

## **A Framework for Measuring the Willingness to Pay of Industrial Buyers for Attributes That Constitute Sustainable Products**

### **Abstract:**

Companies experience increased pressure from various stakeholders to conduct businesses in a responsible and sustainable manner. These expectations go beyond the mere compliance with national or international laws and regulations which are taken for granted. They also go beyond the scope of the company itself. Companies are rather expected to ensure that their partners along the supply chain act accordingly. As various examples show, a single incident with one supplier may cause adverse publicity and ruin a company's reputation and brand image, even though the company itself applies high standards in terms of responsibility and sustainability. Industrial buyers find themselves in a conflicting situation of purchasing goods and services at the lowest competitive price while ensuring compliance with social and environmental standards. In this paper, we present a framework for assessing the willingness to pay (WTP) of industrial buyers for attributes that constitute sustainable products. Utilizing conjoint analysis the actual WTP will be assessed, while structured equation modelling techniques are employed to identify driving factors of WTP on a corporate and personal level.

### **Keywords:**

Sustainability, Corporate Social Responsibility, Conjoint Analysis

### **Authors:**

Philipp Goebel\*, Supply Chain Management Institute (SMI) at European Business School (EBS), Soehnleinstrasse 8, 65201 Wiesbaden, Germany, T: +49 611 360 18 800, E: [goebel@supplyinstitute.org](mailto:goebel@supplyinstitute.org)

Carsten Reuter, Supply Chain Management Institute (SMI) at European Business School (EBS), Soehnleinstrasse 8, 65201 Wiesbaden, Germany, T: +49 611 360 18 800, E: [reuter@supplyinstitute.org](mailto:reuter@supplyinstitute.org)

\* Corresponding author

## INTRODUCTION

Companies experience increased pressure from various stakeholders to conduct business in a responsible and sustainable manner. Over the last decades, companies went to great lengths in order to “green” their production facilities and to ensure proper working conditions at their local premises. As western firms’ supply base becomes increasingly global with spend volumes shifting towards emerging countries, firms must assure supplier compliance with legal and extra-legal regulations in order to avoid the risk of corporate reputational damage caused by environmental or social misconduct of their suppliers. Increasingly, sourcing activities are extended towards emerging markets to reap the cost benefits associated with low cost country sourcing. This trend, however, may lead to a conflict of interests with respect to corporate social responsibility and sustainability considerations.

While some companies have launched comprehensive responsibility and sustainability initiatives, e.g. committing themselves and their suppliers to comply with the United Nations Global Compact (UNGC) or similar standards, others solely rely on their employees’ and suppliers’ sense of responsibility. Contrary to the common set of purchasing specifications, e.g. quality, price, locus and time which can be easily measured and monitored at the point of delivery, ‘sustainability’ is lacking a common set of well-defined measures, hindering the establishment of effective screening and enforcement mechanisms at the point of production. In general, the industrial buyer (from now on referred to as ‘buyer’) has the goal to source as responsible and sustainable as possible. However, the decision of which supplier to choose cannot be linked to clearly observable sustainability attributes. At the end of the day it is the individual buyer who has to decide on who the ‘right’ supplier is, and this decision can, at best, be based on qualitative criteria suggesting that a supplier actually fulfils certain sustainability standards. This leads to a dilemma for the buyer: he has to purchase at the lowest price possible, while at the same time sourcing as sustainable, i.e. socially, economically and ecologically sound, as possible. In this context, it has to be taken into account that industrial buyers often have performance based compensation schemes that are solely based on cost savings, not however, on ensuring sustainability standards. Assuming that adherence to certain sustainability standards induces higher purchasing costs, the key question is how much savings a buyer is willing to sacrifice to ensure compliance with certain sustainability standards. Despite a number of noticeable works on the still developing fields of sustainability in general, sustainable purchasing in particular, and on the motivation of employees to engage in genuine sustainability activities, even highly elaborated sustainability reports cannot address this crucial issue. This leads to the first research question lying at the heart of this paper:

1. What is the industrial buyer’s willingness to pay for different levels of assured compliance with the principles of the UNGC?

In order to investigate the willingness to pay for product attributes constituting sustainability in purchasing, we use a conjoint design based on the ten principles of the UNGC as well as on the level of compliance with these principles.

