryption is being used for things such as phone, tablets, etc.; Check to see the procedures in place for recovery plan should there be an intrusion and loss of data. Are there adequate personnel involved? Do individuals know what their role is should there be a break-in? Are procedures documented somewhere and do they do mock intrusions to see how people respond?

**Question 6:** External auditors sign off on the internal control system as well as the financial statements. What type of audit opinion did the external auditors issue for Target's financial statements? What type of audit opinion did the external auditors issue for Target's internal controls over financial reporting? What is the external auditor's responsibility when it comes to IT controls and risks?

**Solution 6:** Ernst & Young LLP were the external auditors for Target. For the year ended February 2, 2013, Ernst & Young issued an unqualified opinion on both the financial statements and also on internal controls over financial reporting. Students can easily access these audit reports on the Edgar database on sec.gov. The external auditor has a responsibility to plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. It may be interesting to note to the students the "inherent limitations" paragraph in the auditor's report on internal control.

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# **SOUTH STREAM: EUROPEAN NATION STATE BUILDING IN THE PUTIN AND POST-PUTIN ERA**

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## **ABSTRACT**

*Bulgarian nationalism as a political force for state political reform faces formidable challenges due to the Bulgarian state's dependent development under Communism. Nationalist communism was a comparatively effective component of the legitimation strategy for the Communist regime. In neighboring Serbia, the Titoist regime suppressed ethnic nationalism. As the largest nationalist challenge to the Communist Yugoslav state, the Serb national community was partitioned. One-third of ethnic Serbs were placed outside of the Serb republic, and Kosovo and Vojvodina were officially subunits of Serbia but were Yugoslav federal constituent republics in all but name. Russian exploitation of opportunities for influence expansion in Serbia and Bulgaria exist but differ, reflecting this conflicting legacy of Communism in both states. Serb rejection of Communism included advocacy of Serb irredentism, which the post-Soviet/Russian nationalist regime under Vladimir Putin seeks to exploit. Bulgarian nationalist Communism associated itself closely with the USSR until the rise of Mikhail Gorbachev and his reforms in the USSR in the mid-1980s. Bulgarian militant nationalism lacks societal consensus on the basic principles that constitute it. NATO-Russian competition for influence implies European Union deepening and widening occurs in opposition to post-Soviet Russian state influence. Europeanization implies reducing Russian bargaining leverage within the Bulgarian polity.*

**JEL:** F5, K4, P3, Y8

**KEYWORDS:** Bulgaria, European Union, Russia, Serbia, South Stream

## **INTRODUCTION**

As described by Stern et al., South Stream is one of a number of planned multinational natural gas pipeline construction projects sourced from deposits in the successor states to the former USSR. Russia's Gazprom and Italy's ENI formally announced South Stream in 2006 to supply Europe and expanded it in 2009. Total cost was estimated in 2014 to be approximately \$40 billion with up to 63 billion cubic meters per year projected capacity. Leading partners with Gazprom in the recently halted project grew to include Germany's Wintershall and France's EDF. Bulgaria was to participate as one of the seven countries constructing onshore sections of the pipeline beyond the Black Sea underwater component, with the latter starting at a Russian port. It would circumvent Ukraine, which is now a major pipeline transit corridor as a legacy of Soviet policies. Pricing disputes between Kiev and Moscow led to disruptions in gas supplies to European consumers in January 2006 and January 2009 (2015).

Europeanization in relation to national polities is a prominent focus in the European Union literature, with a focus on top-down and bottom-up Europeanization (Borzel and Panke, 2013). Top-down Europeanization for Bulgaria means reducing Russian bargaining leverage over the Bulgarian government. It focuses on reducing the influence of Russian hard and soft power influence within the Bulgarian polity deriving from economic assets and traditional pro-Russian identity sympathies. Europeanization in Bulgaria means the strengthening of the autonomy of the Bulgarian state to alleviate its neo-colonial relationship to Russian influence. It implies the strengthening of the judicial branch of the Bulgarian government and the

professionalization of the civil service. The Europeanization of Bulgaria interacts with the creation of a European area of freedom, justice and security. It aims towards the institutionalization of the rule of law in international relations in the European regional context and into the broader world (Carrapico 2013, 461; Giumelli 2013, 396).

European international relations become progressively a matter of opposition to crime and corruption, increasingly equated with Russian influence (Blank, 2011). For the foreseeable future, it is likely to require centralization of Bulgarian public administration implementation authority at the national level. Decentralization, either to geographic administrative regions or to policy actor networks, or to some combination of both is unlikely and undesirable. The general tendency in much of the European Union is towards multilevel governance (Piattoni, 2012). Europeanization increases possibilities for greater diversity in the creation of advocacy coalitions within subnational, national and European levels of public policy making (Weible et al. 2011). Yet, such a public administration trend is likely to make Bulgaria too sensitive and vulnerable to Russian formal and informal actor influence. Nevertheless, by allying with Bulgarian nationalism as a liberal actor, the EU promotes the top-down Europeanization of Bulgaria. It stands in contrast, however, to Serb irredentist nationalism that has been frustrated by Euro-Atlantic structures (“The Balkan Crisis,” 1997; Gow, 2003: 5). Serbia, therefore, is likely to remain more amenable to Russian influence than Bulgaria.

This paper posits that Prime Minister Boiko Borisov represents a generational section of the Bulgarian public that internalized a colonial worldview (Cottam and Cottam, 2001: 111-14). This worldview assumes that Bulgaria as a client state needs a Great Power patron to thrive. This analysis first presents the current topography of the dynamic Bulgarian political landscape. It then portrays its foundations in the legacy of Bulgaria’s dependent development within the Soviet bloc. It then highlights the impact of this legacy on challenges confronting the efficacy of the Bulgarian state in terms of instituting the rule of law. The analysis moves to a focus on the development of militant Bulgarian nationalism as a motivating factor that challenges perceived threats to Bulgaria’s sovereignty. The international political context affecting this evolution is highlighted in an analysis of the impact of competing Euro-Atlantic and Russian influence in the western Balkans in the South Stream case. It concludes with a discussion of the present manifestations of this legacy in the form of the rise of Boiko Borisov as two-time prime minister. It concludes that the Bulgarian transition is not complete in that Bulgaria remains vulnerable to Russian influence.

## **BULGARIAN POLITICS AND SOUTH STREAM**

The political maneuvering regarding the currently frozen South Stream project highlights the different attitudinal values that different constituencies of Bulgaria society display. Nevertheless, Bulgarian political parties demonstrate a commitment to integration of Bulgaria into European institutions (Anagnostou, 2005: 98).

Borisov’s flexibility as national leader is notable in relation to the strong pro-Russia lobby in Bulgaria whose influence was evident in the parliamentary debate over South Stream (Pomerantsev, 2015: 40). Bulgaria has been portrayed as Russia’s friend within EU institutions, largely but not exclusively due to its dependence on Russian gas supplies (Bechev, 2009: 220). Bulgaria has consequently been more passive and reactive in its support for EU Common Foreign and Security Policy objectives (Bechev, 2009: 221). As the leader of the “Citizens for the European Development of Bulgaria,” i.e. “GERB” (i.e. “shield” in Bulgarian), Borisov’s party represents elite channeling of Bulgarian nationalist populism into what remains a pro-Western direction (Gurov and Zankina, 2014).

The Bulgarian Socialist Party is the successor to the Bulgarian Communist Party that in the 1980s oversaw the so-called regenerative process that attempted to erase culturally the Bulgarian Turks. The Communist authorities shifted from ‘national in form, socialist in content’ to imposition of ethnic nationalist

assimilation. It culminated in the “regenerative process” to forcibly assimilate the Bulgarian Turks (Anagnostou, 2005: 94). The ensuing gross and systematic human rights violations led to approximately 350,000 migrating to Turkey until the Communist one-party regime ended in 1989 (Stefanova, 2012: 772). Yet, the de facto Turkish minority party, the Movement for Rights and Freedoms (MRF) has collaborated with the BSP to form governing parliamentary majorities (Nezi et al. 2009: 1005). Of course, the MRF gains benefits for its members and constituency as a consequence (Linden and İrepoğlu, 2013: 244).

The BSP added liberalism to its value ideals political orientation since 1989. Militant nationalist populist values have had parliamentary representation, most recently, by the Attack party, whose leader, Volen Siderov, regularly targeted the MRF as a political bogeyman (Ganev, 2006: 86-88). Yet, the BSP was apparently able to use its Russia-sympathetic credentials to attract support from the Attack party. The latter gave the BSP-MRF coalition one additional parliamentary vote needed to allow it to form a BSP-led government in 2013-14 under Plamen Oresharski. It was formed following inconclusive national parliamentary elections. In June 2013, the appointment of Deyan Peevski, an ethnic Turk and a Bulgarian oligarch, to head the intelligence portfolio, led to demonstrations. Peevski’s quick resignation did not quell the protests that continued for months.

In April 2014 after Russia’s annexation of Crimea, the Oresharski government passed legislation exempting the South Stream gas pipeline from EU regulations against monopoly access. Recent EU regulations prohibit EU participation in constructing fossil fuel pipeline projects that contract a monopoly supplier. The Bulgarian parliament designated Bulgaria’s section of the project an “interconnector” rather than a pipeline. The Attack party voted for the legislation, warning the government that it would withdraw its parliamentary support if the government supported stricter EU sanctions on Russia (“Country Report May 2014:” 22, 27). Under threat of withholding of EU development funds, the Oresharski government shelved the project. The justification was the European Union’s third energy package adopted in 2009 that forbid the ownership of gas infrastructure by producers supplying Europe (Baev and Overland, 2010: 1081). The Oresharski government resigned following a poor showing in May 2014 European Parliamentary elections that led a surging MRF to request new national elections (“Country Report August 2014:” 3, 24). The GERB emerged as the largest party and Boiko Borisov became Prime Minister for second time in late 2014.

Borisov first became prime minister following the 2009 national elections. He resigned in 2013 reacting to at times violent demonstrations triggered by electricity price increases amidst perceived corruption and intensifying austerity (Brunwasser and Bilefsky, 2013). Popular anger focused on privatization of Bulgarian electrical energy infrastructure to foreign, Czech buyers who raised rates (“Power Protests,” 2013). These price increases had been approved by the Bulgaria state regulatory body (“Chaos in Bulgarian Energy,” 2013). As of this writing, Bulgaria remains the only East European state in which a sitting prime minister has not succeeded in retaining office following an election since 1989 (Mirescu and Nikolova, 2014: para. 7).

Greece also expressed interest in participating in the South Stream project (Karagiannis, 2013). Subsequently, it has been shelved, while the Russian government has proposed an alternative route to supply, terminating at the Turkish-Greek border (Johnson, 2015).

## STATE BUILDING IN POSTWAR BULGARIA

The Soviet authorities considered the People’s Republic of Bulgaria its closest ally (“Former friends,” 2005). Katsikas reports that Bulgaria twice under Todor Zhivkov’s rule formally requested to join the USSR as its sixteenth republic, once in the early 1960s and again in the 1970s. The USSR refused so as not to complicate its relations with the West and its allies. In return for Bulgaria’s supplication, Bulgaria received extensive economic subsidies from the USSR as well as export markets for its uncompetitive products.

Bulgarian Communist Party subservience also recognized that the BCP came to power through Soviet occupation, unlike in neighboring Yugoslavia (2012: 5-6).

Katsikas notes that Bulgaria's economic dependence on the USSR grew after the end of the 1960s. As the Bulgarian economy weakened, state Communist nationalism began to develop (2012: 30-31). Meznik and Theime note that Communist elites in Bulgaria in the late 1970s promoted a renaissance of nationalism during the socialist era to secure their positions, i.e. "national values." In Bulgaria nationalism was mobilized by targeting it against the Turkish minority. In neighboring Romania, beginning in 1964 with Ceausescu, the target was the Hungarian minority. Both state sanctioned movements despised the Roma and advocated assimilation (2012: 197-98).

Katsikas notes that Todor Zhivkov's daughter, Lyudmila Zhivkova promoted Bulgarian nationalism beginning in the 1970s. She was appointed deputy chairperson of the committee for art and culture. Her efforts intensified especially after the mid-1970s when she received far-reaching powers over television, radio and the press until her death in 1981. She aimed to promote a sense of Bulgarian separateness and to increase national self-confidence. In 1982, the USSR began reducing oil subsidies to its East European allies, which eventually ended completely under Gorbachev, causing Bulgarian panic (2012: 21).

According to Neuberger, the Bulgarian Community Party had significant difficulty in incorporating Muslim populations into rural transformation projects. This resistance was responsible primarily for the large-scale expulsion of about 140,000 Turks from Bulgaria in 1950-51. The focus of the expulsions was in the Dobrudja region in the Bulgarian northeast, the cause being the intent of the Bulgarian authorities to collectivize agriculture. A primary concern was that large-scale migration would lead to disruption of the economy, even destruction of certain sectors, namely in tobacco. Tobacco had come to be dominated by the Turkish population (2013: 226-27).

*Vuzroditelniia Protses* (Regenerative Process) is a cognate of the Bulgarian term *Vuzrazhdane* (rebirth) process. The latter is conferred on the Bulgarians' national awakening in the nineteenth century, which led to the creation of the modern Bulgarian state. According to Bulgarian propagandists, the Turks were Turkified Bulgarians since the Ottoman conquest, so too now the Bulgarian Turks would be reborn and renamed as Bulgarians. Zhivkov and his entourage conceived this policy regarding the 1,000,000 Turks in Bulgaria. The USSR would have to protect Bulgaria while the Soviet authorities were unwilling to intervene in Bulgaria's domestic affairs with Chernenko being incapacitated (Katsikas 2012: 32).

Katsikas notes Gorbachev criticized Zhivkov in October 1987 for Bulgarian policy on Turks. Gorbachev snubbed Zhivkov earlier in July 1985, criticizing Bulgaria for insufficient glasnost with too much perestroika. Zhivkov reciprocated the snub by not mentioning Gorbachev in his speech to the 13<sup>th</sup> BCP congress in April 1986. Zhivkov argued that glasnost's purpose was to show the need for perestroika, but perestroika had already been introduced in Bulgaria. The Bulgarian authorities used nationalism and consumerism to compensate the crackdown on internal expression following 1968 Czechoslovak invasion (2012: 30-31).

Katsikas continues that the escalating domestic conflict led to the end of the Zhivkov regime. The Turkish minority was in revolt and bombs exploded on 30 August 1989 at the Plovdiv railway station and at the Varna airport. More bomb threats emerged, with violent conflicts between Bulgarian security services and Bulgarian Turks. These conflicts produced the biggest Bulgarian military operations since World War II. They resulted in hundreds of arrests and the emergence of an illegal opposition group, "The Turkish National Liberation Movement in Bulgaria" under (Turkish name) Ahmed Dogan (Bulgarian name Medi Doganov). Zhivkov opened the borders in effort to curb turmoil. At least 300,000 Bulgarian citizens left to go to Turkey (2012: 34). Turkey closed the border, with the conflict escalating between Turkey and Bulgaria (Vaksberg and Andreev, 2014). The Kremlin offered its support to a planned palace coup (Katsikas 2012: 34).



