

An Investigation of the Environmental Beliefs and Attitudes of Business Students in the U.S.A. and Mexico¹

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Abstract

Research indicates that concern for the earth's physical and natural environment has grown rapidly in recent years among the diverse environmental stakeholders. Adopting a pro-environmental stance is being driven by strategic choice, rather than by mere compliance. However, of late, environmental concern of business and marketing managers in the specific context of NAFTA has been found wanting. Furthermore, there is little research focus on the environmentally concerned beliefs and attitudes (ECBA) of potential business and marketing managers, namely business students. The purpose of this descriptive research is to conduct an investigation of ECBA of business students, in two NAFTA member countries, the U.S.A. and Mexico. A survey was conducted among business students at two business schools, one in the U.S.A. and the other in Mexico (n=435). Results support the hypothesis that ECBA are significantly lower among business students in the U.S.A. than in Mexico, on both the overall scale, and each of the 16 items. The study examines potential causative factors that may account for such differences, and offers directions for future research.

Introduction

Concern for the earth's physical and natural environment has grown rapidly since the 1990's (Bhuan, Muhmin and Kim, 2001; Egri and Herman, 2000; Polonsky, 2001). Today, environmental stakeholders such as consumer groups, business and marketing managers, and government tend to adopt a pro-environmental stance as a matter of strategic choice, rather than merely for the sake of compliance (e.g. Miles and Colvin, 2000). However, in the context of the North American Free Trade Agreement (NAFTA), the environmental agenda been a topic of recent research interest, (e.g. Sanchez, 2002).

Under the NAFTA agreement, imports from Mexico in 2004 represented 10.6 percent of U.S.A.'s total imports from around the world². Further, in 2004, the value of the U.S.A.'s imports from Mexico stood at \$155,843 million, an increase of 64.7 per cent compared to 1998. In addition, during 2004, U.S. exports to Mexico comprised 13.5 per cent of the U.S.A.'s total exports worldwide³. The value of the U.S.A.'s exports to Mexico in 2004 amounted to \$110,775 million, an increase of 40.6 per cent compared to

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² (<http://www.ita.doc.gov/td/industry/otea/usfth/aggregate/H04T07.html>)

³ (<http://www.ita.doc.gov/td/industry/otea/usfth/aggregate/H04T06.html>)

1998. Some researchers (e.g. Sanchez, 2002) have noted that the growth is paralleled by the increasing power of business and marketing managers, and the reduced involvement of environmental non-governmental agencies. As a result, there is skepticism relating to the NAFTA's environmental protocols in stemming the negative fallout on Mexico's environment (Sanchez, 2002).

Further, the lament comes at a time when, driven by NAFTA protocols and the Association to Advance Collegiate Schools of Business (AACSB) (2001) standards, there is increased collaboration among business schools in the U.S.A. and Mexico. For instance, AACSB Communications (2001) lays down the standards relating to global and environmental issues for business school accreditation:

“C.1. CURRICULUM CONTENT

C.1.1: Both undergraduate and graduate curricula should provide an understanding of perspectives that form the context for business. Coverage should include ...ethical and global issues;the influence of political, social, legal and regulatory, environmental and technological issues....

INTERPRETATION: The perspectives indicated above might be addressed via individual courses with titles that explicitly identify the perspective being treated. However, it is not the intent of this standard to require a separate course for any one or for any combination of these perspectives. Schools may approach any or all of these topics by interweaving them throughout other required curricular elements.”

Whereas literature reflects the environmental concern among the major environmental stakeholders (Bhuiyan et al 2001, Joonas, 2004, Miles and Covin, 2000), there is sparse research attention on the environmental concern of business students (e.g. Bhuiyan, 1997; Bhuiyan et al, 2001). The purpose of this descriptive study is to investigate the similarities and differences in environmental beliefs and attitudes of business students in two NAFTA member countries, the U.S.A. and Mexico.

