

Testing a Sustainability Model for Philippine Small and Medium Enterprises (SMEs) through Values-driven Agripreneurship: Perspectives from a Major Agrifeeds Producer in Bulacan Province, Philippines

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ABSTRACT

Scholarly discourse on business sustainability suggests that certain individual values held by employees can bolster a firm's efforts to maximize wealth for all its stakeholders while managing the company's social and environmental footprint. This study is an attempt to further galvanize the role of individual values in fostering small business sustainability using employee demographics as a moderator. To perform this task, 152 employees of a rapidly expanding agribusiness firm in San Ildefonso, Bulacan were polled and 4 expert respondents were thereafter invited to cross-validate observed data. Survey results subsequently confirmed *a priori* knowledge on the significant influence of all individual value dimensions on sustainability. But of the four demographic variables used as moderators, only age and educational attainment altered the dynamics between the values-sustainability linkage. Expert respondents invited to reflect on the survey results were by and large unsurprised at the outcome, suggesting that data obtained *a posteriori* corroborated with most of their perspectives on sustainability. Key recommendations included (a) hiring more females primarily for their values which are known to be sustainability drivers, and (b) using an expanded, multiple-bottom line approach to assess business sustainability as the firm expands.

Keywords: Individual values, Small business sustainability

1. BACKGROUND OF THE STUDY

Business owners who are starting to embrace the concept of sustainability are realizing that the process can be made easier if employees are engaged in the transition

as well as in the day-to-day activities designed to bolster the company's sustainability performance. But the shift from a traditional business ethos to one that is firmly embedded in sustainability requires a significant change in both the competencies and mindsets of all those who are expected to champion this institutional shift. Training programs and information campaigns aimed at educating employees about the company's sustainability goals are effective ways of getting employees on board (Rubbens, 2018). But even more important perhaps is the firm's effort to align employee values with the sustainability goals of the company so that their support and commitment can come naturally (Miranda, 2018; Burnes & Jackson, 2011; Bunrueang, 2019). This task may interest small business owners in particular since the administrative and financial costs of building a sustainable business may be prohibitively high (Thompson, 2014) especially for establishments with limited resources. By focusing instead on aligning employee values with the company's sustainability initiatives, small business owners may find this to be a more cost-effective strategy in maximizing wealth for all stakeholders while managing the firm's social as well as environmental impacts.

This study is an attempt to make a small contribution to the literature on sustainability seen from the prism of an entrepreneurial venture engaged in agriculture. The researchers were specifically interested in finding out whether or not individual values can contribute to the company's sustainability performance. Upon the study's completion, the researchers believe that the long march towards sustainability for small businesses in particular would have made one important step.

2. RESEARCH PROBLEMS AND OBJECTIVES

The authors behind this empirical study designated the following as their main research problems:

- Using the Schwartz Theory of Basic Values, what is the contribution of values motivated by *openness to change*, *self-transcendence*, *self-enhancement*, and *conservation* to the *sustainability performance* of the agrifeeds producer?
- Can employee demographics such as gender, age, educational attainment, and civil status change the dynamic between individual values and sustainability performance?

Additionally, the team also addressed these specific problems when the study was completed:

- What is the profile of employees in terms of their gender, age, educational attainment, and civil status?
- To what extent are the values motivated by *openness to change*, *self-transcendence*, *self-enhancement*, and *conservation* demonstrated by the primary respondents?
- What is the prevailing quality of sustainability performance manifested by the agrifeeds producer?
- Is the sustainability performance of the company significantly influenced by values motivated by *openness to change*, *self-transcendence*, *self-enhancement*, and *conservation*?

- Is the hypothesized values-sustainability performance nexus moderated by the employee's gender?
- Is the hypothesized values-sustainability performance nexus moderated by the employee's age?
- Is the hypothesized values-sustainability performance nexus moderated by the employee's educational attainment?
- Is the hypothesized values-sustainability performance nexus moderated by the employee's civil status?
- What practical recommendations can be offered in order to strengthen the practice of values under the Schwartz Theory of Basic Values?
- What specific and doable recommendations can be offered in order to further improve the sustainability performance of the company?

