Research Article

KNOWLEDGE, ATTITUDE AND PERCEPTION OF A PHILIPPINE STATE UNIVERSITY'S RESIDENTS ON REPUBLIC ACT 9003 (SOLID WASTE MANAGEMENT ACT OF 2000)

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Abstract

This study determined the knowledge, attitude and perception of the respondents towards the RA 9003 and the significant relationship between the attitudes, knowledge and perception of the respondents toward the said law of residents inside the residential area of a Philippine State University in Eastern Visayas, Philippines. Using descriptive-correlational design, and a self-structured survey questionnaire, it was found out that in terms of their demographic profile, most respondents are females, single, and in their college level. Also, it was found out that the respondents are between the age of 19 to 25 years old and most of the respondents do not have any relative that work in the university. Further result revealed that the respondents are knowledgeable towards RA 9003, they have a strong agreement to the said law in terms of their attitude, and that, they perceive the Solid Waste Management Act of 2000 as an effective and efficient work to deter environment degradation inside the campus, and to their community. Finally, statistical analysis using SPSS showed that there is a significant relationship among the variables knowledge, attitude and perception of the respondents towards RA 9003. This study recommends the continuous implementation of the Solid Waste Management Act, not just inside the premises of the university, but also to neighboring barangays and towns.

Keywords: KAP, RA 9003, university employees, residents, Solid waste management.

INTRODUCTION

RA 9003 or known as the Solid Waste Management Act of 2000 is a law passed to ensure a responsible and efficient solid waste management in the community. The law is being implemented countrywide, and is now utilized by the cities and municipalities in Eastern Visayas. But as the implementation was done, some people in the community still has problems on how to do it and some, has many unanswered questions on what to do, and why do it. One of the mandates of universities in the country is to cater quality education, and the adoption of sustainable environment to the curriculum prompted the university administration to implement the RA 9003 to its environment. As time progresses, also, the amount of student, person and other stakeholders increases. This swells up to the creation of the 2 residential areas inside the university's campus; Pag-asa, and J Village. All residential areas are located at the backside area of the university and are composed of different kinds of personalities, from students, to faculty and employees, and even private sectors, all inside the premises of the campus. The increase in population leads to the increase in the volume of used wastes that are sometimes hard to extract due to the location of the three residential areas in the campus, creating a horde of solid wastes and other materials that may contaminate and pollute the environment. So, how do students, faculty or employees and private sectors that are residing inside the campus respond to the implementation of the RA 9003? This research study inclines on that question and measures the knowledge, attitude and perception of the people residing inside the two residential areas to give emphasis and measure the intelligence, thoughts and awareness of the said people regarding the Solid Waste Management Act of 2000.

Objectives of the Study

This study anchored on determining the knowledge, attitude and perception of the students, faculty/employees and private sectors toward RA 9003 in a Philippine state university:

More specifically, this study aimed to;

1. Determine the demographic profile of the respondents in terms of:
   a. Age
   b. Highest educational attainment
   c. Marital status
   d. Residence type
   e. Sex
   f. Years residing inside the campus
   g. Household has a relative working in the university

2. Determine the knowledge, attitude and perception of the respondents towards the RA 9003.

3. Determine if there a significant relationship between the attitudes, knowledge and perception of the respondents toward the RA 9003.

Theoretical Framework

The theoretical framework of this study will follow theories in psychology from the book of Pickens, J. (2005) which measures and explains Attitudes and Perceptions on individuals towards social and environmental awareness, and that, attitudes and perception create positive or negative knowledge. Here are some of the most useful concepts that can be utilized in this study:

Alfred Adler (1870–1937), a Viennese physician who developed the theory of Individual Psychology, emphasized

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that a person's attitude toward the environment had a significant influence on his or her behavior. Adler suggested that a person's thoughts, feelings, and behaviors were transactions with one's physical and social surroundings and that the direction of influence flowed both ways our attitudes are influenced by the social world and our social world is influenced by our attitudes. Since the publication of Thurstone's procedure for attitude assessment in 1929 (Thurstone and Chave, 1929), employee surveys have been widely used in organizations to obtain information about workers' attitudes toward their environments. This information is helpful for healthcare managers to determine if management is "doing the right things" for retaining and motivating employees. As an example, Lowe, Schellenberg, and Shannon (2003) found that workers who rated their work environments as "healthy" (task content, pay, work hours, career prospects, interpersonal relationships, security) reported higher job satisfaction, morale, and organizational commitment and lower absenteeism and intent to quit. Employee attitude surveys are usually designed using 5-point Likert-type ("strongly agree–strongly disagree") or frequency ("never–very often") response formats.

