Students’ Perceptions of Forest Industries 
Business Ethics - A Comparative Analysis of Finland and the USA

1. Introduction

Recent years have seen increased public debate on business ethics and corporate responsibility (CR). Several phenomena are driving this trend, primarily intensifying globalisation and the fact that multinational corporations have gained an exceptionally influential position in modern society (Ibrahim et al., 1993; Mikkiliä, 2005). Additionally, recent corporate scandals such as Enron have focused attention on CR (Angelidis et al., 2004; Elias, 2004; Maignan et al., 2004). Such scandals typically damage several stakeholder groups, such as shareholders, employees and local communities, further raising public awareness regarding business ethics and CR.

Business ethics and CR have become central issues for 21st-century companies. In some basic industry sectors such as the forest industry these issues have become exceptionally sensitive, particularly their environmental aspects (Halme, 1997; Näsi et al., 1997; Takala, 1998; Rytteri, 2000). Above all, the forest industry’s dependence on forests and wood as raw material has contributed to enhanced societal expectations about its performance throughout the world (Panwar et al., 2006). The forest industry is thus often used as an example in academic research related to such responsibilities (Halme, 1997; Kärnä, 2003; Mikkiliä, 2005).

Business ethics and CR are closely interrelated theoretical concepts (Joyner et al., 2002). Ethics are often defined as the conception of what is right and fair conduct (e.g., Freeman et al., 1988; Malhotra et al., 1998). Then again, according to De George (1999), business ethics can be defined as “the interaction of ethics and business”. In the management literature, the concept of CR, or corporate social responsibility (CSR), is often seen as this interacting link between ethics and business (e.g., Swanson, 1995). In other words, CR can be considered a managerial approach which turns underlying ethics into actual business activity.

There are differences among societies with respect to values and ethics. Differences in views of business ethics derive from both institutional environments and social value bases. According to Matten & Moon (2004), for example, a fundamentally different institutional environment is a central issue shaping the views of business ethics and CR in North America and Europe. For instance, many of the firm-based policies considered as CR in North America are redundant in European institutional frameworks as they are already mandatory or customary for companies (Matten & Moon, 2004). Governmental input through legislative and regulative action imposes particularly diverse transatlantic demands on CR. In Europe, the responsibilities of business to society is more strictly regulated by codified rules and laws, whereas in North America CR is largely based on voluntary action. Matten and Moon capture this by introducing the North American view as “explicit CSR” and the European view as “implicit CSR” (Matten & Moon, 2004).

Matten & Moon’s theory on explicit and implicit CSR is supported by general differences in the social value base between North America and Europe. Several scholars (e.g. Lodge et al., 1987; Maignan et al., 2003) have stated that the social value base in North America is mainly characterised by individualism. Individualistic societies emphasise shorter-term self-interest, and each social actor is expected to see to his own survival and well-being (Maignan et al., 2003). Furthermore, individualistic societies are generally characterised by a universalistic view of ethics in which people are equal and deserve the same rights (Palazzo, 2002). According to Jackson (2000), a high level of individualism and universalism in US society is likely to lead to a need to regulate individual behaviour in an explicit way. As a consequence, codes of ethics are more common in the US than in Europe, making American business ethics often seem rather legalistic (Palazzo 2002).

Unlike the US, the European value base is more communitarian by nature. Such values underline the needs of the community and the benefits of consensus
Values have a significant role in the process of defining and redefining the individual's self image, the moral nature of values also contributes to their function in the interest of society (Rokeach, 1973; Hemingway, 2005). For example, Schwartz and Bilsky (1987) emphasised the role of values as cognitive representations of social interactional requirements for interpersonal coordination, and social institutional demands for group welfare and survival. In other words, values have a dual purpose: enhancing the sense of self, and enhancing the welfare of society. In the literature, this view has generated a popular classification into “individualistic” and “collectivist” values (Wojciszke, 1997; Hemingway, 2005). This classification has its roots in England’s definition of values as being “individualistic” or “group oriented”, and similarly “hard” and “soft” (Hemingway, 2005; England, 1971).

