

**EMPIRICAL EVIDENCE OF THE PERCEPTIONS AND BEHAVIOURS BY
INTERNATIONAL TERTIARY STUDENTS TOWARDS THE FUTURE
ENVIRONMENT IN NEW ZEALAND**

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ABSTRACT

The purpose of this research was to determine the perceptions of international students at an international tertiary institution, UUNZ, in Auckland New Zealand. A quantitative method was applied; 92 questionnaires were distributed amongst undergraduate- and post graduate international business students who were the target population. The research aims to establish what international students' attitudes towards sustainability and the environment are in a foreign country. Some findings are: country of origin and age affect an individual's thinking; thinking between nationalities and age groups is not significant; demographic factors affect an individual's thinking patterns; different religions have similar perceptions regarding protection of natural resources. Similarities are discussed and differences of opinion identified; Positive and long term impacts of sustainable development were revealed; social and cultural impacts are found to be positive. Similarities are discussed and differences of opinion identified. Trends and then recommendations for tertiary institutions that are applicable globally form the last section before the conclusions.

INTRODUCTION

International education has the potential for economic growth in New Zealand but it could be to the benefit of the country if this growth is also successfully enhancing sustainability. Projections for international student enrolments to 2025 for the public tertiary education institutions (universities and polytechnics) are 7% from 2013 to 2025 and for annual student growth in 34 schools are 2% to 2025, and 5% for private English language schools (The Economic Impact, 2008; Ministry of Education New Zealand, 2011). This information validates the study that was done among international tertiary students towards the end of 2011 at UUNZ Institute of Business, Auckland. Are the international students prepared to accept the fact that New Zealand has a clean green image? The question could well be asked whether the international students will stay in New Zealand after they have completed their studies and what value will they add towards the clean green image of New Zealand.

In 2002, more than 80,000 international (foreign) students studied in New Zealand. The education sector is the fourth largest export earner for New Zealand (Ministry of Education New Zealand, 2011). The country earned about \$1.7 billion with nearly 86% of all foreign fee paying students from Asia and Confucian Heritage Culture (CFC). Projections prepared by the British Council, Universities UK, and IDP Australia, assumed 6% annual growth to 2020 in international tertiary enrolments, in the main English speaking destination countries of the USA, the United Kingdom, Australia, Canada and New Zealand (Brida, Osti, & Faccioli, 2011).

Du Plessis, Chen and Toh (2012) describe sustainable development as meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. The word sustainability has become the buzzword in recent years and is often used interchangeably with concepts such as environmentalism or being 'green'. Therefore, sustainability is about the relationship between people and our planet; referring to the fact that we are inextricably part of this planet, and that our societies and economies depend upon healthy biological and physical systems.

Du Plessis et al (2012) are of the opinion that sustainability refers to the quality of a state or process that allows it to be maintained indefinitely. At present, there are indications that the way we are living is not sustainable. In their definition Emanuel & Adams (2011) refer to sustainability as an "economic, social, and ecological concept" (p.81) that was derived from the term sustainable development and includes conservation of natural resources through

recycling, waste and water management, using renewable energy resources and developing environmental friendly land and property assets.

Ni, Sun, Li, Huang, & Borthwick, (2010) are of the opinion that the luxurious human lifestyles have led to severe environmental conditions such as soil erosion, desertification, and water and air pollution and global warming.

A survey was executed to explore and understand the students' perceptions and attitudes towards environmental sustainability and other issues related to the subject. The first study was executed at Unitec New Zealand in March 2007 in the then Unitec Business School and repeated in 2010. With permission from the researchers the questionnaire was adopted and revised to its current form to suit UUNZ. Although this is the first study of this nature at UUNZ, New Zealand it can be regarded as longitudinal as it follows up on the Unitec study in the same city using similar respondents. The objective is therefore identifying trends in student approaches to sustainability issues.

Since the area of student perception is under-researched, it is an important step towards changing their behaviours to intentional sustainable actions (Treanor, 2010). This study has revealed recognition by the respondents of the positive and long term impacts of the sustainable development. This research intends to identify the differences or similarities between different groups of people in terms of their perceptions, attitudes and self-reported behaviours if any because it is not clear how people make decisions about environmentally 'friendly' behaviour.

This research sheds light on people's perceptions and attitudes towards sustainability and the environment, how they approach environmentalism, water conservation, energy conservation, recycling, reducing waste (e.g. composting) and using green energy sources (e.g. solar and wind power). It is also not clear whether or not there are any voluntary modifications in their behaviour at all in relation to environmental issues.