Apart from a financial point of view, further independent and dependent drivers, which can be attributed to a company and to the personal attitudes of a buyer, will have an impact on the buyers’ decision making. Some examples of potential drivers are employee behavior or ethics policies. However, it is not known to which extent these drivers will influence responsible purchasing and thus a buyer’s willingness to pay; this leads us to the second research question of this paper:

2. What determines the willingness to pay for different levels of assured compliance with the principles of the UNGC?

Based on a literature review, case studies as well as expert interviews, we identify potential drivers that may impact the willingness to pay for assuring higher levels of compliance with the UNGC. We develop a set of hypotheses that predict the relationship between these drivers as well as their impact on the willingness to pay. Based on the results of a survey and a conjoint experiment, conducted with industrial buyers, we determine the willingness to pay and test our hypotheses.

The remainder of this paper is organized as follows: In the following section we review the relevant literature on the willingness to pay for CSR compliance, willingness to pay and highlight our contribution. Thereupon, we develop our hypotheses and our research model leading to the framework for measuring willingness to pay of industrial buyers for attributes that constitute sustainable products. Finally, we summarize our key findings, highlight managerial implications and outline limitations as well as future research opportunities.

## LITERATURE REVIEW

### CSR and Sustainability Considerations

CSR has been recognized as a potential source of competitive advantage mainly because responsible business practices can improve the firms' financial performance by reducing the risk of negative publicity and adverse effects on a company's reputation. (McWilliams and Siegel, 2001). In order to consider actions as 'sustainable', organizations must not consciously do anything that could harm their stakeholders and must rectify any harm as soon as it is discovered and brought to their attention (Campbell, 2007). Moreover, it has been reported that firms that are able to detect and correct misbehavior and accommodate changing attributes of sustainability requirements in a timely manner experience competitive benefits over their competitors.

Given the growing influence of sustainability concerns on corporate strategies, the upstream supply management function is also required to address the social, economic and environmental dimensions of sustainability (Carter and Rogers, 2008). However, these so called triple bottom-line dimensions have so far received an imbalanced investigation in global supply management literature. While the majority of contributions focus on environmental issues (e.g., Carter and Carter, 1998; Hall, 2000; Mintcheva, 2005; Hsu and Hu, 2007; Côté et al., 2008; Kovacs, 2008; Zhu, Sarkis and Lai, 2008) only few focus on social issues under the umbrella of 'ethical sourcing' or 'purchasing social responsibility' (Roberts, 2003; Carter and Jennings, 2004; Carter, 2005; Hutchins and Sutherland, 2008). Only recently, integrating environmental and social issues in the field of supply chain management and procurement has received growing attention (Boyd et al., 2007; Linton, Klassen and Jayaraman, 2007; Carter and Rogers, 2008; Seuring and Mueller, 2008).

### Purchasing Social Responsibility

Purchasing Social Responsibility (PSR) is understood to be purchasers' involvement in sustainability practices encompassing economic, environmental and social concerns (Carter and Jennings, 2004). In the UNGC the UN defined four sustainability dimensions: (1) Human Rights, (2) Labor, (3) Environment, and (4) Anti-Corruption. The individual dimensions were derived from the Universal Declaration of Human Rights, the Fundamental Principles on Rights at Work from the International Labour Organisation, the Rio Declaration on Environment and Development, and The United Nations Convention Against Corruption (United Nations, 2009): (1) Human Rights, (2) Labor, (3) Environment, and (4) Anti-Corruption.

Research in purchasing with respect to human rights has been scarce. In one of few works Emmelhainz and Adams (1999) identified the challenges buyers face in the apparel industry. They concentrate on the supplier selection process, which has become vital due to customers' higher levels of sustainability concerns (Shaw et al., 2006; Valor, 2007). Especially, working and living conditions of employees (Jennings and Entine, 1999), the payment of minimum wages and forced labor under deplorable, inhumane conditions present a major challenge (Emmelhainz and Adams, 1999).

The latter also encompasses the dimension of labor as defined by the UNGC. Buyers have to assure that their suppliers will not employ children, discriminate against employees or prohibit freedom of association (Rivoli, 2003; Roberts, 2003).

The third dimension covered by the UNGC comprises environmental purchasing. Extant literature discusses environmental aspects with respect to PSR concentrating on its antecedents (Carter and Carter, 1998; Drumwright, 1994; Min and Galle, 1997, Walton, Handfield and Melynk, 1998) and the economic consequences (Carter, Kale and Grimm, 2000; Montabon et al., 2000).

