

Piotr Zaborek

CSR and Financial Performance : the Case of Polish Small and Medium Manufacturers

International Journal of Management and Economics 43, 53-73

2014

Artykuł został opracowany do udostępnienia w internecie przez Muzeum Historii Polski w ramach prac podejmowanych na rzecz zapewnienia otwartego, powszechnego i trwałego dostępu do polskiego dorobku naukowego i kulturalnego. Artykuł jest umieszczony w kolekcji cyfrowej bazhum.muzhp.pl, gromadzącej zawartość polskich czasopism humanistycznych i społecznych.

Tekst jest udostępniony do wykorzystania w ramach dozwolonego użytku.

Piotr Zaborek

*Institute of International Management and Marketing
Warsaw School of Economics*

CSR and Financial Performance: The Case of Polish Small and Medium Manufacturers

Abstract

The paper explores the hypothesized link between involvement in social responsibility and financial performance. In particular, it looks at this relationship among Polish small and medium manufacturing companies that operate in food, beverage and cosmetics industries. The statistical analysis involves developing and testing structural model on the basis of data from a survey of 187 managers supplemented by validated financial metrics from an external database. The outcomes suggests the existence of a weak but statistically significant positive correlation between the CSR involvement construct and sales profit margin ($\beta=0.2$). However, CSR seems to have no discernible direct effect on ROA. The study, as the first project of this kind in Poland, adds to the sparse body of literature on financial outcomes of CSR in small and medium enterprises from emerging economies. Another distinguishing feature of this research is its methodological approach which compares favorably to many previous studies in terms of robustness.

Keywords: CSR, social responsibility, financial performance, SMEs, manufacturing, Poland

JEL: M10, M14

Introduction

The study investigates the interplay between corporate social responsibility and the resulting changes in financial performance of companies. For more than the last decade

this topic has enjoyed a lot of attention from theorists and practitioners alike, which is evident in a large number of relevant publications in academic and trade press. However, despite many research studies focused on this issue, there is a general consensus that the link between involvement in social responsibility and financial outcomes is still not well understood and surrounded with contradictory evidence. One area that is particularly under-researched is investigation of the said relationship among SMEs in emerging economies. This study attempts to address this gap.

The paper is structured as follows. First, it introduces essential concepts related to CSR and summarizes pertinent literature on associations between social responsibility and financial performance. Next, conceptualizations and scales for measuring involvement in CSR and its financial outcomes are outlined. The introductory part ends with presentation of hypotheses and a conceptual model. Discussion of sampling method comes next, with presentation of statistical outcomes to follow. The article concludes with two sections that explore implications for theory and practice and describe limitations and suggestions for further research.

Corporate Social Responsibility: Concepts and Definitions

Corporate Social Responsibility (CSR) is a notion that companies are supposed to assume and fulfil social responsibilities in addition to generating profits. As such, it is quite contrary to the traditional understanding of the role of the firm, which holds that the sole focus of the manager should be on maximizing incomes for shareholders and any activity that would involve spending company's resources in a way that does not result in increased profits is equivalent to theft [Friedman, 1962]. CSR found its ideological roots in stakeholder theory proposed by Freeman [1984]. This theory posits that the company is responsible for meeting the interests of its different groups of stakeholders, within and outside the firm, characterized by often conflicting goals and various influences on the success of its business operations. Consequently, for the best long-term effects, companies should appease their stakeholders by assuming certain social responsibilities while pursuing their business goals. More recently, building on stakeholder theory, Porter and Kramer [2006] proposed that social duties should be shifted from the periphery to the core of a business to form shared value, that is 'creating economic value in a way that also creates value for society' [Porter and Kramer, 2006].

Finding support from many academics and practitioners, CSR has been one of the popular concepts in management science for more than last two decades with considerable influences on theory and practice of marketing, strategy, operations and even human resources. In spite of a wide use of the term in both academic and trade press its understanding is sometimes vague and tends to vary from publication to publication.

As an example, Dahlsrud [2008] in his review of CSR papers managed to find no less than 37 different definitions. The lack of universally accepted definition could probably be attributed to the fact that social responsibility often functions as a buzz word, with little rigor and typically wide, blanket-like meaning that overlaps with many other concepts in business-society relations [Matten, Moon, 2008].

This paper looks at CSR as a set of management strategies with possible consequences for competitive advantage and so the definition that seems particularly relevant is the one advocated by the European Commission and based on the original work by Carroll [1979]. Accordingly, CSR is understood as “the responsibility of enterprises for their impact on society” [European Commission, 2011, p. 6] and involves business strategies that support the three principles of sustainable development – economic growth and prosperity, social cohesion and equity, and environmental integrity and protection – at a level beyond that required by governmental regulations [European Commission, 2003, p. 5]. It is worth noting that this understanding of CSR only concerns volitional and elective solutions and explicitly excludes those practices that were implemented only to meet regulatory obligations, like in natural environment protection or anti-discriminatory policies. In fact, there is a clear distinction in literature between mandatory and voluntary social responsibility, with the former termed ‘reactive CSR’ and the latter known as ‘proactive CSR’ [Groza et al., 2011]. Obviously, the more interesting from a business strategy point of view is the approach where a firm adopts socially beneficial strategies that go beyond what is required by law, as it implies that the managers may make such decisions in hopes of creating competitive advantage. Some of the economic and competitive benefits that engaging in proactive CSR could possibly bring include: more appealing brand image, enhanced consumer loyalty, higher efficiency of production processes in terms of energy and materials usage, better relations with supply chain partners, improved reputation with shareholders, more innovative and productive organizational culture and lower employee turnover [Carmeli et al., 2007; Brammer, Pavalin, 2006].