Meanwhile, the following research objectives were used as a way of gauging the research outcomes' completeness and relevance:

- To evaluate the contribution of each dimension in the Theory of Basic Values by Schwartz (2012) on the firm's sustainability performance;
- To obtain the profile of employees in terms of their gender, age, and educational attainment;
- To assess the extent at which values motivated by openness to change, self-transcendence, self-enhancement, and conservation are demonstrated by the employees;
- To gauge the prevailing quality of sustainability performance manifested by the firm;
- To ascertain whether the company's sustainability is significantly influenced by values which are motivated by openness to change, self-transcendence, self-enhancement, and conservation;
- To measure the moderating effect of such employee demographics as gender, age, educational attainment, and civil status on the hypothesized values-sustainability performance nexus;
- To offer practical recommendations designed to strengthen the practice of values under the Schwartz Theory of Basic Values;
- To recommend specific and doable ways of further improving the sustainability performance of the company.

3. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Extant literature on individual values and organizational sustainability revealed many frameworks upon which this study can be anchored. But of the many models which can be used as theoretical underpinning for this investigation, 2 frameworks easily stood out among the crowd primarily for their completeness, relevance, and practicality. The first one is the model for testing the sustainability of Philippine SMEs developed by Marquez (2012). Table 1 shows the multi-dimensional manner in which sustainability was framed by the author as it applies exclusively to small businesses in the Philippines. This indigenized model adjuncts other popular methods of assessing business sustainability such as the Triple Bottom Line approach by Elkington (1997) and the multiple-bottom-lined EGSEE model proposed by Brockett and Rezaee (2012) just to

name a few. The model by Marquez (2012) shows the dimensions and measures that objectively assess the level of sustainability achieved by Philippine SMEs. Poll after poll reveal that SMEs are dominant income- and employment-generators for most global economies (Revell, et al., as cited by Jansson, Nillson, Modig, and Vall, 2017) so the team was elated to find a framework that exclusively measures the sustainability level achieved by a significant contributor in the development of the Philippine economy.

Table 1: *Key Success Factors adapted from Building a Sustainable Business Framework for Philippine SMEs (Marquez, 2012)*

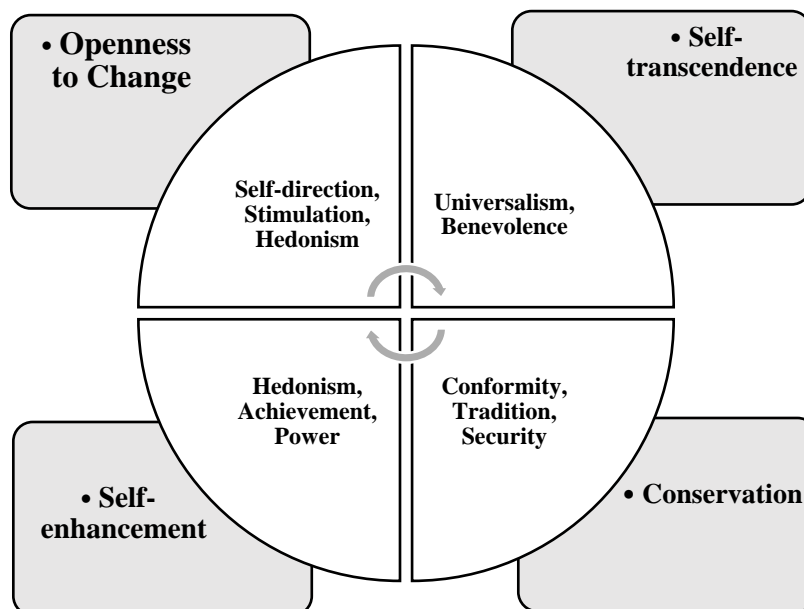
Key Success Factors (KSFs)	
External success factors	Stakeholder engagement Innovation Long-term focus Flexibility to change Organized systems Management support
Internal success factors	Organizational wellness Workforce wellness Social wellness

This framework promotes the three-fold dimension of business sustainability measured in terms of internal and external success factors commonly used as benchmarks in start-ups and established businesses alike. The model focuses on the overall welfare of the business in terms of its organization, workforce, and environmental aspect. Many studies that were conducted in the past revealed that these key success factors (KSF) played an important role in helping SMEs achieve success. Although these KSFs may bring about positive results, it does not guarantee the survival of the business (Ghosh et al., 2001 as cited by Marquez, 2012). It is also important to note that managerial capabilities and resources should also be considered in order to ensure the survival of the business (Garengo and Bernardi, 2007 and Sohal, et al., 2000, as cited by Marquez, 2012).