Anti-corruption is the last dimension covered by the UNGC. Literature has identified the acceptance of gratuities to influence a purchaser's decision making (Arkininstall, 1994; Armstrong et al., 1990; Turner, Tayolor and Hartley, 1994; Wood, 1995). Forker and Janson (1990) highlight in their longitudinal

study that over a time period of 12 years the number of buyers accepting favors decreased although the number of purchasers showing the propensity to accept favors increased. Badenhorst et al. (1994) examine in more detail different levels of personal advantages that can be considered as corruption. Concluding, the reviewed literature strongly suggests that the four dimensions of the UNGC form PSR. Additionally, Carter and Jennings (2004) proposed that philanthropy and safety form a dimension of PSR. Philanthropy concerns the rationale of corporate giving (Fry, Keim and Meiners, 1982). With respect to purchasing it especially refers to the engagement with local communities (Carter and Jennings, 2002; Poist, 1989). Some large MNC already initiated programs for health treatment and others (Williams, 2004). However, Gupta (2007) argues that philanthropy is not a result of stakeholder interaction but “doing well to ones fellow men” opposite to the focus of sustainability. Safety in the work environment influences work attitude and behavior (McLain, 1995). Thus, it is essential for purchasers to ensure safe operations at suppliers’ plants.

### **The Human Factor in Development and Implementation of Sustainability Practices**

Despite sustainability’s growing importance, little attention has been given to individual behaviour and preferences in the context of purchasing and sustainability. Perron, Côté, and Duffy (2006) emphasize the importance of employees’ beliefs, commitment and mindset for a successful implementation of environmental practices. Accordingly, employees are ‘the ultimate actors [...] because they implement the changes in behaviors and routines’ (Côté et al., 2008, p. 552) and they need to be integrated into sustainability initiatives in order for them to be successful (Stone, 2000, 2000). However, employee integration and participation in sustainability initiatives requires a certain degree of knowledge, understanding and awareness with respect to social, environmental and economic issues (Wehrmeyer 1996; Hart 1996; Miller 1996). Hence, training and educating employees in the domain of sustainability has been identified as a vital antecedent for implementing and sustaining those practices. However, what motivates employees in general and purchasing managers in particular to act in compliance with a company’s sustainability expectations has not yet been studied extensively.

A common extrinsic motivator in today’s business is the financial award based on employee-performance. Currently, the performance related-pay of buyers is most commonly linked to budget savings. Although it appears intuitive to expect that introducing a financial reward for sustainable behavior will increase the motivation to act accordingly, prior research findings suggest a converse effect.

In their work on SMEs and CSR, Murillo and Lozano (2006) highlight the importance of the character and values of the companies’ founders, managers and employees. In the same vein, surveys of UK businesses find that employees’ intrinsic motivators were more powerful than extrinsic ones with personal views and beliefs being the main drivers (FSB, 2006; FSB, 2007). An equally counter-intuitive finding is presented by Bondy (2008): as sustainability becomes more important to organizations, individuals may use this to improve their own relative position within the company. For example, individuals with superior knowledge about sustainability or individuals that are responsible for the development and implementation of sustainability activities will try to turn their unique situation into a personal sustainable advantage. Accordingly, they might hinder co-workers’ sustainability advancements or even try to discredit co-workers’ competencies in the respective field. As a result of these power struggles among different actors, development and implementation of sustainability systems may be hindered as attention shifts towards the struggle instead.

### **Willingness to Pay for Sustainability**

The majority of the studies in the field of willingness to pay for sustainability have focused on estimating price premiums for consumer products with higher ethical standards applying a contingent valuation approach (Auger et al., 2003; Arnot, Boxall and Cash, 2006; Loureiro and Lotade, 2005; McGoldrick and Freestone, 2008; De Pelsmacker, Driesen and Rayp, 2005). Interestingly, the estimated willingness to pay varies largely across the different studies. While Loureiro and Lotade (2005) estimate a price premium of 2.4-3.3% for various types of fair trade coffee, De Pelsmacker et al. (2005) estimate a premium of 10% for the same product. Furthermore, research has revealed that the ethical price premium is influenced by the absolute price of the product. Elliot and Freeman (2001) show that consumers would pay an ethical price premium of 28% for an item worth \$10 while this price premium for an item worth \$100 would only be 15%. Hence, a comparable price basis has to be

used when examining willingness to pay for ethical price premiums. As these examples show, prior studies have focused on the determination of final customers' ethical price premium. To the best of our knowledge, no previous research has addressed the willingness to pay for compliance with sustainability standards in a business-to-business context.