The significance of this study lies in the fact that business students are potential business and marketing decision-makers (Bhuiyan, 1997; Bhuiyan et al, 2001; Varadarajan and Thirunarayana, 1995). Experience indicates that business education influences business students' environmental attitudes and beliefs (Whitehead, 1994, <http://www.ucd.ie>), which in turn affects the environmentally friendly behavior of business and marketing managers (Bhuiyan, 1997; Bhuiyan et al, 2001; Varadarajan and Thirunarayana, 1995). A comparison of the environmental beliefs and attitudes of business students in the two member countries of NAFTA would help identify and address informational lacunae in this area.

The ECBA construct: A review of the literature

The underpinnings for ECBA lie in the means-ends theory of Rokeach (1973), which posits that motives can be explained by the underlying consequences, and personal values. In the area of environmentally concerned behavior, the operative personal values (Rokeach, 1973) would include, for instance, cleaner resources such as air, water, and land, while the underlying (negative) consequence would be environmental degradation experienced in the immediate and long term. Thus, the personal values enshrined in ECBA would drive the production and consumption of goods and services that minimally compromise the environment.

The second stream to which ECBA can be traced is the expectancy value model (Fishbein and Ajzen, 1975) and the theory of reasoned action (Ajzen and Fishbein, 1980). Attitude toward a behavior is determined by salient beliefs about the behavior, and the person's evaluation (expectancy) of the outcome of that behavior (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975); in sum, it is concerned with the causal antecedents of volitional behavior. The theory of reasoned action is based on the assumptions that human beings usually behave in a sensible manner; they take into account information available to them, and consider the consequences of their actions. Thus, people are expected to act in accordance with their intentions. Intentions are a function of personal and social determinants. The personal factor is the attitude toward the behavior, which is the individual's positive or negative evaluation of performing the particular behavior of interest. Since people's beliefs represent the information people have about themselves and the world around them, behavior is ultimately determined by information. In the light of the theory of reasoned action (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975), ECBA represent the individual's positive evaluation of behaviors such as preserving and conserving natural resources, restitution for violating the environment (e.g. paying extra taxes), or negative evaluations of behaviors such as compromising the environment. Furthermore, ECBA reflect the information that people have about local and global environmental issues.

An extension of the preceding was the theory of planned behavior, which explained that individuals and groups strive to order their beliefs in a consistent framework (Ajzen, 1985, 1988) cognizant of a specific mode of conduct or end-state of existence that is personally or socially preferable (Rokeach, 1973). In the light of the theory of planned behavior, ECBA would pertain to the cognizance of the personally and socially preferable end-state of maintaining the integrity of the physical and natural environment through behaviors such as the conception, creation, distribution, consumption, and disposal of products and services. Attitudes towards such behaviors are driven by beliefs about these behaviors, and evaluation of the potential outcomes of the behaviors (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975), such as the preservation and conservation of natural resources for the benefits therefrom.

The application of this general link between attitudes, intentions and behavior in relation to the environment, particularly in the development of measures to assess environmental concern, is seen in the early works on the subject (e.g. Dunlap and Van Liere, 1978; Gooch, 1995; Hallin, 1995; Heberlein, 1981, 1989; Stern, Dietz and Guagnano, 1995). A special mention may be made here to specific contributions, namely, the assessment of ECBA through the new environmental paradigm (Dunlap and Van Liere, 1978), general awareness of consequences of environmental conditions (Stern et al, 1995), the ethnographic approach (Hallin, 1995), support for science and technology, and perception of local environmental conditions (Gooch, 1995).

ECBA (also referred to as concern for the environment), comprise all the three components of the traditional consumer behavior model, (i.e. cognitive, affective and behavioral); and several researchers have attempted to define them as such. For instance, environmental concern is a strong positive attitude towards preserving the environment, and a global attitude with indirect effects on behaviors through behavioral intentions (Crosby, Gill and Taylor, 1981). Environmental concern attitude is a general concept that can refer to people's feelings about many different green issues (Zimmer, Stafford and Stafford, 1994). Some writers have referred to "ecological concern", which refers to the degree of emotionality, the amount of specific factual knowledge, the level of willingness, as well as the extent of the outcomes of these (like behavioral intent,

recycling behavior, and purchase intent) on pollution-environment issues (Maloney and Ward, 1973).