Judging from the sheer number of publications, CSR – both reactive and proactive – appears to be much better investigated in large companies than in SMEs. To some extent it can be explained by the easier access to data on CSR initiatives among large firms that tend to publish detailed reports on their socially responsible initiatives and often use it as a vital part of their PR strategies. Also, it can be argued that CSR involvement is much stronger in big enterprises due to more intense pressures from stakeholders for ethical behavior and more abundant resources which are required to support many socially responsible policies. On the other hand, SMEs through their narrower scope of operations are less visible to the public and often operate in conditions of resource scarcity and fierce competition that make their managers focus on those strategies that foster short term increases in revenues and profits and promote survival. As such, it is probably more likely among SMEs to find examples of reactive CSR, which only ensures their compliance with regulations, then voluntary, proactive initiatives that can bring about market benefits, but

can also be resource intensive [Gardenne et al., 2008]. The scarcity of reliable evidence on how SMEs use and benefit from proactive CSR is a vital reason for undertaking this study, which will hopefully contribute to bridging the gap in theoretical knowledge and provide practical recommendations and guidelines for managers of small and medium firms regarding CSR policies.

CSR and Financial Performance: Overview of Extant Empirical Evidence

Even after decades of research existing literature on CSR do not provide unequivocal and conclusive evidence on how the corporate financial performance (CFP) can be affected by implementing responsible business practices [Tang et al., 2012]. In fact, the scale of interest and confusion regarding the topic is aptly illustrated by Lu et al. [2014] who meta-analyzed 84 papers published between 2002-2011 that explored this relationship and found a wide – often inconsistent – array of conceptualizations, methodological approaches and outcomes. In line with earlier comments, this topic is particularly poorly investigated for small and medium businesses.

From a theoretical standpoint there are plausible arguments for a positive link between CSR and CFP. For one, stakeholder theory implies that firms that effectively cater to the needs of various groups of stakeholders can benefit from improved relationships with customers, employees, shareholders and business partners [McWilliams et al., 2006]. Specific efficiencies to be gained are more precisely indicated by transaction cost economics, which provides a basis to argue that when a firm fails to act responsibly towards some groups of stakeholders, they can question the firm's integrity and shift their low-cost implicit contracts into more costly explicit claims. As such, companies with a high CSR reputation will also have low-cost implicit claims while those with a poor social responsibility image will face more expansive explicit claims [Peloza, 2006]. Specific examples of such troublesome explicit claims can include law suits and fines from the government, demands of shorter payment periods from suppliers and higher costs of obtaining capital owing to increased risk perception by banks and investors. Another major theoretical perspective – the resource-based view – treats CSR as an intangible strategic resource, which can be valuable, rare and non-substitutable and so instrumental in building and maintaining sustainable competitive advantage [Luo, Bhattacharaya, 2006]. Intangible assets of this kind encompass brand names, company reputation and better skills of employees and managers.

On the other hand, there is a contrasting, though currently less popular view on the interplay between CSR and CFP which holds that with socially responsible efforts often being expensive firms face a trade-off between social and financial performance. That

is, to implement CSR policies firms frequently incur costs that put them at an economic disadvantage compared to other, less socially involved companies [Auppele et al., 1985]. There is an underlying assumption that should those funds be invested otherwise the financial outcomes would be better.

From an empirical point of view, different pieces of published research often offer widely different conclusions – ranging from suggestions of negative, to neutral, to evidently positive relationships. One example of a study, which revealed that CSR can actually dampen profitability, is the work by Wagner et al. [2002] who studied the European paper manufacturing industry and found that increased environmental investments were correlated with lowered financial performance. However, the companies that were investigated were forced to make those investments by more stringent legal regulations, so the CSR there was clearly reactive and thus could entail different causal mechanisms and effects.

A number of studies reported only negligible or no positive financial effects of CSR. This outcome was more often characteristic of longitudinal studies rather than cross-sectional ones. For instance, Nelling and Webb [2009] analyzed data from 600 U.S. firms over a period from 1993 to 2000 and found that even though a cross-sectional regression yielded a proof of association between CSR and CFP, a longitudinal approach employing time-series analysis hinted at much weaker, almost nonexistent, correlations. In addition, the authors concluded that the only trace of causal relationship was between stock market performance of the companies and expenditures on the employee related CSR – apparently companies which succeeded on the stock exchange were more apt to increase their CSR spending, but only regarding their employees. One methodological problem with this study was that the measures of CSR commitment were ratings by a third-party consultancy, which arguably were less accurate than alternatively used manager self-reports.

Another evidence for the lack of link between CSR and CFP comes from the work by Bello [2005], who analyzed investment funds in USA in the late 1990s. He compared funds with only socially responsible firms in their portfolio to those that chose their stocks based on risk and return considerations. It transpired that both groups were no statistically different on returns they offered investors, which led to the observation that CSR committed firms shown similar CFP as the other businesses.

Evidence for a positive association of responsible management and financial standing can be found in the largest portion of articles on the topic, although some of them report rather weak effects and were often less than perfect from the methodological viewpoint.

One example of a recent study revealing positive bottom-line impacts of social responsibility, is a research by Torgusa et al. [2011] who investigated 171 Australian SME manufacturers from the machinery and equipment sector and found medium strong effect ($\beta=0.54$) from proactive CSR to financial performance, controlling for firm size, experience in CSR and several aspects of organizational culture that were assumed to contribute to how intensive and well implemented CSR efforts were. Probably the biggest validity

issue here were financial performance measures that involved self-reported managers' perceptions of how much worse or better their firm fared on profit margin and ROA compared to similar firms in their industry.

In another study Tang et al. [2012] did longitudinal analysis of data from a third-party database that contained metrics on involvement in several aspects of CSR as well as financial measures. The sample with complete data for a period from 1995 to 2007 encompassed 130 mostly large American enterprises of diversified profiles. The outcomes imply that the financial impact is positive (in terms of ROA and ROE) if a company introduces CSR gradually, over long period of time, starting with internal dimensions of social responsibility and then moving outwards. The findings seem to underscore the role of organizational learning and the need to absorb CSR principles into organizational culture before any benefits can materialize. This could explain why efforts of some firms aimed at environmental protection, consumers or supply chain, but without the right organizational culture in place, did not translate into discernible financial benefits. The study's main weakness is questionable representativeness and possible self-selection bias, since the complete records of CSR involvement, which made a company eligible for analysis, were probably more likely for firms with successful CSR programs that were more willing to make such disclosures.

Examples of other research that provided evidence on positive ties between social responsibility and financial performance include papers by Peters and Mullen [2007], Rettab et al. [2009], and Wagner [2009].