## RESEARCH MODEL AND HYPOTHESIS DEVELOPMENT

As outlined in the introduction, we follow a multi-method approach, consisting of conjoint analysis for the purpose of assessing WTP and a structural equation model based on survey data to identify influencing factors of PSR and its impact on WTP.

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### Drivers of PSR

Based on an extensive literature review, we identified six potential drivers of an industrial buyer's PSR: Employee behavior, ethics policies, supplier relationship, governmental regulation, training and individual values of employees. In the following, we define these drivers and hypothesize how they impact PSR.

#### Employee behavior

Managerial behavior and attitudes of supervisors and top management as well as top management support have been found to impact employee's behavior and influence the implementation of ethical standards in a company. More specifically, the examples set by top management and supervisors "guide employees in ethical uncertain and ambiguous areas and situations" (Carter and Jennings, 2004; Chonko and Hunt, 1985; B. Chonko Lawrence; et al., 1996; Cullen and Victor, 1988; Hunt, Wood and Chonko, 1989; Turner, Taylor and Hartley, 1994). Similarly, the action of co-workers may encourage or discourage ethical behavior of employees (Carter, 2000; Tsalikis and Fritzsche, 1998; Wood, 1995). Furthermore, top management attitude towards the implementation and enforcement of corporate social responsibility standards influences the behavior of employees (Hunt, Wood and Chonko, 1989). Carter and Jennings (2004) found that the support for the requirement, initiation and implementation of activities and programs with respect to corporate social responsibility enhance the ethical behavior of purchasing employees. Consequently, top management support, managerial behavior and the behavior of co-workers are important antecedents for a purchasing manager's behavior. This leads to the following hypothesis:

*H1: Sustainability supportive employee behavior has a positive impact on a purchasing social responsibility.*

#### Ethics Policies

Companies formalize their expectations regarding the ethical behavior of their employees and suppliers through "codes of conduct". These contain rules constituting ethical behavior and corresponding penalties for the violation of those rules. They need to be brought to buyers' and suppliers' attention, for example, by training or seminars, and need to be updated frequently in order to account for most recent stakeholders' requirements (Cooper, Frank and Kemp, 2000; Perron, Côté and Duffy, 2006; González-Benito, 2007). Deviations from the code of conduct need to be detected in order to be penalized. For acquiring knowledge of employee or supplier misconduct firms may install various types of auditing systems including internal and external auditing teams (Carter, 2000). Additionally, mechanisms allowing for employees and suppliers to anonymously report any form of misconduct without fearing negative consequences are installed, for example telephone hotlines or ombudsman. Yet, the publication of "codes of conduct" is not an end to itself if firms want to pursue genuine CSR practices instead of sole "green washing". Hence, the degree of enforcement will determine the effectiveness. We refer to the range of above measures as "ethics policies". In situations

where the buyer is confronted with a conflict of interests and needs to choose, for example, between the generation of (higher) savings and (higher) compliance with ethical standards, the existence of clear and comprehensive ethics policies may persuade the buyer to opt for the latter. Accordingly, we present the following hypothesis:

*H2a: The degree to which ethics policies exist is positively related to purchasing social responsibility on the part of the buyer.*

*H2b: The degree to which ethics policies are enforced is positively related to purchasing social responsibility on the part of the buyer.*