The importance of ECBA lies in a two-fold association. Firstly, at the individual level, ECBA comprise a key psychological determinant of environmentally concerned consumer behavior. These include consumers' search for information, conserving behavior, supporting intent, and purchase behavior (e.g. Minton and Rose, 1997). Secondly, at the organizational level, ECBA are carried forward into the realm of managerial decision-making (e.g. Egri and Herman, 2000). In sum, it can be said that ECBA have direct implications for the various environmental stakeholders: for consumers in crystallizing their individual and group aspirations; for business and marketing managers in strategy formulation and implementation; and for government in public policy issues (Joonas, 2004).

In the section below, we discuss the relevance of ECBA in the context of two NAFTA partners, the U.S.A. and Mexico.

ECBA of business students in the U.S.A. and Mexico: A hypothesis

The role of cultural values in the formation of beliefs and attitudes, particularly collectivist orientation, has been theorized, for instance in terms of Hofstede's typology (1980, 1997, and 2001), as well as empirically evidenced (e.g. Joonas, 2004; Ling-yee, 1997). Under Hofstede's (1980, 1997, 2001) typology, the U.S.A. had an Individualism (IDV) rating of 91, and was described as the most individualistic society among the sample of countries, with IDV having the highest rating among the five dimensions measured. In contrast, Mexico with an IDV rating of 30 was described as a collectivist society, with IDV having the lowest rating among the four cultural dimensions measured.

Collectivist orientation is a socio-cultural value, described in terms of cooperation, helpfulness, and consideration for group goals, in this case, placing a higher value on preserving common community resources, over personal needs and desires of consumption. Collectivism pertains to societies in which people from birth onwards are integrated into strong, cohesive in-groups. Many of the environmental behaviors, such as the dissemination of knowledge regarding products and services, conservation programs, recycling programs, and raising organizational support, are conducted in groups with family-like ties among individuals who are not biological relatives.

Additionally, in a collectivist society, there is intense social contact, hence maintaining harmony is of paramount importance in all facets of life. Thus, preserving and protecting the environmental resources would comprise a route to maintaining social harmony. Collectivist societies are described as "shame" cultures, and violating the integrity of the environment would result in "loss of face" for both, the transgressing member, and the family, while upholding the integrity of the environment would elevate both member and family to honor status (Hofstede, 1997). In the collectivist society, members have other-dependent lifestyles, and rely on the social network as the prime source of information, as is often demanded by environmental affiliations. Additionally the social structure of a collectivist society (Hofstede, 2001) in several ways parallels that of an environmentally enlightened community.

Based on the foregoing discussion we hypothesize that:

H₁: The level of ECBA of business students will be significantly lower in the U.S.A. than in Mexico.

Below is described the methodology adopted for the study of ECBA of business students in the U.S.A. and Mexico.

Methodology

Sample size and selection: The survey was administered to 435 students in two business schools, one in the U.S.A. (n=218), the other in Mexico (n=217), both serving educational constituents contiguous to a large metropolitan area, and currently undergoing accreditation with AACSB. The survey was conducted during summer 2005, in randomly selected classes, by class instructors, yielding a return rate of almost 100 per cent in both schools.

Instrument: A voluntary, anonymous, objective type, paper-and-pencil survey was used. The accompanying cover letter from the researcher stated the objectives of the survey, and the confidential nature of the findings. The survey had been pre-tested among members of environmental organizations in the U.S.A. (Joonas, 2004). For administration to the Mexico sample, a bi-lingual survey, in English as well as Spanish, was used. The Spanish translation was prepared with the help of three qualified independent translators. The translation was pre-tested among some graduate students at the school in Mexico. Based on back translation as prescribed by Brislin, Lonner, and Thorndike (1973), the survey was revised prior to final administration.