The second model which the team believes is very appropriate for this study has been mentioned extensively across many studies on human values. In fact, Bilsky et. al., (2015) calls it “the most important psychological theory of human values today.” The extremely popular values framework of Schwartz (2012) depicted in Figure 1 displays the 10 basic personal values which are recognized across many cultures, societies and ways of life. The circular shape of the model encapsulates the diversity and at the same time the universality of the ten values. According to Schwartz (2012), the ten basic values are “culturally universal” and that the structure also explains the dynamism inherent in the dimensions of openness to change, self - transcendence, self - enhancement, and conservation. This dynamism is manifested in the fact that some values are congruent with other values while others are in conflict. For example, seeking achievement and power is opposed to values related to benevolence and universalism since achievement and power focuses more on personal satisfaction while benevolence and universalism takes caring and concern on a holistic level. Furthermore, seeking personal success and power tends to hinder an individual from promoting the common good. This action is aimed at strengthening one’s social position and authority over other individuals.

Additionally, the value of stimulation opposes the value of conservation. Stimulation requires challenges and changes in life while conservation is concerned about tradition, conformity, and security.

Figure 1: *Theoretical model of relations among ten motivational types of value (adapted from Schwartz, 2012)*



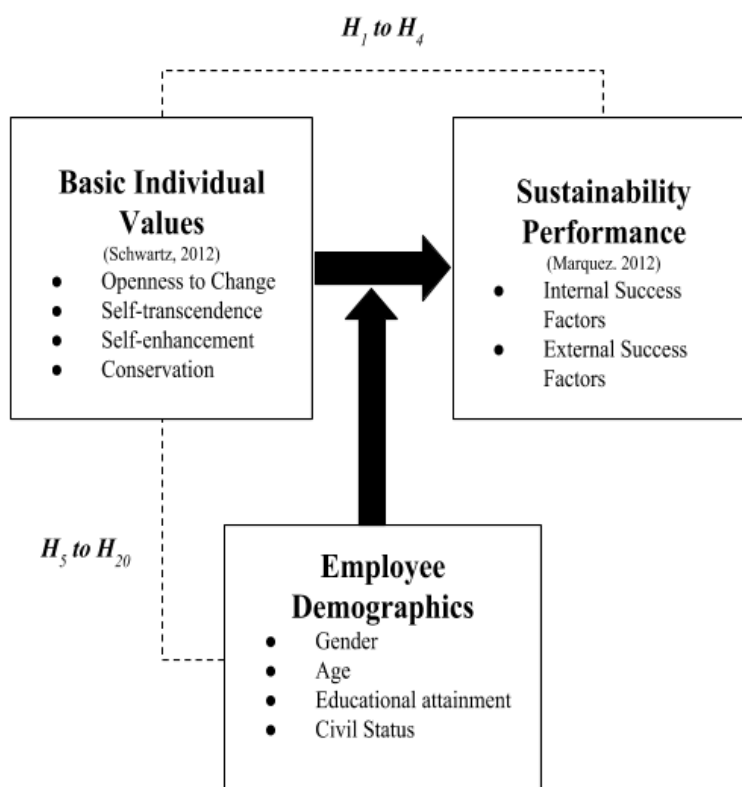
The figure above shows the potential opposition between “openness to change” and “conservation” values. Schwartz (2012) theorized a potential conflict between values that emphasize independence of thought, action, and feelings and readiness for change (self-direction, stimulation) with values that emphasize order, self-restriction, preservation of the past, and resistance to change (security, conformity, tradition). The second opposition he proposed contrasts “self-enhancement” and “self-transcendence” values. This dimension captures the conflict between values that emphasize concern for the welfare and interests of others (universalism, benevolence) and values that emphasize pursuit of one's own interests and relative success and dominance over others (power, achievement). Hedonism, on the other hand, shares elements of both openness to change and self enhancement.

The last theoretical underpinning for this study served as a basis for inferring that certain distinguishing and quantifiable characteristics of an individual can affect the values they have. For instance, the decision to assign employee demographics as a moderating variable that could either strengthen or diminish the efficacy of certain values in promoting sustainability was largely based on the empirical studies completed by Li, Liu, and Wan (2008), Busse, Sun, and Zhu (2015), as well as by González-Rodríguez, Díaz-Fernández, and Simonetti Biagio (2014) all of whom suggested that certain quantifiable characteristics of individuals like gender, educational attainment, and age can influence the manner in which values are demonstrated. Similarly, changes in values can occur in response to changing roles, distinct developmental priorities, and environmental requirements associated with life stages, such as marriage, widowhood,

and child rearing (Bardi & Goodwin, 2011; Schwartz, 2005; Gouveia, Vione, Milfont, & Fischer, 2015).