Conceptualizations and Measurement Scales

The research entailed measuring two central concepts: CSR involvement and financial performance.

Previous studies employed many approaches to establishing the level of CSR commitment in firms. Among the more popular were: 1) counting and evaluating CSR disclosures in investor reports, press releases, web pages and other media, 2) CSR reputation ratings derived from databases maintained by specialized third party research organizations, 3) own observations by researchers of corporate processes and their visible outcomes, and 4) manager self-reports on social policies through multi-item scales.

This current study relied on a multi-item scale to determine involvement in CSR. This choice was informed by the adopted data gathering procedure (a questionnaire based survey), the general lack of CSR disclosures from SMEs and the absence of a third-party database with social responsibility evaluations in Poland.

The particular scale used here was adapted from the system of metrics developed as a part of a European Union initiative for promoting social responsibility among small

and medium firms [European Commission, 2005]. It was meant to be employed as a self-assessment tool for managers and entrepreneurs to provide them with an appreciation of the level of their firms' alignment with typical practices of responsible business. For the current research, the scale items were modified from its primary questioning format with yes/no answers to Likert-type statements with six response options reflecting varying levels of agreement. Otherwise the scale was used in a form as close to the original as possible, notwithstanding a translation to Polish and a number of minor adjustments to make the items more comprehensible and relevant to interviewed managers, as suggested by pilot tests preceding the actual survey. The complete list of scale items was given in Table 1.

TABLE 1. Multi-item measurement scale for CSR involvement

Item content	SEM model designation
CSR subconstruct 1: Workplace Policies	
We encourage our employees to develop skills supporting their long-term carriers via a performance appraisal process and training plans.	WP_1
There are measures in our company to prevent various forms of discrimination in the workplace and recruitment (e.g. against women, handicapped, ethnic minorities etc.).	WP_2
Our management consults with employees on important issues.	WP_3
Our employees have a suitable protection against health and safety risks.	WP_4
Our employees earn sufficient salaries to ensure their financial safety.	WP_5
Our employees can maintain good work-life balance, for example, by flexible working hours or work from home.	WP_6
CSR subconstruct 2: Environmental Policies	
We try to reduce our environmental impact in terms of:	
– Energy conservation	EP_1
– Waste minimisation and recycling	EP_2
– Pollution reduction	EP_3
Our company saves money by reducing its environmental impact (e.g. by reducing energy consumption, recycling, preventing pollution).	EP_4
In designing new products we consider their potential environmental impacts (e.g. by assessing energy usage, recyclability or pollution generation).	EP_5
Our company supplies clear and accurate environmental information on its products, services and activities to all interested parties (e.g. customers, suppliers and local community).	EP_6
Environmental friendliness of our products could be a source of a competitive advantage over our rivals.	EP_7
CSR subconstruct 3: Market Policies	

Item content	SEM model designation
Our company have a policy to ensure honesty in all its contacts and dealings with our stakeholders (e.g. suppliers, distributors, consumers etc.)	MP_1
Our company supplies clear and accurate information and labelling about products and services, including its after-sales obligations.	MP_2
Our company ensures timely payment of our financial obligations.	MP_3
We have a process to ensure effective feedback and/or dialog with customers, suppliers and other parties we do business with.	MP_4
We resolve complaints from customers, suppliers and other business partners without unnecessary delay.	MP_5
We work together with other companies and organizations to promote responsible business practices.	MP_6
CSR subconstruct 4: Local Communities	
We offer training and internship opportunities to members of the local community (e.g. youth, disabled persons etc.)	LC_1
When our operations are a source of controversy in the local community we engage in dialog with them to find a suitable solution.	LC_2
We try to purchase our supplies locally.	LC_3
We encourage our employees to participate in local community activities (e.g. by providing employee time and expertise, or other practical help).	LC_4
Our company gives regular financial support to local community activities (e.g by charitable donations or sponsorship).	LC_5
CSR construct 5: Company Values	
In our company there is a clearly defined system of values and rules of conduct.	CV_1
We communicate our company's values to customers, suppliers, business partners and other interested parties.	CV_2
Our customers are aware of our company's values and rules of conduct.	CV_3
Our employees are aware of our company's values and rules of conduct.	CV_4
We train our employees on the importance of the company's values and rules of conduct.	CV_5

Source: own elaboration based on European Commission [2005].

It's clear from the table that the items are grouped under five dimensions of CSR, each representing a different area of possible social duty for a company. All five dimensions are latent variables of reflective nature and are assumed to be manifestations of a single, more general construct of the second order labeled "CSR involvement". Again, CSR involvement was supposed to be a reflective rather than formative construct and thus it was expected to be correlated in a similar way with every first order CSR factor.

It ought to be stressed that the above conceptualization of CSR is not the most common in the literature; what is used more often is a model with three first order latent variables, representing company's activities pertaining to economic growth and prosperity, social

cohesion and environmental protection (as an example, such a model was recently used by Torgusa et al. [2012]). The author of this study is aware of only one instance where a measurement tool derived from the European Commission self-assessment form was employed in academic research; Matin et al. [2011] used the scale to investigate socially responsible initiatives in pharmaceutical companies, but beyond a basic reliability assessment with Cronbach's alpha the scale was not thoroughly tested. Even though there is no empirical evidence to unequivocally point at one measurement model as superior, the 5 element structure seems to be theoretically more compelling and hence possibly yielding more coherent patterns of factor loadings.

To assess a degree of financial success the current research relied on two measures: profit margin and ROA, which are both common indicators of profitability often used together in the same research projects as providing complementary information (see Lu et al. [2014] for an overview of financial indicators used in CSR literature). The first metric was calculated as a ratio of net profits over total sales for the completed year preceding the moment of an interview (i.e. 2012). The second measure represented the relationship of net sales to the total value of assets; to enable direct comparison with profit margin ROA was computed for the end of the year 2012. In contrast to most previous studies using survey method [e.g. Torgusa et al., 2012], the two metrics of financial performance were not acquired as managers' perceptions during interviews but were sourced from a database with actual financial records for Polish companies owned by an independent research agency. Such a combination of self-reported (CSR) and objective indicators (CFP) contributes to validity and reliability of findings.