The next section of this paper discusses a literature review followed by the problem statement, aim of the study and the methodology sections. A discussion follows on the comparative analysis of the data collected and correlations identified. The following section presents the authors' recommendations from the study and finally the paper provides a summary and conclusion followed by references.

LITERATURE REVIEW

All countries market themselves as the best place for tourists to visit. New Zealand is doing the same by the emphasis on a 'clean green' country. The decline of ecology on a global level puts the emphasis on the importance of a clean environment and protection of the natural assets. It suggests that the ever increasing population and the free trade policies result in exploitation of resources and increase effluence stresses (Keys, Thomsen, & Smith, 2010). What has changed though, are the focus areas, and the increased complexity of the employees as well as the business environment.

With a renewed focus on the importance of sustainable organisations, audacious decision making and effective communication, businesses should be on the right track. The recent global economic downturn, the uncertainty of the financial future, the war on terrorism, the war for talent, the progress in e-business and e-media and others all add to the tough times that people are experiencing in the every-day environment. Employers have the opportunity to engage employees and get them committed to the organisation so that they can add value in business recovery and sustainability after the recent recession.

Global warming is an international environmental phenomenon that has caused widespread controversy especially in those industries that contribute the most to climate change or global warming as it is now known, such as the oil, transportation, and electricity generating companies. With the introduction of regulations and public pressure, the climate change strategies of many companies are beginning to move in a similar direction that supports regulations, especially those of the Kyoto Protocol (Kolk & Levy, 2001 as cited in Lockyer, Du Plessis & Maritz, 2007).

There are schools of thought saying that this is only a cycle that the earth is going through and they refer to the "ice-age". Sustainability refers to utilising the earth's natural resources wisely to meet the necessities; also to save the resources for future generations. The ever increasing world population and free trade policies have resulted in the exploitation of resources and has increased effluence stresses as well (Du Plessis et al, 2012).

A country such as New Zealand is dependent on tourism which is a huge revenue earner. Valuable chemistries of animal and plant life could be destroyed without ever learning about their genetic potential benefits to society. Employees in the workplace could be affected by carbon dioxide concentrations resulting in illness and a higher rate of off-sick days by

employees and absenteeism could rise due to the effects that global warming could have on them or the environment. This could become a serious problem in the future for New Zealand citizens and tourists.

Recently the UK and USA experienced the coldest winter in a hundred years during and this has drastic effects on people across the world (Nel, Werner, Poisat, Sono, Du Plessis & Ngalo, 2011). They postulate further that the precariousness of the environment is now evident to even the most casual observer. The global environment is changing rapidly and more dramatically than ever expected. Population growth, increased industrialisation, and improper utilisation of resources have negatively impacted the ecosystem which resulted in a disrupted natural cycle of global resources and have destabilised environmental sustainability. This is significant because our health and the quality of life are greatly influenced by the veracity of the environment.

The New Zealand conventional system of tertiary education (excluding specific papers and programmes in sustainability) does not provide any training to the students that may help in developing solutions to the sustainability issues and deal with the ecosystem problems on a global level. The environmental issues have several aspects and cannot be addressed by the traditional and conventional theories. It needs professional guidance from experts on the subject and a positive approach towards environmentalism (Sibbel, 2009).

Although, the current literature discusses the importance of student's learning about sustainability. However much less is known about what they actually know about the subject as vast library database search using all the key words on the subject obtained only a few articles. It is assumed that people who are sociable and friendly have positive interactions with others and make positive contributions to the neighbourhood making it more affable and organised.

Positive community relationships have a major role to play when dealing with the environmental crises. People in a community get influenced by other's actions, so when one person or a small group of people change their ways to eco-friendly, others tend to learn by their examples and start following. Therefore this research project was undertaken at UUNZ New Zealand as students are from different backgrounds, cultures, ethnicities and communities (Nel et al, 2011). In the past, managers concentrated primarily on transactional and traditional activities. These activities are still necessary, but high-level competencies and management skills to support management and goal achievement to be sustainable but still

competitive are essential to be effective in future (Du Plessis, Sumphonphakdy, Oldfield, Botha, 2013).