Dogan formed the Movement for Rights and Freedoms (MRF) in the midst of the disintegration of the Communist regime. It has maintained its hegemony as the party representing the approximately 10% of the Bulgarian population that is Turkish. It has been the only Turkish ethnic minority party to surpass the 4% national electoral vote threshold for entry into the National Assembly, which it does consistently (Celik, 2009: 13-14; “Movement for Rights and Freedoms”).

### Bulgaria: The Legacy of Colonialism

The Bulgarian state is a comparatively weak administrative state today as evidenced by its relatively high levels of corruption (Miller, 2008). This corruption is significantly a product of a Bulgarian societal habitual attitudinal tendency inculcated during generations of dependent development. It derives from clientelistic, feudalized patterns of post-Communist authority relations that have been ascendant after the restraining force of authoritarian top-down one party control was erased (Karstedt, 2003). Personal interaction with public authority slowly transitions to internalization of the assumption that authority derives ultimately from the autonomous self-determination of the national community (Danchev, 2005). “South Stream” is a case study on the attitudes of the elite of Bulgarian society. It focuses on the top of the “hourglass society,” in which mediating institutions with the mass public are markedly distrusted and therefore lacking, especially in Bulgaria (Rose et al., 1997: esp. 107).

Manifestations today include a comparative absence of strong formal state institutions and their underlying foundational social and legal norms. They are necessary for protecting property rights as well as regulating market transactions (Tzvetkova, 2008: 348). This history has habituated societal attitudes towards the state in the form of its government apparatus to view it as insulated from the national public. Prevailing individual attitudinal predispositions deemphasize expectations of, in effect, social-contractual relations with the state as a consequence of generations of imperial domination (Sklansky, 2005: 1816-17). The post-1989 accession of a liberal, participatory political constitution in Bulgaria contributes to the decay of this dependent development legacy. This liberal constitution provides a more propitious environment for collective political participation including social movement challenges to the Bulgarian elite. Social movement targets include the Communist era elite who reconstituted themselves in various forms, including as the Bulgarian Socialist Party. Bulgarian societal behavior corresponds generally more closely with the “self-sufficient” assumption regarding state authority described by the social movement theorist, Gene Sharp (1973: 73-75; Ackerman and Kruegler, 1994: 8-9). Corruption is a label for the consequences of behavioral patterns that associate with the assumption that the Bulgarian state and its apparatus are self-sufficient, i.e. independent from societal support.

The totalitarian, political economic component of Soviet imperialism was the latest stage in a long period of imperial domination including centuries of Ottoman Muslim rule. The Soviet legacy also interacted with the earlier collective memory of Slavic Orthodox Russia’s critical role in Slavic Orthodox Bulgarian national liberation in 1877-78 (“Alexander Nevsky;” “Monument”).

### Bulgarian Militant Nationalism and European Liberal Democracy

Arzheimer notes that the common denominator for all extreme right European parties is nativism: the belief that members of the native group should be the exclusive inhabitants of the state (2012: 36). Class is a notoriously complex concept, but it appears to be closely related to formal education. Voting for extreme right and educational attainment level has a remarkably strong correlation. Young people are more likely to vote for extreme right parties than older (2012: 45-47).

The National Front (FN) of France has been the center of gravity of populist radical right parties in Europe since the late 1970s, together with the Austrian FPÖ and the Flemish Bloc (VB). Ivaldi notes that the FN is considered the most typical of these parties and it has played a leading role in attempting to unify these

parties across Europe. Ivaldi concludes that euro skepticism and anti-federalism are their only common denominators (2012: 18).

Daniel Smilov of Sofia's Centre for Liberal Strategies affirmed that the highest profile militant populist party in Bulgaria has been Ataka (Attack). At its height, neither it nor any party sought to claim itself as the home of Bulgarian euro skepticism (Troev and Hope, 2006). The rise of right-wing extremist parties in Bulgaria was belated, peaking in 2006 and since declining. Ataka leader Volin Siderov received 24 percent to Georgi Parvanov of the Bulgarian Socialist Party receiving 76 percent in the 2006 second round national presidential election (Troev and Hope, 2006). Meznik and Theime note that Ataka supported Boiko Borisov's 'centre-right' coalition to form the first Borisov government in 2009 (2012: 195, 201). No convincing research exists to explain why militant nationalism has arisen as a powerful force in some states following system transformation and not in others (195-96). Both the Bulgarian and Romanian revolutions were top down affairs with second rank apparatchiks deriving legitimacy from removing Zhivkov and executing Ceausescu (197).

Meznik and Theime highlight that Ataka started as an alliance of right and left wing extremists. It underpinned a fierce debate continuing in terms of the kinds of nationalism that Siderov and others represent since Ataka originally started as a coalition. Ataka's essential platform points focused on resentment towards the Turkish minority and its political representation. Ataka advocated an end to Turkish language news programs on state TV and a ban on the MRF that it views as unconstitutional. Enemies of the nation are the US, NATO, international financial institutions as well as the Roma population. The latter are supposedly terrorizing the population and its high birth rate are a threat to the majority (2012: 205). Ataka had been relatively successful in elections and it has been willing to compromise with the "corrupt" elite to form electoral coalitions in which it supported GERB government. Siderov regularly associates himself with Vasil Levski, a nineteenth century heroic national icon and Ataka has good regional party structures (2012: 206). Indeed, Ataka was known as being more effective in maintaining relatively strong grass roots constituency relations. Siderov "travels a lot and meets ordinary citizens, giving them a feeling that he listens to their problems" (Popkostadinova, 2006: 3).

Kelbetcheva highlights that the rise of the MRF has generated a nationalist, xenophobic backlash among some segments of the Bulgarian public. Communist historiography maintains a strong influence over prevailing public views of Bulgarian history and the MRF today (2012: 242). Predominant Bulgarian views today continue to view the Ottoman occupation as a time of national enslavement. The Communist regime receives some sympathy for its efforts to attempt cultural genocide against the living remnants of the "Ottoman yoke" (239).

As an aspiring counter elite seeking greater influence, the Ataka leadership sought to attempt to assuage public concerns that it is irresponsible in its orientation and demands. It submitted to the Bulgarian parliament a resolution declaring the killings of Armenians in the disintegrating Ottoman Empire in 1915 as a case of genocide in January 2008. The United Democratic Forces (UDF), another party in opposition, joined Ataka in support. The former claimed direct succession from the political counterelite that emerged to confront the ruling Communist and post-Communist/Socialist parties with the end of the Cold War (Kostadinov, 2008).

The post-Communist, Bulgarian Socialist Party was the main party in the ruling 2005-2009 coalition government. It allied with the ex-monarch's National Movement for Stability and Progress (NDSV) and the de facto Turkish minority party, the Movement for Rights and Freedoms (MRF). The BSP rejected the draft parliamentary resolution on the Armenian killings after being placed in an awkward public political position. European Union authorities are under political pressure to require recognition by Istanbul of the 1915 killings as a case of genocide as a prerequisite for Turkish accession to the EU (Hakobyan, 2004: 1-3). Other local government bodies within Bulgaria passed resolutions declaring the killings as a case of

genocide (Kostadinov, 2008b). Ataka exploited what appears to be widespread Bulgarian nationalist discontent over the almost continuous role of the MRF in ruling parliamentary coalitions. From summer 2001 until summer 2009, the MRF had been awarded cabinet positions, specifically, the tobacco-focused agricultural ministry (Kostadinov, 2009). As such, Bulgarian public suspicion was stoked that Dogan, the MRF and the Bulgarian Turks exercised excessive influence over government policy of the Republic of Bulgaria (Kostadinova, 2008a). The secular MRF is perceived as having been successful in converting its political effectiveness with its basis in minority in-group solidarity into economic benefits for its constituency (Bivol, 2008).

In 2013, mass public demonstrations occurred over Bulgarian kleptocracy being seen as a source of the far-reaching economic austerity policies adopted by the government. These policies include most recently privatization and outsourcing of the electricity distribution system to private, foreign-affiliated firms. These power distributors increased significantly electricity prices to consumers. A result was the outbreak of widespread public demonstrations. They forced the resignation of the first “Citizens for the European Development of Bulgaria” government of Boiko Borisov. It led to the formation of a caretaker government and the calling of new elections in May 2013. The outcome of these elections saw the GERB receive a plurality of votes by a small margin, but it was unable to form a parliamentary majority coalition. The second place Bulgarian Socialist Party then proceeded to form a parliamentary minority government. It did so in formal alliance with the MRF. The far-right “Attack” party provided parliamentary support to keep the BSP-led Oresharski government in power, just as it informally allied with GERB during 2009-13. In June 2013, the BSP, led by former Prime Minister Stanislav Stanishev, then rushed through the nomination and confirmation of a controversial cabinet member. It chose a MRF figure, Delyan Peevski, to head the powerful “State Agency for National Security” (DANS).

Regularly tagged in Western media reports as a media mogul, Peevski had been charged with corruption in an earlier governmental role but cleared. His mother formally owns his large Bulgarian media holdings. A physically large young man with close-cropped hair and beard, Peevski’s rushed nomination and confirmation touched off renewed large-scale societal protests (Brunwasser, 2013). One Bulgarian anthropologist reportedly explained that Peevski’s beefy physique contributed to the hostile public response by evoking an old, Communist era stereotype, “the evil capitalist” (Brunwasser, 2013). Peevski quickly resigned, but the demonstrations calling for the resignation of the Oresharski government and new elections continued daily for months. Charges were leveled at Peevski’s media operations for swaying the May 2013 elections. Media reports highlighted claims of 350,000 allegedly “illegal” ballot papers discovered immediately before the May 2013 elections, implying GERB malfeasance. Additional claims were highlighted in the media in early 2013 of GERB government illegal wiretapping as well. One may infer that to many in Bulgarian society, the nomination and confirmation of Peevski appeared to be political compensation by the BSP to the MRF. The Oresharski government resigned and called national elections in autumn 2014 following disappointing European Parliament elections. As of 2015, BSP leader Sergei Stanishev is chairman of the Party of European Socialists. It largely composes the center-left faction of deputies in the European Parliament (“European Socialist Network,” 2014).

Militant Bulgarian nationalism remains an ambiguously defined phenomenon because it lacks a consensus on what it entails in terms of policy advocacy and rejection. The association of militant nationalism with the Communist regime has substantially delegitimized Bulgarian ideological nationalism. Nevertheless, the nationalist-populist “Attack” party has continued to hark back to the national ideals in its media broadcasts. The SKAT television channel in Bulgaria controlled by the Attack party at least until 2009 continually featured a map of Greater Bulgaria on the wall behind the host of one of its regular broadcasts. This poster is apparently standard fare throughout Bulgaria, portraying Bulgaria to include Macedonia and other territories. The same poster hangs on the wall in the entrance hall of the local orphanage in Blagoevgrad, the home of the American University in Bulgaria. [This writer was on the political science faculty there from 1994-2009 (Reeves-Ellington, 1998)]. The Attack Party is publicly pro-Russian (DW, 2014). It

exploits the traditional, romantic Bulgarian nationalist stereotype of Russia as the 19<sup>th</sup> century liberator of Bulgaria from the Ottoman Empire in the 1877-78 War (Wenshaung, 2014). Consequently, Attack party leader Volin Siderov formally launched the party's 2014 European Parliament Bulgarian election campaign in Moscow (Political Party Ataka, 2014). It lost the two seats that it had occupied (Todorov, 2014). The Attack party continued its decline in electoral support but it did surpass the 4% parliamentary barrier for seating in the Bulgarian National Assembly in October 2014 national elections (Kostadinova and Popova, 2014).

According to Ataka, the alleged cabal of corrupt national majority and ethnic minority elites supposedly use political power to steal Bulgarian national assets through privatization (Siderov, 2005). Meanwhile, the rest of society becomes comparatively ever poorer as the previously all-encompassing, familiar Communist-era welfare state disintegrates (Ghodsee, 2008: 37). The relevant social justice norms appear to be the perceived ideals articulated as justification for the old Communist regime. Without specification, these norms generally refer to enforcement of relative socio-economic equality across all classes and sectors (Smilov, 2008: 18).

As Abraham Maslow formalized, the focus of individual and community constituency needs evolves, including security, stability, dignity, and even self-actualization (Sklansky, 2005: 1761). Political participation in a developed society typically assumes satisfaction of safety and security needs. To satisfy dignity and self-actualization needs, the competent individual citizen needs opportunities for effective political participation in a democratic political system (Pausch, 2011: 21). Ideally, the community's system of authority norms develops in a collective dialog with the authorities. Theories of deliberative democracy highlight the importance of participation as necessary (if not sufficient) for the emergence of a societal consensus on norms of right and wrong (Sklansky, 2005: 1723-24, 36, 58-65, 85, 92, 1808). It may thereby facilitate the emergence of the necessary conditions for greater societal trust and consequent belief in the rule of law (Sklansky, 2005: 1785). A national society subject to imperial domination is a society bereft of self-determination. In such a national society, self-determination of its individual members will also be perceived as inhibited. Over generations, behavioral attitudes deriving from the imperial experience will characterize the individual's attitudes towards civil societal as well as public political participation. Transforming these attitudes both at an individual and societal level requires iterative political participation to generate individual internal and societal institutional consensus on norms (Zak and Kugler, 2011: 136, 39, 44, 45). As internalized individual behavioral attitudes change, so will they aggregate to affect the functioning of the state in a liberal democratic political system. Zak and Kugler note that the emergence of societal trust within a society is one of the strongest predictors for the growth of living standards across societies (2011, 141).

## **SOUTH STREAM, NATIONALISM AND CONFLICT IN THE BALKANS**

Cottam and Cottam note that the US and its allies had been following a relatively low cost (for NATO) stabilization strategy with regard to the states of the former Yugoslavia. It focused on stabilizing these new independent states within their existing, Tito-era republic boundaries (2001: 264). Conveniently, European Union integration would arguably be a plausible high-level tactical component for such a stabilization strategy. The international community lacked the intensity of commitment necessary to confront the difficult task of addressing and reconciling conflict nationalist claims in the former Yugoslavia. The overlapping and conflicting national self-determination demands of the Bosniaks, Serbs and Croats and ethnic Albanians were the ultimate source of the outbreak of warfare. As the escalating mass violence itself generates broader international political crises, then the international community has accommodated these demands. It initially did so on the basis of various factors. Among them was public opinion sympathy deriving from historical factors that contributed to German and Italian support for recognizing Slovene and Croat secession vis-a-vis Belgrade (Woodward, 2013: 1174). As NATO turned against Milosevic's Serbia, Kosovar nationalism gained the consequent political benefits of being another, eventually NATO-allied

adversary of Milosevic. Hence, subsequent developments have led to the present situation in which Kosovo with the support of much of the international community has gained sovereignty. Meanwhile, Serb irredentist demands for unification with Serbs outside of the boundaries of the Republic of Serbia, which are a legacy of the Titoist regime, remain anathema (Thomas, 1997; Silber and Little, 1997: 28-34). This impasse for Serb nationalism will continue at least until Serbia succeeds in generating more influence among the most influential ex-Contact Group members (Russia, US, UK, Germany, France, Italy).

