Industrial Engineering Students' Corporate Social Responsibility Priorities Within "a Well-Managed" Company

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Explores Industrial Engineering students' Corporate Social Responsibility priorities within their vision of a "well-managed" company. It also analyses differences by gender and academic level. A statistically representative sample was assessed including nine CSR dimensions. Results show that for students "a well-managed" company prioritizes social responsibility practices that go beyond those related to Shareholders. Unlike other studies where women have been more sensitive, resulting significant differences were equally distributed with men. Concerning Academic level, scores of Initial level students are higher than those at Middle and Advanced. Therefore, for Initial level students, a "well-managed" company is more committed to CSR, when compared with what was reported by the other two groups. Presented priorities reveal insights into students´ possible professional CSR commitment by the time they graduate. This is the first study of this type among Industrial Engineers. Proposed instrument allows to identify students' sensitivity towards CSR and is fundamental for curricular decisions. Moreover, it can be used to evaluate the commitment of any stakeholder and be useful beyond the educational context.

Keywords: corporate social responsibility, students´ CSR perceptions, students´ CSR priorities, industrial engineering

INTRODUCTION

Despite the unquestionable contributions that business development provides to society, it is also evident that it has contributed to the generation of some part of today's environmental and social problems. Thus, it is difficult to deny its impacts on the pollution of rivers and oceans and even its detrimental effects on the quality of air that is currently breathed (Zhang *et al.*, 2017). Global warming, environmental disasters, corruption scandals that have permeated the public sector in many countries are examples of the negative impact that business activities can have when they are not developed with due caution. Unfortunately, it cannot be said that these problems are new, on the contrary, despite that these come from long ago, it seems that profit maximization continues to be an objective that prevails over any other dimensión (Hoque *et al.*, 2018).

From a theoretical view, Corporate Social Responsibility (CSR) has atracted special interest. Multiple approaches have tried to specify the concept and clarify how to implement it. In fact, there is no absolute agreement regarding a single definition, a structure or a way to measure it (Aras and Crowther, 2009).

Despite this, one of the most accepted holds that CSR *"encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time."* (Carroll, 1979). This position reveals the importance of dimensions that go beyond the economic perspective, highlights its dependence on the specific context in which the company-society relationship unfolds, and remarks on the possible evolution of expectations over time.

The truth is that, despite the concept's relevance, business typical behavior seems to continue responding to Friedman's ideas, assuming that its most important responsibility is to create wealth for its shareholders (Friedman, 1970). It is there where universities should assume a more relevant role as these are the places where strategic and tactical employees are trained. Therefore, students' values, example and leadership can be vital for the generation of a new corporate culture. That is why understanding the university students' CSR commitment could help identify their possible behavior when they become graduates (Larrán, Andrades and Herrera, 2018; Mazur and Walczyna, 2021). Likewise, universities could identify improvement opportunities that contribute to generating greater student sensitivity towards the concept.

Scientific literature has directed its efforts to understand college students' CSR perceptions following two diverse approaches. The first identifies their opinion regarding the companies' CSR practices within a geographic region or a specific economic sector (Pätäri et al., 2017; da Silva Junior et al., 2019; Severino-González, Acuña-Moraga, et al., 2023). That is their opinion regarding how socially responsible companies have been in a given country or sector. The second does not focus on evaluating businesses' CSR past actions. Instead, it explores students' vision of the expected behavior of a business to be considered socially responsible. In this way, by identifying their perceptions, it is also explored their possible commitment when they graduate. Within this second trend stands out the work of Lämsä et al. (2008) developed using MBA students in Finland. Likewise, the studies of Alonso-Almeida, Fernández De Navarrete and Rodriguez-Pomeda (2015) and Larrán, Andrades and Herrera (2018) who focus on undergraduate business students (BS) in Spain. Similarly, the work of González et al. (2012) who contrast BS perceptions across different countries. In addition, the study by Mazur and Walczyna (2021) with management students in Poland contrasting two groups (local and foreign students).

Finally, when studying related literature from the 21 Latin American countries, evidence on this second current is even scarcer. Only two studies are found. Vasquez, Licandro and Lanero (2013) explore BS opinions regarding CSR training received vs. desired (Uruguay). On the other hand, Severino-González et al., (2021) analyze students' perceptions and their differences by sociodemographic variables (Chile).

Therefore, the studies in this second trend are not only scarce but also show the need to continue exploring the topic in Latin American contexts. It should be remembered that this region has plenty of environmental riches and coexists with serious problems of corruption, respect for human rights, and care for the environment. Likewise, it is relevant to note that existing works tend to evaluate the vision of BS and do not consider Engineers as much, professionals that can not only perform at a tactical or strategic level, but that due to the nature of its meditations, can definitely contribute to generate more socially responsible transformation processes.

Engineering scientific literature has developed important reflections to elucidate how social responsibility (SR) should be taught within the curricula (Rulifson and Bielefeldt, 2019; Smith et al., 2020). Despite this, these are still considered insufficient (Smith and Lucena, 2018; Zandvoort et al., 2013). Even more, when they have rarely included CSR as a concept (Smith and Lucena, 2018; Smith, McClelland and Smith, 2017). This last fact is not minor since CSR is the framework mostly used by the industry to meditate on its possible responsibilities toward society (Smith and Lucena, 2018; Smith, McClelland and Smith, 2017).

For all these reasons, this work explores Industrial Engineering students' priorities regarding the expected CSR practices within their vision of "a well-managed" company. Likewise, it analyses possible differences according to gender and academic level.