Organisations and communities are looking up to strong leaders to take charge during these rapid environmental changes to ease out the negative impact it could have on businesses. Furthermore managers and leaders should also take a strategic lead in combining their capabilities and competencies to enhance global management, culture change and intellectual capital in organisations. The additional contemporary competencies and capabilities of leaders and managers such as taking on high level line management responsibility, adding value, proving direct support via strategic inputs and so on should also not lost sight of either (Kouzes & Posner 2009; Brewster et al 2008). Although the competencies of leaders and managers are often reviewed and researched at the international level, multi-nationals and global organisations still need to observe the regional context to accommodate local culture and customs of employees who are employed in those organisations.

Education for sustainable development has become the focus of environmental education. Tertiary institutions, organisations and communities are looking up to strong leaders to take charge during these rapid environmental changes to ease out the negative impact it could have on businesses (Nel et al, 2012) therefore the leaders of tomorrow (international students), perceive sustainability differently, as confirmed in Table 1 below. Tertiary institutions could assist in the effort to control the increasing atmospheric temperatures by creating awareness and outlining policies regarding the issue at a global level in their programmes they present to students.

The main objective in this research study is to summarise the key points of environmental sustainability and get feedback from respondents on their views on environmental sustainability. Some of these key points are driven from the literature. Due to limitations to the length of the paper it is not possible to use more and wider literature and to discuss all the questions in the analysis section. As an indication of how these questionnaires were driven the key points have been summarised: Clean green image, saving natural resources, global warming, sustainability, and energy-efficient appliances.

PROBLEM STATEMENT

International tertiary students who get permanent residency or citizenship in New Zealand could be some of the future leaders of New Zealand. It is important for a tertiary institution to

determine what their perceptions, attitudes and behaviours are towards sustainability. Sustainable development programmes have the objective of changing individual attitudes and approaches towards sustainability and conservation of natural resources.

A study such as this one could shed some light on their perceptions and behaviours so that curricula could be altered or upgraded to include sustainability papers. The curricula of a tertiary institution could include sustainable development programmes with the objective of changing individual attitudes and approaches towards sustainability and conservation of natural resources.

AIM OF THE STUDY

The aim of this study is to determine the perceptions of international tertiary students. This paper focuses on a comparative analysis of an international tertiary student survey executed towards the end of 2011 at UUNZ Institute of Business, Auckland, New Zealand to understand student approaches and current trends towards environmental sustainability. Which factors affect their 'green' behaviour, and how perceptions and behaviours are formed, with specific consideration to the demographic factors. This paper also discusses any similarities and differences of opinion identified, between the groups. The research is based on the assumption that positive attitudes lead to positive behaviours and aims to establish what people's attitudes towards environmental sustainability are. The value comes from the comparisons resulting from the 2011 data to identify trends in student approaches to sustainability issues. It will also enable international comparisons of similar studies.

METHODOLOGY

Research Design

The quantity and high standard of the responses collected in the form of questionnaires warranted a quantitative research. A quantitative study helped in keeping the results unbiased and irrelevant to the circumstances under which the research was carried out. The comparative analysis of the respondent's perceptions and attitudes confirmed the existence of different groups where members had similarities and variation in the thinking patterns.

The target population were international tertiary students of UUNZ Institute of Business, Auckland. The questionnaire was distributed and 92 usable questionnaires returned resulting in 87.6% response rate.

The 105 questionnaires were distributed to undergraduate and post graduate students studying business at the institute. The choice of business students is deliberate because the researchers believed they'll get a cohort of respondents with similar plans for the future, almost similar background, and within a certain age group in addition to materialistic aspirations. In future some of these students may perhaps become senior managers who could have a deciding standpoint on these issues.

The revelation of the identity of respondents was not required and the respect for rights and confidentiality and preservation of anonymity is present throughout the questionnaire. There is no harm, cultural or social sensitivity nor deception in the questionnaire or study. There was no conflict of interest and the intellectual and cultural property ownership was respected.

Questionnaire Design

A questionnaire was designed with 52 questions (using a Likert scale from 1 very strongly disagree to 7 very strongly agree) regarding some important characteristics about the views of people towards environments, culture, self feelings towards life regarding money and health, human and their interaction with natural resources. Including in this amount were four groups of six questions each asked about some information of the participants in the survey.

Data Collection

Questionnaires were distributed amongst the international tertiary students at UUNZ classes by the lecturers. Students completed the surveys anonymously and returned it to a box in their respective classes without the lecturer being present. Participation of all business students in the study was voluntary and through informed consent. Questionnaires are locked in the primary researcher's cabinet for a period of five (5) years and will be destroyed thereafter.