Measures: ECBA was measured based on the environmental concern scale comprising 16 items from Minton and Rose (1997), which reported Cronbach's $\alpha = .95$. The scale was based on an earlier study conducted by Antil and Bennett (1979). The measure was reported to be "...unidimensional as well as acceptably reliable and valid" (Minton and Rose, 1997, p.40).

A modified version of the scale was used in the present study. The 16 items on the scale were rated on a seven-point Likert-type scale, with one representing "strongly disagree" (very low) and seven representing "strongly agree" (very high), with four representing "neither agree nor disagree" (indifference). Thus, on a particular item, a score of six would be interpreted as "high", five as "moderately high, three as "moderately low", and two as "low". In an attempt to define the samples, the demographic variables, student age, school affiliation, and student standing were included.

Statistical analysis: Data were collated and analyzed with the use of SPSS software. Reverse coded items were rectified. Missing values were substituted by "trend at a point". All demographic variables were dummy coded (e.g. for gender, male= zero, female= one). The results were summarized, and scale reliability was assessed. Data were analyzed through a comparison of means, standard deviations, and t-tests, as described in subsequent sections.

Results

Description of the sample: The combined sample was almost equally divided among males and females (U.S.A. males 54 percent, Mexico males 45 percent). The median age was 21-23 years (combined sample 62 percent, U.S.A. 60 percent, Mexico 68 percent). In the combined sample, 86 percent of students were undergraduates (U.S.A. 75 percent, Mexico 97 percent), and the rest were graduates (Table 1).

Table 1
Description of the sample

| | | U.S.A. school | | Mexico school | | Total | |
|----------|-------------------|---------------|---------|---------------|---------|-----------|---------|
| | | Frequency | Percent | Frequency | Percent | Frequency | Percent |
| Gender | male | 117 | 53.7 | 98 | 45.2 | 215 | 49.4 |
| | female | 101 | 46.3 | 119 | 54.8 | 220 | 50.6 |
| | Total | 218 | 100.0 | 217 | 100.0 | 435 | 100.0 |
| Age | 18-20 years | 25 | 11.5 | 36 | 16.6 | 61 | 14.0 |
| | 21-23 years | 124 | 56.9 | 147 | 67.7 | 271 | 62.3 |
| | 24 years and over | 69 | 31.7 | 34 | 15.7 | 103 | 23.7 |
| | Total | 218 | 100.0 | 217 | 100.0 | 435 | 100.0 |
| Standing | undergraduate | 164 | 75.2 | 211 | 97.2 | 375 | 86.2 |
| | graduate | 54 | 24.8 | 6 | 2.8 | 60 | 13.6 |
| | Total | 218 | 100.0 | 217 | 100.0 | 435 | 100.0 |

Scale reliability: The 16-item ECBA scale reliability was assessed through the coefficient Cronbach's α and item-total correlations. Following Malhotra, Agarwal, and Peterson (1996), scale reliabilities were confirmed for each country as a separate subgroup. The Scale $\alpha_{U.S.A.}$ was .909 (n=16, F= 19.245, p=.000), compared to Scale α_{Mexico} of .946 (n=16, F=15.338, p=.000). The combined sample yielded a scale α of .939 (n= 16, F= 27.510, p= .000), compared to α = .95 reported by Minton and Rose (1997). Additionally, item-total correlations were found to range between .514 and .780 (Table 2). Since the study was descriptive, and no further analysis was undertaken based on scale reliability, none of the items from the original scale were eliminated.