THEORETICAL FRAMEWORK

CSR has been difficult to define (Carroll, 1994; Garriga and Melé, 2004). Its current conceptualization is mainly based on reflections generated from the second half of the 20th century (Carroll, 1999). Since then, many definitions have appeared (Dahlsrud, 2006). showing the term´s importance and the absence of a definitive agreement.

To date, various models have also been proposed to facilitate its understanding. Accordingly, the structure of the three-dimensional model (Carroll, 1979) includes: 1) A concept definition (see introduction section). 2) An understanding of the issues to be accountable for, and 3) A specification of the proactivity/reactivity philosophy used to address such topics. Later, Carroll (1991) complements his work through a second structure that organizes the economic, legal, ethical, and discretionary (philanthropic) dimensions in a 4-level pyramid. Another model is the so-called "Triple bottom line", which invites reflections regarding the social and environmental value that could be at risk when focusing only on the economic dimension (people, planet, and profit) (Elkington, 2013). Likewise, it is worth mentioning the ISO 26000 approximation, whose structure presents seven fundamental matters: 1) Organizational governance, 2) Human Rights, 3) Labor Practices, 4) Environment, 5) Fair operating practices, 6) Consumer affairs and 7) Community participation and development (ISO, 2009). Finally, within the business-academic field, it is relevant to highlight Porter and Kramer´s ideas. For these authors treating CSR as a truly strategic matter would allow to simultaneously obtain a real contribution to social progress and the desired economic benefits for shareholders (Porter and Kramer, 2011)

Regarding how college students' perceptions have been operationalized, there are also several approaches. One of them adopts Carroll's dimensions in two different ways. First, developing instruments to evaluate items belonging to each factor using Likert-agreement scales. Second, in which researchers collect perceptions based on an instrument developed by Aupperle and Hatfield (1983). This tool includes 20 groups integrated by four statements that represent each dimension. Thus, respondents must distribute 10 points among the items of each group, showing the relative importance given to each factor. A second trend uses a structure proposed by the Aspen Institute (ASPEN INSTITUTE, 2001). It includes two sections: the first evaluates the importance given to 12 business behaviors aimed at customers, employees, society, and shareholders (Likert scale) and the second includes nine similar items from which respondents must choose the three most important business responsibilities towards society. A third group is based on an instrument called "Presor" (Perceived Role of Ethics and Social Responsibility) developed by Singhapakdi et al., (1996). These authors use 15 items distributed in three factors: profitability, long-term, and short-term success (Likert scale). Other authors design instruments using a structure that includes factors related with stakeholders and socially relevant issues. Thus, through Likert scales, they evaluate the items proposed for each dimension. Finally, following a different perspective González et al., (2012) draft a particular CSR initiative used as focus of reflections (children undernourishment). In this case, the authors evaluate the degree of acceptance, the value provided, the support, and its usefulness.

UNIVERSITY STUDENTS' PRIORITIES REGARDING CSR

As was mentioned scientific literature has directed efforts to understand college students' perceptions following two different approaches. The first identifies their opinion regarding how socially responsible companies have been in a given country or sector. The second does not focus on assessing their vision regarding businesses' CSR past actions, but explores their perceptions of the expected behavior of a company to be considered socially responsible.

Within this second approach, a first research objective seeks to clarify the possible prevalence that the economic dimension has regarding other CSR components. In this sense, Burton, Farh and Hegarty (2000) focus on undergraduate BS in Hong Kong and the US, finding that in both cases assessments of the economic factor are indeed superior to those of the ethical, legal and discretionary. The same occurs in the study by Ibrahim, Angelidis and Howard (2006) developed among Accounting students in the US. In addition, in the study of Mazur and Walczyna (2021) Polish students prioritized the economic dimensión

over the Ethical, Philanthropical and Legal. On the other hand, in that same work foreign students were more sensitive to the philanthropic factor. Similarly, Lämsä et al., (2008) using a sample of MBA students in Finland, find that the highest ratings are assigned to practices regarding Employees, Customers, and Environment. A matching situation is observed in the studies by Alonso-Almeida, Fernández De Navarrete and Rodriguez-Pomeda (2015) and Larrán, Andrades and Herrera (2018) developed with undergraduate BS (Spain). Thus, given this diversity, this study aims to verify which of the outlined behaviors corresponds to our students' perceptions. Therefore, we present:

H1: Within students' vision of a "well-managed" company, the Shareholders' dimension is more important than the other CSR dimensions.

A second research objective explores whether the identified priorities differ according to sociodemographic variables. Thus, Lämsä et al., (2008) in Finland and Alonso-Almeida, Fernández De Navarrete and Rodriguez-Pomeda (2015) in Spain find statistical significant differences by gender. The same occurs with Galvão et al. (2019) in Portugal. In contrast, Burton, Farh and Hegarty (2000) conclude that there are no such differences in students from the US, but neither in those from Hong Kong. The same occurs in the study by Teixeira et al., (2018) in Portugal. Hence, we propose:

H2: Within students' vision of "a well-managed" company, there are statistical differences among their CSR priorities when analyzed by gender.

Finally, priorities regarding Academic level have also been explored. Accordingly, Lämsä et al., (2008) find significant differences only in three of the 21 items studied (Finland). Alonso-Almeida, Fernández De Navarrete and Rodriguez-Pomeda, (2015) do so on five of the 21 occasions (Spain). On the other hand, although Larrán, Andrades and Herrera, (2018) don't report any statistical discrepancies, conclude, based on the negative regression coefficient of its model, that entry-level showed a higher appreciation of CSR (Spain). To explore the situation we propose our third hypothesis:

H3: Within students' vision of a "well-managed" company, there are no statistical differences among their CSR priorities when analyzed by Academic Level.