Triandis investigated the behavioural patterns of individualism and collectivism, distinguishing a wide range of differences in the value dimensions of these two groups, claiming that the individualists emphasise individual goals rather than the goals of collectives, and values such as achievement and competition (Triandis, 1989). In individualistic cultures, concepts such as equality, limited government and individual rights are important. By contrast, collectivists promote the welfare of their group, and values such as family integrity, security, obedience, and conformity are crucial. In collective cultures, the goals of society are typically put above individual ones, and respect for authorities and loyalty to the state is high (Triandis, 1989).

Schwartz (1992, 1994) further developed the classification of value types, mainly based on Rokeach’s earlier work on the structure and content of values. Schwartz introduced four universal value categories present in all cultures: 1) self-transcendence, 2) self-enhancement, 3) openness, and 4) conservation. According to Schwartz, self-transcendence includes the altruistic value types of universalism and benevolence. This dimension is close to the category of collectivist values introduced earlier in the academic literature. In contrast, self-enhancement, including the more egoistic values relating to personal power and achievement, is largely equivalent to the category of individualistic values. Openness is driven by individual motivation to follow one’s own intellectual interests, whereas conservation refers to the need for a status quo and the certainty provided by close relationships (Schwartz, 1992, 1994; Fukukawa et al., 2007). In academia, Schwartz’s categorisation of value types has been widely used in cross-cultural studies (e.g., Schwartz and Bardi 2001; Shafer et al., 2007) and with regard to the concepts of business ethics (e.g., Puohiminen, 1995; Schultz et al., 2005; Siltaoja, 2006; Shafer et al., 2007; Fukukawa et al., 2007).

2.2. Business ethics
Ethics forms the basis of the conduct of people as well as business organisations. In academic literature, ethics is generally defined as the conception of what is right and fair conduct (e.g., Freeman et al., 1988; Carroll, 1991). The concept of ethics is closely connected with values. As Carroll (1996) put it: “One’s values shape one’s ethics”. On this view, ethics can be seen as a system of principles or judgements which state whether something is good or bad, right or wrong.

Several scholars have suggested that modern business is an integral part of society and its actions, and that businesses must participate in society in an ethically symbiotic way (e.g., De George, 1990; Joyner et al., 2002). According to De George, this interaction between business and society can be defined as the concept of business ethics, which deals with moral standards and principles in business operations (Ferrell and Fraedrich, 1997). At the macro level, this definition particularly encompasses the
moral evaluation of the economic system of free enterprise, as well as of possible alternatives to and modifications of it (De George, 1990). The possible alternatives and modifications of the role of businesses particularly have aroused considerable academic debate over the past few decades. Some scholars, such as Milton Friedman (1962), have highlighted that the only objective of businesses is to make a profit (Shafer et al., 2007). According to Friedman, since corporations are not moral entities, ethics can not be adopted in business life. Friedman’s theory was partly supported by Adam Smith (1976) who claimed that economy functions best when the agent’s freedom is greatest. (Jakobsen et al., 2005) However, Smith also highlighted that each individual’s role in promoting public interest and common welfare is effective. This “invisible hand” acknowledges the importance of ethical values and norms as necessary conditions for the market economy to function, and thus influences the role of business as well. Smith’s theory corresponds with classical liberalism, whereas Friedman’s view can be seen as more neoliberal. Both Friedman and Smith recognise that the market can and must be regulated by law. However, particularly in Europe, political life and the democratic society system also control business life by other means than legislation; for example, in terms of standards and guidelines provided by governmental institutions and networks.

The general awareness of the ethical dimensions of business practices in the modern society is growing substantially, and business ethics is increasingly becoming a subject for academia, government and the general public (Ahmed et al., 2003). As a consequence, ethical aspects have a more direct impact on business than before, and corporations have started to investigate the subject as well. At corporate level, ethics include issues on the sustainability of finances, the environment and society (Lindfeldt et al., 2006). In this context, a typical element of ethical business conduct is going beyond the law and legislative requirements in general. As Rytteri (2000) put it, there are issues beyond the legislation.