### **Supplier Relationship**

The performance of buyer-supplier relationships is determined by various and, to a certain degree, interrelated characteristics. First, trust and power have been found to be important determinants of “positive performance within interorganizational relationships” (Ireland and Webb, 2007, p. 483). By drawing on transaction cost economics it can be argued, that trust can be a substitute for costly control and coordination mechanisms. Accordingly, trust will increase the propensity of firms to openly exchange knowledge and other resources since they expect their partner to “act according to a common agreement” (Ireland and Webb, 2007, p. 484). In contrast, power refers to the influence that can be utilized in order to persuade partners to act in the desired way. Thereby, the direction of power depends on the possession of scarce resources. For the issue at stake, reducing supplier opportunism is of primary importance because monitoring a supplier’s compliance with sustainability standards is a difficult task. In contrast to traditional evaluation criteria, the purchased product or service does not provide evidence in the form of observable characteristics, e.g. that it was produced under circumstances compliant with the purchaser’s social and environmental standards. For example, inspecting a purchased mobile phone will reveal whether it fulfils the specifications regarding color, size, technical capabilities, etc., but under which conditions it was assembled, i.e. compliance with human rights. Information asymmetry between the supplier and the buyer on actual production processes may lead to opportunistic behavior on the supplier side. However, neither an extensive level of trust nor an extensive level of power over the supplier will necessarily prevent opportunistic behavior. Especially the length of the buyer-supplier relationship determines the width of the gap between the buyer and supplier perceptions. Hence, it can be assumed that the longer the relationship, the smaller the differences in moral values and norms between the two parties (Carter, 2000; Epstein and Manzoni, 1998). Especially in combination with recurrent transactions, a long-term relationship may help to build trust among the acting parties (Ring and Van de Ven, 1994). The mutual understanding of expectations and a history of successful transactions decreases the parties’ needs for formal agreements. Furthermore, the anticipation of future transactions will hinder a party to seek short-term gains at the expense of the other party. For example, a supplier will not pretend to be compliant with the difficult to control for social standards if he expects future transactions. This leads us to the following hypotheses:

*H3a: The level of coordination that the buying firm has with a supplier (low: market-oriented; high: alliance) is positively related to PSR.*

*H3b: The length of the buyer-supplier relationship is positively related to PSR.*

### **Governmental regulation**

Previous studies examining the impact of governmental regulations on individual dimensions of PSR provide ambiguous results, ranging from enabling to hindering involvement in ethical activities (Min and Galle, 1997; Dean and Brown, 1995). Carter (2004) finds that governmental regulation is not a significant driver of incorporating ethical aspects in purchasing practices. However, he suggests that different and country specific approaches in the development of environmental and social responsibility regulation might moderate the influence of governmental regulation on the issue at stake (Porter and van der Linde, 1995). Contrary to Carter (2004), we focus on buying firms in Europe,

especially Germany, where a more rigorous development process of governmental regulation is in place. Therefore, we bring forward the following hypothesis:

*H4: Strict governmental regulation is positively related to purchasing social responsibility.*

### **Training**

The training of employees is considered a key success factor for the introduction of environmental management systems (EMS) (Sammalisto and Brorson, 2008). Some authors identify lack of awareness as one of the most important barriers to sustainable employee behavior (Summers and Raines), which can be repaired through effective and sustained training activities (Perron, Côté and Duffy, 2006; van Hemel and Cramer, 2002).

Therefore, we bring forward the following hypotheses:

*H5: Sustainable training activities are positively related to purchasing social responsibility.*

### **Individual Values of Purchasing Employees**

Individual values are defined as “an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence” (Rokeach, 1973, p.5). Extent literature has found that individual values are an important antecedent to decision-making and behavior in business and organizational contexts (England, 1967, Mayton I. I, Ball-Rokeach and Loges, 1994). Specifically, ethical behavior and social responsibility (Meglino and Ravlin, 1998; Shafer, Fukukawa and Lee, 2007; Weber, 1993) as well as environmental concern (Fukukawa, Shafer and Lee, 2007; Schultz, 2001; Schultz and Zeleny, 1999, Stern and Dietz, 1994; Stern et al., 1995) are influenced by individual values. The Schwarz Value Scale (Schwartz, 1992) has commonly been used for measurement of individual values (Fritzsche and Oz, 2007; Fukukawa, Shafer and Lee, 2007; Illies and Reiter-Palmon, 2008; Shafer, Fukukawa and Lee, 2007). The scale is composed of four clusters with a total of ten value types. Shafer et al. (2007) found a significant relationship between self-transcendence values (universalism and benevolence) as well as conservation values (tradition and conformity) and the perceived importance of ethics and social responsibility. These results are also supported by Fukukawa et al. (2007), who found similar results with respect to the relationship of values and attitudes toward social environmental accountability. Fritzsche and Oz (2007) examined the four value clusters in a reduced form with respect to ethical behavior. They only found self-transcendence and self-enhancement to have a significant impact on ethical behavior. Concluding, these studies provide strong evidence that individual values have a significant influence on purchasing social responsible behavior of employees. This leads to the following hypotheses:

*H6a: Self-transcendence and conservation values of buyers are positively related to purchasing social responsibility.*

*H6b: Self-enhancement values of buyers are negatively related to the purchasing social responsibility.*

### **PSR's influence on WTP**

Existent studies have focused on PSR and its influence on the buyer-supplier relationship. Carter and Jennings (2002) found that higher levels of PSR lead to better supplier performance. Thus, buyers involved in socially responsible activities with their suppliers received products of higher quality in shorter lead times and helped suppliers to do their job more efficiently. In our study we focus on the impact the decisions made by industrial buyers. Based on the existent findings, especially by Carter and Jennings (2004), we propose that buyers with higher levels of PSR should also be willing to pay higher prices for suppliers who are compliant with sustainability. Therefore, we formulate the following hypothesis:

*H7: Higher levels of PSR are positively related to WTP for higher levels of sustainability compliance.*

### **Determination of WTP**

In general, WTP refers to the maximum amount a customer is willing to spend for a product; it is also referred to as reservation price (Monroe, 2002) or a maximum of the price tolerance span (Herrmann et al., 2004). In our case this can be considered as the additional amount a purchaser is willing to pay for different levels of assertion that suppliers are compliant with CSR standards. Extant literature provides three major approaches to measure WTP: (1) revealed preference data determining WTP by real purchases. (2) purchasing offers determining WTP by means of auctions and lotteries. (3) stated preference methods using a hypothetical setting. Due to the objective of our research, the approaches to measure WTP by means of revealed preference data and purchasing offers were not applicable. When applying stated preferences methods WTP is either determined by contingent valuation method (consumers are asked directly to state their WTP) or by conjoint analysis. Among other reasons we decided to employ conjoint analysis because it is incentive-neutral and thus superior to self-stated WTP (Green and Srinivasan, 1990).

When employing conjoint analysis, respondents are asked to rank or rate a set of existing or hypothetical product alternatives including product prices. The WTP is derived from the part-worths estimated for all attribute levels expressing the overall utility (Caruana, Morris and Vella, 1998; Kalish and Nelson, 1991).

We decided upon using the UNGC as a reference framework to develop our attributes mainly for two reasons: (1) The UNGC is a strategic policy initiative with ten universally accepted principles developed by the United Nations. It is the largest corporate citizenship and sustainability initiative in the world – with more than 4.700 corporate participants and stakeholders from over 130 countries. Thus, it can be assumed that it is the most widely known basis for companies that are seeking to comply with generally accepted CSR standards. (2) The ten principles of the UNGC cover the areas of human rights, labor, environment and anti-corruption, thus integrating all perspectives of sustainability as identified in the literature review.

In order to convert the ten principles of the UNGC into attributes applicable to the conjoint analysis we made two major adoptions (see Table 1). First, we modified the principles by explicitly incorporating the supplier into the statements. Second, we rephrased them in an affirmative manner. Furthermore, we summarized the explanations of each principle into short examples with reference to supplier relationships in order to give a better understanding of each attribute. The parameter-values for each attribute are derived from the different levels of assertion that a supplier is compliant with these principles. The lowest level is determined by a signed contract in which the supplier assures to comply with them. The medium level is fulfilled when a supplier disposes of manuals with guidelines how the principles are implemented and assured. The highest level of assertion is reached when suppliers are audited and accredited to be compliant with the principles.

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### **SUMMARY**

With our research we seek to gain insight into a purchaser's willingness to pay for higher levels of compliance with sustainability standards of suppliers. We build on the UNGC as a worldwide known standard concentrating on the four dimension human rights, labor, environment and anti-corruption to influence the WTP of industrial buyers. Conjoint analysis is employed to shed light on how industrial buyers deal with the conflicting interests of sourcing at the lowest competitive prices while simultaneously accounting for their firms sustainability standards. The subsequent analysis of influencing factors on WTP is meant to yield findings which are of interest for buyers and marketers from academia and practice. For example, we expect to find indicators for the impact of corporate and personal values, the success of sustainability trainings and the relation of trust and WTP for higher levels of assured compliance, e.g. purely contractual in contrast to third-party certification. Especially the latter is of great interest from a network perspective, as some scholars propose that the supplier's

reputation within a network will impact the relationship between buyer and supplier by means of trust. Accordingly, the supplier's ambition to achieve and to maintain high levels of trust will reduce the risk of opportunistic behaviour. Furthermore, increased trust may decrease the buyer's WTP for third-party certification of the supplier's sustainability efforts.