Research Hypotheses and Conceptual Model

In light of the above discussion it is possible to propose the following hypotheses for the study:

H.1 Involvement in CSR in Polish manufacturing companies is a second order reflective factor with 5 first order reflective subfactors representing the main facets of responsible business: Environmental Policies, Workplace Policies, Market Policies, Relations with Local Communities and Corporate Values.

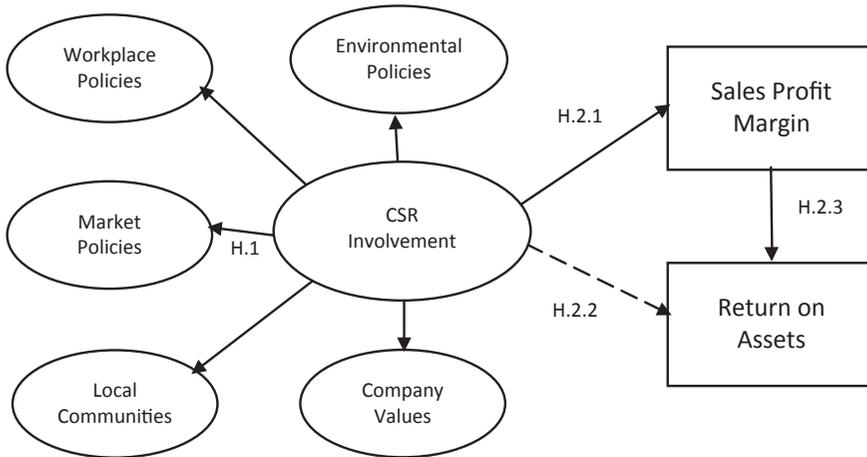
H.2.1 Involvement in CSR is positively correlated with sales profit margin.

H.2.2 Involvement in CSR has no direct association with return on assets.

H.2.3 Sales profit margin is positively correlated with return on assets.

For enhanced clearness the relationships encapsulated by the hypotheses were also depicted in Figure 1.

FIGURE 1. Conceptual model of the study



Source: own elaboration.

Sampling Method

This current work is using data gathered in a survey of managers in July and August 2013. In particular, the interviews were conducted through a combination of CATI and CAWI methods, whereby managers were interviewed by telephone while seeing the web-based version of the questionnaire. This approach enabled using more complex questions and scales due to enhanced communication between respondents and field workers as compared to the ordinary CATI. The sample included 220 completed interviews for a response rate of 39%.

Sample units were drawn at random from an exhaustive database encompassing almost every industrial company in Poland owned by the research agency that was commissioned to conduct the interviews. Subsequent comparison of the net sample and population distributions on known characteristics did not reveal any statistically significant differences, which suggests that the obtained return rate did not compromise generalizability. The database contained validated financial metrics on the companies, two of which, ROA and sales profit margin, were used in the current study to supplement survey results.

Due to missing values and inconsistent answer patterns strongly implying measurement errors, the data file effectively employed in this study numbered 187 observations. The companies represented by respondents were almost equally split between small (10-49 employees) and medium (50-250 employees). All of them were manufacturers operating in Poland in consumer centered industries, mostly food production (75%) but also beverage (15%) and cosmetics (10%).

Statistical Analysis

Statistical methods employed in the study involved exploratory factor analysis (EFA) and structural equation modeling (SEM).

As a first step, the questionnaire scale items for measuring CSR Involvement were checked for consistency to see if sets of manifest variables (see Table 1) assumed to measure individual subconstructs of CSR were indeed loading strongly on only one latent variable. To this end, exploratory factor analysis was performed separately for each of the five groups of items. For the sake of compatibility with SEM, the factors in EFA were estimated with the maximum likelihood method. The EFA revealed that some of the measures did not seem to represent their respective constructs satisfactorily. Therefore in instances where manifest variables correlated with more than one latent variable the indicators that loaded stronger on a weaker factor were removed from the further analysis. The discarded variables were assumed to measure different constructs notably due to idiosyncrasies of the studied industry, its particular economic and legal context, and also in consequence of some response biases. One example of a rejected item was the statement “There are measures in our company to prevent various forms of discrimination in the workplace and recruitment (e.g. against women, handicapped, ethnic minorities etc.)” (designated as WP_2), which shown very little variance (most respondents were disagreeing) and a lack of association with other variables within the Workplace Policies construct. This was probably due to strict legal obligations on employers to prevent such incidents and because managers likely assumed that the question concerned some extraordinary measures beyond what is ordinarily required from them by law, which in their opinion was unnecessary. In addition, the problem of certain forms of discrimination in Poland is felt less strongly due to a more ethnically homogeneous society as compared to most countries in the West, where the scale was originally developed. Also, work equality of women in Poland was ranked second in OCED countries, surpassed only by Norway (The Economist, 2014). As another example, MP_2, which concerns clear and fair information policies including labelling, also shown low variance and dissimilarity with theoretically related items, again possibly as a result of a high uniformity of food, beverage and cosmetics manufacturers, which are required by law to disclose all relevant information about their products. In summary, the rejected indicators were not necessarily universally wrong measures of respective constructs, rather they did not fit this specific research context of consumer goods manufacturers in Poland.