METHODOLOGY

Research design

This study employed the descriptive – correlational research design. Descriptive design was used to determine the demographic profile, attitude, knowledge and perception of the respondents regarding the RA 9003 using a self-structured survey questionnaire. Correlation was then used to determine if there is a significant relationship of the respondents' attitude and knowledge to their perception on the RA 9003. This study was conducted on the 1st Semester of the School Year 2018-2019.

Sampling design

The respondents of this study were the people residing inside the premises of Eastern Samar State University, Main Campus, Borongan City, Eastern Samar: Faculty/Employees of the university regardless of their standing; and the Private Sectors. The respondents were assessed in terms of their demographic profile. Their attitude, knowledge and perception to the RA 9003 were also assessed using a self-structured survey questionnaire. To determine the total number of respondents of this study, Sample size formula was used. Total number of respondents was equivalent to the total number of household. All respondents were randomly selected to erase bias and errors.

$$n = \frac{N}{1 + Ne}$$

Research instrument

A self-structured survey questionnaire was used in this study. The questionnaire was composed of four parts; the first part was composed of determining the respondents' demographic profile. The second part was composed of several questions to determine the knowledge of the respondents on the RA 9003 topic. The third part was then composed of several questions to measure their attitude towards RA 9003. The last part focused on the perception of the respondents regarding the RA 9003

using a series of questions. Dry run was done to the survey questionnaire before the final development.

Data collections procedure

The following step-by-step procedures were used to succeed in this study:

Questionnaire validation

The self-structured survey questionnaire was validated by an expert in arranging survey questionnaire for edition. If the questionnaire is in good shape, the study started as soon as possible. If not, it was revised until there are no more lacking mechanisms in the structured questionnaire.

Determination of respondents

Sample size formula was used to determine the total number of respondents or households of this study. All persons residing inside the two residential parts of the campusserved as sample population of this study where respondents were taken.

Surveying

Upon determining the total respondents, surveying started immediately, the respondents were asked to fill up the given questionnaire to the best of their ability. Once done, the survey questionnaires were collected and were statistically treated for results using IBM SPSS version 21. Surveying was done at the two (2) residential areas of Eastern Samar State University – Main Campus, Borongan City, Eastern Samar.

Data Analysis

Survey questionnaires weretallied and statistically treated using IBM SPSS version 21. The demographic profile of the respondents was determined using Mean, Average and Percentage computations. Attitude, Knowledge and Perception were treated using Mode, Frequency and Percentage. Pearson's Product Moment of Correlation was used to determine significant difference between the respondents' attitude, knowledge and perception towards the Solid Waste Management Act of 2000. Other statistical tests which were appropriate in uplifting the result of this study were also used.

RESULTS AND DISCUSSION

After thorough analysis of survey results and tally, the following results were obtained:

Demographic profile of the respondents

A total of 106 respondents were subjected to this study in which 56 were from J village and 50 were from Pag-asa village based on the result of the Sample size analysis.

The demographic profile of the respondents

In terms of their age, it was found out that most of the respondents were in the age range of 19 to 25 years old, implying that the respondents from J and Pag-asa villages are young which can be attributed from the fact that Eastern Samar State University is the only University in Eastern Samar that caters public tertiary education, and that, there are several boarding houses inside the campus.

Table 1. Demographic Profile of Respondents

Age	Frequency (n=106)	Percent (%)
18 below	14	13.2
19 - 25	49	46.2
26 - 35	15	14.2
36 - 45	11	10.4
46 above	15	14.2
System	2	1.9
Highest Educational Attainment		
College Level	51	48.1
College Grad	29	27.4
Missing	13	12.3
High School Grad	7	6.6
High School Level	4	3.8
Elementary Level	2	1.9
Marital Status		
Single	60	56.6
Married	31	29.2
Did not Answer	15	14.2
Residence Type		
Did not Answer	32	30.2
Boarder	26	24.5
Owner	24	22.6
Cottage	20	18.9
Private	4	3.8
Sex		
Female	63	59.4
Male	43	40.6
Years residing inside the Campus		
5 below	60	56.6
6 - 15	19	17.9
16 - 30	17	16.0
Did not Answer	10	9.4
Household has a University Employee		
No	75	70.8
Yes	25	23.6
Did not Answer	6	5.7