According to Axinn et al. (2004), a central issue in business ethics is the question of “to whom a business is primarily responsible”. Scholars have typically distinguished between “stockholder” and “stakeholder” approaches to this question (e.g., Argondona, 1998; Axinn et al., 2004). The stockholder approach is close to Friedman’s views on the role of business, arguing that the companies should conduct business according to the interests of stockholders because, by prioritising social aspects, the company jeopardises organisational survival and places the company and its management in the role of “non-elected policy makers” (Etheredge, 1999; Axinn et al., 2004). The stakeholder approach however, values the companies’ responsibilities toward multiple stakeholders including the general public. This viewpoint sees it as profitable for companies to solve problems of public concern (Axinn et al., 2004).

2.3. Values driving views of business ethics

The impact of personal value systems on views of business ethics is recognised by several scholars (such as Hemingway and McLagan, 2004; Shafer, 2007). Generally speaking, value research is considered to provide more insightful and deeper understanding of the ethical orientations of individuals, and explain differences in ethical orientations (Kumar, 1995). However, the interrelationship between detailed personal value systems and business ethics can still be seen as an under-researched issue (Shafer et al., 2007).

Recent studies have provided information on the impact of collectivistic and individualistic value dimensions on views of business ethics. Views on the ecological component of business ethics has been a particular subject of research. Collectivistic values appear to be consistent with concerns regarding both environmental and social justice. For example, Puohiiniemi pointed out that values relevant to “pro-green” attitudes mainly concentrated on collectivistic value domains, whereas values relevant to “non-green” attitudes concentrated on individualistic value domains (Puohiiniemi, 1995). Puohiiniemi’s findings were supported by Schultz and Zeleznky (1999), who found that individuals with a more collectivistic value background are more likely to define themselves as part of nature, and thus reflect a greater degree of environmental concern. Similarly, previous research has shown that individuals with higher values are likely to be less concerned about environmental issues and less likely to take action on such issues (Fukukawa et al., 2007). According to the study results of Maignan (2001), a similar phenomenon can be identified with regard to social issues. Maignan pointed out that individuals with more collectivistic values were mostly concerned about business conforming to social norms, not about its economic performance.

Among more collectivistic cultures, individuals are typically embedded within a network of social relationships that must be maintained by adjusting to the dynamic needs of the group and its members (Kitayama et al., 1997). Some researchers have pointed out that collectivistic values correspond with the stakeholder views, highlighting for example the welfare of people and the employee morality of companies (Axinn et al., 2004; Shafer et al., 2007). Similar studies have also suggested that individuals with collectivistic values do not undervalue shareholder views either, although the theoretical constructs of the collectivistic value domain would predict this. However, the interrelationships between personal values and the perceived role of business has remained a little understood issue in academia so far.

2.4. Hypotheses

A wide range of studies has revealed variation in the value priorities of individuals within societies as well as groups across nations (see Schwartz & Bardi, 2001; Myyry & Helkama, 2001; Lindeman & Verkasalo, 2005). In this context, the intra-groups in societies are separated by gender, age, major study and political orientation, for example. The differences in personal value priorities are relevant in business ethics related research because, as previously stated, personal values impact the individual’s perceptions on business ethics. However, personal values do not necessarily fully correspond with underlying cultural values in society. Schwartz (1999), for example, separates individual values from culture-level values. Schwartz claims that cultural values implicitly or explicitly represent shared views about what is good, right and desirable in society, serving as bases for specific norms in various situations. Furthermore, Schwartz states that “individual value priorities are a product both of shared culture and of unique personal experience” (Schwartz, 1999). In other words, personal values within larger cultural groups are built upon cultural value constructs, and the unique experiences and personalities of different individuals.