METHODOLOGY

The instrument was an adaptation of a tool developed by Morales-Gualdrón *et al.* (2020) who explored the first approach of CSR perceptions studies. That is, to identify students' vision about how socially responsible companies had been in a given country (Colombia). Based on this tool, our research team decided to focus on the second approach. That is to identify students' priorities regarding the expected CSR practices within "a well-managed" company. Doing so would let us also explore our students´ CSR possible commitment when they graduate.

After an adaptation process it was decided that the new instrument would assess 46 CSR practices representing nine dimensions (See Appendix). Likewise, following the approach chosen in studies like Lämsä et al., (2008). Alonso-Almeida, Fernández De Navarrete and Rodriguez-Pomeda, (2015). Larrán, Andrades and Herrera, (2018) research team focused on collecting opinions regarding the behaviors that should characterize a "well-managed" company. Therefore, a Seven-point Likert priority scale was defined (1 corresponded to "It is not a priority" (within a "well-managed company) and 7 to "It is an essential priority"). A sample of 177 students distributed proportionally through ten academic levels represented the total population enrolled during the first semester of 2021 (99% confidence and error of 0.25). It should be clarified that the Industrial Engineering academic program has a duration of 5 years and that the sampled observations belong to a public university in Colombia. (See Table 1).

TABLE 1
SAMPLE DISTRIBUTION BY ACADEMIC LEVEL

Academic Level	Students
1	39
2	24
3	22
4	15
5	19
6	15
7	12
8	14
9	11
10	6
Total	**177**

Final sample consisted of 52.5% women and 47.5% men; 45.8% were under 21 years of age; 43.5% were between 21 and 24 and 10.7 % reported being 25 or older. 56.5% of students were at initial level (first to fourth semester); 26% at intermediate (fifth to seventh) and the remaining 17.5% at advanced (eighth to tenth).

Fieldwork was developed during the isolation caused by Covid 19 (2021-1). In that period the university migrated all its face-to-face classes to spaces via the Zoom Videoconference Platform. Accordingly, the research team visited the online classrooms where the courses were held. During the first five minutes, students were uniformly sensitized regarding objectives and instrument's operation.

The information collected allowed the evaluation of the dimensions' internal consistency. Thus, Cronbach's Alphas were calculated. Indicators equal or greater than 0.7 were obtained in seven of the nine cases. On two occasions (shareholders and suppliers) the values obtained were 0.6 and 0.5, respectively, scores that, according to (Nunnally, 1967) may be sufficient for the early stages of an investigation. Table 2 shows the final values and the number of items per dimension.

TABLE 2
INSTRUMENT DIMENSIONS' RELIABILITY

Dimension	Number of practices	Cronbach's Alpha
Shareholders	4	0.6
Customers	5	0.7
Human rights	5	0.7
Employees	7	0.8
Ethics	4	0.7
Legal	5	0.7
Environment	5	0.9
Suppliers	4	0.5
Society	7	0.8

Results analysis was based on descriptive statistical techniques. The Mann–Whitney U and the Kruskal–Wallis tests were used to assess the hypotheses because the variables did not have a normal distribution. Calculations were made using IBM SPSS 27.0 software®.
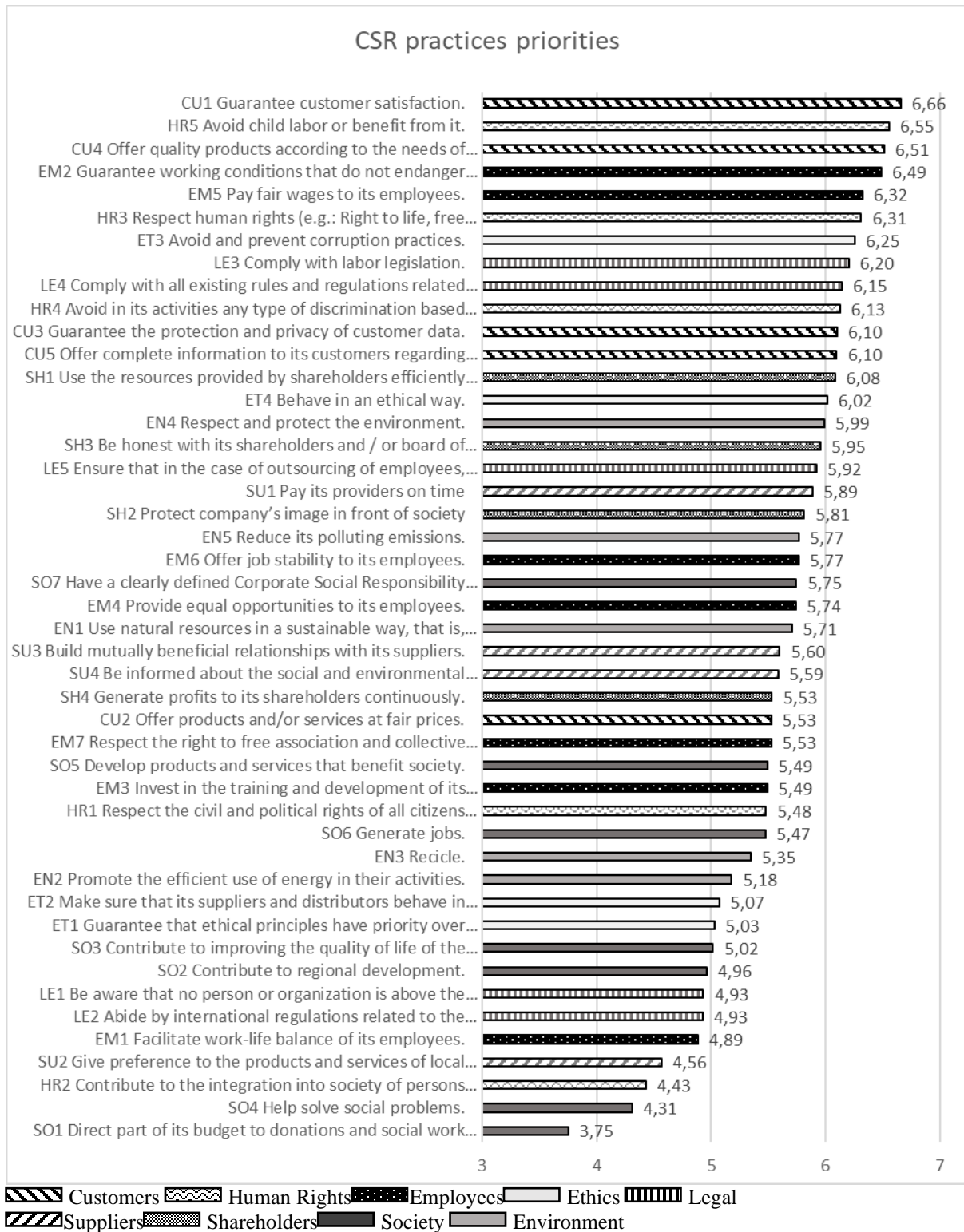
RESULTS