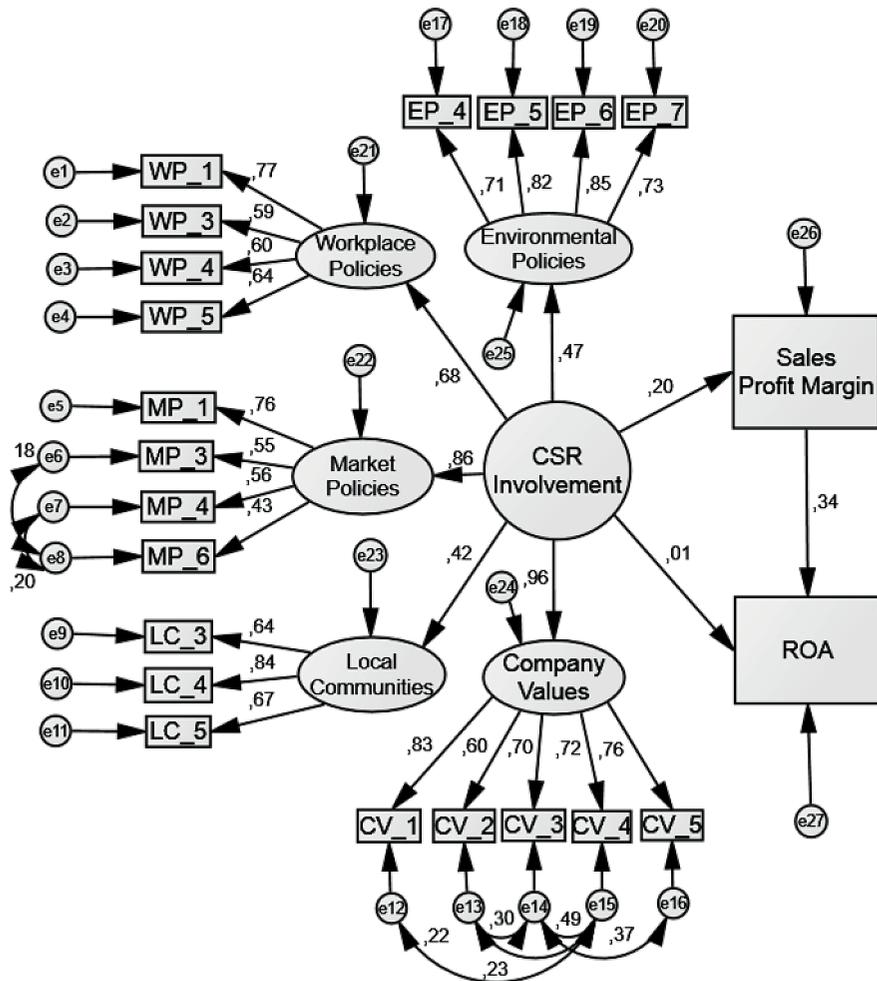
As a result, out of the 29 items in the original set of indicators only 20 were used in the subsequent SEM modelling. The qualified variables included 4 of 6 initial metrics for Workplace Policies, 4 of 6 for Market Policies, 3 of 5 for Local Communities, 4 of 7 for Environmental Protection and all 6 original items for Company Values.

The hypotheses of the study were examined by estimating a SEM model in AMOS 22 – a computer program capable of capturing all interactions represented in a conceptual

model and examine them as a single statistical test. In addition, SEM method provides individual metrics for evaluation of particular bivariate relationships.

The graphical representation of the model together with standardized estimates of regression weights was shown in the next figure.

FIGURE 2. Path diagram for a structural model of interactions between involvement in CSR and financial performance



Source: own elaboration.

In line with the conceptual model (Figure 1), the path diagram depicts CSR involvement as a second order reflective construct expressed through 5 first-order subconstructs, representing different aspects of CSR. The subconstructs were each inferred from their respective sets of questionnaire items, here shown as rectangles. The specific meaning of each item can be found in Table 1, where the multi-item measurement scale was presented in detail.

Before discussing specific parts of the model it is essential to establish its quality as a whole. To this end, a number of typical, overall goodness of fit measures was determined (Table 2). In a general sense, fit indices inform to what extent the model is capable of recreating the covariance matrix obtained from empirical data, though they take different assumptions and use varied formulas. As an aid in interpreting, threshold levels were listed that according to recommendations in the literature distinguish well-fitting SEM solutions [See Garson, 2012].

TABLE 2. Overall goodness of fit measures for the model

Metric	Value	Threshold for a well-fitting model
Chi-square/df (relative chi-square)	1.685	<2 for good fit, <3 for acceptable fit
p-value for the model	<0.001	>0.05
CFI (comparative fit index)	0.916	≥ 0.9
AGFI (adjusted goodness of fit index)	0.829	≥ 0.8
RMSEA (root mean square of approximation)	0.061; HI90=0.072	≤ 0.05 for good model fit; ≤ 0.08 for adequate fit; in addition, the upper 90% confidence limit (HI 90) should be no more than 0.08 for a well-fitting model
PCLOSE (p value for testing the null hypothesis that the population RMSEA is no greater than 0,05)	0.063	≥ 0.05

Source: own elaboration. Cutoff points based on Garson [2012].

The fit indices indicate that the structural model can be accepted as offering an adequate approximation of empirical data. Indeed, one of the tests – the chi square test – suggests that the solution could be lacking in accuracy, as the p score of less than 0.05 leads to rejecting the null hypothesis of no significant differences between the observed covariance matrix and the one reproduced from the model. However, the chi square test is thought to be unreliable, particularly for large sample sizes, often giving too large values signaling the need to reject otherwise adequately fitting models [Byrne 2010, pp. 76–77]. For that reason a number of additional indices are available for assessing the reliability and validity of a CFA solution, relying on different features of the model fit and using various assumptions about data. In fact, “although the chi-square value should always be reported

it is widely considered acceptable to conclude that a model fits the data well, even when the value is statistically significant, if other preselected fit indices meet their established criteria for fit" [Bowen, Guo, 2012, p. 142]. This is the case with the current analysis: 5 indicators alternative to the chi-square test denote a well-fitting solution, which is a strong enough reason not to reject the model.

The overall fit metrics do not reveal much about reliability and validity of individual latent variables. This purpose is served by three additional metrics, computed individually for each subconstruct of the model and listed in Table 3.

TABLE 3. Reliability and validity measures for component constructs of CSR involvement

Construct	Cronbach's Alpha	AVE	MSV
Workplace Policies	0.75	0.45	0.21
Local Communities	0.76	0.52	0.15
Environmental Policies	0.86	0.61	0.19
Market Policies	0.71	0.34	0.30
Company Values	0.86	0.53	0.30

Source: own elaboration.

Cronbach's alpha is a commonly used internal reliability measure of multi-items scales, with a value of 0.6 or greater indicating one dimensional and highly consistent scales [Malhotra, 2014, p. 287]. Considering that alphas for all five factors are beyond that threshold it is fair to say that the scales for all subconstructs have a sufficient level of reliability.