Russian President Vladimir Putin warned in assertive statements against the 2008 formal secession of Kosovo from Serbia. He argued that it would set a precedent for international resolution of other secessionist disputes, such as in Cyprus and in Georgia (“Putin’s annual news conference,” 2006). Yet, Russia in 2003 withdrew all of its forces from the Balkans with the exception of Moldova (*Financial Times*, 2004). In fact, Russia (and China) has at times indicated that it will acquiesce to the separation of Kosovo from Serbia, albeit it expected an appropriate trade-off for accepting this outcome (Dinmore and Dombey, 2006). The authorities in Republika Srpska, one of the two entities in Bosnia and Herzegovina, hoped to link to South Stream at the contested city of Brcko (International Crisis Group, 2011: 4).

The EU plays an important role in post-Milosevic efforts to engage in state building in Southeast Europe in that weak states generate corruption, strife, poverty and terrorism (Solana, 2003: 6). It thereby serves to reinforce the stabilization strategy of the international community to the national peoples of the former Yugoslavia. The prospect of the relative individual and group opportunities for utilitarian gain from European integration are an influential factor. They induce cooperation among actors in Bosnia-Herzegovina, who would rather not cooperate, to do so (Judah, 2005; International Crisis Group, 2006). Belgrade and Zagreb are currently unwilling actively to encourage their Bosnian ethno-sectarian compatriots to aspire towards unification with their respective patron states. It is a critical factor supporting this cooperation (Dombey and McDonald, 2006). In the event of the collapse of this cooperation, then an upsurge in the nationalist components of Muslim Bosniak identity should be more likely, i.e. an increase in pan-Islamic appeals (BBC Monitoring, 2008). Parallels here might be found in the intensely violent conflict in Chechnya, with Chechen nationalism having acquired an Islamist element. It is partly as a consequence of a Chechen search for support to counteract the Russian comparative power advantage (Buckley 2006; “Rebel Chechen minister,” 2006). In this context, despite its Cold War history, Bulgaria remains a model of peaceful Balkan political development.

The romantic appeal of the social justice ideals of Communism in Bulgaria have become greater along with the passage of time away from the actual reality that ended in 1989 (Genov, 2010: 41). One social mobility incentive that Russian interests competitively offer is the \$500 million that Moscow claims would come to Bulgaria from South Stream pipeline annual transit fees (Roth, 2014). Bulgaria is clearly the poorest EU member state (“GDP per capita,” 2014). According to one *Financial Times* report,

In Bulgaria Gazprom, Russia’s state-backed energy group, was recently exposed dictating new laws to energy officials in Sofia ahead of a proposal being made to parliament. Questions, raised by the EU, local Bulgarian politicians and the US, swirl around corruption in the South Stream energy pipeline over the awarding of huge construction contracts to certain corporate entities.

The Bulgarian government is the most corrupt in Europe, a European Commission report this year said. Separately European intelligence agencies including Germany’s BND fear the entire Bulgarian political system is compromised by criminal organisations linked to the Russian state and by Moscow’s intelligence agencies (Jones, 2014).

The US government views the South Stream project as about increasing Russian influence in Europe more than making money (“Vladimir Putin’s Visit to Serbia,” 2014; Nichol, 2014: 37, 46, 66). U.S. media reports Russian financial support behind “anti-fracking” protests expressing environmental protection concerns in

Bulgaria and throughout Eastern Europe (Higgins, 2014). These reports reflect a concern in Germany about general Russian efforts to increase its influence in Eastern Europe (Wagstyl, 2014). Some observers have noted a particular focus on the Western Balkans, i.e. Russia's traditional regional ally, Serbian nationalism (Spasovska, 2014). Despite announcement of cancellation of the project, particular Bulgarian and Russian decision makers continue to discuss how to continue with the project ("Russia Asks Bulgaria," 2014).

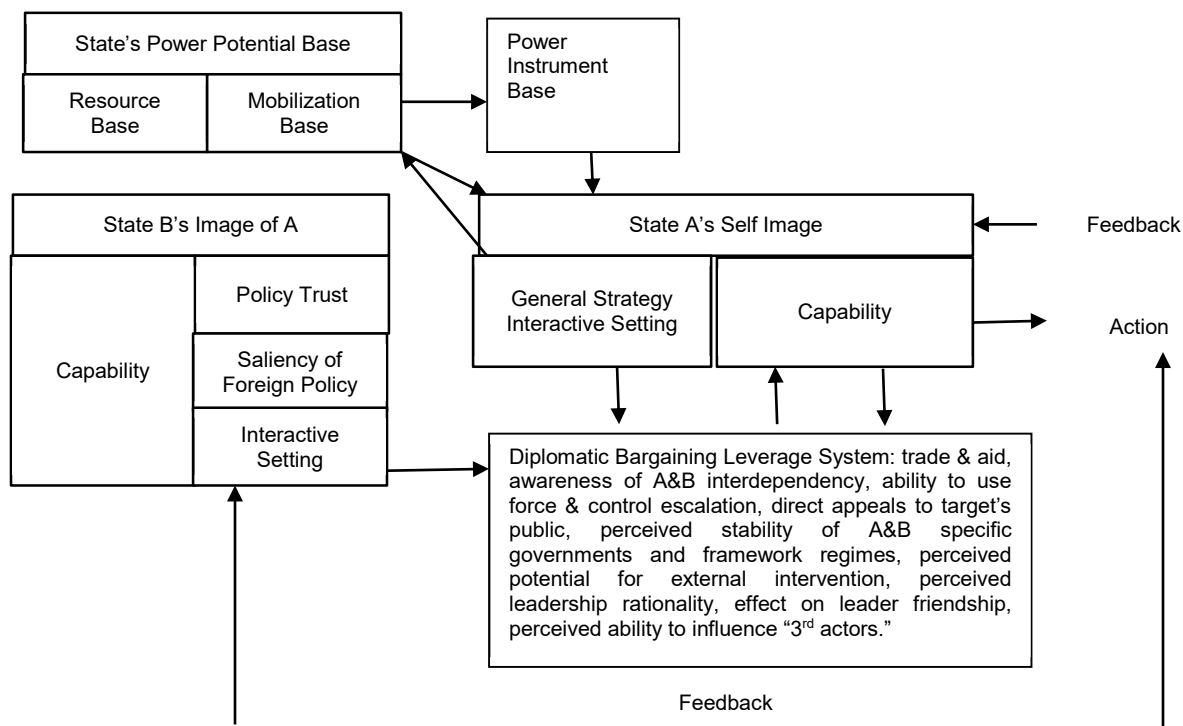
Alliance with Russia is necessary to rectify power imbalances that currently prevent Serb acquisition of self-perceived national rights ("Putin guest of honour," 2014). Such an alliance with Russia increases Serb bargaining leverage towards Brussels regarding Serb claims on Kosovo and Bosnia and Herzegovina. A primary source of Brussels' bargaining leverage lies in the economic field. Ensuring the cancellation of the South Stream gas pipeline project reduces Serb economic options and strengthens Brussels' bargaining leverage towards Belgrade. Russian economic leverage towards Serbia and Bulgaria has heavily emphasized the economic benefits oil and gas pipeline cooperation ("Results," 2014). Following the cancellation of South Stream in December 2014, the Russian government proposed Turkish Stream as an alternative (Stern et al. 2015: 5-13).

### **A CASE OF POLITICAL CHARISMA IN POST-COLONIAL BULGARIA**

Militant nationalist non-violent actors in Bulgaria have developed to the level to make demands and gain benefits through negotiations and compromise. It comes at the cost of transforming the movement into a party or interest group. Competitors thereby understand and tolerate each other and at the end both sides have achieved their aims, although organizational self-reproduction aims may become paramount. One result is the old Communist elite reforming themselves along with the opposition while continuing to reproduce their authority (Schipani-Aduriz, 2007: 92-93).

The populist drift boosted at the end of 2006 with the establishment of the party "Citizens for European Development of Bulgaria" (GERB). The party is created around a former police lieutenant-general, Boiko Borisov (b. 1959), currently Prime Minister of Bulgaria (July 27, 2009-March 13, 2013; November 7, 2014 -- ]. He started his post-1989 official political career as secretary general of the Ministry of Interior in the 2001-5 coalition government led by Prime Minister, and former king, Simeon Saxcoburgotski. As a private citizen in the 1990s, the former Communist-era interior ministry policeman Boiko Borisov had been bodyguard to Communist ex-dictator Todor Zhivkov and to ex-king Simeon Saxcoburgotski. Borisov ran in the 2005 parliamentary elections as a candidate of Simeon's NDSV (i.e. "National Movement of Simeon II") and was elected MP from two constituencies, but refused the seat and left the party. In autumn 2005, he ran in the mayoral elections in Sofia as an independent candidate and won the office, typically viewed as a training position for the Prime Minister post. As expected, his "Citizens for European Development of Bulgaria" won 116 out of 240 Bulgarian national parliamentary seats in July 2009 and he subsequently became prime minister (Minchev, 2009). His charisma stemmed partly from the perception that he, as a former police official, knows and understands the world of corruption and has both the will and the skill to fight it (Stoyadinova, 2009). Borisov has been relatively successful at least in impressing the US government in terms of his willingness to cooperate with US law enforcement and intelligence services (US embassy Sofia, 2006: para. 9). On the other hand, the US embassy noted in 2006 that his police still had not arrested any major organized crime figures despite 123 gangland assassinations, notwithstanding public portrayals of him as "Sheriff of the Nation" (US embassy Sofia, 2006: para. 11). Intensely self-promoting and ambitious, Borisov reputedly paid for positive media coverage and threatened those who report negatively about him (US embassy Sofia, 2006: para. 11).

Figure 1: Schematic Representation of Actor Power/Capability Base and Diplomatic Influence



*The power potential base (including resource base and mobilization base), the power instrument base (the governmental and military programs for generating influence abroad), and the bargaining base (the target government's perception of the capabilities of the agent government, which the agent government may or may not be using) collectively comprise the capability base of a state. The capability base translates into the bargaining leverage system: the level of diplomatic interaction. Collective as well as individual decision maker perceptions/misperceptions of power capabilities and strategic intentions of confronting states reflect a community's historical experiences (Cottam and Galluci, 1978: 9).*

Borisov's political charisma illustrates the features and contradictions of post-colonial Bulgaria. As noted, he was a member of the security apparatus in Communist Bulgaria. Yet he apparently was prohibited from entering the most elite training academies because his grandfather had been executed in a Communist-era show trial (US embassy Sofia, 2006: para. 9). Media reports noted his brooding personality and restless energy along with his penchant for black clothes. He had a public tendency to appear suddenly at crime scenes. It contributed to his nickname borrowed from a globally familiar cinematic American Hollywood crime fighting superhero, "Batman" (US embassy Sofia, 2006: para. 9).

US media reports note that a number of these unsolved mafia assassinations appear to have been modeled on American Hollywood films. Top gangsters acquired archetypical mafia-type nicknames in media coverage, e.g. "the Beak," "Little Mitko," "the Gorilla," "the Doctor" (Brunwasser, 2005). Borisov's manful, intellectual and cloak-and-dagger qualities include being coach of the national karate team before achieving a senior position in the Sofia police force. He obtained a doctoral degree in "Psychological and Physical Training of Operatives" (US embassy Sofia, 2006: para. 9). Pervasive smuggling organized crime networks and trading business cliques that already had their roots in the Communist era emerged out of these old security organs (Hope and Troev, 2008). Borisov was apparently heavily involved (Bivol, 2011: sec. 16). He established one of the numerous private security companies that still characterize the Bulgarian post-1989 domestic clientelistic political economic landscape (US embassy Sofia, 2006: para. 10).

Borisov in effect reflects the Bulgarian national internalization of the colonial/client self-image stereotype (Cottam and Cottam, 2001: 112-13). According to a leaked report from the US embassy in Sofia, "Borisov is street smart but often appears politically naive, as when told us he expects direct American support for

his political career as a sign of our appreciation for his cooperation” [*sic*] (US embassy Sofia, 2006: para. 12). According to Cottam and Cottam, actors internalizing the inferior culture and capability components of the colonial/client self-image are more prone to stereotype a great power increasing its influence in the region. They are likely to view it as the hidden, ultimate arbiter of political outcomes in the internal politics of the colonial/client community. In the concomitant “imperial” stereotype of great powers, the great power has ultimate control through their almost omniscient and omnipotent network of covert assets: the hidden hand. Far-reaching community internalization of this “imperial-colonial” image relationship can produce self-fulfilling behavior that confirms these stereotypical assumptions. They may remain until the prevalence of the stereotype decays in the on-going process of democratic political national self-expression and development (2001: 112-13).

In the mean time, the ambitious Borisov expects that to be nationally successful politically, he should have the United States as a patron while the traditional imperial power, Russia, is in eclipse. He allegedly promised to the US embassy that he would cause the collapse of the post-Communist, Bulgarian Socialist Party (BSP) 2005-9 government under Stanislav Stanishev. He would purportedly do so after the completion of a basing agreement for US forces in Bulgaria (Bivol, 2011: sec. 16). He portrayed himself to US representatives as fiercely anti-Communist (US embassy Sofia, 2006: para. 12). On the other hand, the US embassy reports that Borisov had built his career until that point while relying on close cooperation with Valentin Zlatev, Russian LUKoil’s CEO in Bulgaria. The latter’s operations the US embassy suspected of having a close association with Russian criminal and intelligence elements (Bivol, 2011: sec. 14). During his first national political campaign, Borisov criticized the BSP government’s willingness to accede to US requests to send additional Bulgarian military units to Iraq. He also criticized it for failing to obtain more benefits in return for allowing US military forces to be based in Bulgaria (Bivol, 2011: sec. 16). When US representatives responded and warned Borisov, he immediately stopped his anti-US policy rhetoric (Bivol, 2011: sec. 16). Then, apparently to prove his loyalty to the Americans, Borisov, the informal leader of GERB, promised to destroy the militant nationalist Attack party (Bivol, 2011: sec. 16).