Figure 1 shows the average score of the 46 CSR practices, ranked in descending order. These values represent the priority levels within a "well-managed" company as expressed by students. ("7- Essential priority" to "1-Not a priority"). Included patterns show the dimension to which each belong. Accordingly, within the ten less valued items, there are practices associated with six dimensions. Four items belong to Society and two to Legal. The remaining four dimensions only have one representative (Employees, Human Rights, Suppliers and Ethics). Likewise, among these ten less valued practices, none relates to Environment, Customers, and Shareholders. Observing the five lower prioritized, there are two practices associated with Society ("SO1: Direct part of its budget to donations and social work that favors the needy: 3.75" and "SO4: Help solve social problems: 4.31"); one related to Human rights ("HR2: Contribute to the integration into society of persons belonging to vulnerable groups (indigenous, workers with disabilities, demobilized from the Colombian armed conflict, etc.: 4.43)"; one to Suppliers ("SU2: Give preference to the products and services of local suppliers when possible and feasible:4.56") and one to Employees ("EM1: Facilitate work-life balance of its employees: 4.89").

On the other hand, among the ten best-scored items there are practices associated with five dimensions: Human Rights: 3; Clients: 2; Employees: 2; Legal: 2; and Ethics: 1. In contrast, there are no representatives of four (Shareholders, Environment, Suppliers, and Society). Exploring only the first five there are two associated with Clients ("CU1: Guarantee customer satisfaction: 6.66" and "CU4: Offer quality products according to the needs of customers:6.51"); two associated with Employees ("EM2: Guarantee working conditions that do not endanger the health of its employees: 6.49" and "EM5: Pay fair wages to its employees: 6.32") and one related to Human Rights ("HR5: Avoid child labor or benefit from it:6.55.)".

Therefore, as for H1, it is important to note that neither in the top 10 highest nor in the ten worst there are practices belonging to the Shareholders dimension. In fact, its first item appears in 13th place (SH1). the second in 16th (SH3). the third in 19th (SH2). and the last in 27th (SH4). Thus, given the evidence, we must reject H1: Within students' vision of a "well-managed" company, the Shareholders' dimension is more important than the other CSR dimensions. In addition, we must highlight that the less valued item from this factor was "SO4 Generate profits continuously". This behavior related with profits shows a "not so traditional" position regarding corporate responsibilities towards shareholders, but also that they perceive the existence of 26 more relevant responsibilities.