In academia, most researchers have considered culture as the predominant aspect influencing the differences in business ethics perceptions across countries (as in Ahmed et al., 2003; Axinn et al., 2004; Phau & Kea, 2006). In other words, individuals who are raised in different nations have different values and ethical views. Typically, cultural differences with regard to values and ethics are discussed within the framework of Hofstede’s typology (Hofstede, 1991). In this context, the confrontation between individualism and collectivism can be highlighted particularly.
In individualistic cultures, citizens primarily value personal achievement, whereas the well-being of the “in-group” is more prioritized in collectivistic cultures (Shafir et al., 2007). Several studies have shown that the US culture is high on individualism and low on collectivism (Lodge et al., 1987; Vitell et al., 1993; Akiba et al., 1999; Hofstede, 2001). In comparison with American culture, the European ones including Finland, are generally considered more collectivistic by nature (Lodge, 1990; Maigman et al., 2003). For example, Schwartz studied the cultural values of 49 different nations, founding that the Finnish culture stresses egalitarianism and harmony above all (Schwartz, 1992). According to Schwartz egalitarianism refers to “a cultural emphasis on transcendence of selfish interests in favour of voluntary commitment to promoting the welfare of others”, whereas harmony in this context refers to “a cultural emphasis on fitting harmoniously into the environment” (Schwartz, 1992). The Finnish culture thus can be considered highly collectivistic by nature.

As a consequence, it can be expected that Finnish students will represent more collectivistic values than their American counterparts. Accordingly, we suggest that:

H1: Finnish students are more likely to represent collectivistic/softer values than American students.

Basically, since the individualistic values reflect views according to which each social actor is expected to be responsible for its own survival and well-being, it can be presumed that the respondents with more individualistic values, i.e., the US students, have generally lower expectations of business ethics in companies. Additionally, as Palazzo stated, strong optimism characterises American culture with regard to business ethics (Palazzo, 2002). Consequently, we hypothesise that:

H2: US students are less concerned about the multiple responsibilities of the forest industry corporations than their Finnish counterparts.

The examination of direct connections between personal values and views of business ethics is poorly understood. Several scholars (e.g., Singhapakdi et al., 2001; Hemingway, 2005) have suggested that cross-national differences in culture and personal values contribute to differences in the perceived importance of ethics and social responsibility. Most researchers have relied on this assumption in analysing the connections between values and views on business ethics and CR. For example, Maigman et al., pointed out that economic responsibilities was rated as significantly more important than the ethical ones in the USA, whereas in Germany and France the least importance was allocated to the economic responsibilities of the companies (Maigman et al., 2003). These differences were explained by the national ideologies and cultural values, but the impact of values was evaluated based on earlier studies, not on the examination of a sample in that particular study. Similarly, Axinn et al., pointed out that the American beliefs on business ethics were closer to the stakeholder view, whereas the respondents from more collectivistic cultures, such as Asia, emphasised the stakeholder view (Axinn et al., 2004). Thus, earlier studies and existing theories suggest that the students from more individualistic cultures will emphasise economic responsibilities and the stockholder view more than their counterparts from collectivistic cultures. As a consequence:

H3: US students emphasise shareholder orientation in forest industry business more than their Finnish counterparts.

The previous studies have shown that women emphasise values such as universalism and benevolence more than men. Males tend to mainly emphasise values such as power and achievement more than females. (see Myyry et al., 1999; Schwartz et al., 2001; Lindeman et al., 2005). The value background of females is thus typically more collectivistic and soft than the value background of men. Additionally, according to Myyry et al., females tend to have greater emotional empathy than men. Emotional empathy is closely related to helping and pro-social behaviour (Myyry et al., 1999). Therefore, we suggest that:

H4: Male students represent harder values than female students, and thus have a more positive view on the current state of business ethics in forest industry operations.

With regard to study majors, Lindeman et al., found that business and technology students show more individualistic and hard values than other students (Lindeman et al., 2005). Similar findings were also pointed out by Schwartz, who suggested that business majors give higher priority to power and achievement values, whereas humanities majors accord priority to universalism values. Therefore, we hypothesise that:

H5: Business and technology students have harder values than other students, and thus have a more positive view on the current state of business ethics in forest industry operations.