Convergent validity indicates to what extent a factor explains its manifest variables or indicators and is often established with the AVE metric (AVE standing for Average Variance Extracted). It is assumed that AVE values of more than 0.5 are acceptable [Hair et al., 2010]. In the current study two factors – Market and Workplace Policies – do not meet that criterion. Particularly problematic is the Market Policies subconstruct, which on average accounts for only 34% of variance in its indicators, with the other factor being much closer to the cut-off point. One likely explanation for those low AVE values is that the factors in question are supposed to measure CSR impact on human relations and market behavior of the companies, which is also strongly influenced by other determinants, quite unrelated to CSR. As such, indicators chosen to measure those aspects of CSR were also dependent on general corporate strategy, competition intensity, local labor market conditions, required level of skills of workforce and other considerations which were not directly controlled by the survey. Accounting for those influences would require introducing additional latent variables to the model that would make it more complex without explicitly improving our understanding of CSR. Hence, following the principle

of parsimony in model design it seems reasonable to accept the relatively low AVE values on those two factors.

The third important aspect of quality of scales for measuring latent variables is discriminant validity, which looks at the extent to which a factor is explained better by its own indicators instead of by indicators from other factors. Discriminant validity is determined by comparing AVE to MSV (maximum shared variance); it is assumed that a model is acceptable if AVE scores are greater than MSV scores for all its constructs [Hair et al., 2010]. Based on this criterion the present model shows adequate discriminant validity.

The last thing about the CSR measurement model that requires explanation are correlated error terms for indicators under two subconstructs: Market Policies and Company Values. The correlation links were introduced to the model to improve data fit following suggestions of modification indices. Using the modification indices provided in the AMOS output it was possible to identify the error terms that if correlated offered the most substantial gains in the model fit as measured by drops in the model chi-square value. While it is permissible to modify measurement models by correlating error terms, it should be done cautiously and only when reasonable substantive justification for new parameters can be provided (for more information on the usage of modification indices see the discussion in Mulaik [2009, pp. 342–345]). In general it is usually considered acceptable to correlate residuals under one construct, but not across constructs, which would be a clear sign of a misspecified model. It is because of the nature of error terms, which in regression analysis are taken to represent all unexplained variance in indicators, both due to measurement biases and as a result of influences from external factors that were not included in the model [Hoyle 1995, pp.172-173]. This seems to be the case in the current analysis: the indicators which residuals were correlated are likely to be shaped by latent variables other than those related to CSR, like individual management style, prevailing organizational culture or competitive pressures. As such, the associations between indicators implied by those modifications seem to be plausible and, hence, could be accepted as a valid part of the model.

Having identified a seemingly feasible measurement model of CSR involvement it is now possible to evaluate Hypothesis 1, which asserted that CSR is a second order reflective construct with 5 subconstructs, as specified in Figure 1. Based on the model diagnostics discussed earlier, bearing in mind that several indicators were discarded as not well fitting the constructs, it is rather safe to conclude that the proposed measurement model is an acceptable representation of CSR. It is not possible though to say if it is superior to other alternative conceptualization, as that would call for a direct comparison of competing models. This, in turn, would require including alternative indicators in the questionnaire, which was not practical due to limitations on the average length of the CATI interview. However, testing rival CSR models could constitute an interesting avenue for further research. In conclusion, the analysis conducted on the measurement model gives support to Hypothesis 1.

Continuing with the analysis of the model, the next step is centered on its structural part, consisting of regression paths among CSR Involvement, Sales Profit Margin and ROA. The strength and direction of the relationship between CSR and Sales Profit Margin is given by a standardized regression weight of 0.2 at a significance level of 0.021. It indicates a rather weak but significant and positive relationship between the two variables, which implies that CSR was one of many possible determinants of profitability: perhaps not particularly strong (accounting for only 4% of variance) but most likely contributing to increased profit margins. This small but seemingly real effect size lends partial support to Hypothesis 2.1.

The regression weight between CSR and ROA was almost null and not significant at the 0.05 level. Consequently, there was no systematic relationship linking the two metrics and thus Hypothesis 2.2 was rejected.

As was to be expected, both financial metrics were positively correlated ($\beta=0.34$; $p<0.001$). Even though the relationship is not strong it provides evidence in favor of Hypothesis 2.3. The fact that correlation is not greater is explained by profound differences in how efficiently the investigated companies utilized their assets: at one end of the spectrum were very agile firms with high sales to assets coefficients (i.e. asset turnover ratios), at the same time a large portion of companies apparently had considerable slack resources and underutilized facilities, which made for low asset turnover scores.

Practical and Theoretical Implications of the Study

The study investigated a very popular but still controversial topic of a possible influence of socially responsible management practices on financial performance of companies. It revealed that though statistically significant the strength of the impact of CSR on CFP is miniscule, which challenges many of the recent works in this area [e.g. Torgusa et al., 2012; Rettab et al., 2009; Wagner 2009]. At the same time it corresponds in terms of general conclusions with several other studies which shown a weak or no relationship between the two concepts [Nelling et al., 2009; Barnet, Salomon, 2006; Yu et al., 2009; Bush, Hoffmann, 2011]. From the overview of methodological aspects underlying the above cited research, with both positive and neutral results, it seems that stronger positive links between CSR and CFP were more often found in those papers which relied on manager perceptions of financial metrics instead of validated accounting measures. It could reflect a certain measurement bias and a consequent amount of spurious effect, possibly due to respondents – more or less subconsciously – giving overly optimistic estimates of financial outcomes to reflect a generally positive reputation of socially responsible practices. Also, it seems that less positive outcomes emerged more often in those studies that had a tighter focus on the environmental dimension of CSR; this also seems to be justifiable, as efforts

aimed at lessening negative environmental impact tend to involve expensive capital investments and positive financial effects – if real – can be felt only after a considerable delay. In fact some of the studies explicitly confirm this observation: for instance Nelling and Webb [2008] found the only significant correlation between financial performance and employee related CSR, though they argued that the first is the actual cause and not the latter. Considering that in the measurement model obtained in the current study CSR Involvement was tied the strongest with the management related subconstructs may explain a statistically significant correlation of CSR with profit margin and may suggest that after removing environmental policies from the model the correlation could be even greater. Though admittedly noteworthy, due to space constraints here, this analysis option will be pursued on another occasion.