FIGURE 1
PRIORITY OF PRACTICES

CSR practices priorities

Practice	Value
CU1 Guarantee customer satisfaction.	6,66
HR5 Avoid child labor or benefit from it.	6,55
CU4 Offer quality products according to the needs of…	6,51
EM2 Guarantee working conditions that do not endanger…	6,49
EM5 Pay fair wages to its employees.	6,32
HR3 Respect human rights (e.g.: Right to life, free…	6,31
ET3 Avoid and prevent corruption practices.	6,25
LE3 Comply with labor legislation.	6,20
LE4 Comply with all existing rules and regulations related…	6,15
HR4 Avoid in its activities any type of discrimination based…	6,13
CU3 Guarantee the protection and privacy of customer data.	6,10
CU5 Offer complete information to its customers regarding…	6,10
SH1 Use the resources provided by shareholders efficiently…	6,08
ET4 Behave in an ethical way.	6,02
EN4 Respect and protect the environment.	5,99
SH3 Be honest with its shareholders and / or board of…	5,95
LE5 Ensure that in the case of outsourcing of employees,…	5,92
SU1 Pay its providers on time	5,89
SH2 Protect company's image in front of society	5,81
EN5 Reduce its polluting emissions.	5,77
EM6 Offer job stability to its employees.	5,77
SO7 Have a clearly defined Corporate Social Responsibility…	5,75
EM4 Provide equal opportunities to its employees.	5,74
EN1 Use natural resources in a sustainable way, that is,…	5,71
SU3 Build mutually beneficial relationships with its suppliers.	5,60
SU4 Be informed about the social and environmental…	5,59
SH4 Generate profits to its shareholders continuously.	5,53
CU2 Offer products and/or services at fair prices.	5,53
EM7 Respect the right to free association and collective…	5,53
SO5 Develop products and services that benefit society.	5,49
EM3 Invest in the training and development of its…	5,49
HR1 Respect the civil and political rights of all citizens…	5,48
SO6 Generate jobs.	5,47
EN3 Recicle.	5,35
EN2 Promote the efficient use of energy in their activities.	5,18
ET2 Make sure that its suppliers and distributors behave in…	5,07
ET1 Guarantee that ethical principles have priority over…	5,03
SO3 Contribute to improving the quality of life of the…	5,02
SO2 Contribute to regional development.	4,96
LE1 Be aware that no person or organization is above the…	4,93
LE2 Abide by international regulations related to the…	4,93
EM1 Facilitate work-life balance of its employees.	4,89
SU2 Give preference to the products and services of local…	4,56
HR2 Contribute to the integration into society of persons…	4,43
SO4 Help solve social problems.	4,31
SO1 Direct part of its budget to donations and social work…	3,75

Legend: Customers, Human Rights, Employees, Ethics, Legal, Suppliers, Shareholders, Society, Environment

Gender and Academic Level

Mann–Whitney U test was used to test differences by gender. Results showed significant discrepancies within items belonging to seven of the nine dimensions (Table 3). Only, among the items of two dimensions no significant differences were found (Ethics and Human Rights). In total eight of the 46 six included practices (17.4%). showed differences at p< 0.05, while other four did at p< 0.10. Concerning the scores of such eight items, men assigned higher values on four occasions (2 practices aimed at Shareholders, one to Employees, and one at Suppliers) while women did so on the remaining four (Two at Customers, one at Legal and one at Society). Given the evidence, H2: Within students' vision of "a well-managed" company, there are statistical differences among their CSR priorities when analyzed by gender is accepted.

TABLE 3
COMPARISON OF MEDIANS BY GENDER

Item	Priority level Mean		Priority level Median		Mann-Whitney test
	Woman	Man	Woman	Man	Asymptotic significance (2-tailed)
SH1 Use the resources provided by shareholders efficiently (money, machinery, etc.).	5.90	6.29	6.00	7.00	*0.001
SH4 Generate profits to its shareholders continuously.	5.34	5.74	6.00	6.00	*0.004
SH5 Fulfill the mission defined by the company	6.55	6.33	7.00	7.00	**0.070
CU2 Offer products and/or services at fair prices.	5.71	5.32	6.00	5.00	*0.011
CU5 Offer complete information to its customers regarding their products and services.	6.28	5.89	6.00	6.00	*0.019
EM3 Invest in the training and development of its employees.	5.35	5.64	5.00	6.00	*0.022
EM5 Pay fair wages to its employees.	6.43	6.20	7.00	6.00	**0.067
LE2 Abide by international regulations related to the economic activity of the company when there is no specific regulation in the country.	5.08	4.76	5.00	5.00	**0.077
LE4 Comply with all existing rules and regulations related to the economic activity of the company.	6.37	5.90	7.00	6.00	*0.001
EN5 Reduce its polluting emissions.	5.91	5.61	6.00	6.00	**0.091
SU3 Build mutually beneficial relationships with its suppliers.	5.41	5.81	6.00	6.00	*0.006
SO5 Develop products and services that benefit society.	5.81	5.14	6.00	5.00	*0.003

*p=0.05 / **p=0.10*

Kruskal–Wallis test was used to verify differences by academic level (initial, middle, and advanced). Results indicated significant differences within items belonging to eight of the nine dimensions (Table 4). Only, among the practices belonging to Society, no such discrepancies were found. In total 16 of the 46 six included items (34.8%) showed significant differences at p< 0.05, while other two did at p< 0.10 (Table 4). Concerning the scores provided to such 16 items, the Initial level assigned the highest scores on 14 occasions. Middle level and Advanced did so on one occasion each. Therefore, H3: Within students' vision of a "well-managed" company, there are no statistical differences among their CSR priorities when analyzed by Academic Level is rejected.