3. Methodology

The data for the study was collected by using a structured self-completion questionnaire. The questionnaire was pre-tested and independently back-translated between Finnish and English versions in order to ensure the accuracy and understandability of the information.

The intervening and dependent variables used in the analysis were mainly statements on a five point Likert scale, from 1= Totally disagree to 5= Totally agree, or from 1= Not at all to 5= Very strongly. Additionally, one barometer variable was used in the Likert scale to measure the shareholder/stakeholder orientations of the respondents. On this scale, the respondents had options from 1= Corporations should make a profit for their shareholders to 2= Corporations should create welfare for all stakeholders.

Stratified sampling was utilised to obtain representative data covering a relatively even distribution of Finnish and US students; both male and female; and students majoring in business, technology, forest economics and environmental science.

The sample for this study consisted of undergraduate and graduate students in five universities located in Finland and the USA. In Finland, 311 students from the University of Helsinki, Helsinki School of Economics and Helsinki University of Technology participated. In the USA, the sample consisted of 257 students from Oregon State University and University of Montana, making the total sample size 568 students.

The primary data of the study was analysed by using the SPSS 13.0 statistical software. A wide range of analysis techniques was used in the interpretation of the data. In this study, the personal characteristics of the respondents and study majors have been set as background variables. Personal values are considered as an intervening element, and a driver which partly determines the respondents’ perceptions of business ethics, which are dependent variables containing the core information of this study.

At the basic level, means were used to interpret the magnitude of ratings in the Likert-type scale. In the analysis of intervening variables, i.e., values, factor analysis (principal axis factoring, varimax rotation) was used to examine dimensions in the social value background of the respondents. The applicability of factor analysis was tested by using Bartlett’s Test of Sphericity, in which the significance level of 5% (p<0.05) was considered appropriate.

The differences among student groups and value clusters were analysed by One-way ANOVA. The significance level applied
in the analysis was 5% (p<0.05). The interrelationships between the values and business ethics perceptions were also analysed by correlation examination.

4. Results

4.1. Description of background variables

As Table 1 below shows, male students represented a majority of the respondents, at 58%. This is mainly related to the large number of male students at the US universities included in the study. The total distribution of the respondents in classes according to their major is relatively even, although in the Finnish data the students majoring in forest ecology/environmental sciences were somewhat over-represented, and under-represented in the US data. The average age of the respondents was only 24 years, because the sample consists of students. The dominant age group was 22-24 years, at over 40%.

4.2. Value dimensions

Students were asked which factors contribute to the common good: 1) Free market forces, 2) NGOs, 3) The political systems which control business life and 4) Corporate adoption of more responsibility. The views on creation of the common good are supposed to reflect the values of the respondents.

Factor analysis was used to determine the core dimensions of values in this variable set. Bartlett’s test for Sphericity (p<0.000) indicated that the variable set was appropriate for factor analysis. The eigenvalues indicated that a two-factor solution was the most appropriate. Table 2 shows the factor solution with extracted factor loadings, communalities and the means of individual variables. The factor solution explains 68% of the total variation in the variable set.

In the variable set, factor 1 showed a negative loading on the variable considering free market forces. Factor 1 received the strongest positive loadings on variables connected with political systems. This factor was thus bipolar, and was called “Societal control vs Free market forces”. In this juxtaposition, “societal control” reflects communitarian and softer values more, whereas “free market forces” reflects individual and harder values more. Factor 2 has the highest loadings on variables connected with corporations and NGOs. These loadings refer to the enhancement of “civil society”, this factor being named accordingly.