Table 2
Composite Reliability Analysis: ECBA Scale

| | α | Corrected Item-Total Correlation |
|--|----------------------------|---|
| N= 435, Scale n= 16, F= 27.510, p= .000 | .939 | |
| ECBA Item 1 I think we are not doing enough to save scant natural resources from being used up. | | .632 |
| ECBA Item 2 Natural resources must be preserved even if people must do without some products. | | .514 |
| ECBA Item 3 I feel sorry that the government does not do more to help control pollution of the environment. | | .708 |
| ECBA Item 4 Much more fuss is being made about air and water pollution than is really justified (reverse coded). | | .554 |
| ECBA Item 5 I feel angry and frustrated when I think about the harm being done to plant and animal life by pollution | | .683 |
| ECBA Item 6 I feel the government should devote more energy toward supporting conservation and environmental programs. | | .780 |
| ECBA Item 7 Consumers should be interested in the environmental consequences of the products that they purchase. | | .757 |
| ECBA Item 8 Consumers should pay higher prices for the products which pollute the environment. | | .568 |
| ECBA Item 9 Non-recyclable containers should be taxed to reduce waste. | | .615 |
| ECBA Item 10 The government should be required to use recyclable materials in their operations whenever possible. | | .766 |
| ECBA Item 11 Manufacturers should be required to use recyclable materials in their operations whenever possible. | | .774 |
| ECBA Item 12 Commercial advertising should be required to mention the disadvantages of products. | | .673 |
| ECBA Item 13 Products which pollute the environment during manufacture or consumption should be taxed. | | .753 |
| ECBA Item 14 Public schools should require all students to take a course dealing with the environment and conservation problems. | | .661 |
| ECBA Item 15 I feel angry and frustrated when I think of the ways industries are polluting the environment. | | .745 |
| ECBA Item 16 Environmental problems are overrated and do not concern me (reverse coded). | | .706 |

Hypothesis testing: A comparison of means was conducted. The means, t-values, and significance levels for the 16 items on the ECBA scale and the summated score are shown below (Table 3).

Table 3
Means, Standard Deviations and t-Tests
N (U.S.A.) = 218, N (Mexico) = 217

| Item | School | Group statistics | | t-Test for equality of means | |
|----------------|--------|------------------|--------|------------------------------|-----------------|
| | | Mean | Std. | t-value | Sig. (2-tailed) |
| ECBA Item 1 | U.S.A. | 4.708 | 1.2857 | -7.970 | .000 |
| | Mexico | 5.797 | 1.5532 | | |
| ECBA Item 2 | U.S.A. | 4.788 | 1.3581 | -2.019 | .044 |
| | Mexico | 5.078 | 1.6297 | | |
| ECBA Item 3 | U.S.A. | 5.161 | 1.4581 | -3.847 | .000 |
| | Mexico | 5.733 | 1.6394 | | |
| ECBA Item 4 | U.S.A. | 5.094 | 1.2776 | -4.885 | .000 |
| | Mexico | 5.727 | 1.4222 | | |
| ECBA Item 5 | U.S.A. | 4.743 | 1.3157 | -3.477 | .001 |
| | Mexico | 5.254 | 1.7227 | | |
| ECBA Item 6 | U.S.A. | 4.894 | 1.5005 | -6.120 | .000 |
| | Mexico | 5.800 | 1.5848 | | |
| ECBA Item 7 | U.S.A. | 5.078 | 1.3673 | -5.033 | .000 |
| | Mexico | 5.779 | 1.5326 | | |
| ECBA Item 8 | U.S.A. | 4.203 | 1.7401 | -5.429 | .000 |
| | Mexico | 5.120 | 1.7807 | | |
| ECBA Item 9 | U.S.A. | 4.168 | 1.7679 | -7.139 | .000 |
| | Mexico | 5.378 | 1.7678 | | |
| ECBA Item 10 | U.S.A. | 5.191 | 1.5589 | -5.507 | .000 |
| | Mexico | 6.014 | 1.5560 | | |
| ECBA Item 11 | U.S.A. | 5.326 | 1.5025 | -5.187 | .000 |
| | Mexico | 6.078 | 1.5240 | | |
| ECBA Item 12 | U.S.A. | 4.656 | 1.7001 | -5.662 | .000 |
| | Mexico | 5.575 | 1.6844 | | |
| ECBA Item 13 | U.S.A. | 4.619 | 1.7273 | -6.810 | .000 |
| | Mexico | 5.737 | 1.6970 | | |
| ECBA Item 14 | U.S.A. | 4.238 | 1.7219 | -9.432 | .000 |
| | Mexico | 5.756 | 1.6331 | | |
| ECBA Item 15 | U.S.A. | 4.651 | 1.5263 | -5.244 | .000 |
| | Mexico | 5.677 | 2.4508 | | |
| ECBA Item 16 | U.S.A. | 5.009 | 1.6656 | -5.780 | .000 |
| | Mexico | 5.878 | 1.4610 | | |
| Summated score | U.S.A. | 4.783 | 1.0008 | -3.902 | .000 |
| | Mexico | 5.640 | 1.2021 | | |