TABLE 4
COMPARISON OF MEDIANS BY ACADEMIC LEVEL

Item	Academic level			Academic level			Kruskal-Wallis test
	Priority level- Mean			Priority level- Median			Asymptotic significance (2-tailed)
	Initial	Middle	Advanced	Initial	Middle	Advanced	
SH1 Use the resources provided by shareholders efficiently (money, machinery, etc.).	5.89	6.35	6.32	6.00	7.00	6.00	*0.005
CU3 Guarantee the protection and privacy of customer data.	6.30	5.93	5.71	6.00	6.00	6.00	*0.024
HR1 Respect the civil and political rights of all citizens (workers, neighbors, etc.). (For Example: right to have private property, right to vote, etc.)	5.66	5.28	5.19	6.00	5.00	5.00	**0.056
HR3 Respect human rights (e.g.: Right to life, free expression, etc.)	6.52	5.96	6.16	7.00	6.00	7.00	*0.007
HR4 Avoid in its activities any type of discrimination based on race, religion, gender, etc.	6.37	5.96	5.61	7.00	6.00	6.00	*0.001
EM5 Pay fair wages to its employees.	6.42	6.30	6.03	7.00	6.00	6.00	*0.037
EM6 Offer job stability to its employees.	5.98	5.48	5.52	6.00	6.00	6.00	*0.016
EM7 Respect the right to free association and collective bargaining of their workers (For example, the right to belong to a union).	5.80	5.09	5.29	6.00	5.00	5.00	*0.008
ET2 Make sure that its suppliers and distributors behave in an ethical manner.	5.36	4.67	4.74	6.00	5.00	5.00	*0.011
ET3 Avoid and prevent corruption practices.	6.51	5.91	5.94	7.00	6.00	6.00	*0.003
ET4 Behave in an ethical way.	6.26	5.67	5.74	7.00	6.00	6.00	*0.000
LE3 Comply with labor legislation.	6.32	6.04	6.06	7.00	6.00	6.00	**0.051
LE5 Ensure that in the case of outsourcing of employees, this is done through legal organizations.	6.10	5.70	5.68	6.00	6.00	6.00	*0.023
EN3 Recycle.	5.57	5.13	4.97	6.00	5.00	5.00	*0.031
EN4 Respect and protect the environment.	6.21	5.76	5.61	6.00	6.00	6.00	*0.007
EN5 Reduce its polluting emissions.	6.07	5.46	5.26	6.00	6.00	5.00	*0.000
SU3 Build mutually beneficial relationships with its suppliers.	5.62	5.33	5.94	6.00	6.00	6.00	*0.047
SU4 Be informed about the social and environmental conditions in which the goods and services acquired are produced.	5.77	5.43	5.23	6.00	6.00	6.00	*0.038

*p=0.05 / **p=0.10

DISCUSSION

First hypothesis checked if within students' vision of a "well-managed" company, student commitment with the "Shareholders" CSR dimension was higher than with other factors. Evidence found allowed to reject it.

As for other studies majority of results are consistent. First, similar outcomes are found in Lämsä et al., (2008). Alonso-Almeida, Fernández De Navarrete and Rodriguez-Pomeda, (2015) and Larrán, Andrades and Herrera, (2018). In all cases, 21 practices were assessed through a Likert scale finding that items belonging to other dimensions received better ratings compared to those of Shareholders. All authors agree that BS seem to be better suited to a Stakeholder model than to a Shareholder one.

Another group of studies is based on an instrument called Presor. Respondents show their agreement level regarding 15 statements on three factors: profitability, long-term, and short-term success. Accordingly, Fitzpatrick (2013) studies undergraduate BS in the US finding that the Shareholders dimension is not what they value the most. Similarly, Teixeira et al., (2018) using a sample of BS from Portugal, conclude that profitability and success are not their main priorities.

Other studies are based on an instrument designed by Aupperle and Hatfield (1983). This tool includes 20 groups integrated by four statements, each representing the four Carroll's CSR dimensions. Respondents distribute 10 points among the items of each group. Thus, Burton, Farh and Hegarty (2000) studies undergraduate BS from the US and Hong Kong. In both cases the descending order of global scores were: 1) Economic, 2) Ethical, 3) Legal and 4) Discretionary. Similarly, the order found by Ibrahim, Angelidis and Howard (2006) among BS in the US was 1) Economic, 2) Legal, 3) Ethics and 4) Discretionary. Something similar occurs in the study by Mazur and Walczyna (2021) with a sample of Polish students and one of foreigners. In the first case prioritization order was: 1) Economic, 2) Ethical, 3) Philanthropic and 4) Legal. In the second, although the economic dimension was not first, it was second: (1) Philanthropic, 2) Economic, 3) Ethical and, 4) Legal. Therefore, in contrast with the aforementioned six studies, in these three cases, the most important dimension seems to be the Economic one.

Regarding the studies developed in Latin America, evidence is scarcer. Vasquez, Licandro and Lanero, (2013) compare perceptions of Uruguayan BS regarding their current and desired CSR training through 16 aspects (Likert-scale). Unfortunately, when assessing the Shareholders' factor, they only include one item, aspect that makes it very difficult to generalize. Even so, some of the other fifteen belonging to other dimensions receive higher scores concerning their desired education. Finally, Severino-González et al., (2021) studies perceptions in Higher Education in Chile. Their instrument is composed of 16 statements distributed among Carroll's dimensions (Likert-scale). The averages per factor show that the most valued was the Legal one, followed by the Ethical and the Philanthropic. Last place was obtained by the Economic factor.

Therefore, most of the presented evidence indicates that concerning the social responsibilities of a "well-managed" company, it is not the Shareholders' dimension the factor that seems to be most important. This occurs in all the eight studies that collected information through Likert-Agreement scales, regardless of the instrument (four different tools). the studies level (undergraduate, postgraduate). and the samples' country of origin (Finland, Spain (2). US, Portugal, Uruguay, Chile, and Colombia). In contrast, in two of the three cases where respondents distributed 10 points among items representing Carroll's dimensions, the Economic factor appeared with the highest score. It should be remembered that in the study carried out by Mazur and Walczyna (2021). Polish students indeed prioritized the economic dimension over the other three. However, in that same work, foreign students prioritized the philanthropic dimension, leaving the economic factor in second place. In summary, although the evidence shows in a general way that the dimension associated with Shareholders is not the most valued (as was found in 8 of the 11 located studies). three cases contradict it. It is important to note that the first 8 studies share the same scale type (Likert). On the other hand, that the other three also share a distribution point one. Therefore, it is recommended that future research addresses this particular issue. That is, study the possible differences, within the same sample, of using a Likert-type approximation, compared to a distribution of points. Finally, it should be

considered that all the identified studies, except ours, were carried out with students belonging to the field of Business Administration. This also opens up another research opportunity.