The divergence between countries, gender and study majors in these social value dimensions was analysed by comparing the means of factor scores in One-way ANOVA. The results are shown in Table 3.
Table 2: Dimensions of values

<table>
<thead>
<tr>
<th>Variables</th>
<th>Factors</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Societal control vs. Free market forces (F1)</td>
<td></td>
</tr>
<tr>
<td>Market forces can freely operate</td>
<td>-0.52</td>
<td>3.1</td>
</tr>
<tr>
<td>NGOs strong participate on societal decision making</td>
<td>*</td>
<td>3.6</td>
</tr>
<tr>
<td>Political systems control the business life</td>
<td>0.48</td>
<td>2.7</td>
</tr>
<tr>
<td>Corporations adopt more responsibility</td>
<td>*</td>
<td>4.0</td>
</tr>
<tr>
<td>Total Eigenvalue</td>
<td>1.69</td>
<td>2.73</td>
</tr>
<tr>
<td>Cumulative % of variance</td>
<td>42%</td>
<td>68%</td>
</tr>
<tr>
<td>Reliability coefficient Alpha (of highlighted variables)</td>
<td>-0.65</td>
<td>0.51</td>
</tr>
</tbody>
</table>

The results of One-way ANOVA indicate that the US students emphasise the role of free market forces in the creation of the common good more than their Finnish counterparts. Thus, the US students’ values can be considered slightly more individualistic and harder than those of Finnish students. Similarly, male students represented more individualistic values than females in both countries. The business and engineering students stressed the role of free market forces in creation of the common good most within study majors in both countries. By contrast, the students of forest ecology and environmental science emphasised the role of societal control, and had thus the most collectivistic values in both countries. By using the post hoc test, the most significant differences by study major were found between the ecology students and business students. Additionally,
the differences between the Finnish engineering and ecology students were statistically significant, as well as between the US forest economics and ecology students (we use the significant level Tukey test \( p = 0.00 \) and the Scheffe test \( p = 0.00 \)).

4.3. Perceptions of Business Ethics
Student perceptions of the business ethics of forest industries were mainly investigated by asking the respondents to judge to whom the corporations are responsible. The first question asked the students to evaluate how much the corporations emphasise the welfare of the environment and people at the expense of profits, in other words, at the expense of the financial success of both the companies and shareholders. As table 4 depicts, the US students had more positive opinions on the way industry sees to environmental and people’s welfare than their Finnish counterparts. However, the differences were not statistically significant in the evaluation of environmental issues.

Major study is closely related to the perceptions of responsible and ethical business. As table 4 indicates, in both countries the engineering students have the most positive view on how corporations take environmental and people’s welfare into account. Similarly, the students taking major in forest ecology or environmental science had the most sceptical viewpoint on the issue. Within the study major comparison, the post hoc test results indicate that the most significant statistically differences were between engineering and forest ecology/environmental science students.

The perceptions of the forest industry business ethics was also explored by asking the students to rank stakeholder groups according to their views on how the benefits of these groups are emphasised by the companies. Table 5 shows the outcome of this ranking in Finland and the USA in terms of means. As the results show, the students in both countries consider that the benefits of shareholders and customers are promoted most by the companies. However, the US students considered the gap between shareholders and customers clearly smaller than the Finns.

The results clearly show that the students considered the shareholder benefits best promoted by the industry at the moment. In order to improve understanding of this phenomenon, the students were also asked to evaluate the desired role of forest industry companies. The question was put in the form of

Table 4: Perceptions of the forest industry’s emphasis on environmental and social welfare (Differences between different backgrounds).

<table>
<thead>
<tr>
<th>Country</th>
<th>Environmental welfare at expense of profits</th>
<th>People’s welfare at expense of profits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>F-Prob</td>
</tr>
<tr>
<td>Finland</td>
<td>2.87</td>
<td>0.14</td>
</tr>
<tr>
<td>USA</td>
<td>3.00</td>
<td></td>
</tr>
</tbody>
</table>

Study majors

<table>
<thead>
<tr>
<th>Country</th>
<th>Engineering</th>
<th>Business</th>
<th>Forest Economics / Marketing</th>
<th>Forest Ecology / Environmental Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIN</td>
<td>3.15</td>
<td>2.86</td>
<td>3.13</td>
<td>2.54</td>
</tr>
<tr>
<td>USA</td>
<td>3.25</td>
<td>3.22</td>
<td>2.93</td>
<td>2.33</td>
</tr>
</tbody>
</table>