Under educational attainment, the highest frequency was college level, indicating that most of the respondents are taking up tertiary education. This result can be attributed to the fact that a university caters public tertiary education and that this university is the only state university in the province. This result is regardless of the respondents' location. Based on the previous table, it can be found that most of the respondents are single, indicating that majority of the respondents aren't tied to a partner yet, and that this can be implied from the students being in the range of 19-25 years old and that, theythink they are still young for marriage or relationship. It was found out based on the result of the survey that the respondents share percentages whether they are boarders in a boarding house, they own a cottage, which makes them lease a lot and that they own a house. While 3.8% of the respondents said they are private sectors, meaning, they own the lot and the house and that they are not part of the university area. In contrast, majority of the respondents did not answer. Also, majority of the respondents are females, and that they share 59.4% of the total 106 respondents coming from J village and Pag-asa village inside the university campus.

In terms of years inside the campus, majority of the respondents reside inside the campus at below 5 years which relates to the respondents being students and boarders or leases a lot to own a house. This result can be attributed for the majority of the respondents being students. Majority of the respondents said that they have no relative that is an employee in their household, with a percentage of 70.8%. This is indicative that most of the people residing in the university compound are students that only reside inside the campus for making the trip to school easier, shorter and safer.

Knowledge, Attitude and Perception (KAP)

The results for the knowledge, attitude and perception of the residents of the university in relation to RA 9003 are herein tabulated and interpreted:

Knowledge on the solid waste management act of 2000

Based on the table above, it was found out that the respondents from J and Pag-asa villages was knowledgeable in terms of the topic on RA 9003 or the Solid Waste Management act. Also, they are knowledgeable to the beneficial effect of the said act and that; one of the benefits of the law is the Eco Swam Project of the Local Government Unit. Moreover, the respondents are also strongly knowledgeable in segregating wastes in their respective homes, and that, this result implies that people residing inside the university campus are well-informed in the presence and occurrence of RA 9003 in the university.

Attitude on the Ecological Solid Waste Management Act of 2000

In terms of the respondents' attitude towards RA 9003, it was revealed, based on the table above that the residents agree on most of the statements that were subjected to them. Likewise, the respondents agree on continuing the said law, in lessening the waste that are generated by the village, and that, they will help their community in maintaining cleanliness and orderliness of the society of the university. This result implies that attitude of the residents in J and Pag-asa villages is positive towards the implementation of RA 9003 or the Solid Waste Management Act.

Perception on the solid waste management act of 2000

Except for the statement, RA 9003 should not be implemented because of its time consuming waste collection policies which is stated in the negative, and that, it generated a strongly disagree result, all of the respondents gave appositive perception to the implementation of RA 9003 in the residential area of the university.

Table 2. Knowledge Statements and Interpretation

Statements	Mode	Interpretation
There are many types of wastes and it include; biodegradable, non-recyclable, recyclable and hazardous wastes.	5	Strongly Knowledgeable
RA 9003 is also known as the Solid Waste Management Act of 2000.	4	Knowledgeable
RA 9003 allows segregation of all sorts of wastes in the household.	4	Knowledgeable
I know how to segregate my wastes in my house.	4	Knowledgeable
EcoSwam is one of the programs of the City to promote and implement RA 9003.	5	Strongly Knowledgeable
RA 9003 is a law used to efficiently and effectively combat the growing number of wastes in the community.	4	Knowledgeable
Criminal and administrative cases can be filed to any person violating RA 9003.	4	Knowledgeable
RA 9003 is being implemented by the university residential community.	4	Knowledgeable
RA 9003 prohibits burning of any sorts of wastes.	4	Knowledgeable
A person can file a case to anyone who will violate RA 9003.	3	Neutral
Grand Mode	4	Knowledgeable