ANALYSIS

The data was entered into Excel and then transferred into SPSS to get some descriptive statistics and also to apply some statistical tests. Results are analysed using the SPSS package. The researchers compare for groups of closely related questions each with six

questions in regards to age, background (origin) and religion compared with their perceptions. A total of twenty two questions are discussed in this paper. (Q11 and Q39 are in two groups due to their relation with the group).

The four groups are:

Group 1: questions 3, 5, 9, 13, 16, and 18.

Group 2: questions 11, 23, 36, 39, 43, and 45

Group 3: questions 2, 4, 7, 10, 11, and 12

Group 4: questions 14, 15, 17, 31, 37, and 39

The data was analysed, and will be discussed referring to the groups.

Group 1:

Q 3: Humans destroy nature

Q 5: Industrial growth – economic development

Q 9: Mankind is abusing environment

Q 13: Pollution does not affect me

Q 16: I have to save energy where possible

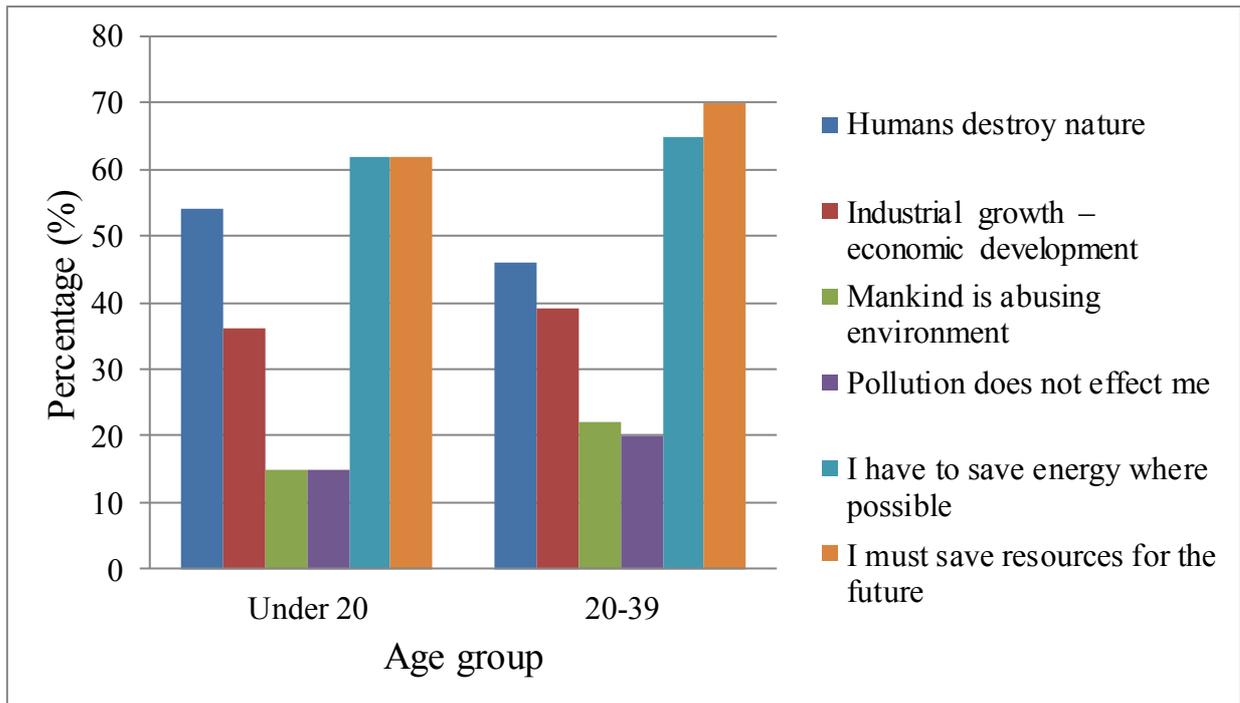
Q 18: I must save resources for the future

In Figure 1 below, it is evident that the age group under 20 years have two problems in their life already and that is that they strongly disagree (85%) that they belong to mankind abusing the environment, as only 15 percent of them strongly agreed. Their second problem is that they are of the opinion that they are immune against pollution. Only 15 percent strongly agreed that pollution does not affect them. Similar results were identified for the Chinese respondents and it could be deduced that they are in the same age group of under 20 years old.