Borisov had suggested that one of the first legislative acts of GERB-led government would be to make evidence collected by Olaf, the EU’s anti-fraud office, admissible in Bulgarian courts (Sevova, 2010). Borisov claimed that such a move that would quickly increase the number of convictions for abuse of EU funds, which have been rare (Hope and Troev, 2009). After becoming Prime Minister in his first term, Borisov appointed a former prosecutor favored by the EU as Justice Minister (“Growing Pains,” 2009). He sought to ensure that provisionally allocated but frozen EU development funds are not permanently lost due to EU concerns regarding pervasive corruption. Borisov also moved to dismiss hundreds of employees of the Bulgarian border customs office. He restarted previously frozen cooperation with the UK’s Crown Agents, a customs and excise service (Hope, 2009).

The social psychological meaning of being a Bulgarian citizen continues to evolve relatively quickly in comparison with west European nation states. A consensus on the emotional substance of being a Bulgarian in terms of rights and obligations of individuals and groups remains comparatively fluid. The Bulgaria nation-state’s transition to become an institutionalized liberal democratic European nation state remains dynamic. Borisov’s charisma interacts competitively with other political forces on the Bulgarian populist right and with Bulgarian pro-EU government policy behavior to contribute to this process (Koepeke et al. 2011).

The Borisov government’s willingness to reorient Bulgarian energy policy away from Russia towards compliance with EU demands generated a negative response from Vladimir Putin. Russia’s president described the successful European Union pressure on Bulgaria to cancel its participation and hence the entire South Stream project as a violation of Bulgarian sovereignty: “If Bulgaria is deprived of the possibility of behaving like a sovereign state, let them demand the money for the lost profit from the European Commission” (Walker, 2015).



**CONCLUSION: THE ON-GOING BALKAN TRANSITION**

The implications of this study are that overcoming the challenge of corruption in Bulgaria will emerge painstakingly over years, even generations. The European Union integration process provides a roadmap for harnessing the mass public mobilization capabilities of Bulgarian nationalism. It aims to do so while maintaining the association of Bulgarian nationalism with liberal political and economic ideological values. The prevailing behavioral political attitudes of Bulgarian nationalism in its post-colonial context lack behavioral consensus beyond joining Europe. European integration provides a framework for development in a consensual direction. This coherence may include relative societal agreement on what are the legitimate demands of society upon the state and on how may interest groups and individuals pursue these demands.

Bulgarian social movements against corruption are more likely to emerge along with an emerging consensus within Bulgarian society upon the political cultural meaning of Bulgarian citizenship. They would be expressed in social justice demands articulating obligations and rights, including equality of treatment under the law. These demands will reconcile with differential status achievement as a fundamental principle of modernity in a society. Representing this system of norms are the authorities within the organizational and governmental apparatuses. Their accession to predominance should appear more or less legitimate in the eyes of the overwhelming majority of the citizenry. Bulgarian militant nationalism has to be harnessed to reform what exists through creation of broad societal, economic and political fronts demanding these changes, i.e. social movements. Creation of these networks of meaning would support the emergence of ethical, law-bound candidate state civil servants and politicians. They would also support the civil society allies they need as political allies to be effective.

This paper has shown that the South Stream case highlights the conjunction of collective economic interest and identity transitions underway in a traditionally pro-Russian community, Bulgaria. Acquiescence to the European Union's directives is likely to continue in Bulgaria, a community whose state generally encompasses the Bulgarian nation. The issue of Macedonian identity is beyond the scope of this paper, but the comparison with Serb nationalist irredentism is noteworthy. Serbia is a nation whose current borders were created by the Communist regime under Tito. These borders, internal to the new, postwar Socialist Yugoslavia, partitioned the Serb and other nations, but Serbia was by far the largest, and therefore most threatening, nationalist challenge. Yugoslavia's disintegration set the stage for the emergence of nationalist irredentist demands. These demands have been rejected and opposed by the international community with devastating sanctions and threat and use of deadly force. The subsequent recovery of post-Soviet Russia has created perceived opportunities for Serb nationalism to seek support from its reinvigorated Russian patron. South Stream can be seen in these terms: an attempt at reconstituting Russian bargaining leverage in Southeast Europe among national peoples still seeking patrons. As such, it will generate significant political implications for the internal and foreign policies of Southeast European states when world fossil fuel prices recover from their temporary depression.

The limitations of this analysis reflect the theoretical framework's assumption of collective perceptual patterns of self and other underpinning community, polity and governmental apparatus decision-making. The importance of boundaries and simplifications in information processing in decision making have been acknowledged, e.g. "bounded rationality" (e.g. Simon, 2000). Determining the political conditions under which these collective perceptual tendencies emerge requires further research. In a nation state such as Bulgaria or Russia, these perceptual stereotypical tendencies are more prone to arise, but the conditions that produce this greater relative tendency require further investigation. They can also prevail in multinational states such as in the old Yugoslavia or USSR, but under conditions of one-party political monopoly authoritarian structures. The Communist parties in the USSR and Yugoslavia emerged as elite identity communities in their respective authoritarian, one-party states. Their identity legacies in the post-Communist political role of their security apparatuses would be a fruitful focus to understand international relations and domestic politics today in the post-Soviet space.

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# **THE EFFECTS OF FOREIGN BANK ENTRY ON FINANCIAL PERFORMANCE OF DOMESTIC-OWNED BANKS IN GHANA: A COMMENT**

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## **ABSTRACT**

*The study comments on Acheampong's (2013) and finds that selective exclusion unit of analysis, estimation techniques errors and its justification cast a doubt on the results. This inaccurately represents the relationship between foreign bank entry and financial performance of domestic-owned banks in Ghana. Our overall evidence challenges Acheampong's methodology claim that foreign bank entry on the financial performance of Merchant Bank Ghana Limited (MBG) and Ghana Commercial Bank Limited (GCB) in Ghana from 1975 to 2008.*

**JEL:** G1, G2

**KEYWORDS:** Foreign Bank Entry, Domestic-Owned Banks, Pooled Regression Analysis, Return on Assets

## **INTRODUCTION**

The purpose of this commentary is to examine three important issues in the methodology on effects of foreign bank entry using Acheampong's (2013) study as a demonstration model. The first issue relates to the criteria for the selection of the domestic-owned banks in Ghana used in the argument in support of a positive influence of foreign bank entry on domestic banks' return on assets for the period 1992-2008; a period with a high influx of foreign banks into Ghana. The second is about the exclusion of macroeconomic or external variables in the model. In his article appearing in this journal, Acheampong (2013) used two bank specific (internal) variables as a proxy for soundness of a bank's capital or assets (Buchs & Mathisen, 2005) and the quality and adequacy of current assets to meet current liabilities as they mature (Fraser & Ormiston, 2009). Again, the effects of omitted variables in a model which the author admitted and concluded that, '...the main limitation of the study was using three quantitative variables and one key dummy variable. Other variables, for instance, debt ratio and market risk could have been added to the independent variables with the foreign bank entry dummy to increase the coefficient of determination (R-squared)' (Acheampong, 2013). Finally, the justification for the choice of pooled OLS regression over other methods like Fixed Effect or Random Effect to measure the impact of foreign bank entry on financial performance of domestic-owned banks in Ghana would be examined.

This commentary is an attempt to draw the attention of other foreign bank entry and banks profitability researchers to these issues so that the research design on the effects of foreign bank entry on financial performance of domestic-owned banks study can be made more rigorous. The rest of the commentary is organized as follows. The next section presents discussion on the selective exclusion of the unit of analysis and available data. The second section examines exclusion of external factors and the third section examines the methodology employed by Acheampong (2013). The final section contains the concluding remarks.

### Selection of the Unit of Analysis and the Exclusion of Available Data

Acheampong provides justifications for the selection of unit of analysis and stated “out eleven domestic-owned banks in Ghana in 2008, only six were in operation prior to 1975. MBG and GCB were selected for the study because they were the only domestic-owned banks, out of the six, which readily had data needed for the study. The operations of these two banks are comparable to foreign banks. Therefore, the entry of foreign banks could have affected these two domestic-owned banks” (Acheampong, 2015). From a different perspective, this may not necessarily be the case. Incidentally, National Investment bank (NIB), (NIB, 2015) and Agricultural Development bank (ADB), ADB (2014) had already been established in 1963 and 1965 respectively. These banks were not only operating fully at that time but had operated for almost 12 years prior to 1975 used by Acheampong (2013). This seem to suggest that data was readily available for these two banks and they could have been conveniently included to the number of banks the author selected to be able to find a significant relationship between capital adequacy, liquidity, and a foreign- bank entry dummy on the ROA of the domestic banks. Acheampong failed to provide a justification for stating that the operations of these two banks were comparable to the foreign banks hence their selection. It is an undeniable fact that before independence there were a lot foreign banks in Ghana and notable among them were Standard Chartered Bank (1896) and Barclays Bank (1917) as confirmed in a study by Adams & John (2012) when they indicated the formal banking system in Ghana was dominated by the state owned banks. With the exception of two banks – Barclays and Standard Chartered Bank, the country could not boast of any other foreign banks in the entire financial system. The overall best performers in terms of deposits, assets, ROE, and ROA for the old and new banks are Barclays Bank and Standard Chartered Bank, respectively (all foreign owned). The presence of the foreign banks would have allowed some equally good domestic banks including NIB and ADB to learn the best practices from them and can be compared with the foreign banks.

### Exclusion of External Factors

The model that was estimated began as

$$\textit{Profitability} = f(\textit{foreign bank entry, capital adequacy, and liquidity}) \quad (1)$$

It was finally modified as

$$\textit{ROA} = b_0 + b_1\textit{CapAdq} + b_2\textit{LiqRat} + b_3\textit{ForBankEntDum} + ut \quad (2)$$

One major problem with the model is that, literature has suggested many possible factors that affect profitability, and their exclusion could amount to omitted variable bias, leaving the results highly doubtful. This problem was acknowledged as one major limitation of the study. Omitted variable bias is likely to cause an over-estimation or under-estimation of the effect of the variables used in the model (Wooldridge 2009; Barreto 2005 and Greene 1993). On the test for multicollinearity, Acheampong (2013) used a correlation matrix. Construction of a correlation matrix among independent variables only yields indication, as to the probability or likelihood that any given pair of explanatory variables are causing multicollinearity problems. Correlation values of 0.3 to 1.0 are sometimes indicative of multicollinearity problem (Gujarati, 1995). Thus, this procedure is highly problematic and cannot be recommended as an appropriate test for multicollinearity, since as a matter of intuition. Correlation describes a relationship between two variables, unlike collinearity which describes a relationship between three or more variables, and is, thus, a multivariate phenomenon. Within the correlation matrix constructed by Acheampong (2013) were found many figures within the suspicious range, with some as high as 0.8555 and 0.9593. This creates a high level of suspicion of the presence of multicollinearity. Perhaps a more robust test of multicollinearity would suffice.

## METHODOLOGY EMPLOYED

More so, Acheampong (2013) employed pooled OLS regression to measure the impact of foreign bank entry on financial performance of domestic-owned banks in Ghana. This was done without providing any justification for the choice of pooled OLS. According to Schmidheiny (2014), pooled OLS has been shown to be biased in small samples and is only consistent in larger samples (when  $N \rightarrow \infty$ ). In addition, Pooled OLS estimator is not efficient because the standard errors of it, are incorrect and tests based on them are invalid. Clearly, other methods like Fixed Effect or Random Effect could have proved worthwhile, unless the appropriateness of pooled OLS over other estimation techniques had been shown by the necessary tests. In conclusion, future research might examine the data using fixed or random effects models to provide evidence that the results are robust.

## CONCLUSION

This commentary has examined the relationships between foreign bank entry on financial performance of domestic-owned in Ghana with particular references to issues raised by Acheampong (2013). The expressed intention of this note is to bring to the attention of other foreign bank entry and banks profitability researchers these three important issues which in my view have not as yet received rigorous treatment in the literature and the methodology on foreign bank entry and banks profitability. To highlight these points, Acheampong (2015) study was employed as a demonstration model. It should be emphasized that the points made are, however relevant to other studies in this area and should not be taken as an explicit and singular criticism of Acheampong's work.

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# THE GROWING IMPORTANCE OF INTEGRATED REPORTING FOR CORPORATE SOCIAL RESPONSIBILITY

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## ABSTRACT

*The recent scandal of Volkswagen AG has demonstrated one of the weaknesses of Corporate Social Responsibility—how much people can trust CSR reporting. At a time when CSR is moving from voluntary initiative to a required component for businesses in many countries, sustainability and the environmental standards of Environmental/Social/Governmental CSR have gained importance because there are existing regulations, especially in the emissions area. However, this focus has meant that CSR reporting can lack strategic focus and neglect profit reporting. This paper will briefly describe the ethical and stakeholder theories that underlie CSR, the importance of CSR and the consumer response to CSR based on the current Cone, LLC consumer research on CSR. It will then describe the current reporting organizations and the current CSR focus of different companies and the value of adopting integrative reporting. As the number of organizations that act as third-party assessors and that announce awards for being social responsible grows, the fact that there is an Integrated model on the horizon may be the solution to standardizing what is meant by being socially responsible and ensuring that the consumers' belief in the importance of CSR is translated into performance in reporting.*

**JEL:** M14

**KEYWORDS:** Corporate Social Responsibility, Consumer Perception of Corporate Social Responsibility, Global Reporting Initiative, Integrative Reporting, Stakeholder Theory

## INTRODUCTION

The 2015 scandal of Volkswagen AG (VW) demonstrated one of the current weaknesses of Corporate Social Responsibility (CSR)—how much people can trust CSR reports. VW had just been named as the 2015 Automotive Industry Leader in its Dow Jones Sustainability Index. On October 6, 2015, the Dow Jones removed VW from all of its Sustainability Indexes. It had just removed Toshiba Corporation because of a fraudulent accounting scandal. Toshiba, too, was a CSR star and had published CSR reports from 2011 through 2014 (S&P Dow Jones Indices, 2015, para 1). Both companies focused on sustainability, specifically emissions, which is one CSR area that is regulated and publishes data. However, in both cases, CSR was not part of the companies' strategic mission and the CSR initiatives were outside the financial reporting.

At a time when CSR is moving from a voluntary initiative to a required component for business, accurate reporting of the Environmental/Social/Governmental (ESG) measures of CSR has gained importance. CSR reporting has always been separate from financial reporting; companies produced annual CSR or Sustainability reports as well as financial reports or published them as addendums to their financial reports. However, since CSR is now global, some governments now require CSR reports that identify achievements, not just initiatives. In April of 2014, the Indian government implemented CSR guidelines requiring

companies to spend 2% of their net profit on social development. This ties the CSR reporting to financial reporting. Additionally, consumers are increasingly using companies' CSR achievements as a basis for making buying decisions (Cone LLC, 2015a, 2015b). There is a growing need for CSR to be integrated into strategic planning and to have CSR results integrated with financial results.