Overall, ECBA were moderately high in the U.S.A., significantly less than the high score in Mexico (Mean_{U.S.A.} = 4.783, Mean_{Mexico} = 5.640, t = -3.902, p = .000). This finding supports Hypothesis H₁, which stated that the level of ECBA of business students would be significantly lower in the U.S.A. than in Mexico. An examination of individual

scale items revealed that there is polarization on the strength of ECBA between the U.S.A. and Mexico on 15 out of the 16 items. The only item on which the rating of the two countries converged, was a moderately high belief that natural resources must be preserved even if people must do without some products ($\text{Mean}_{\text{U.S.A.}} = 4.788$, $\text{Mean}_{\text{Mexico}} = 5.078$), with $\text{Mean}_{\text{Mexico}}$ being significantly higher ($t = -2.019$, $p = .044$).

Discussion

Results evidenced that the only common ground among business students of both the U.S.A. and Mexico was a moderately high belief that natural resources must be preserved even if people must do without some products. This indicates that the consumer culture is prevalent in both countries, and that individuals are not highly willing to preserve and protect the environment, if it means sacrificing access to the consumption and use of products. On the balance 15 of the 16 ECBA scale items, a significant polarization was observed between the two countries. Among the environmental beliefs and attitudes with comparatively low differences between the U.S.A. and Mexico samples, were three items pertaining to personal feelings and concern for the environment, such as feelings of regret, anger, and frustration in relation to the environmental neglect.

The differences between the two samples came into sharper focus in beliefs and attitudes concerning the public realm, that is, in areas that call for action from other environmental stakeholders. These environmental stakeholders and their projected interventions are listed below in increasing strength of differences in ECBA between the two samples:

- A. consumer groups as the key driving force of demand, directing resources towards pro-environmental goods and services (e.g. displaying interest in the environmental consequences of the products they purchase, pay higher prices for products that pollute the environment),
- B. business and marketing managers as the key supply-side constituents, responding to demand through conceptualization and implementation of strategy (e.g. using recyclable material wherever possible, desisting from environmental pollution, making appropriate disclosures about harmful products in advertising),
- C. the government as the key public stakeholder, taking policy and planning initiatives (e.g. devoting more energy to environmental preservation, taking appropriate steps toward control of air and water pollution, using recyclable material wherever possible),
- D. public educational institutions, as the catalytic change agent, delivering environmental knowledge (e.g., public school students should be required to take coursework regarding the environmental awareness), and
- E. the need for (concerted) action (by the all above stakeholders) to save scant natural resources.

The last two items revealed the sharpest contrast prevalent in ECBA of business students between the U.S.A. and Mexico, culminating in the summated score of ECBA.

The above results evidence the role of collectivist orientation, one of Hofstede's (1980, 1997, and 2001) dimensions of national culture, as discussed earlier. The U.S.A. is characterized as an individualistic society, in which individual freedoms have primacy over group concerns. There is a resistance to conformity and group-imposed regulation.

Hence, the levels of ECBA items, relating to group action, are significantly lower among business students in the U.S.A. Mexico, on the other hand, is described as a collectivist society, in which group goals are considered more important than individual values. There is a greater acceptance of the collective will over individual desires. Therefore, the levels of ECBA of business students, pertaining to group interventions, are higher in Mexico.