Correlation between the age and country of origin (Table 1 below)

In selecting questions regarding country of origin or nationality and questions regarding age, the correlation coefficients matrix to determine the strength of the relationship between these two factors, it was found that there is a significant relation

Figure 1: Age groups in percentages



between Q9 and Q15 and Q50 (age of respondents). Questions 3, 5 16 and 18 have no relationship with Q50 in regards to abusing the environment and the effect of pollution.

Table 1 below depicts the age of the respondents compared to their origin.

Table 1: Comparison of age and origin

	Humans destroy nature	Industrial growth – economic development	Mankind is abusing environment	Pollution does not effect me	I have to save energy where possible	I must save resources for the future
Question #	Q3	Q5	Q9	Q13	Q16	Q18
Under 20	54%	36%	15%	15%	62%	62%
21-39	46%	39%	22%	20%	65%	70%
Indian	50%	67%	42%	25%	75%	75%
Chinese	29%	35%	15%	19%	75%	69%
Russian	50%	29%	25%	14%	63%	75%
Other	50%	30%	22%	22%	35%	57%

It can therefore be deduced that international students (people) from different nationalities and ages in New Zealand only to study, were linking their attitude to saving energy and resources with their attitude to enhance their economic development.

Group 2

Q 11: We must protect our natural resources

Q 23: As long as I feel good now, I don't have to worry about what happens in the future

Q 36: Humans cause natural disasters by depleting natural resources (both recyclable and non-recyclable)

Q 39: I do not save energy because people will think that I am poor

Q 43: I want to be physically healthy

Q 45: I want to keep myself healthy and well

In Table 2 below, it is evident that there is a significant difference between the two age groups. The under 20 years of age group has no intention to protect natural resources (20%) or to be concerned about the future (11%) and even less concerned that humans destroy natural resources (10%). What is a huge concern is that they are not even interested in their own health (Q43, 18% and Q 45, 18 %).

Table 2: Comparison of age

	Q11	Q23	Q36	Q40	Q43	Q45
	We must protect our natural resources	I don't have to worry about what happens in the future	Humans cause natural disasters by depleting natural resources	I do not save energy because people will think that I am poor	I want to be physically healthy	I want to keep myself healthy and well
Under 20	20%	11%	10%	29%	18%	18%
21-39	78%	89%	90%	64%	79%	78%

It can be deduced that the 18 percent who are concerned are the international students who participate in sport or attend a gym in New Zealand. In a case such as this, students have to

be made aware of how important physical health is for their future otherwise we will just have more people who depend on government funding for their health problems if they become citizens later on.

The age group 21-39 has a total and complete different outlook on all six questions and they are much more positive towards environmental sustainability. It could be deduced that the fact that they are older, they are more concerned about their future. It is also possible that they have seen or experienced how others are abusing natural resources.

In Table 3, below, the perceptions of the different age groups were compared with their nationality (country of origin). For Q 11, it seems that the Chinese students are well aware of protecting their resources and they have to be in the 21-39 age group (see Table 2 above). In contrast to this the Indian and Russian respondents do not care as they are on 20 and 26% respectively for the same question. Therefore it could be deduced that they also fall in the under 20 group.

Table 3: Comparison by age and nationality (origin)

	Q11	Q23	Q36	Q40	Q43	Q45
	We must protect our natural resources	I don't have to worry about what happens in the future	Humans cause natural disasters by depleting natural resources	I do not save energy because people will think that I am poor	I want to be physically healthy	I want to keep myself healthy and well
Under 20	11	20	10	29	18	18
21-39	88	78	90	64	79	78
Chinese	78	53	67	89	97	94
Indian	20	50	43	63	30	34
Russian	26	0	24	14	11	10
Other	25	20	57	17	25	33

A significant difference is in Q43 where almost all Chinese respondents (97%) differ totally from the Indian (30%) and even more from the Russian (11%) respondents on the question if they want to be physically healthy. Again it is assumed that this low percentage respondents are in the under 20 years old age group.

An alarming figure is for Russian respondents in Q23 where they are of the opinion that they don't have to worry about the future. It is assumed that they are also in the under 20 age group as in Table 3, above, only 11 percent in this age group responded positively to his question.

The best response for Indian respondents is in Q40 (63%) as they don't feel that people would regard them as poor because they want to save energy. It is totally in contrast with their other responses and one could assume that they had monetary value in mind when they answered this question because all the others are negative and low percentages towards environmental sustainability.