Unfortunately, while the ideals behind corporate social responsibility certainly have merit, the overall execution has been deeply flawed. The trend in CSR has been to focus more on goals and aspirations, and less on concrete and tangible results. Companies often highlight what they say they will do in 2020 or 2025, and focus less on what happened last year or in 2015. (Kaye, 2015, para. 7)

As more and more CSR awards are given by more and more organizations, the need for transparency and standardized accountability in reporting of data and results is increasing. There is an Integrated Reporting model on the horizon that may be the solution to standardizing not only the definition but the performance metrics for social responsibility. There is also an increase in the number of organizations, including accounting, engineering, and consulting firms that propose to act as third-party assessors for CSR reports (Global Reporting Initiative, 2013). The fact that one CSR area that is actually regulated and standardized, that of sustainability and emissions, could be reported falsely, as it was in the VW case, demonstrates the need for a new focus on reporting. If annual reports and awards cannot be trusted, CSR may have a diminishing impact on the world. Since the consumers are increasingly demanding accurate reporting because they have said they will make decisions based on CSR commitment, it is essential that reporting move from voluntary and additional to the business reporting to a significant part of business strategy. This paper will describe the why CSR is important for the future of business and the planet, provide a literature review, and then describe the current CSR reporting organizations and explain the value of adopting integrative reporting.

## LITERATURE REVIEW

With his seminal paper, Archie Carroll (1979) created a model for CSR “The social responsibility of business encompasses the economic, legal, ethical, and discretionary [later referred to as philanthropic] expectations that society has of organizations at a given point in time” (p. 500). Much of the early commentary came from the legal discipline arguing against CSR and showing that Friedman (1970) was correct when he said that

there is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud. (p. 123)

Winegarden (2006) argued that CSR is inconsistent with the tenets of capitalism and weakens a market economy. Karnani (2010) claimed that CSR projects were unethical in public corporations with stockholders because all profit should be passed on to stockholders, investors, and employees who could then choose to give money to causes so they could qualify for tax deductions. Atkins (2006) argued that CSR is just an attempt at political correctness; others added that it is an attempt to pre-empt the role of governments as a watchdog over powerful multinational corporations. May, Cheney, & Roper (2007) explored the debate in their book, *The Debate over Corporate Social Responsibility*.

Newell (2014) edited a collection of articles on perceptions of CSR by CEOs and consumers and CSR in specific industries. Garriga and Mele (2004) separate corporate social responsibility theories into instrumental theories, political theories, integrative theories, and ethical theories. The majority of the research has flowed from its ethical roots. Ethical theories focus “on the right thing to achieve a good society” (Garriga & Mele, 2004, p. 64). CSR meets the ethical precepts of De George (1986) for multi-

national corporations that they should respect human rights and local cultures (unless they violate moral norms), pay fair taxes to the host country, and do no direct intentional harm. However, as Crane, Palazzo, Spence, and Matten (2014) correctly pointed out, there is always a conflict between doing good and making profit, so a company will have to make choices. It may have to make less profit in order to ensure that all stakeholders are treated fairly with respect and as ends not means. Maon, Lindgreen, & Swaen (2009) proposed an integrated model based on ethical theories.

While it is true that Corporate Social Responsibility (CSR) has never met the requirements of Kantian ethics, it has met the requirements of the stakeholder theory of ethics (Freeman, 1994; Donaldson & Preston, 1995; Mendonca & Miller, 2007). Thus, CSR and stakeholder theory is one area that has been the subject of scholarly research. “The considerable success of stakeholder theory in terms of scholarly and practitioner impact, however, has to do with the fact that (on the descriptive and instrumental level) it can still be made compatible with a corporate-centric, economic purpose-oriented view of the firm” (Crane, Palazzo, Spence, & Matten 2014, p. 143). The Global Integrative Social Contracts Theory of Donaldson and Dunfee (1994; 1999) is used for creating collaborative partnerships with stakeholders in the ethical area of CSR. Holme and Watts (2000) included improving the quality of life of the workforce, the local community, and society at large in their definition of CSR as a commitment by an organization to behave ethically and contribute to economic development.

Wilburn and Wilburn (2011, 2014a) studied using the global social license to operate as a business foundation for creating shareholder collaboration. Post, Preston and Sauter-Sachs (2002) examined social licenses to operate of Cummins Engine Company, Motorola, and the Royal Dutch/Shell Group, and found that

although the ultimate justification for the existence of the corporation is its ability to create wealth, the legitimacy of the corporation as an institution—its “license to operate” within society, depends not only on its success in wealth creation but also on its ability to meet the expectations of diverse constituents who contribute to its existence and success. These constituencies and interests are the corporation’s stakeholders—resource providers, customers, suppliers, alliance partners, and social and political actors. Consequently, the corporation must be seen as an institution engaged in mobilizing resources to create wealth and benefits for all its stakeholders. (p. 9)

From this stakeholder focus, Porter and Kramer (2011) have been criticized for focusing on instrumental theories, which achieve economic objectives through social activities, but that ignore social contracts, public responsibility, and stakeholder management (Crane, Palazzo, Spence, & Matten, 2014; Wilburn & Wilburn, 2014b). Jonker and de Witte (2006) and Lindgreen, Swaen, and Johnston (2009) focused on stakeholder engagement, finding inconsistencies and practical implementation problems in measuring the outcomes.

Lindgreen and Swaen (2010) studied the lack of consistent research in the areas of communication, implementation, stakeholder engagement, measurement, and the business case for CSR, on how CSR activity is or should be measured. Kotler and Keller (2008) argued that even though CSR is now a part of many companies, the research on how the organization is configured to achieve CSR is limited. Mitchell, Agle, and Wood (1997) developed a theory of stakeholder identification that can help companies determine how to respond to different stakeholders that creates problems explored by Wilburn and Wilburn (2011). Berman, Wicks, Kotha, & Jones, (1999) looked at stakeholder management and financial performance, which is important for the future of integrative reporting.

And smart partnering is not for the faint of heart. It requires greater focus, work, and long-term commitment than do many standard CSR pet projects, philanthropic activities, and propaganda campaigns, but the rewards are potentially much greater for both sides. (Keys, Malnight, & Van der Graaff, 2009, p. 8)

## THE CONTINUED IMPORTANCE OF CSR

In 2010, Carroll described CSR's path as starting after WWII. He traced its changing focus from the responsibility of business for doing good for society in the 1950s and 1960s, to linking CSR with corporate financial performance (CFP) in the 1970s and 1980s and then to sustainability, or sustainable development in the early 2000s (Carroll & Shabana, 2010).

Within the world of business, the main "responsibility" for corporations has historically been to make money and increase shareholder value. In other words, corporate financial responsibility has been the sole bottom line driving force. However, in the last decade, a movement defining broader corporate responsibilities—for the environment, for local communities, for working conditions, and for ethical practices—has gathered momentum and taken hold. This new driving force is known as corporate social responsibility (CSR). CSR is oftentimes also described as the corporate "triple bottom line"—the totality of the corporation's financial, social, and environmental performance in conducting its business. (Catalyst Consortium and USAID, 2002, p. 2)

While there is no universal definition of corporate social responsibility, most references include transparency in business practices that are ethical, legally compliant, and respect people and the environment. People are business stakeholders, including employees, customers, suppliers, investors, and the community. For global companies this means respecting host country culture and community values. Profit is important as the means by which a company can have a positive impact on people and the planet.

The use of the term 'sustainability' became a focus of CSR reporting in this century. Researchers for the 2010 U.N. Global Compact–Accenture CEO Study surveyed more than seven hundred of its member CEOs, and found that sustainability is increasingly perceived as a necessary part of a business strategy, not just a nice-to-do add-on, and that integrating it into strategy and operations requires a long-term view. According to the study, "96% of CEOs believe that sustainability—environmental, social, and governance—issues should be fully integrated into the strategy and operations of a company (up from 72%) in 2007" (Lacy, Cooper, Hayward, & Neuberger, 2010, p. 13). More than half of the CEOs said that they would focus on consumers as the stakeholder group to manage expectations; "88% of CEOs believe that they should be integrating sustainability through their supply chain" (Lacy, Cooper, Hayward, & Neuberger, 2010, p. 13).

"Approximately 68 million U.S. consumers have stated a preference for making purchasing decisions based upon their sense of social and environmental responsibility" (Clark & Babson, 2012, p. 819). The 2015 Cone Communications/Ebiquity Global CSR Study surveyed "9,709 consumers in nine of the largest countries in the world by GDP, including the United States, Canada, Brazil, the United Kingdom, Germany, France, China, India and Japan" (Cone LLC, 2015a, p. 3). CSR was defined as "companies changing their business practices and giving their support to help address the social and environmental issues the world faces today" (Cone LLC, 2015a, p. 3). The major finding was that

global consumers have officially embraced corporate social responsibility—not only as a universal expectation for companies but as a personal responsibility in their own lives. Consumers see their own power to make an impact in so many ways: the products they buy, the places they work and the sacrifices they are willing to make to address social and environmental issues. (Cone LLC, 2015a, p. 4)

Other findings were important for companies. One was that half of the global consumers need proof before they believe a company is socially responsible, and they pay attention to companies that are doing more than is required. Global consumers also pay attention to companies that are identified for poor CSR performance. There is an increase in those who believe that good CSR performance is making an impact on society. "Consumers are willing to make personal sacrifices for the greater good. They are even willing



to compromise quality, pay more or reduce how much they buy if it will have a positive impact on social or environmental issues” (Cone LLC, 2015a, p. 3).

There is also the fact that once a CSR outcome becomes the norm for the industry, it no longer counts for the consumer. A recent report in *The Economist* reported almost all soaps and detergents are environmentally friendly because the Environmental Protection Agency (EPA) and environmental groups forced the industry to take harmful ingredients out of their formulas. The EPA now awards grades to the chemicals with labels that consumers can see (Green Wash, 2015, para. 6). The fact that the government entity monitors ingredients in the products may provide an element of trust for consumers. In the VW emissions scandal, the government entity did not provide sufficient autonomy in its investigations.

Cone’s 2010 study found that more than three-fourths of consumers expect companies to support CSR in addition to making a profit and to communicate their CSR results. Like global consumers, “Americans say when a company supports social or environmental issues, they have a more positive image (91%), more trust (87%) and more loyalty (87%) toward that business” (Cone LLC., 2010, p. 34). In its 2015 survey of millennials (age 18-34) in the United States, Cone found that “more than nine-in-10 millennials would switch brands to one associated with a cause (91% vs. 85% U.S. average) and two-thirds use social media to engage around CSR (66% vs. 53% U.S. average)” (Cone LLC, 2015b, p. 1). They will pay more for a product with a social benefit than the U.S. average and take a pay cut to work for a responsible company. Wilburn and Wilburn (2015) studied how social media are impacting the consumers’ perception of CSR.

Although the research found differences among younger millennials vs. older ones, and females vs. males, the results supported the earlier research that CSR is important to the American consumer. Other findings focused on social media, and the fact that only 25% of global consumers say they do not read CSR reports but they still pay attention to the data from the reports as it is reported on Websites and through social media (Cone LLC, 2015a). Thus, companies must promote their CSR results in various channels to ensure consumers can find the information and act on it.

Consumers view their role in creating social and environmental change as extending well beyond the cash register. Companies can serve as a catalyst for sparking donations, volunteerism, and advocacy by giving consumers a spectrum of ways to get involved. Partnering with consumers in this way can serve as both a reputation and bottom-line builder. (Cone LLC, 2015a, p. 4)

Today’s global consumers hold companies accountable for producing and communicating results. This makes the actions by Volkswagen and Toshiba very damaging because consumers will now not trust what they read in annual reports, and they may not trust what organizations that announce winners of CSR/Sustainability Awards now either. It is important that there be more focus on accuracy and truth telling. Evan Harvey, Director of Corporate Responsibility for Nasdaq, said the stock exchanges care about the CSR performance of public companies because their value is in providing other stakeholders key performance results in all areas, including environmental, social, and governance data that help them make decisions. This requires transparency in how the results are measured and verified.

Imagine a world where the reporting expectations for public companies are essentially uniform. Every business is tracking and disclosing the same metrics in the same ways, using the same framework. The data has been assured or verified in some ways. It’s a world where the common language of corporate performance includes ESG just as readily as it does EBITDA [earnings before interest, taxes, depreciation, and amortization] and EPS [earnings per share]. Then investors can truly make apples-to-apples comparisons. This could encourage longer holding periods and even cross-market participation. Companies built on bad strategy or short-term value will be exposed. The engagement between investors, regulators, and issuers would be much more substantive and meaningful. The range of indexes and other financial products would dramatically

increase, because the niche data possibilities (and evaluative criteria) also increase. In short, you have markets with more transparency, more choice and more inclusion. (Skroupa, 2015, para. 4)

## REPORTING

CSR reporting has been voluntary throughout much of its history. However, that is changing. The 2013 sustainability report, *Carrots and Sticks*, compiled by the United Nations Environmental Programme (UNEP), the Global Reporting Initiative (GRI), KPMG (2013), and The Center for Corporate Governance in Africa covers forty-five countries (the 2006 report covered only nineteen). “This includes a notable increase in the number of mandatory reporting measures. In 2006, 58 percent of policies were mandatory; now, more than two-thirds (72 percent) of the 180 policies in the 45 reviewed countries are mandatory” (Governance & Accountability Institute, Inc., 2013, p. 8).

The Global Reporting Initiative (GRI) is becoming the gold standard for global companies to report CSR and sustainability initiatives and for third party assessment of those initiatives. GRI is an international not-for-profit organization that has developed its reporting framework in collaboration with stakeholders from business, government, labor, and professional groups in order to ensure credibility and relevance (Global Reporting Initiative, 2014). GRI’s vision is “A sustainable global economy where organizations manage their economic, environmental, social and governance performance and impacts responsibly, and report transparently” and its mission is “To make sustainability reporting standard practice by providing guidance and support to organizations. Its Sustainability Reporting Framework provides metrics and methods for measuring and reporting sustainability-related impacts and performance (Global Reporting Initiative, 2014, para. 4) enabling organizations to measure and report sustainability performance.

The GRI Guidelines establish the principles and performance indicators that organizations can use to measure and report performance in six categories: Economic, Environment, Social, Human Rights, Society, and Product Responsibility. GRI classifies reports as Application Level A, B or C, depending on the particular set of Guidelines’ disclosures and the number of indicators used by the reporting organization. Application levels are not a grade evaluating the quality of the report, but only represent the extent to which the Guidelines have been used in an organization’s report. The “+” behind the Application Level on a report signifies that external assurance was used. GRI has just adopted its G4 Reporting Framework, which will have more granularization for specific industries and types of initiatives as well as allow small organizations to participate.