Table 5: Perceptions of the industry’s emphasis on stakeholder benefits

<table>
<thead>
<tr>
<th>Stakeholder group</th>
<th>Finland</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholders</td>
<td>1.65</td>
<td>2.31</td>
</tr>
<tr>
<td>Customers</td>
<td>2.01</td>
<td>2.37</td>
</tr>
<tr>
<td>Employees</td>
<td>3.63</td>
<td>3.35</td>
</tr>
<tr>
<td>Environment</td>
<td>4.39</td>
<td>3.98</td>
</tr>
<tr>
<td>Forest owner</td>
<td>4.12</td>
<td>3.09</td>
</tr>
<tr>
<td>Whole society</td>
<td>5.19</td>
<td>4.50</td>
</tr>
</tbody>
</table>
a barometer variable, which forced them to choose either the benefits of shareholders or the welfare of all stakeholders. The results in Table 6 show that the opinions of the US and Finnish students were significantly different on this measure. In both countries, generating welfare for all stakeholders was considered more important than profit-making for shareholders, but the US students stressed this viewpoint more strongly than the Finns. In national comparison, the Finnish students gave a stronger impression that companies should also make profits for their shareholders.

Comparison between study majors (Table 7) shows that in both countries engineering and business students evaluate the forest industry corporations’ operations more positively than the students representing more forest-related disciplines. The students in forest ecology and environmental science majors consider the forest industry’s operations as ethically doubtful much more strongly than other students. Statistically the differences were significant between the engineering students and those majoring in forest ecology and environmental science based on the post hoc test. Statistical differences were found also between the Finnish business students and the Finnish ecology students, as well between the Finnish business students and the US ecology students (significant level been used in this study is Tukey test $p=0.00$ and the Scheffe test $p=0.01$).

### Table 6: Perceptions of the desired target of companies’ emphasis

<table>
<thead>
<tr>
<th>Country</th>
<th>Companies should make profits for their shareholders</th>
<th>Companies should create welfare for all stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>F-Prob</td>
</tr>
<tr>
<td>Finland</td>
<td>2.93</td>
<td>3.07</td>
</tr>
<tr>
<td>USA</td>
<td>2.58</td>
<td>3.42</td>
</tr>
</tbody>
</table>

### Table 7: Opinion of forest industry operations (Country and gender comparison).

<table>
<thead>
<tr>
<th>Country</th>
<th>Forest industry operations are ethically questionable</th>
<th>F-Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>F-Prob</td>
</tr>
<tr>
<td>Finland</td>
<td>3.19</td>
<td>0.03</td>
</tr>
<tr>
<td>USA</td>
<td>3.41</td>
<td>0.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Forest industry operations are ethically questionable</th>
<th>F-Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>3.19</td>
<td>0.01</td>
</tr>
<tr>
<td>Female</td>
<td>3.44</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study majors</th>
<th>Forest industry operations are ethically questionable</th>
<th>F-Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>2.81</td>
<td>0.00</td>
</tr>
<tr>
<td>Business</td>
<td>2.99</td>
<td></td>
</tr>
<tr>
<td>Forest Economics / Marketing</td>
<td>3.05</td>
<td></td>
</tr>
<tr>
<td>Forest Ecology / Environmental Science</td>
<td>3.69</td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>2.92</td>
<td>0.00</td>
</tr>
<tr>
<td>Business</td>
<td>3.22</td>
<td></td>
</tr>
<tr>
<td>Forest Economics / Marketing</td>
<td>3.62</td>
<td></td>
</tr>
<tr>
<td>Forest Ecology / Environmental Science</td>
<td>4.11</td>
<td></td>
</tr>
</tbody>
</table>

### 4.4. Values influencing the perceptions of business ethics

The impact of values on student perceptions of the business ethics of the forest industries was conducted using correlation analysis. The correlation matrix in Table 8 shows interrelationships between personal value dimensions and the variables measuring the perceptions of business ethics. As the results show, the connections between values and views of business ethics are statistically significant. Harder values imply less concern over the current state of multiple responsibilities and less doubt on ethically questionable industry operations. Furthermore, hard values imply an orientation towards the shareholder view. The correlations were highest in the variables measuring “Whose benefits should the companies emphasise?” and “Ethically doubtful operations of the forest industry.”