In Table 4, below, an alarming figure is in Q23 for the Buddhist religion (0%) as they don't seem to worry about the future and it could be deduced that it is directly because their religious belief is that it will be provided for them and they don't have to contribute anything for the future environmental sustainability. For the other categories they have very low percentages as well. For the same question (Q23) the Christians are also not really concerned about what happens in the future.

In Q11 the Christians regard protection of natural resources important (58%) and believe that humans are responsible for depleting natural resources (55%). This is consistent with Q11 and close to Q43 (50%) and they want to keep themselves healthy (45%).

From the table below (Table 4) it is evident that the "other" includes non-religious respondents and their percentages for the different questions are unexpectedly high with Q43 and Q45 at 80 percent and 85 percent respectively. They are definitely taking their health as a serious issue.

Comparing the Hindu religion with the Buddhist religion in Q45 it is interesting that they are so close in their responses regarding keeping themselves healthy and well. They are also very close in percentages for Q11, Q36 and Q40. There is a 33 percent difference between them for Q23 and the reason for it is unknown.

Table 4: Comparison by religion

	Q11	Q23	Q36	Q40	Q43	Q45
	We must protect our natural resources	I don't have to worry about what happens in the future	Humans cause natural disasters by depleting natural resources	I do not save energy because people will think that I am poor	I want to be physically healthy	I want to keep myself healthy and well
Buddhist	17	0	30	21	38	23
Christian	58	11	55	24	50	45
Hindu	17	33	32	28	28	24
Other	60	50	70	70	80	85

Group 3

Q 2: Humans destroy nature

Q 4: Industrial growth – economic development

Q 7: Mankind is abusing environment

Q 10: Pollution does not affect me

Q 11: I have to save energy where possible

Q 12: I must save resources for the future

In Table 5 below, it is evident that there is some similarity in the respondents' responses. The responses for the age group 21 to 39 (12%) and the Christians (6%) and interestingly the non-religious group with 17 percent are very close for Q2. One could expect from Christians to respond that mankind does not control the nature, but God does, but then on the other hand why would non-religious respondents have basically the same view? Who is then in control of nature according to them?

One could understand that other religions such as Buddhist (14%) and Hindu with 25 percent also agree that mankind does not control nature because of their religious beliefs. What needs to be pointed out is the age group 21 to 39 with a very high percentage (82%) agreeing that we must protect our natural resources. On the same note the under 20 group's responses are just as high with 92 percent. The Buddhist- Christian- and Hindu religions are between 88 and 100 percent. It can be deduced that all religions, and even the non-religious respondents

(83%) realise that we are responsible for the resources (nature) and we have to protect our natural resources for future generations.

Table 5: Comparison between the age and religion of the respondents

	Mankind controls nature	Plants & animals for use by humans	Earth is space ship-limited resources	Pollution is not a crucial issue	We must protect natural resources	Concerned – pollution caused by power stat
Question #	Q2	Q4	Q7	Q10	Q11	Q12
Under 20	31	23	54	15	92	38
21-39	12	21	48	13	82	37
Buddhist	14	14	57	0	100	29
Christian	6	38	50	25	88	25
Hindu	25	38	50	0	88	50
Muslim	0	0	0	0	0	0
Non-religious	17	14	55	14	83	38
Other	0	50	25	0	75	75

An interesting question that was answered consistently “strongly agree” by the respondents, is Q4. Both groups (age and religious) rated this question between 14 and 38 percent which is unexpectedly low. On the question whether the earth is like a space ship with limited resources (Q7), again all the respondents were consistent that we have limited resources with responses between 48 percent and 57 percent.

It can be deduced that the respondents are all of the opinion that we need to protect our resources for the future but is not consistent with Q11’s high percentages of between 83 percent and 100 percent. The Hindu respondents are more concerned about pollution created by power stations (50%) than Christians (25%) and Buddhists with 29 percent. Consistent to this low figure is both age groups (under 20 and 21 to 39 years of age) with 38 and 37 percent respectively. It is deduced that it is a trend globally to protect natural resources as the respondents are mainly from three different countries China, India and Russia.

There were no Muslim respondents, but only 14 percent of non-religious respondents strongly agree that plants and animals are for use by humans (Q4). Overall all respondent’s responses are low for Q4 (strongly agree) and it can be deduced that religion does not have any influence on a person’s perception that animals and plants are on earth not just for use by humans, but that people have to protect and save it for the future.