A robust sustainability report is far more than a mere data gathering or compliance exercise. It makes abstract issues tangible and concrete, helping organizations to set goals, measure performance, and manage change. These are matters directly related to an organization’s core business strategy. (Global Reporting Initiative, 2015a, p. 3)

Governance & Accountability Institute, Inc. recently published *Sustainability—What Matters?* on its research examining GRI G3 and G3.1 sustainability reports published in 2012. The research looked at organizations that utilized the Global Reporting Initiative (GRI) Framework to identify level of disclosure on all 84 key performance indicators. “The objective of this report is to serve as a starting point for discussion and planning around sector-specific materiality—as seen through the lens of these 1,246 reporting organizations as well as the lens of their respective stakeholders” (Governance & Accountability Institute, Inc., 2014, p. 1). The report listed the ranking of each sector: Society, Human Rights, Economic, Labor Practices and Decent Work, Environment, and Product Responsibility for each sector, and then identified the top ten aspects of the categories. The top ten categories for all sectors: Diversity & Equal Opportunity, Economic Performance, Energy, Training & Education, Child Labor, Compliance, Non-discrimination, Labor/Management Relations, Prevention of Forced & Compulsory Labor, Corruption. Table 1 below identifies only the top three for each sector:

Table 1: Ranking of Sectors

Agriculture	:	Child Labor, Prevention of Forced & Compulsory Labor, Biodiversity
Automotive	:	Products & Services, Overall (environmental), Customer Health & Safety
Aviation	:	Customer Health & Safety, Local Communities, Assessment
Chemicals	:	Assessment, Overall (environmental), Water
Commercial Services	:	Customer Privacy, Anti-Competitive Behavior, Training & Education
Computers	:	Transport, Assessment, Products & Services
Conglomerates	:	Child Labor, Water, Compliance
Construction	:	Anti-Competitive Behavior, Non-discrimination, Corruption
Construction Materials	:	Materials, Freedom of Association & Collective Bargaining, Transport Investment & Procurement Practices, Indigenous Rights, Products & Services
Consumer Durables	:	Services
Energy	:	Overall (environmental), Biodiversity, Security Practices
Energy Utilities	:	Compliance, Anti-competitive Behavior, Labor/Management Relations
Equipment	:	Customer Health & Safety, Indigenous Rights, Energy
Financial Services	:	Customer Privacy, Materials, Marketing Communications, Customer Health & Safety, Marketing Communications, Products & Services
Food & Beverage Products	:	Services
Forest and Paper Products	:	Materials, Biodiversity, Labor/Management Relations
Healthcare Products	:	Customer Health & Safety, Products & Services, Water Diversity & Equal Opportunity, Marketing Communications, Non-discrimination
Healthcare Services	:	Public Policy, Customer Health & Safety, Investment & Procurement Practices
Household and Personal Products	:	Practices
Logistics	:	Labor/Management Relations, Economic Performance, Energy
Media	:	Materials, Equal Remuneration for Women & Men, Local Communities
Metals Products	:	Materials, Overall (environmental), Water
Mining	:	Biodiversity, Water, Market Presence Overall (environmental), Market Presence, Equal Remuneration for Women & Men
Public Agency	:	Local Communities, Remediation, Freedom of Association & Collective Bargaining
Railroad	:	Bargaining
Real Estate	:	Employment, Non-discrimination, Diversity & Equal Opportunity
Retailers	:	Transport, Customer Health & Safety, Assessment Prevention of Forced & Compulsory Labor, Child Labor, Products & Services
Technology Hardware	:	Customer Privacy, Marketing Communications, Indirect Economic Impacts
Telecommunications	:	Impacts
Textiles and Apparel	:	Transport, Prevention of Forced & Compulsory Labor, Child Labor
Tobacco	:	Marketing Communications, Water, Materials
Travel and Tourism	:	Customer Privacy, Security Practices, Non-discrimination
Universities	:	Equal Remuneration for Women & Men, Customer Privacy, Materials
Waste Management	:	Materials, Overall (environmental), Transport
Water Utilities	:	Water, Customer Privacy, Assessment

It is notable that many of the top ten are not identified in the top three; in fact, consumer health and safety is listed in seven segments for top three, materials is listed in five, and assessment is listed in four. This demonstrates the value for integrated reporting that could allow all companies in all sectors to have standards that meet their needs and report them with financial results. According to Michael Meehan, GRI's CEO, GRI "envision[s] a future beyond reports, where information from sustainability reporting empowers decision making throughout organizations" (Global Reporting Initiative, 2015b, para. 3). This would seem to help GRI achieve some of its goals in its new five-year plan through 2020 such as supporting reporting and disclosure by increasing the number of reporters and by "helping companies extract more value from the sustainability reporting process" (Macower, 2015, para 4) through making better use of technology to make the process of using its process easier.

## OTHER REPORTING STANDARDS

Although the GRI is the gold standard of CSR reporting, there are many other organizations that have developed guidelines for measuring CSR and Sustainability such as International Integrated Reporting Council (IIRC), United Nations Global Compact (UNGC), and OECD Guidelines for Multinational Enterprises. "The MSCI KLD 400 Social Index is a capitalization weighted index of 400 US securities that provides exposure to companies with outstanding Environmental, Social and Governance (ESG) ratings and excludes companies whose products have negative social or environmental impacts" (MSCI, 2015, para. 1). AccountAbility (2014) has developed accountability tools and standards that help companies develop sustainably.

Additionally, there are other guidelines. Some like ISO 26000, Carbon Disclosure Project (CDP), Greenhouse Gas Protocol (GHG), and Extractive Industries Transparency Initiative (EITI) are specific to industries. Others focus on employees and stakeholders like International Labor Organization (ILO), and Core Labor Standards (CLS). Others have standards for companies' policies like the Tripartite Declaration of Principles concentrating multinational enterprises and social policy, the UN Guiding Principles on Business and Human Rights Protocol Corporate Standard, and Principles for Responsible Investment (PRI) Framework.

There are forums and networks that promote CSR and standards. The International Business Leaders Forum (IBLF Global, 2014) promotes responsible business leadership and partnerships for social, economic, and environmentally sustainable international development, especially in emerging markets. The Caux Round Table (2014), a network of business leaders, developed principles through which "principled capitalism can flourish and sustainable socially responsible prosperity can become the foundation for a fair, free, and transparent global society" (para. 2).

There are also organizations that rank CSR such as Newsweek's Greenest Companies, CRO's 100 Best Corporate Citizens, Ethisphere's World's Most Ethical Companies, Dow Jones Sustainability World and North America Indexes®, NASDAQ OMX CRD Global Sustainability Index, CRD Analytics' SPV Ratings®, and Carbon Disclosure Project score. Reports studying CSR and Sustainability are published by Governance & Accountability Institute, Inc., the United Nations Global Compact/Accenture, and CONE Communications. Business Roundtable's 2015 *Create, Grow, Sustain: Leading by Example* has narratives from 148 CEOs about their CSR achievements. Some of the companies covered are: 3M, AT&T, Bayer, Boeing, Caterpillar, Chevron, CVS Health, Deere & Co, DIRECTTV, Dow Chemical, Edison International, FedEx, GE, General Mills, IBM, Johnson & Johnson, JPMorgan Chase & Co, Lockheed Martin, MasterCard, Motorola, Oracle, PepsiCo, Pfizer, SAS, Siemens AG, State Farm Insurance, UPS, Wyndham, Whirlpool, and Xerox.

There is movement toward collecting the standards and data. The 2015 edition of *The Conference Board Sustainability Practices Dashboard* is a collaboration of The Conference Board, Bloomberg, and the Global

Reporting Initiative. It is “a database and online benchmarking tool that captures the most recent disclosure of environmental and social practices of business corporations” and “captures data on 79 environmental and social practices of business corporations in the S&P Global 1200 and segments results by market index, geography, sector, and revenue group” (Hardcastle, 2015, para. 5). It features data on two new practices: “the number of companies adopting executive compensation policies inclusive of long-term incentives of environmental, social and governance performance as well as the number of companies disclosing the presence of child labor policies” (Hardcastle, 2015, para. 3). It found that reporting continues to rise especially from large multinationals, many of whom are required to issue reports.

Growing support for the business case among academic and practitioners is evident. Generally, the business case for CSR is being made by documenting and illustrating that CSR has a positive economic impact on firm financial performance. The broad view of the business case, however, brings attention to the details of the relationship between CSR and firm financial performance. Mediating variables and situational contingencies affect the impact of CSR on firm financial performance. Therefore, the impact of CSR on firm financial performance is not always favorable. Rather, firms should understand the circumstances of the different CSR activities and pursue those activities that demonstrate a convergence between the firm’s economic objectives and the social objectives of society. Only when firms are able to pursue CSR activities with the support of their stakeholders can there be a market for virtue and a business case for CSR. (Carroll & Shabana, 2010, p. 102)

## A PATH FORWARD

The previous paragraphs make it clear that an integrated reporting platform with third-party assessment is needed if CSR reporting is to meet the needs of consumers. In August 2010, HRH the Prince of Wales, together with the International Federation of Accountants and the Global Reporting Initiative, launched the International Integrated Reporting Council (IIRC). Integrated Reporting is a tool to communicate strategy holistically.

The project was intended to establish integrated reporting—covering the non-financial capital aspects of a business as well as the usual financials—within mainstream business practice with the aim of aligning capital allocation and corporate behaviour to the wider goals of financial stability and sustainable development through the integrated reporting cycle. (Izza, 2015, para. 1)

In June, 2014, the IIRC launched the Corporate Reporting Dialogue (CRD), a platform to coordinate and align corporate reporting, that will “promote greater coherence, consistency and comparability between corporate reporting frameworks, standards and related requirements relevant to <IR>, leading to improved efficiency and effectiveness” (International Integrated Reporting Council, 2015, para. 1). The organizations participating in the CRD are Carb CDP, Climate Disclosure Standards Board, Financial Accounting Standards Board, Global Reporting Initiative, International Accounting Standards Board, IIRC, International Public Sector Accounting Standards Board, International Organization for Standardization, and Sustainability Accounting Standards Board.

As sustainability becomes more central to the business, companies should align internally on what they stand for and what actions they want to take on these issues, whether it’s economic development or changing business practices. Whatever approach companies take, they should develop a strategy with no more than five clear, well-defined priorities—one of the key factors for successful sustainability programs. (McKinsey & Company. 2014, p. 10)

These priorities could be part of an integrated report, rather than being priorities that are lost in a sea of other standards. It would also encourage all companies to report their CSR and sustainability priorities and

progress so that stakeholders could compare goals and achievements by country and sectors. Forbes writer Enrique Dans (2015) said that the reason Volkswagen got into trouble is reporting.

the problem with CSR pretty much comes down to this: we are asking companies to self-regulate. . . . The Volkswagen case shows in stark contrast that we must reinvent CSR. The people who head these departments must be made responsible for their companies' actions, even if that means going to jail. . . . The Volkswagen crisis highlights the failings of capitalism, of a system that has closed its eyes to the reality of the future, and a clearly unsustainable future. (p. 7)

## CONCLUDING COMMENTS

The authors are convinced that an integrative reporting platform with third-party assessors is essential to achieve clarity in the realm of evaluating CSR performance. Integrative reports will allow regulators, investors, and consumers to have metrics that are understandable across all industries and allow comparison of the CSR objectives and outcomes. It will also provide barriers for greenwashing and promoting goals and objectives without data to support achievements. These reports will allow for more and better research in the CSR field, especially in the area of investigating financial commitments to CSR initiatives and the possible trade-offs that might be necessary.

An integrative reporting platform will allow small businesses and businesses in developing countries to have a model to follow the social business concept articulated by Muhammad Yunus, a social entrepreneur from Bangladesh who founded Grameen Bank to establish a microcredit system for the poor. A social business would be “a defined legal and regulatory structure for social business—preferably one with consistent rules in countries around the world” that would make it easier “for entrepreneurs and corporations to create a multitude of social businesses to tackle the human problems that are plaguing society” and could be used by for-profit companies as well as non-profit organizations (Yunus, 2010, p. 117).

Sabeti (2011) said a new business model would “create enterprises that combine a social mission with a business engine—and refuse to compromise on either front” (p. 103), which would become a fourth sector of the economy “interacting with, but separate from, governments, non-profits, and for profit businesses.” (p. 99)

The new benefit corporations now passed by thirty-one state legislatures in the United States follow this model. The authors believe that the same consumer demand for CSR results from established businesses will support this new corporate entity. The benefit corporations have a social or CSR purpose at their core and pledge to use profit not only to grow the company but also to fund their CSR initiatives.

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# AN INTRODUCTION TO LINKING THEORY

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## ABSTRACT

*Characteristics of winning organizations in the 21st century include fast, friendly, focused, and flexible customer-centered infrastructure (Kotze, 2002). For global organizations to be successful, a supportive infrastructure is critical (Kotze, 2002; Theodore, 2014; Tyson, 1998). Popular organizational theories do not address the need for a supportive infrastructure to link business strategy with operational tactics and as such, face significant problems in overcoming the challenges of competing in the rapidly changing, global environment (Gürel, 2014; Kotze, 2002; Theodore, 2014; Tyson, 1998). By linking strategy, operational infrastructures (lean or balanced scorecard), communication activities, and human resources practices, businesses can increase their ability to improve customer satisfaction and financial performance. Linking theory states to maximize organizational effectiveness in the 21st century global corporations should align their business strategy to organizational infrastructure using human resources and tools to increase customer satisfaction and business performance. Linking theory focuses on strategy, structure, and customer satisfaction and as such, is applicable to all types of global businesses. Since customer satisfaction is the focus of the strategy and structure, employees and managers efforts center on the customer's definition of satisfaction. Strong technology and communication platforms facilitate internal and external communications providing additional links between strategy and human resources.*

**JEL:** M16

**KEYWORDS:** International Business Management, Customer Satisfaction, Financial Performance, Human Resource Management, Communication, Technology

## INTRODUCTION

Global organizations in the 21<sup>st</sup> Century are highly networked, with complex internal and external infrastructure (Ogrea, & Herciu, 2014; Theodore, 2014). Knowledge of management strategies and tactics enable global businesses to adapt rapidly to changes in the global environment (Gürel, 2014). Successful companies create and maintain a database of strategic, competitive knowledge about their environment (Tyson, 1998). A strategic knowledge database includes customer, competitors, suppliers, alliances, opportunities, and threats (Tyson, 1998). Characteristics of winning organizations in the 21<sup>st</sup> century include fast, friendly, focused, and flexible customer-centered infrastructure (Kotze, 2002). For global organizations to be successful, a supportive infrastructure is critical (Kotze, 2002; Theodore, 2014; Tyson, 1998). Popular organizational theories do not address the need for a supportive infrastructure to link business strategy with operational tactics and as such, face significant problems in overcoming the challenges of competing in the rapidly changing, global environment (Gürel, 2014; Kotze, 2002; Theodore, 2014; Tyson, 1998).