H2 assessed if within students' vision of a "well-managed" company, gender affected their priorities. The evidence allowed us to accept it, as on eight of the 46 occasions, statistical differences were found. In four cases, women were more sensitive, in the four remaining men were so. As for other works that explored this variable, Lämsä et al., (2008) discovered statistical discrepancies in seven of the 12 responsibilities included in the first part of their instrument, and all cases were women who scored higher. Alonso-Almeida, Fernández De Navarrete and Rodriguez-Pomeda (2015) found them in five of the 12. In four of them, women were more sensitive, while men scored higher on the item related to financial return (as in our case). In contrast, although Larrán, Andrades and Herrera (2018) didn't report discrepancies, they conclude that the positive coefficient of its model showed that female students were more concerned than men (Spain).

Another group of works that analyzed gender used an approach in which respondents distribute 10 points among items belonging to Carroll's CSR factors. Accordingly, Burton, Farh and Hegarty, (2000) did not find significant discrepancies, neither between US males and females nor among those from Hong Kong. On the contrary, using the same approach Galvão et al., (2019) revealed statistical differences in three of the four Carroll's dimensions (Portugal). In this work, developed among undergraduate and master students, males were more concerned with the Economic factor, while women to Philanthropic and Ethical issues.

Other authors used a tool based on an instrument called Presor. Thus, Fitzpatrick (2013) found significant discrepancies in five of the 15 items (US). In all cases, women were more sensitive. Similarly, Ugwuozor (2020) through BS (Nigeria) concludes that males and females significantly differ. Unfortunately, since its main goal is not related to identifying which gender is more sensitive, the article did not delve into it. On the contrary, Teixeira et al., (2018) reject that gender influences student CSR perceptions (Portugal).

Following a different perspective González et al., (2012) draft perceptions regarding a particular CSR initiative (children undernourishment). Authors evaluate the degree of acceptance, the value provided, the support, and usefulness concluding that gender influences CSR's perception, and women again tend to be more sensitive (sample from Spain, Poland, and Bulgaria).

Finally, Severino-González et al., (2021) (Chile) used an instrument based on the four Carroll's dimensions finding significant differences only in the Philanthropic factor, where women assigned higher scores.

In this way, 11 works studied this relation. In eight, regardless of the approach, statistical differences were found. In six of them, women tended to be more sensitive, while one study did not conclude in favor of whom. On the contrary, in the Colombian case, higher scores were evenly distributed between the two genders. This could be due to possible peculiarities of Colombian culture or to the career to which the sample of students belong (men and women studying Industrial Engineering). In both cases, further research should be developed. Particularly, it seems relevant to develop studies that not only identify the possible existence of differences (as there is evidence showing that this behaviour is present in some contexts) but also, that dare to explain the reasons for them.

H3 stated that within students' vision of a "well-managed" company, there were no discrepancies by Academic level. Results indicated significant statistical differences within 16 of the 46 items. Regarding other research, it must be said that this variable has not been studied as much as gender. Accordingly, Lämsä et al., (2008) found significant differences in one of the 12 items (Finland). while Alonso-Almeida, Fernández De Navarrete and Rodriguez-Pomeda (2015) did so on three (Spain). In both cases, upper students were more sensitive toward the subject. On the other hand, Larrán, Andrades and Herrera (2018) didn't report statistical discrepancies (Spain). The fourth study belongs to Ugwuozor (2020). who uses a sample of BS from Nigeria (Undergraduate and Postgraduate). Authors conclude that students' perception of CSR is mildly influenced by academic status.

In this way, concerning the five mentioned studies, on three occasions statistically significant differences were found (Finland, Spain, and Colombia). Within these, in the cases of Spain and Finland were high-level students who were more sensitive. Despite this, if the number of the total items in the

instrument is considered, the discrepancies found may seem scarce in both cases when thinking about the expected effects that a university training experience could (should) have on students' commitment (one out of 12 in the first case, and three of 12 in the second). Even more disturbing when analyzing Colombian results as Initial level students scored higher on 14 of the 16 occasions. Results from the other two studies are also worrying. In the first case (Spain) authors did not find differences. In the second (Nigeria) authors conclude that college experience mildly influenced students' perceptions. Thus, it seems that the campus experience may not be having the expected impact. Likewise, it is possible that, in some cases, it may be worsening perceptions. Thus, further research is recommended, in particular, to identify what specific curricular activities favor or discourage student commitment towards the concept.

CONCLUSIONS

As mentioned throughout the article, college students' CSR perceptions have been studied following two different approaches. The first identifies their opinion regarding the CSR practices of companies within a geographic region or a specific economic sector. The second does not focus on evaluating businesses' CSR past actions, but on exploring students' vision of the expected behavior of a company to be considered socially responsible. This work belongs to this second trend. However, it should be also kept in mind, that this research complements the work carried out by Morales-Gualdrón *et al.*, (2020) who studied the phenomenon from the first approach. Although results of studies are not comparable (as they evaluate different aspects) findings allow to better understand CSR views of students in Colombia.

Specific results of this second project support some of the conclusions found in previous studies such as the fact that, at least during the academic experience, students give more value to social responsibilities different from those related to Shareholders. Likewise, that gender and academic level seem to have an impact on their view. Concerning this last variable, it is relevant for universities to ensure the existence of a real positive impact on student CSR engagement since there have been cases where the effect was "non-existent" or even adverse. Therefore, these two variables become research opportunities, not so much to prove the existence of effects (since there is already evidence that supports that in some contexts such relation exists) but to identify the specific reasons that explain said behavior. These would allow the implementation of changes that favor a real and planned curricular sensitization towards the concept.