Table 3. Attitude Questions and Interpretation

Questions	Mode	Interpretation
Do you think the RA 9003 will help lessen the problem on solid waste management?	5	Strongly Agree
Do you experience a growing interest to help the local government in addressing knowledge to other people and communities who are still uninformed of the implementation of the solid waste management act?	4	Agree
Do you feel that you can contribute to the overall success of the RA 9003?	4	Agree
Are you positive to the outcome of the RA 9003?	4	Agree
Do you feel the need of the government to continue the RA 9003?	4	Agree
Would you recommend the implementation of solid waste management in other households?	4	Agree
Do you feel negative when you see someone violating the RA 9003?	3	Neutral
Are you going to file a case if ever you see one person violate the solid waste management act?	3	Neutral
Do you think the people will follow the rules and regulations stated in the solid waste management law?	3	Neutral
Do you feel you that you somewhat unconsciously violated RA 9003?	3	Neutral
Grand Mode	4	Agree

Table 4. Perception Statements and Interpretation

Questions	Mode	Interpretation
RA 9003 will preserve the environment.	5	Strongly Agree
RA 9003 will help people learn how to responsibly throw their wastes.	5	Strongly Agree
RA 9003 will contribute to the future of the university residential area.	5	Strongly Agree
RA 9003 is a good law to combat inappropriate waste disposal in the country.	5*	Strongly Agree
RA 9003 will create more programs to help the environment.	4	Agree
I will support the RA 9003.	4	Agree
RA 9003 is effective in implementation here in the residential area of the university.	4	Agree
RA 9003 only adds labor to our everyday chores.	3	Neutral
RA 9003 is overwhelming due to waste segregation and other policies involved in the implementation of the law.	3	Neutral
RA 9003 should not be implemented because of its time consuming waste collection policies.	1	Strongly Disagree
Grand mode	5	Strongly Agree

*Multiple Modes exist. The Largest value is shown.

Table 5. Correlations[a]

		Knowledge	Attitude	Perception
Knowledge	Pearson Correlation	1	-.203	-.289
	Sig. (1-tailed)		.287	.209
Attitude	Pearson Correlation	-.203	1	.218
	Sig. (1-tailed)	.287		.273
Perception	Pearson Correlation	-.289	.218	1
	Sig. (1-tailed)	.209	.273	
a. Listwise N=10				

Most importantly, the respondents strongly agree on the statement that, RA 9003 was a good law to combat inappropriate waste disposal in the country; it will preserve the environment; will help people learn how to responsibly throw their wastes; and, the said law will contribute to the future of the university residential area. This implies that the residents of J village and Pag-asa village are happy that this environment-friendly law is being implemented in their community. Using Pearson Product Correlation under SPSS software version 21, it was found out that there was no significant relationship between the three variables namely; knowledge, attitude and perception as seen from the table above 1. This statistical result implies the knowledge gained by the respondents is not responsible for their positive attitude towards RA 9003 and further its pleased perception towards the said act. This study is evidence that the knowledge, attitude and perception of the respondents are not in congruent to each other, and that their knowledge on RA 9003 is not basis for their positive attitude and perception towards the said law. This study is supported by the statement of Pagatpatan et al. (2017) which entails that the positivity of the respondents in the attitude towards RA 9003 remains positive in their perception, and what's negative in attitude to them, also give them a negative perception or impression to a certain topic, in this case, most respondents have a positive mind-set towards the Solid Waste Management Act and they recognize the said law as an effective method to deprive environmental degradation in the vicinity of Eastern Samar State University.

Conclusion

Based on the results of the study, the following conclusions are herein drawn by the researchers:

1. The people residing inside the university residential area are mostly college students, has an age ranging from 19 to 25 years old, mostly are single and female, they are either are boarders or owners of houses, but they lease the land in which their houses stand.
2. J and Pag-asa village residents are knowledgeable in terms of the topic on RA 9003 or the Solid Waste Management Act.J and Pag-asa residents are positive towards the implementation of RA 9003 or the Solid Waste Management Act. J village and Pag-asa village are happy that this environment-friendly law is being implemented in their community.
3. There is no significant relationship between the knowledge, attitude and perception of the residents that inhabit the town-like area of the university located in Borongan City.

Recommendations

Based on the results obtained and the conclusions specified, the researchers recommend the following:
1. Recommend the continuous implementation of the Solid Waste Management Act, not just inside the premises of the university, but also to neighboring barangays and towns.

2. Conduct seminars and trainings inside the campus in relation to further emphasize the importance of RA 9003 or the Solid Waste Management Act of 2000
3. Conduct an in depth study on Knowledge, Attitude, Perception and Misconceptions of the residents of the university residential area on RA 9003.
4. Conduct a similar study to further oppose or affirm the current results, either use a purposive sampling design.
5. Conduct a similar study on other localities outside the premises of the university.

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