Another explanation for the disparity in ECBA might be found in institutional theory, which posits that institutional norms originating from public opinion, educational systems, professions, ideologies, certification and accreditation bodies (Scott, 1987), act as unwritten rules of proper social conduct to which organizations must adhere. The role of educational institutions in the environmental context, has been theorized and empirically evidenced in current research (e.g. Bhuian, 1997; Bhuian et al, 2001; Varadarajan and Thirunarayana, 1995; Whitehead, 1994; <http://www.ucd.ie>). It might be fruitful to measure and investigate the impact of educational institutions on ECBA of business students.

The sections below cover the limitations of the current study, directions for future research, and conclusions.

Limitations

The current research is not free from limitations. First, compared to the U.S.A. sample, the Mexico sample comprised a marginal proportion of graduate students. To that extent, results may not be strictly comparable between the two schools. Second, the sample included only one educational institution in each country. This is likely to restrict the generalizability of the study. Third, the literature points to the role of collectivist orientation, a cultural value, in the formation of ECBA, both in terms of theoretical conceptualization (such as Hofstede, 1980, 1997, and 2001), as well as empirical evidence (for example Joonas, 2004; Ling-ye, 1997). As the present study is descriptive in nature, the authors did not include collectivist orientation as a study variable. Fourth, literature indicates the role of institutional theory in determining ECBA (e.g., AACSB, 2001, Bhuian, 1997; Bhuian et al, 2001; Scott, 1987; Varadarajan and Thirunarayana, 1995; Whitehead, 1994; <http://www.ucd.ie>). In the current descriptive study, the role of educational institutions was not included as a study variable. Finally, based on the literature, the ECBA scale was considered as unidimensional. However, the dimensionality of the ECBA scale would bear scrutiny.

Directions for future research

As an extension exercise, covering a larger number of schools in each country would be in order. Additionally, the student profile could be better approximated through a stratified sample. Further, there is a need for a deeper study the causative factors responsible for the making of environmental beliefs and attitudes, such as collectivist orientation, and the role of environmental education in institutions. These need to be incorporated as determinants of ECBA. Additionally, the inclusion of demographic variables such as the nature of school funding (public or private), school size, level of environmental education, and AACSB accreditation status would shed light on the role of demographics. Obtaining some data from Canada would offer a comparative picture with reference to the overall green agenda of NAFTA. In addition, a longitudinal study would

help track long-term changes in the environmental beliefs and attitudes of business student cohorts. Further, the study could be extended to other environmental stakeholders such as consumers, business and marketing managers, and government officials. In addition, the dimensionality of the ECBA scale needs to be investigated. Finally, whereas the present study is descriptive in nature, a regression analysis would help measure the effects of the specific factors discussed earlier, on the formation of ECBA.

Conclusions

The results of this descriptive study evidence that overall, ECBA of business students are weaker in the U.S.A. than in Mexico. Such business students are the potential business and marketing managers, whose behavior will affect the environmental agenda of NAFTA. The present study points to a need for a continued focused and formalized strengthening of ECBA of business students through increased dissemination of environmental knowledge, utilizing the medium of educational institutions in both countries, especially the U.S.A. The dissemination of knowledge relating to environmental perspectives, including environmental ethics, legal requirements, and strategic managerial aspects of processes, products, waste disposal, distribution, and promotion, might be achieved through core business courses. While a more focused channel, particularly in the context of international business, would include courses in international management and marketing, the role of bodies interlinked with business schools, such as Centers for International Business and Education and Research (CIBER's), and Small Business Development Centers (SBDC's) cannot be underestimated. The latter are strategically placed for the dissemination of environmental knowledge in business education, as well as through networking with media. Improved levels of ECBA would inculcate a shared environmental value orientation between potential business and marketing managers in the U.S.A. and Mexico. This would strengthen their environmentally friendly behavior, in alignment with the green agenda of NAFTA.

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