Group 4

Q 14: We should have respect for traditions, cultures and ways of life of other nations

Q 15: I would like to know more about other cultures and customs

Q 17: I do what I can to conserve natural resources

Q 31: I am concerned about the amount of clean drinking water available in the world

Q 37: Destroying nature in one region can cause problems globally

Q 39: I do not save energy because people will think that I am poor

An important factor is that half of the Russian respondents strongly agree that they have to respect other cultures and customs (50%) and that they are concerned about destroying nature in one region that might have an effect globally (78%). It can be deduced that this high awareness of destroying the nature by other nations could be because Russia has signed the Kyoto Protocol in 2004 already and most Russians are aware of it. In their responses the Indian students (62%) agree that they respect other cultures and customs and only 15% care about people thinking they are poor because they save energy. Similar results were noted for Chinese respondents (see Table 6 below). There were no Muslim participants in this study, as mentioned before.

It is interesting, in Table 6 below, that in the age group under 20 years, 80 percent strongly agree that they respect traditions, cultures and ways of life of other people, but only two thirds (60%) of the same group want to know more about other cultures and customs and they care about what other people think (that they might be poor) that is the reason why they save energy (13%). On the other hand more than two thirds (66%) agree that they care about clean drinking water in the world. Two thirds are concerned about destroying nature in one region would have an effect globally (66%).

Table 6: Comparison of age and background

	Respect traditions, cultures and ways of life	Know more about other cultures and customs	I do what I can to conserve natural resources	Clean drinking water available in the world	Destroying nature in one region can cause problems globally	I don't save energy because people will think I am poor
Question #	Q14	Q15	Q17	Q31	Q37	Q39
Under 20	80%	60%	53%	66%	66%	13%
20-39	76%	73%	66%	66%	54%	10%
Indian	80%	62%	68%	80%	71%	15%
Chinese	47%	42%	70%	74%	76%	12%
Russian	50%	29%	60%	76%	78%	16%
Other	50%	32%	12%	46%	28%	14%

In Table 7 below, the researchers combined age, background and religion in one table to compare and make it easier for the reader to follow the different perceptions and behaviours of the respondents. Please note that the main stream respondents are from China, Russia and India and the category “other” include respondents mainly from Korea but also Chile, other states that were previously part of the Russian Federation, and Cambodia and so on.

In the age group 21-39 years old (Table 7 below) a large percentage (76%) strongly agrees that they respect traditions and other cultures but it is interesting to note that also 100% who respect traditions are Buddhists and 76% are Christians.

Table 7: Comparison of age, background and religion

	Respect traditions, cultures and ways of life	Know more about other cultures and customs	I do what I can to conserve natural resources	Clean drinking water available in the world	Destroying nature in one region can cause problems globally	I don't save energy because people will think I am poor
	Q14	Q15	Q17	Q31	Q37	Q39
Under 20	80%	60%	53%	66%	66%	13%
21-39 years	76%	73%	66%	66%	66%	10%
Buddhist	100%	55%	77%	77%	66%	11%
Christian	76%	76%	52%	70%	58%	0%
Hindu	90%	90%	70%	70%	70%	30%
Muslim	0	0	0	0	0	0
Non-religious	100%	67%	75%	50%	51%	4%
Chinese	47%	42%	70%	74%	76%	12%
Indian	80%	62%	68%	80%	71%	15%
Russian	50%	29%	60%	76%	78%	16%
Other	50%	32%	12%	46%	28%	14%

In contrast to this only 10% in the same age group (21-39 years old) don't save energy because people will think they are poor (Q39) of which 11% Buddhists and 0% are Christians with 16% from Russia, 15% Indians and 12% Chinese. A lower percentage under 20's than 21-39 years old respondents want to know more about other cultures and customs of whom 76% are Christians, 90% Hindus and 55% Buddhists. In the same category (Q15) there are 62% Indians, 42% Chinese and 29 Russians.

Another interesting fact is that the 21-39 year age group (Q17) is more convinced to do what they can to reserve natural resources for the future and of the same category the non-religious group is the highest with 75%. It is evident that the Buddhist group have no problems in respecting other cultures and traditions and most probably the way Kiwis are protecting their clean green image is very acceptable to them and they will support this. Christians are almost at 80% with Hindus above 80% and the researchers don't foresee a problem with them either.