Practitioners on the buying-side may value the insights on how company guidelines and sustainability related efforts will impact their buyers' actual sourcing behaviour. On the suppliers' side, practitioners will find guidance on whether the costly certification by third-party auditors will eventually pay-out, or whether the build-up of trust will yield the same or even better results.

## **LIMITATIONS AND FUTURE RESEARCH DIRECTIONS**

The design of the conjoint analysis limits the number of attributes to be examined. It is inherently difficult to examine further potential influence factors on WTP in detail. We intend to cope with these difficulties by choosing sustainable attributes, which are widely accepted in literature and practice. A further limitation of conjoint analysis is the cognitive effort required in responding. Different models have been developed which take into account these restrictions. An in depth-analysis for the choice of the adequate conjoint model is an important task to be performed in future research. Further research directions include data gathering during May and June 2009. For this purpose, an experimental set-up with online conjoint analysis and an electronic questionnaire will be utilized on-site of buyers' premises. By including professional buyers from different hierarchical levels within one company, we expect to find information on different perceptions of and attitudes towards sustainability related issues. Furthermore, this is meant to reduce key-informant bias. Preliminary findings will be presented during IMP conference.

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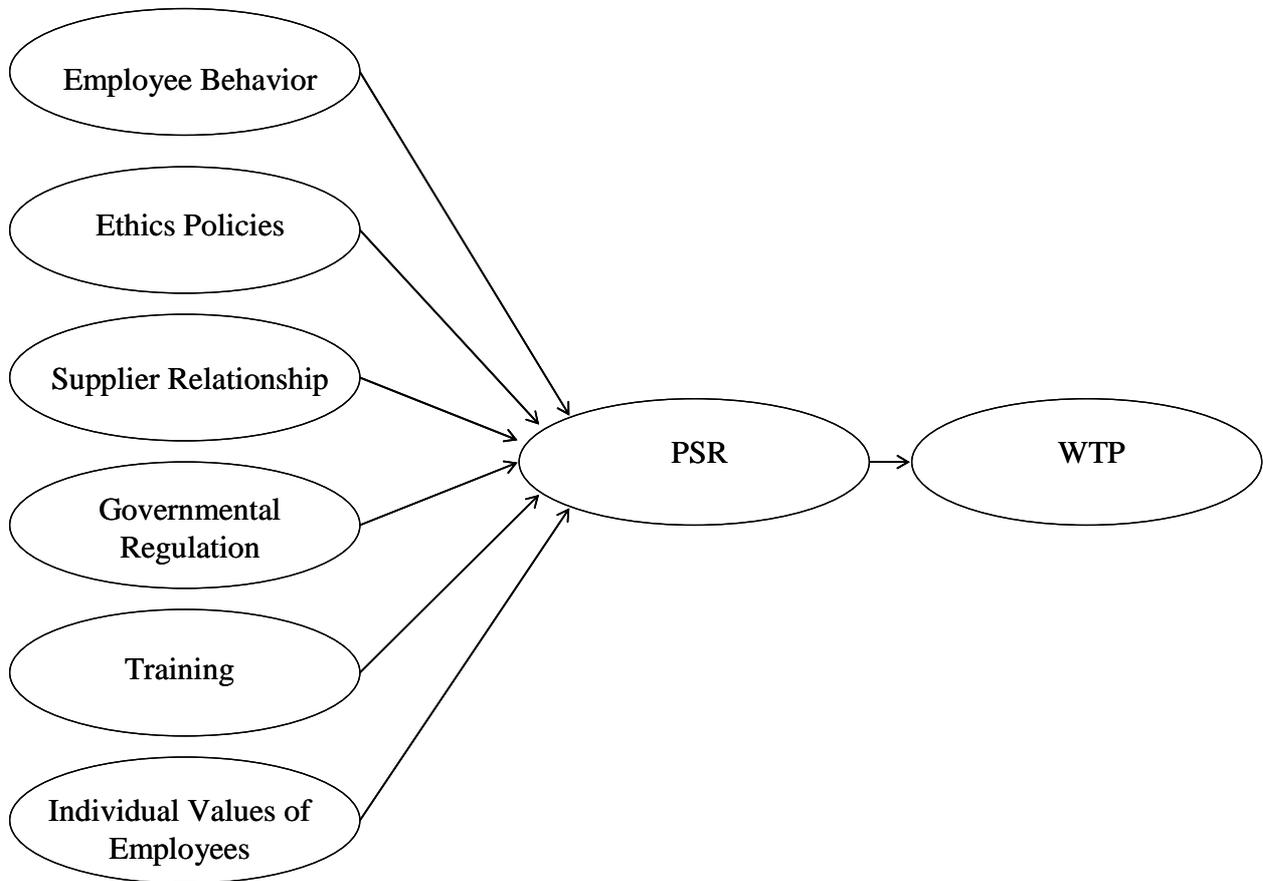
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## APPENDIX