This study findings, due to limited contribution to the sales profitability and no discernible effect on ROA, suggest that any commitments to CSR that would demand considerable investments should be approached by managers cautiously. Given unlikely immediate and positive changes to the bottom line, the rationale for such efforts probably should not involve improving profitability, at least not in the short term. On the other hand, it can be argued that the multi-item scale that was employed for evaluating the degree of proactive CSR at work in the surveyed firms did not involve many items that directly pertained to high profile, expensive projects; hence – with the likely exception of environmental impacts – most of the measures were possible to be brought in without significant capital outlays. The scope of the research also did not include any attempts at quantifying firms' spending on socially responsible policies. Thus, it follows that the slight improvements in profit margins due to compliance with CSR principles may be well worth the effort if achieving it was not very costly in terms of initial outlays and maintenance. It is also worth noting that profit margin, by relying on net profits in the numerator of the formula, implicitly factored in all recurring costs, so the profit gains truly appear to have slightly outweighed the necessary incurred costs. However, the CSR effort may still not be in the best interest of a company due to alternative opportunities which were forfeited in favor of CSR. Managers, it seems, ought to compare proposed CSR projects against rival initiatives, also vying for their attention and rare corporate resources. With the above considerations in mind, it is fair to say that the current study increases the number of scholarly works with neutral outcomes as far as the link between CSR and CFP is contemplated.

The second major contribution of the survey is validating the conceptualization of CSR as a second order latent variable with five facets of social effort encapsulated by five different first order constructs. It was also shown that both second and first level constructs are reflective in nature (versus formative) and can be effectively determined by indicators administered through manager self-reported survey. This observation, on top of its theoretical consequences, also has practical application as it allows managers to self-study their companies regarding their CSR commitments and identify areas for improvement.

In addition, the research adds to the extant body of literature on CSR in small and medium companies operating in emerging economies, which is still sparse in comparison to developed countries. In fact, this project is the first of this kind in Poland, where so far many of empirical studies on CSR dealt mainly with charitable marketing, in particular from the consumers' perspective [Zaborek, Mirońska, 2013; Mirońska, Zaborek, 2014].

The study seems to compare favorably to other similar projects completed in other countries in terms of its methodological attributes. The outcomes are arguably more trustworthy than some other studies because of directly asking managers about their perceptions of how CSR is used in their companies rather than relying on more general ratings derived from third-party databases. In addition, to overcome problems with certain respondents tending to misrepresent financial data, the relevant values were taken from a database with validated financial statements of investigated firms.

Limitations and Directions for Further Research

The main limitation of the study is that the generalizability of its findings may be restricted to the food, beverage and cosmetics industries in Poland. This group of firms have their own idiosyncratic features that were shaped by the culture, history and geographic position of Poland. On the other hand, in the recent years these industries have been modernizing intensely in response to competitive pressures from imports and FDI from other EU countries and also to be well positioned to benefit from ample exporting opportunities in the European Common Market and beyond. Considering that Poland is one of the major exporters of food in Europe it is reasonable to assume that this sector is at least comparable from a technological and organizational standpoint to its Western counterparts. Nevertheless, any interpretations that would extend beyond the direct target population should be made with caution. It is conceivable but far from certain that similar data patterns will repeat themselves in other traditional, customer oriented industries, which would warrant further research to verify if replication is achieved. As another possible direction for further study, it would be interesting to see a comparative analysis of similarities and discrepancies in B2C service and manufacturing companies.

The study is cross-sectional in nature which is also limiting in that the correlation patterns observed are less likely to represent bona-fide causal relationships, especially when effects are delayed [Malhotra, 2010, pp. 78–79]. As was reported earlier in the paper, there was a general tendency in the literature for longitudinal studies analyzing firms over longer periods of time, to show weaker links between CSR and CFP [Nelling, Webb, 2008] so if that was the case with the general population for this research, the overall conclusion of the weak correlation between CSR and CFP would probably remain unchanged. Nevertheless, a longitudinal design is a logical direction in which to take the follow-up research.

The study is also somewhat hampered by the sample size of 187 observations, which is not particularly large for an SME analysis. For that reason, the author decided to keep the model as simple as possible and not include several possible moderating variables (e.g. firm size, ownership status, export involvement, amount of direct contacts with final customers etc.), which could refine the analysis but would also result in diminished power of the statistical tests. As it stands, the sample size was sufficient to detect the rather weak correlation between CSR and CFP, but it would be interesting to see a more complex structural model tested with a larger data set.

Finally, considering that not much is known about the relationship between outlays on CSR efforts and their operational and financial effectiveness (in particular among SMEs), a worthwhile contribution to this stream of management research would be to attempt to estimate yearly expenditures on CSR activities and include this variable as a moderator in the relationship between CSR involvement and CFP.

References

- Aupperle, K., Carroll, A., Hatfield, J. (1985), An empirical examination of the relationship between corporate social responsibility and profitability, *Academy of Management Journal*, 28, pp. 446–463.
- Barnett, M., Salomon, R. (2006), Beyond dichotomy: the curvilinear relationship between social responsibility and financial performance, *Strategic Management Journal*, 27, pp. 1101–1122.
- Bello, Z. (2005), Socially responsible investing and portfolio diversification, *Journal of Financial Research*, 28, pp. 4–57.
- Bowen, N., Guo, S. (2012), *Structural Equation Modeling: Pocket Guides to Social Research Methods*, Oxford University Press, New York.
- Brammer, S. and Pavalin, S. (2006), Corporate reputation and social performance: the importance of fit, *Journal of Management Studies*, 43, pp. 435–55.
- Bush, T., Hoffmann, V. (2011), How hot is your bottom line? Linking carbon and financial performance, *Business and Society*, 50, pp. 233–265.
- Byrne, B. (2010), *Structural Equation Modeling with AMOS: Basic Concepts, Applications and Programming*, Second Edition, Routledge, New York.
- Carmeli, A., Gilat, G., Waldman, D.A. (2007), The role of perceived organizational performance in organizational identification, adjustment and job performance, *Journal of Management Studies*, 44, pp. 972–92.
- Carroll, A.B. (1979), A three-dimensional conceptual model of corporate performance, *Academy of Management Review*, 4(1), pp. 497–505.
- Dahlsrud, A. (2008), How corporate social responsibility is defined: an analysis of 37 Definitions, *Corporate Social Responsibility and Environmental Management*, 15 (1), pp. 1–13.
- European Commission (2011), *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions: A renewed EU strategy 2011–14 for Corporate Social Responsibility*, Brussels, Belgium.