Missing from popular theories in current literature is a focus on linking strategy, infrastructure, and human resources to improve customer satisfaction, (Brinkerhoff, 2005; Gürel, 2014; Tyson, 1998). The purpose of this paper is to articulate a comprehensive theory of organizational behavior and change that empowers success in 21<sup>st</sup> century global organizations. The term "Linking Theory" is used to describe organizational emphasis on linking business strategy with corporate infrastructure to deliver a competitive advantage in customer satisfaction. Linking theory states to maximize organizational effectiveness in the 21<sup>st</sup> century

global corporations link business strategy to organizational infrastructure using human resources and lean tools to increase customer satisfaction and business performance. Linking theory focuses on strategy, structure, and customer satisfaction and as such, is applicable to all types of global businesses. Since customer satisfaction is the focus of the strategy and structure, employees and managers efforts center on the customer's definition of satisfaction. Strong technology and communication platforms facilitate internal and external communications providing additional links between strategy and human resources.

This paper is organized as follows. In the following section, a review of the 21<sup>st</sup> century global business environment is presented. The second section reviews popular management theories. The third section discussed the gaps between global expansion and management theories. The conclusion highlights the closer customer connections made by linking global business strategy with infrastructure practices using strong technological and communications tools. Suggestions for future research are noted.

## LITERATURE REVIEW

Popular organization theories do not adequately emphasize the need to link infrastructure, strategy, and customer satisfaction. For example, transformational leadership theory is defined as idealized influence, charisma, inspirational, and motivation, influencing specific values and beliefs resulting in intellectual stimulation and individualized consideration (Bass and Avolio, 1992). Transformational leadership is enhanced or restricted by the ability of the infrastructure to disseminate the leader's motivation and influence. If the leader cannot reach employees and customers because communication technology is limited, or if the leader is not consistent in organizational discipline such as performance management, and training, the leader will be less effective.

Hofstede's cross-cultural theory of leadership addresses the effect of cultural differences on leadership (Hofstede, 1991). Understanding cultural differences help a leader adapt his or her style to one most effective in a particular situation. For example, knowledge of collectivism vs. individualism is helpful in managing groups and knowledge of power distance helps leaders adjust their style to the group dynamics (Hofstede, 1991). However, this theory is of limited utility if the leader cannot physically organize the delivery of a multi-cultural workforce's efforts toward customer satisfaction. The knowledge of global group dynamics is helpful but infrastructure is needed to link products and services to customers.

The contingency theory suggests organizational need dictates organization management (Nahavandi, 2006). This theory has the advantage of adapting to circumstances. For example, people do not always know what they want or need or have the experience or expertise to identify it (Bera, Burton-Jones, & Ward, 2011). Leaders provide direction, but the contingency theory lacks specific methods and techniques (Nahavandi, 2006).

Frederick Taylor's scientific management theory suggested detailed observation, selection, and training resulted in the design of optimal task performance (Clegg, Kornberger, & Pitsis, 2008). Scientific management is a foundational theory for lean manufacturing and continuous improvement processes, (Clegg, Kornberger, & Pitsis, 2008). However, scientific management is applicable to specific types of jobs and industries. It does not take into account or allow for variations in production due to supply chain disruptions (lack of material), management inefficiency (poor management), or highly creative work (artistic endeavors). It can be more effective in some cultures than others (Bang, Cleemann & Branning, 2010; Chung, 2013).

Theory Z by William Ouchi suggests involved workers are more productive than non-involved workers (England, 1983). Manufacturing firms may find this theory to be more useful than firms in industries with a need for flexible workforces, industries with frequent promotions or rapid growth industries may not like the slow pace of promotion. In addition, cultures used to individual achievement may find group consensus

limiting. However, this theory points out the need to develop a management system that is internally consistent, fits norms and expectations, and has the support of the organization's stakeholders (England, 1983). The overall consistency of internal and external infrastructure is a facet of this theory that delivers performance advantage (England, 1983).

The African Ubuntu philosophy is applicable to the management of African companies and suggests individuals pursue their best interests by pursuing the interests of the community (Lutz, 2009). Factors that distinguish this theory include respecting human dignity, well-being, enhancing the welfare of others, recognizing the valuable nature of the individual, and supporting community well-being (Metz, 2007). This theory of management is applied widely in African cultural management practices in tribal management such as within the Igbo society (Metz, 2007). The conflict in this theory is shown in universities that teach western management practices at the MBA level which conflicts with many elements in the Ubuntu philosophy (Lutz, 2009). The disadvantage of this theory is that it prevents individuals from acting on their own outside of the collective without group consensus that may be time-consuming and inefficient, frustrating the process of change and expansion (Nnadozie, 1998).

A balanced scorecard approach aligns critical components of organizational performance, provides an easy-to-understand planning document, and serves as the foundation of individual and team performance management (Kaplan, 1992). The balanced scorecard approach links business strategy with four pillars of performance including, learning and growth, financial, customer, and business processes (Kaplan, 1992). The balanced scorecard is well regarded for linking business strategy to business unit success, but does not adequately address the role of employees, the business community, suppliers, the environment, and competitor contributions to business success (Gomes & Romão; Neely & Kennerly, 2003) in business success. The balanced scorecard overlooks the importance of technology as a critical communication tool.

Lean manufacturing originally started as process for assembling automobiles with Henry Ford revised and expanded by Toyota to focus on the team as the producing unit (Worley & Doolen, 2006). Lean manufacturing processes are shown to produce improved organizational performance, and increased customer satisfaction and quality (Worley & Doolen, 2006). Other performance enhancing management tools include lean key performance indicators, leader standard work, and individual hoshin programs (Choi, et. al, 2012; Mann, 2010). Worley and Doolen (2006) also note the importance of internal communication practices in building a lean environment.

However, lean practices can be difficult to implement. Management processes in lean manufacturing require a reframing of traditional human resources thought from an individual to a team environment (Forrester, 1995). These processes focus on team and individual accomplishments tied to specific organizational metrics (Dysvik, & Kuvaas, 2013). This approach is needed to align strategy with tactics and organizational infrastructure, but they may neglect the importance of human resources tools and techniques for consistent employee delivery of high customer satisfaction. Given a strength in team and supervisor satisfaction building in the performance and organizational processes that align with this type of lean approach to performance management, can be a starting point in improving intrinsic employee satisfaction (Dysvik, & Kuvaas, 2013). These lean performance management tools provide an easy way to show the importance of the individual and team employee effort to achieving business strategy (Mann, 2010). However, if the human resources department's programs in performance management, training, and compensation do not align with lean business practices, success will be diluted.

## **THE 21<sup>ST</sup> CENTURY GLOBAL ENVIRONMENT**

Major issues facing organizations in the 21<sup>st</sup> century include globalization of products and markets, uncertainty and risk, financial market interconnectivity, workforce demographics, and organizational infrastructure responsiveness (Lloyds of London, 2013; Luftman, et. al, 2004; Ogreaan & Herciu, 2014;

Shittedi, 2014; Wren, 1995). The 21<sup>st</sup> century environment is dominated by uncertainty and risk (Ogrea & Herciu, 2014). Lloyds of London's Risk Index Report (2013) identifies the top risks as, high taxation, loss of customers, cyber risks, price of inputs, and very strict regulations. The environment in which companies operate includes continuous risk where change is the new normal (Lloyds of London, 2013). Organizations in which risk issues are quickly identified and addressed improve responsiveness to customers (Gürel, 2014).

As markets globalize, individual countries and regions are developing individual characteristics and communities (Delovarova, & Kukeyeva, 2014). Chinese, Russian, and British communities developing unique political and economic characteristics result in issues such as Scotland's vote to separate from the United Kingdom and the tension in the Ukraine (Ascherson, 2014; Gordon & Myers, 2014). These issues affect global corporate investment.

Interconnected financial markets mean investment strategies limited to international diversification, do not work during periods of market turmoil and upheaval (Shittedi, 2014). As global economic power shifts from established businesses to those providing expertise, capacity, and products in higher growth economies (China, Brazil, India), the ability of senior leaders to recognize opportunities is critical (Lloyds of London, 2013). Business executives and managers distracted by an ethnocentric or parochial mindset lack the capability to develop unique, unbiased, operational pathways to facilitate investment opportunities. Organizations that become too parochial or ethnocentric risk developing a culture of groupthink where decision making is closed to outside influences and produces negative outcomes, (Hassan, 2013). Education and training are an essential aspect of human resources strategy to develop a global mindset in business leaders (Cseh, Davis, & Khilji, 2013).

The globalization of business means leaders manage a multicultural workforce affected by global markets for customers, supplies, products, and services (Wren, 1995). Leading people in today's environment requires linking business strategy to HR strategies in compensation, performance management, training, and staffing activities, facilitated by technology and designed to connect leaders and followers (Luftman, et. al, 2004). If leaders and followers are tightly connected with strategically designed, technology-enabled, infrastructure, consistency in customer satisfaction will be enhanced (Luftman, et. al, 2004). Lean management infrastructure techniques increase in popularity because they deliver enhanced employee and customer satisfaction, better understanding of company management objectives, improved communication between employees and executive management (Gitlow & Gitlow, 2013; Wickramasinghe, & Gamage, 2011; Zu, & Fredendall, 2009).

A final issue to consider in the 21st century business environment is global terrorism. Global terrorism continues to increase making investment in countries in Africa, Middle East, Ukraine, for example, a risky proposition (Pain, 2014). The culture of terror to alter political, economic, and business activity affects global businesses (Pain, 2014). Organizations expanding into developing markets must be aware of the risk and rewards, training the workforce accordingly.

## **IMPLEMENTING ORGANIZATIONAL CHANGE**

Multinational corporations (MNC) entering an emerging environment play a role in defining controlling governance, for example, for example in the case of the Kyoto protocol's (Kolk, & Pinkse, 2008). In a changing or undefined environment, such as in new market entry, executive decisions shape the effectiveness of their mission. Training executives and business leaders, therefore, becomes critical to their ability to identify the signs of organizational change, analyze their options, and create effective solutions that support the business's mission (Keohane, 2008; Kotze, 2002). Training organizational leaders is a continual problem in global human resources management (Deloitte, 2015). This deficiency is not the sole responsibility of human resources. Executive leadership must approve and support long-term leadership



development. Failing to do so means institutional knowledge, performance readiness, and succession planning processes are impaired, and thus organizational performance is impaired.

Facilitating and developing a knowledge sharing system is another critical organizational competency in a fast-paced, global business (Hunga, Durcikova, Laia, & Lina, 2011). Creating a culture of learning and sharing supports information flow in the organization but needs a supportive infrastructure such as educational opportunities, learning platforms, and annual developmental goals for employees. A strong technology and communication platform facilitates the ability of managers and employees to share information. A communication platform provides the connectivity to link managers with customers and with employees. Not having a communication platform, or not being well connected, limits responsiveness in a fast-paced global environment.

Two elements comprise the communication platform, the first is the infrastructure such as developed for lean production environments. The infrastructure consists of recordable tasks, processes, customer links, team performance evaluations, and other management tools to manage organizational effort. These tools can easily be linked to business strategy. Thus, there is a direct link between strategy, internal structures, and customer satisfaction. Absent such a definitive link, organizations must construct a framework over which to build a communication network. The second element of a communication platform is the technology needed to run the communication tools. Communicating in the multicultural and multinational environment requires robust technology that is easy to use, secure, and adaptable to the global environment. Without an effective technology infrastructure to drive communication systems connecting the organization internally to people and externally to customers becomes problematic.

The Foreign Corrupt Practices Act of 1977 (FCPA) made it illegal to make payments to foreign government officials to obtain business (Department of Justice, 2014). Effective compliance in this environment means employees must understand behaviors that are legal and illegal under this legislation and other global legislation. Many multinational organizations use ethics training to align employee and manager behaviors with the legal requirements of cross-border transactions (Walmart, 2014; Bank of America, 2014). Training and developing ethical decision-making by businesses is shown to improve financial performance (Garcia-Feijóo, Jorgensen, & Palanisamy, 2005).

Development of a multinational corporate culture must take into consideration cultural development using virtual teams. Virtual teams are inevitable in global businesses because of the cost of flying people to centralized meeting locations, limited office space, and traffic problems (Nyaanga, Ehiobuche, & Ampadu-Nyarkoh, 2013). Facilitating a telecommunication culture, however, must include having a strong technical infrastructure and culture of cooperation (Nyaanga, Ehiobuche, & Ampadu-Nyarkoh, 2013).

Linking business strategy with human resources strategy increases organizational performance (Shamnot, 2014). Shamnot's (2014) research found the role of human resources management practices represented by employee's recruitment and training and motivating could provide a significant competitive advantage to a global business. Linking strategy, infrastructure, and human resources helps organizations effectively align compensation, performance management, and training providing a consistent message to employees and managers.

## **CONCLUSION**

The goal of this paper was to analyze how organizations can maximize financial performance in the global market. The globalization of products and markets, uncertainty and risk, financial market interconnectivity, workforce demographics, and organizational infrastructure responsiveness are characteristic of the global business environment (Lloyds of London, 2013; Luftman, et. al, 2004; Ogreaan & Herciu, 2014; Shittedi, 2014; Wren, 1995). The literature review and analysis showed common themes that impeded high

performance. Hofstede's (1991) focus on cultural adaptation does not completely address infrastructure and communication technologies. Ubuntu's African philosophy of management does not address the individual and performance side of management (Lutz, 2009). Lean infrastructure's enablement of business strategy is limited without a team-focused human resource compensation, performance management, and training programs (Forrester, 1995; Dysvik, & Kuvaas, 2013). The balanced scorecard links strategy and operations but does not effectively address the business community, suppliers, the environment, and competitor contributions to business success (Gomes & Romão; Neely & Kennerly, 2003). Ouchi's Theory Z recognizes employee engagement increases productivity but it is limited in non-manufacturing industries (England, 1983).

As previously described, to deliver high customer satisfaction in this rapidly changing, complex environment, successful companies continuously develop informative and supportive organization infrastructures that integrate strategy, structures, policies, employee management (Theodore, 2014). Popular organizational theories do not emphasize the importance of linking organizational infrastructure and human resources strategy (Bass and Avolio, 1992; Clegg, Kornberger & Pitsis, 2008; England, 1983; Hofstede, 1991; Kaplan, 1992; Lutz, 2009). Research shows a well-developed organizational infrastructure linking strategy and tactics, along with strong human resources management improve delivery of company value propositions to customers, increase financial performance, and improve responsiveness (Mann, 2010).