Table 7, above, depicts that Hindus and "other" religious groups are more interested in learning more about other cultures and customs. Again the Christian group is almost at 80% and very consistent with their responses. What is interesting in this category is that Buddhists are not even on 60% to know more about cultures and customs in contrast to the previous question (Q14) where 100% responded that they respect other cultures. The question could well be asked how they could respect other cultures if not all of them want to know more about other cultures. The table above also gives a picture of how different religions responded to Q17. It is alarming to see that non-religious respondents have a higher responsibility to conserve natural resources for the future than Christians. Buddhists are once again in the lead with almost 80%.

Maybe the non-religious students don't feel that strong about other cultures and traditions especially religious traditions. It can be deduced that it does not matter what age group or origin and even religion international students belong to, they know that they are responsible for saving natural resources and that it is their responsibility to know more about other cultures and norms in New Zealand. Q37 is confirming this assumption as all the percentages are high in these categories.

TRENDS IN INTERNATIONAL TERTIARY STUDENTS' PERCEPTIONS AND BEHAVIOUR

As the environment has become more uncertain, engaged employees want more than to know about other cultures and customs. Those organisations that have been in sheer survival mode will have a tougher time in sustainability and reducing carbon monoxide emissions and therefore restoring / maintaining trust in their organisations that they are committed to saving resources for future generations and how they will comply with it in their strategic direction.

Ryan, Tilbury, Corcoran, Abe and Nomura (2010) refer to higher education students becoming the managers and leaders of the future; therefore it is vital to “educate” them on sustainability, more so for international students. Considerable personal strength is required in the future to conserve our resources, and the notion that we now require audacious leaders to take advantage of opportunities does seem to become a reality. A positive trend is that the majority of respondents are aware and even concerned about the choices that they make now and its influence it will have on the future.

Another positive trend towards sustainability is evident in this research project in that respondents are very concerned about certain issues such as clean drinking water and knowledge about other cultures and traditions.

RECOMMENDATIONS

This research project revealed important information and a few recommendations are:

- UUNZ Institute of Business as well as other tertiary institutions should take cognisance of this study and “re-develop” their curricula to include at least one session in every paper presented in their programmes about sustainability. This session could only cover the basics of conserving our most important resources for future generations.
- For international tertiary students, special attention should be paid to New Zealand’s “clean green image” so that it could be valued and looked after by internationals visiting or even planning to stay in New Zealand.

- International tertiary students might get permanent residency in New Zealand or become citizens and then they would have a good background to New Zealand's clean green image.
- Globally, tertiary institutions should engage employees to develop curricula and to implement strategies in their institutions to develop future leaders' capabilities, to develop a greater sense for sustainability among international students and to add value through their institutions by developing the trend that these students are showing to be more positive towards sustainability.
- Top management, governments and leaders should be committed to develop both human capital and social capital, and this will lead to greater synergy across the business, and more sustainable outcomes saving resources for future generations.

CONCLUSION

The research revealed that religion does not play a role in perceptions of international tertiary students in regards to pollution whether it is crucial because the “strongly agree” responses could group them all into one category that pollution is not a crucial issue. Despite the differences there were many similarities that appeared constantly across the survey such as for Q2 that mankind does not control nature. Interesting factors came to the fore in this research project. It was found that we must protect our natural resources, all religions, and even the non-religious respondents (83%) strongly agree that mankind is responsible for the resources (nature) and they have to protect our natural resources for future generations.

It was also found in the research that international tertiary students with different cultures, backgrounds (origin) and religion have different perceptions towards environmental sustainability; to some extent they feel differently about the environment and behave differently when it comes to ‘green’ behaviours and have similar perceptions with others such as respecting of different cultures. Despite the differences there were many similarities that appeared constantly across the survey.

It is evident that all the respondents strongly associate the concept sustainability with their environment and it emphasises the need to link the sustainable development with the economic, social, and cultural factors for the students to understand the complications and the challenges about the topic. Education for sustainable development has become the focus of environmental education.

Employers, organisations and managers have the opportunity to allow employee input into decisions, share information, and to treat employees with respect that will definitely enhance commitment to sustainability.

This research determined and exemplified the current trends and attitudes of international tertiary students within UUNZ across all courses. Furthermore, in order to explore several determinants sustainability behaviours and perceptions were identified as well as trends to environmental sustainability issues. The study puts together some recommendations that could be used to develop and formulate future strategies (in curricula) to encourage sustainable consumptions for tertiary institutions in New Zealand and globally.

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