- European Commission (2003), *Responsible entrepreneurship: A collection of good practice cases among small and medium sized enterprises across Europe*, Belgium, Bruxelles. retrieved on September 27, 2014 from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0681:FIN:EN:PDF>
- European Commission (2005), *Awareness-raising questionnaire*, Belgium, Bruxelles, retrieved on June 3, 2013 from http://ec.europa.eu/enterprise/policies/sustainable-business/files/csr/campaign/documentation/download/questionnaire_pl.pdf
- Friedman, M. (1962), *Capitalism and Freedom*, University of Chicago Press.
- Gadenne, D., Kennedy, J., McKeiver, C. (2008), An empirical study of environmental awareness and practices in SMEs, *Journal of Business Ethics*, 10, pp. 1–19.
- Garson, D. (2012), *Structural Equation Modeling: Statistical Association Publishing Blue Book Series*, Statistical Association Publishing, Asheboro.
- Groza, M.D., Pronschinske, M.R., Walker, M. (2011), Perceived organizational motives and consumer responses to proactive and reactive CSR, *Journal of Business Ethics*, 102, pp. 639–652.
- Hair, J., Black, W., Babin, B., Anderson, R. (2010), *Multivariate data analysis* (7th ed.), Prentice-Hall, Inc. Upper Saddle River, NJ, USA.
- Hoyle, R.H. (2011), *Structural Equation Modeling: Concepts, Issues, and Applications*, SAGE Publications, Thousand Oaks.
- Jenkins, H. (2009), A business opportunity model of corporate social responsibility for small- and medium-sized enterprises, *Business Ethics: A European Review*, 18(1), pp. 21–36.
- Lu, W., Chau, K., Wang, H., Pan, W. (2014), A decade's debate on the nexus between corporate social and financial performance: a critical review of empirical studies 2002–2011, *Journal of Cleaner Production*, 79, pp. 195–206.
- Luo, X., Bhattacharya, C.B. (2006), Corporate social responsibility, customer satisfaction, and market value, *Journal of Marketing*, 70, pp. 1–18.
- Malhotra, N. (2010), *Marketing Research: An Applied Orientation*, Prentice Hall, 6th edition.
- Martin, K., Thaghafian, H., Esapour, K., Amin, Alviri, M., Farhoodi, A. (2011), A study of the Relationship between Corporate Social Responsibility and Firm Financial Performance, *Australian Journal of Basic and Applied Sciences*, 5(12), pp. 668–674.
- Matten, D., Moon, J. (2008), Implicit and explicit CSR: A conceptual framework for a comparative understanding of corporate social responsibility, *Academy of Management Review*, 33(2), pp. 404–424.
- McWilliams, A., Siegel, D., Wright, P. (2006), Guest editors' introduction. Corporate social responsibility: Strategic implications, *Journal of Management Studies*, 43, pp. 1–18.
- Mirońska, D., Zaborek, P. (2014), Polacy wobec marketingu społecznie zaangażowanego, *Marketing i Rynek*, 1/2014.
- Mulaik, S. (2009), *Linear Causal Modeling with Structural Equations*, Chapman & Hall, CRC Press Taylor and Francis Group, Boca Raton.
- Pelozo, J. (2006), Using corporate social responsibility as insurance for financial performance, *California Management Review*, 48, pp. 52–72.
- Peters, R., Mullen, M. (2009), Some Evidence of the Cumulative Effects of Corporate Social Responsibility on Financial Performance, *The Journal of Global Business Issues*, 3(1), pp. 1–14.
- Porter, M.E., Kramer, M.R. (2006). 'Strategy and society'. *Harvard Business Review*, 84, 78–91.
- Rettab, B., Ben Brik, A., Mellahi, K. (2009), A study of management perceptions of the impact of corporate social responsibility on organizational performance in emerging economies: the case of Dubai, *Journal of Business Ethics*, 89, pp. 371–390.

- Tang, Z., Eirikur, H., Rotenberg, S. (2012), How Corporate Social Responsibility Engagement Strategy Moderates the CSR – Financial Performance Relationship, *Journal of Management Studies*, 49, pp.1274-1303.
- The Economist* (2014), The glass-ceiling index: The best and worst places to be a working women, March 6th.
- Torgusa, N., O'Donohue, W., Hecker, R. (2012), Capabilities, Proactive CSR and Financial Performance in SMEs: Empirical Evidence from an Australian Manufacturing Industry Sector, *Journal of Business Ethics*, 109, pp. 483–500.
- Wagner, M. (2009), Innovation and competitive advantages: from the integration of strategic aspects with social and environmental management in European firms, *Business, Strategy and the Environment*, 18, pp. 291–306.
- Wagner, M., Van Phu, N., Azomahou, T., Whermeyer, W. (2002), The relationship between the environmental and economic performance of firms: An empirical analysis of the European paper industry, *Corporate Social Responsibility and Environmental Management*, 9, pp. 133–146.
- Yu, V., Ting, H., Wu, Y. (2009), Assessing the greenness effort for European firms: A resource efficiency perspective, *Management Decisions*, 47, pp. 1065–1079.
- Zaborek, P., Mirońska, D. (2013), Analiza wrażliwości polskich nabywców dóbr indywidualnych na działania z zakresu marketingu społecznego podejmowane przez wytwórców dóbr i usług konsumpcyjnych, *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 288, pp. 115–125.