Linking theory suggests organizational performance and customer satisfaction is enhanced by using a strategic platform such as the balanced scorecard, as a foundational tool to link business strategy with individual efforts. Linking theory adds lean performance management structures such as leader standard work, team management, customer focus, and continuous improvement processes to provide an infrastructure where strategy, employee efforts, and knowledge sharing integrate (Dysvik & Kuvaas, 2013). Continuous improvement in global business strategy is supported by lean processes which results in increased adaptability of business strategy to the changing global environment (Theodore, 2014). Human resources strategy and infrastructure, particularly in compensation, performance management, leadership, and ethics training, ensures consistency in workplace management and improves organization performance (Brinkerhoff, 2005; Mann, 2010; Martínez-Jurado, Moyano-Fuentes & Pilar, 2013; Shammot, 2014). Linking theory adds to the literature by illustrating organizational performance improvement through aligning business strategy, infrastructure, and human resources programs with customer satisfaction across a robust technology-enabled communication platform.

This paper has contributed to popular literature by looking at organization performance in a global environment from a systems approach. Rather than looking at organizational performance from the management theory or human resource program perspective, this approach suggests maximizing performance depends on the extent to which the organization can link business strategy to customer satisfaction across an infrastructure network enabled by communications technology and supported by human resources programs.

The limitations of this paper are its development as a qualitative analysis of existing literature and the author's executive experience. A quantitative analysis and study of organizational performance across multiple disciplines might provide additional insight into strategy, infrastructure, human resource programs, and technology enabled communications. A systematic analysis of these components might reveal additional insights.

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# **ANTI-COUNTERFEITING TECHNOLOGIES IN ALBANIAN FOOD INDUSTRY**

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## **ABSTRACT**

*European Parliament has taken several actions related to the authenticity of food, including the establishment of laws and standards. Albania, as a country that aspires to join the European Union, has implemented the legal framework to meet these standards. However, there is a lack of traceability in systems that will help food companies and the government fulfill these requirements. This paper shows a prototype where food authenticity is an integral part of a traceability system. The objective is to provide a combination of Quick Response (QR) coding with anti-counterfeiting technology. This is accomplished using encryption algorithms over mobile platforms. The prototype implementation in this way implies easy data access of for business operators, government authorities as well as the ultimate customer.*

**JEL:** M15, L66

**KEYWORDS:** Brand Protection, Safe Food, Traceability Systems, Encrypted 2D Barcodes, Pedigree Process

## **INTRODUCTION**

Being able to trace food back to its origins and to prove its authenticity can be crucial to government and industry during a food-related recall or outbreak. Food companies might benefit from traceability and government may eventually demand it. But, in a large part traceability and authenticity is about building relationships with consumers and giving them what they really want, the ability to trust that they know what they are eating. In this context, consumers should be confident with their choice of foods and be able to buy according to their particular requirements. Knowing what is in their food and where it comes from sounds simple enough, but food chain traceability and food authenticity are complex worldwide issues. It requires consistent standards and adequate technology in an ever changing world. In EU countries, US and Japan, the authenticity of products is widely controlled and regulated by laws and standards. Three schemes regulate the geographical indications and traditional specialties for agricultural products. EU Regulation 1151 (2012) and EU commission guidelines (2014) define the Protected Designation of Origin (PDO), the Protected Geographical Indication (PGI) and the Traditional Specialty Guaranteed (TSG), to ensure the authenticity of dishes and regional specialties. PDO is the legal protection for product brands, which characteristics depend primarily or exclusively on the territory of production. PGI indicates a mark of origin on agricultural products and foods of a certain quality, either from the geographical origin of the product or the area of processing, preparation, manufacture. Finally, the TSG is designed to regulate products with traditional composition, or produced according to local traditions. The laws associated with these schemes ensure the authenticity of products originated within the EU, eliminating unfair competition and non-regulated products of lower quality or with substitutes that do not comply with the original product requirements.

Based on the objective outlined previously, the paper first provides a review of the literature about existing technologies used by counterfeiting systems for labeling. Legal issues, directives and standards concerning brand protection and food quality will also be addressed. Second, the idea of using encrypted QR codes in mobile systems will be explored, as part of food traceability systems. The paper will conclude with remarks and an outlook on future research.

## LITERATURE REVIEW

In the EU, the protection of a product's brand is regulated and controlled by three standards (PDO, PGI, and TSG) which also ensure a safe and quality food product. One component of a "safe" food product is its' traceability. The European Commission Regulation (2002) defines the principles and legal obligations that each entity, that delivers or manufactures food product, should comply with, including the traceability system. All entities in the food industry, that have implemented the traceability system, should be able to identify the life cycle of their product from one point in the supply chain to another (including raw material, ingredients identification, premises identification and product movement). Nevertheless, traceability requirements are not applicable to entities selling the final product to consumers.

In Albania, the National Food Authority (NFA) was initially formed in 2007. Assisted by foreign expertise and EU funds, the authority was officially introduced on 20 May 2010, supported by a decision of the Council of Ministers, DCM 1081 (2009). Today the institution covers 12 regions in Albania, with nationwide coverage. The goal of this institution is to oversee the food safety in Albania and meet the requirements of the Stabilization and Association Agreement (2006) signed between the EU and Albanian government. In social terms, the creation of the NFA, entitles the Albanian citizens to consume products as safe as those consumed by the citizens of the European Union member states. European Commission (EC) assists through the CARDS project (Community Assistance for Reconstruction, Development, and Stabilization), the establishment and functioning of NFA. This is done in accordance with the best models of EU member states that match administrative features, legal, demographic and food security issues in Albania. EU supports the further consolidation of NFA, within the IPA program (Instrument for Pre-Accession Assistance) for the years 2010-2013. This program has envisioned a number of projects, which support components for food safety, safety products with non-animal origin etc.

Another important step in aligning Albanian legislation with EU laws is the passing of the Law 9863 (2008) on FOOD. This law defines general standards for food quality, food labeling, registration of geographical indications and the labeling of controlled origin. It specifies the definition for "tracking" as the ability to trace and follow a food, feed, animals that produce food, or specified substances that are, or are expected to be, associated with a food or feed, at all stages of production, processing and distribution. This law includes the ability to trace and follow imports and raw materials for food production, storage, transport and sale, or supplying of the final consumer. Food business operators are meant to establish a system for maintaining the data (e.g. a database), to guarantee procedures which enable their identification in every moment. These operators should keep this information for three years. The geographical indication is the name of the region, specific place or, in exceptional cases, the country name used to describe the food that 1.) Comes from this region, specific place or the place of use, or 2.) Has a special quality, reputation or some other features, which are attributes of its geographical origin and the production, processing and preparation are performed in this geographical environment.

The indicator "Traditional food product" is assigned to a food if it is produced with traditional raw materials, has a traditional composition, is produced or manufactured in a traditional way and stands for special features of the foods of the same category. This law defines administrative violations and penalties with fines ranging from hundreds of thousands to one million for actions contrary to the requirements of traceability, defined in Article 25 of this law, and for the use of "Traditional food product" note, contrary to Article 33 of this law.



Considering the known counterfeiting systems for labeling, most are based on data carriers like RFID or bar codes. The Radio Frequency Identification technology is a method of uniquely identifying items using radio waves. Typically, a reader communicates with tags that holds digital information in microchips. For RFID systems we mention “Call-in the Numeric Token” (CNT) technique proposed by Johnston (2005). The idea behind this mechanism is to generate a random, unique and unpredictable identity number, which is a virtual tag or token, assigned to each product. The mechanism relies on difficulties in guessing valid identifying numbers and requires customer participation in authenticating the products they purchase. By setting an appropriate threshold, any item with a high-enough instance of query for validation would be deemed counterfeit. Another mechanism based on RFID is research done for tags performing secure authentication on an EPC Network. The Electronic Product Code (EPC) is a global unique identification service for physical objects described by Brock (2001) in a white paper. A non-profit organization like EPCGlobal developed global standards to increase visibility and efficiency throughout supply chains. Tags respecting their 2-generation standards can reliably authenticate product items if they are unique.

While RFID tags are difficult to counterfeit, the barcodes are not. Due to their structure, they are simple to copy. Different techniques are developed to combine with barcodes as watermarks or holograms. Xie et al. (2013) proposed a kind of graying algorithm for binary images, to make possible domain-watermarking transformation methods. They showed through experiments the proposed watermarking scheme for QR 2D barcode, greatly improves anti-counterfeiting performance without loss of barcode information. Companies like DuPont implemented 3D security holographic technology. They use advanced overt authentication imaging technology for brand protection on the packaging of products.

Our research focuses on the goal of adding security to the data carried by the barcodes without adding considerable cost to existent barcode systems. We explain how to implement this in the latter section, introducing an encryption mechanism of data carried by QR barcodes.

### **THE USE OF ENCRYPTED QR CODES IN MOBILE SYSTEMS AS AN ANTI-COUNTERFEITING TECHNOLOGY**

In our recent article, Vukatana and Hoxha (2014), is proposed an architecture for Albanian products that applies traceability based on smartphones and 2D barcodes. The architecture is compliant with all points discussed in the introduction of this article including both Albanian and EU laws, directives and guidelines. The research is focused on QR code as part of the second generation of barcodes known as 2D barcodes. This type of barcode is chosen for two principal reasons. First, according to US Mobile Marketing (2013), the growing trend of spending on mobile recognition, ought to almost double in the 2014 to reach \$164 million, where QR codes are a primary component. This trend continues to grow strongly, reaching \$364 million in spending by 2015. That estimate is based on reports of increased scanning levels. ScanLife, a global leading company providing cloud-based mobile solutions and QR Code technologies, stated that it processed 18 million scans via its ScanBuy application in Q1, 2013. That is up from 13 million scans in Q1 2012, which in itself was up 157% over Q1 2011, as shown in Marketing Charts (2013) report. Second, Kato and Tan (2007) show that QR codes are the mostly used through 2D barcodes integrated in camera phone applications. Both, database-based codes (VSCoDe and Data Matrix) and index-based codes (Visual Code, ShotCode, and ColorCode) are benchmarked in their analysis.

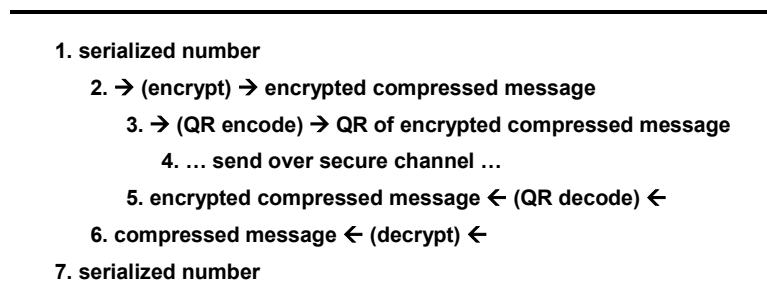
Barcodes are data carriers associated with the process of labeling a product and also used in the overall process from the producer to the consumer, for different tasks as storage, producer ID, sales receipts etc. The large use of barcodes in the food products has driven us to choosing QR codes because the implementation of our system through labeling will be the best choice. It will reduce the costs for tagging and keep data storage to a minimum as the barcoding technologies are already implemented by labeling operators. As long as we use barcodes for process traceability and the transparency of the product to the

customer, the system remains robust. The problem arises when the label is counterfeit and the control entities (NFA) are not able to differentiate an original product from a counterfeit.

There exist different anti-counterfeiting technologies. We enumerate only two processes from innovative packaging technologies and better business applied in pharmaceutical security field, described in Bansal et al. (2013) article, which can be adopted in our system. First, is the process of track and trace. It consists of assigning a unique identity to each stock unit during manufacture, which then remains with it through the supply chain until its consumption. Information is added through step-by-step, interacting with a secure database that is accessed through the unique identifier given at the initial phase. Second is the pedigree process. The pedigree process is a paper document or electronic file that records the details of distribution of a given product from its manufacture through wholesale transactions, until it is received by the final operator, which is usually a retailer.

In our implementation, these concepts are mixed to fulfill our established goals. In the first step (Figure 1), a serialized number is generated from the system at the request of the producer. It is included in a standard GS1 structure called Serialized Global Trade Item Number. It is a unique number that identifies a particular trade item, created by appending the serial number to the Global Trade Item Number (GTIN) of the product, where GTIN is a 14/13/12/8 digital unique identification number and is assigned by the manufacturer in accordance with GS1 allocation rules, for trade items, products or services. The generated identifier is then encrypted and the result (QR code image) is given to the producer, which includes it on the label of the product. The encryption protects the process of generating serial numbers from third parties that want to know how the system creates them. This process is also protected in the decryption phase at the steps 5, 6 and 7 when food business operators access the system to add traceability data.

Figure 1: Flow of the Data (Pseudo-Code)



The system has two principal security roles for operators (business and authorities) and consumers. The first group can use smartphones and easily access information about the product. Business operators in the food chain like producers, packagers, carriers or retailers can modify traceability data. On the other hand, authorities like NFA inspectors can access the system to verify through traceability and the serial number if a product either is counterfeited or meets the requirements of EU and Albanian laws noted in the literature review section. The second group, the consumers, can access in read-only mode through the software on their smartphones all the information about a food product.

The system’s open and modular architecture allows food concerned operators and businesses to easily add or improve existent modules. For this, we simulate the transformation of an existing process from a company that makes natural water, into the proposed system. It begins with assigning a QR barcode and placing it on the label wrapping the bottle. When the user scans this code through a decoder on smartphone, the application redirects to the company webpage. This page shows information about source, place of bottling and the ISO certificates that the product is compliant. In the simulation, adding traceability data from our system enhances “product safety” and brand protection. These data include information like

packaging date, storing days and the last retail of the bottle. Meanwhile for brand protection, information like serial number, expiry date and lot number is used to match against information stored on the label.

## CONCLUSIONS

This paper considers the traceability system architecture for food products (Vukatana and Hoxha, 2014), with the focus on secure and anti-counterfeiting labeling. It shows the first phase of setting up this architecture for the “Made in Albania” brand, in terms of security (authorities), traceability (producer, authorities and consumers) and transparency (consumers). It analyzes the principal data carriers like RFID chips and barcodes and the systems based on them. The data carriers choice falls on the 2D barcode, or more concretely on a QR code, for two principal reasons. First, their low cost against the use of RFIDs. Second, statistics show that QR codes are the most used by mobile devices, comparing to other 2D barcodes. All the considerations in this paper comply with EU legal issues, directives and standards, concerning brand protection and food quality, and respect the Albanian laws on regard.

Future work will address the identification of consolidated sectors of food in Albania (e.g. dairy, seafood, wine, etc.), to create the right database modules. The information stored in these modules will conform to standards and laws reflected in this article and will help the business actors to fulfill these obligations. The system will address another important issue, that is managing the data flow in real-time databases.

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