Regarding specific findings from our students, although all the 46 analyzed practices are part of the responsibilities of a business towards society, it is relevant to mention that the best scored "Society item" was ranked 22, showing that they tend to privilege other relevant social responsibilities (Customers, Human Rights, Employees, Legal, Environment, etc.). In fact, analyzing the worst five valued priorities, four have a connection with "offering an extra" to society's well-being (SO1: Direct part of its budget to donations and social work that favors the needy; SO4: Help solve social problems; HR2 Contribute to the integration into society of persons belonging to vulnerable groups (indigenous, workers with disabilities, demobilized from the Colombian armed conflict, etc.)" and "SU2: Give preference to the products and services of local suppliers when possible and feasible").

On the opposite, within the five best, two practices favor Customers while two belong to Employees, behaviors that seem to be a natural consequence of the career they are studying (Industrial Engineering). Likewise, it seems relevant to highlight that neither in the top ten highest nor in the ten worst there were practices belonging to Shareholders. Furthermore, the less valued item within this factor was the one related to generating profits, which ranked 27th. This shows that at least during their studies they seem to be better suited to a Stakeholder model. Concerning gender differences, it is curious that unlike other studies where women were more sensitive, in our case, statistical differences were equally distributed in favor of both genders. This could be due to aspects related to Colombian culture or with the type of profession sampled as compared to BS. Regarding Academic level, it is an unpleasant surprise that in 14 of the 16 statistical discrepancies are Initial Level students who scored higher. It is the responsibility of the Academic program to investigate the matter, discover the reasons and intervene to reverse the situation.

Finally, results and conclusions must be interpreted in light of their possible limitations. First, all comparisons were made with works whose samples belong to BS as these have been the focus of research.

Therefore, it is relevant to contrast and complement evidence with students from other careers. Likewise, it is important to take into account that there have been two principal methods to assess perceptions. Likert scales have characterized most of the works, while a point distribution scale has been used on some occasions. Both have been proven to show advantages and disadvantages. Being aware of them we choose the first one, but we recognize the existence of the other. Finally, it must be remarked that although our sample was statistically representative, as in many studies, we used a convenience sampling that cause observations not to be completely random.

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APPENDIX

	Item
1	SH1 Use the resources provided by shareholders efficiently (money, machinery, etc.).
2	EM1 Facilitate work-life balance of its employees.
3	CU1 Guarantee customer satisfaction.
4	EN1 Use natural resources in a sustainable way, that is, without putting at risk the availability of these resources for future generations.
5	LE1 Be aware that no person or organization is above the law.
6	ET1 Guarantee that ethical principles have priority over economic performance.
7	SU1 Pay its providers on time.
8	HR1 Respect the civil and political rights of all citizens (workers, neighbors, etc.). (For Example: right to have private property, right to vote, etc.)
9	SO1 Direct part of its budget to donations and social work that favors the needy.
10	SH2 Protect company's image in front of society.
11	EM2 Guarantee working conditions that do not endanger the health of its employees.
12	CU2 Offer products and/or services at fair prices.
13	EN2 Promote the efficient use of energy in their activities.
14	LE2 Abide by international regulations related to the economic activity of the company when there is no specific regulation in the country.
15	ET2 Make sure that its suppliers and distributors behave in an ethical manner.
16	SU2 Give preference to the products and services of local suppliers when possible and feasible.
17	HR2 Contribute to the integration into society of persons belonging to vulnerable groups (indigenous, workers with disabilities, demobilized from the Colombian armed conflict, etc.).
18	SO2 Contribute to regional development.
19	SH3 Be honest with its shareholders and / or board of directors about its financial situation.
20	EM3 Invest in the training and development of its employees.
21	CU3 Guarantee the protection and privacy of customer data.
22	EN3 Recicle.
23	LE3 Comply with labor legislation.
24	ET3 Avoid and prevent corruption practices.
25	SU3 Build mutually beneficial relationships with its suppliers.
26	HR3 Respect human rights (e.g.: Right to life, free expression, etc.).

27	SO3 Contribute to improving the quality of life of the people in the regions where it operates.
28	SH4 Generate profits to its shareholders continuously.
29	EM4 Provide equal opportunities to its employees.
30	CU4 Offer quality products according to the needs of customers.
31	EN4 Respect and protect the environment.
32	LE4 Comply with all existing rules and regulations related to the economic activity of the company.
33	ET4 Behave in an ethical way.
34	SU4 Be informed about the social and environmental conditions in which the goods and services acquired are produced.
35	HR4 Avoid in its activities any type of discrimination based on race, religion, gender, etc.
36	SO4 Help solve social problems.
37	EM5 Pay fair wages to its employees.
38	CU5 Offer complete information to its customers regarding their products and services.
39	EN5 Reduce its polluting emissions.
40	LE5 Ensure that in the case of outsourcing of employees, this is done through legal organizations.
41	HR5 Avoid child labor or benefit from it.
42	SO5 Develop products and services that benefit society.
43	EM6 Offer job stability to its employees.
44	SO6 Generate jobs.
45	EM7 Respect the right to free association and collective bargaining of their workers (For example, the right to belong to a union).
46	SO7 Have a clearly defined Corporate Social Responsibility policy.