Figure 1: Research Model



**Table 1: Adaption of general UNGC principles to the purchasing context**

<b>Dimension</b>	<b>Principle</b>	<b>Example</b>
Human Rights	Supplier supports and respects the protection of internationally proclaimed human rights.	Supplier assures the rights to life, liberty and security, that constitute the personal dignity. He prevents the forcible displacement of individuals, groups or communities and protect the economic livelihood of local communities. Further he remunerates his workers ensuring for them and their families an existence worthy of human dignity.
	Suppliers make sure that they are not complicit in human rights abuses.	Suppliers actively inhibit an abuse of human rights committed by their stakeholders.
Labor	Suppliers uphold the freedom of association and the effective recognition of the right to collective bargaining.	Suppliers ensure that all workers are able to form and join a trade union of their choice without fear of intimidation or reprisal. Further they ensure union-neutral policies and procedures that do not discriminate against individuals because of their views on trade unions or for their trade union activities. They recognize representative organizations for the purpose of collective bargaining.
	Suppliers do not permit any form of forced and compulsory labor.	Suppliers do not execute slavery, torture or cruel, inhuman or degrading treatment or punishment, nor bonded labor or debt bondage. They do not operate with exploitative practices such as forced overtime or the lodging of deposits (financial or personal documents) for employment. They do not violate physical nor psychological as a means of keeping someone in forced labor. They assure the right to rest and leisure. A reasonable limitation on working hours and periodic holidays with pay exists. The right to a standard of living adequate for health and well being, including food, clothing, housing, medical care, and to social services and security is assured.
	Suppliers do not permit any form of child labor.	Minimum age for admission to employment or work is no less than the age for completing compulsory schooling, and in any case not less than 15 years. Lower ages are permitted for transitional periods (minimum 14 years) and for 'light work' (minimum 13 years). Minimum age for hazardous work is higher at 18 years.
	Suppliers do not discriminate in respect of employment and occupation.	Employment and occupation especially refer to: recruitment; remuneration; hours of work and rest, paid holidays; maternity protection; security of tenure job assignments; performance assessment and advancement; training and opportunities; job prospects; social security; occupational safety and health; equal pay for equal work.
Environment	Suppliers support a precautionary approach to environmental challenges.	Suppliers take action if necessary before scientific proof is available on the grounds that a delay in the action will cause damage to nature and society. They protect and widen the assimilative capacity of the natural environment by refraining from undesirable resource use. They promote intrinsic natural rights - allowing natural processes to function such that they maintain essential support for all life on earth. They pay for ecological debt - or compensating for past errors of judgment as indicated by the notion of 'common but differentiated responsibility' enshrined in the UN Framework Convention on Climate Change.
	Suppliers promote greater environmental responsibility.	Suppliers implement the International Declaration on Cleaner Production. Therefore they re-define company strategies and policies to include the 'triple bottom line' of sustainable development - economic prosperity, environmental quality and social equity. Further they set quantifiable objectives and targets, develop sustainability indicators.
	Suppliers develop and diffuse environmentally friendly technologies.	Suppliers change or adapt the process or manufacturing technique and input materials. They make changes to the product and reuse materials on site.
Anti-Corruption	Suppliers proactively work against corruption in all its forms, including extortion and bribery.	Suppliers will not abuse entrusted power for private gain. They do not endanger nor threaten the personal integrity or the life of the private actors involved. Further, they do not accept offers or receipts of any gift, loan, fee, reward or other advantage to or from any person as an inducement to do something which is dishonest, illegal or a breach of trust, in the conduct of the enterprise's businesses.