### Summary and conclusions

The empirical results support H1, indicating that “Finnish students are more likely to represent collectivistic/softer values than American students”. According to the study, the respondents from the USA emphasise the role of free market forces and corporations in creation of the common good more, whereas their Finnish counterparts give greater emphasis to societal control in creating common welfare. Additionally, the proportion of
respondents reflecting clearly neoliberal values; in other words, giving strong emphasis to free market forces in society, is significantly higher among the US students. This showed that the US students generally represent more individualistic and harder values, whereas the Finnish students represent more collectivist and softer values. Furthermore, the results indicated that there are significant differences in the values between genders and students representing different study majors. The male respondents and students from business and engineering majors predominantly have harder values than the female respondents and the students from forest ecology and environmental science majors. This also supports earlier findings with regard to value orientation in different groups.

In agreement with H2, the study results show that US students are less concerned about the weight of multiple responsibilities in the forest industries than their Finnish counterparts. In other words, US students consider the companies' emphasis on environmental and social welfare as being stronger than the Finnish students do. This may be related to the fact that US companies tend to make their business ethics more explicit than European companies (Matten & Moon, 2004). However, the study results supported H2 only partially because, surprisingly, the US students consider forest industry operations as more ethically questionable than the Finnish students. These contradiction views on the current state of business ethics in forest industries require further research.

As against earlier findings and H3 – “US students emphasise shareholder orientation in forest industry business more than their Finnish counterparts”, the Finnish students represented a stronger shareholder view than their US counterparts, even though the Finns generally reflected softer values. According to most Finnish students, forest industry companies emphasise the benefits of shareholders, which is the way it should be in business. The US students place great value on the general stakeholder focus. However, it should be noticed that the respondents were not asked to evaluate the level of responsibility, i.e., how and the extent to which companies should accept their responsibilities and generate welfare for various stakeholders.

The differences in business ethics perceptions between genders and study directions mainly reflected the varieties in value backgrounds. Male respondents and the students from engineering and business majors see the current state of multiple responsibilities positively, whereas the students from forest ecology and environmental science have a more sceptical view of corporate emphasis on environmental and social welfare at the expense of profits. Thus, the empirical results support H4 and H5, which were that male students and the students from engineering and business majors consider forest industry operations as less ethically doubtful than the others.

The direct interrelationships between values and perceptions on business ethics came out clearly in the results. The respondents who represent harder values are more optimistic on the current state of business ethics in the forest industries. Similarly, they represent orientation towards the shareholder view, i.e., the perceptions that the companies should predominantly emphasize the benefits of shareholders.

However, as the study results show, national comparisons cannot be made according to the prevailing value settings. Even though the US students originate from a more individualistic culture and predominantly tend towards harder values, they are more critical of the ethics of forest industry operations and show a stronger orientation towards the shareholder view than the Finnish respondents. This suggests that, in addition to personal values, the perception of business ethics heavily relies on culturally shared views on ethical business behaviour. This phenomenon is still under-researched, and requires further study.

Since the students of today can be considered the managers of tomorrow, some forecasts on the future development of ethical business behaviour can be made on the basis of these research findings. Female students represent softer values and more critical views on the current state of business ethics in forest industry operations, whereas the males, especially those majoring in engineering, represent harder values and less critical views on business ethics. Thus, it may be expected that the potential increase in females in managerial positions will lead to more ethical business behaviour in the forest industry of the future. Similarly, the more male engineers take managerial positions in the future, the less changes can be expected to take place in business ethics in the forest industry.
References


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