The operational framework shows a detailed representation of the variables being investigated. Aside from showing the hypothesized interaction between the variables which the researchers would like to test, the operational model also indicates the dimensions under which the constructs will be evaluated. For instance, the extent at which certain individual values are exhibited was gauged using the multi-dimensional model designed by Schwartz (2012). Sustainability performance, on the other hand, was assessed using the 2-dimensional model designed by Marquez (2012) for Philippine SMEs. Finally, moderation was tested using specific and quantifiable characteristics like the gender, age, and educational attainment of employees at Pro-Pork Feeds. Figure 2 depicts the operational model upon which this study is anchored.

Figure 2: Operational framework to measure the moderating effect of employee demographics on the hypothesized link between basic individual values and sustainability performance



4. HYPOTHESES OF THE STUDY

The authors proposed a total of 20 pairs of hypothesis statements. Each takes into account different values that may influence sustainability performance. The following hypothesis statements were statistically tested in order to know which ones were supported by observed data. Formulation of the first 4 pairs of hypothesis statements were based from the study of basic human values by Schwartz (2012) which served as a

primary basis as to how values would influence sustainability. In addition, studies by Fischer et al. (2012), Cheung, Herndon, & Florea (2012), Akhtar, Bin Arshad, Mahmood, & Ahmed (2015), as well by Nováček (2013) provided evidence that certain values can affect the sustainability performance of an organization.

Ho₁: Individual values that promote openness to change do not significantly influence the sustainability performance of the firm.

Ha₁: Individual values that promote openness to change significantly influence the sustainability performance of the firm.

Ho₂: Individual values that promote self-transcendence do not significantly influence the sustainability performance of the firm.

Ha₂: Individual values that promote self-transcendence significantly influence the sustainability performance of the firm.

Ho₃: Individual values that promote self-enhancement do not significantly influence the sustainability performance of the firm.

Ha₃: Individual values that promote self-enhancement significantly influence the sustainability performance of the firm.

Ho₄: Individual values that promote conservation do not significantly influence the sustainability performance of the firm.

Ha₄: Individual values that promote conservation significantly influence the sustainability performance of the firm.

Meanwhile, multiple authors such as Li, Liu, and Wan (2008), Busse, Sun, and Zhu (2015), as well as by González-Rodríguez, Díaz-Fernández, and Simonetti Biagio (2014) suggested that demographic variables like age, gender, and/or educational attainment can affect one's manifestation of specific values. Moreover, changes in values can also occur in response to changing roles, distinct developmental priorities, and environmental requirements associated with life stages, such as marriage, widowhood, and child rearing (Bardi & Goodwin, 2011; Schwartz, 2005; Gouveia, Vione, Milfont, & Fischer, 2015). so the following were also postulated:

Ho₅: Age does not moderate the effect of values that promote openness to change on the sustainability performance of the firm.

Ha₅: Age can either amplify or diminish the effect of values that promote openness to change on the sustainability performance of the firm.

Ho₆: Age does not moderate the effect of values that promote self-transcendence on the sustainability performance of the firm.

Ha₆: Age can either amplify or diminish the effect of values that promote self-transcendence on the sustainability performance of the firm.

Ho₇: Age does not moderate the effect of values that promote self-enhancement on the sustainability performance of the firm.

Ha₇: Age can either amplify or diminish the effect of values that promote self-enhancement on the sustainability performance of the firm.

Ho₈: Age does not moderate the effect of values that promote conservation on the sustainability performance of the firm.

Ha₈: Age can either amplify or diminish the effect of values that promote conservation on the sustainability performance of the firm.

Ho₉: Gender does not moderate the effect of values that promote openness to change on the sustainability performance of the firm.

Ha₉: Gender can either amplify or diminish the effect of values that promote openness to change on the sustainability performance of the firm.

Ho₁₀: Gender does not moderate the effect of values that promote self-transcendence on the sustainability performance of the firm.

Ha₁₀: Gender can either amplify or diminish the effect of values that promote self-transcendence on the sustainability performance of the firm.

Ho₁₁: Gender does not moderate the effect of values that promote self-enhancement on the sustainability performance of the firm.

Ha₁₁: Gender can either amplify or diminish the effect of values that promote self-enhancement on the sustainability performance of the firm.

Ho₁₂: Gender does not moderate the effect of values that promote conservation on the sustainability performance of the firm.

Ha₁₂: Gender can either amplify or diminish the effect of values that promote conservation on the sustainability performance of the firm.

Ho₁₃: Educational attainment does not moderate the effect of values that promote openness to change on the sustainability performance of the firm.

Ha₁₃: Educational attainment can either amplify or diminish the effect of values that promote openness to change on the sustainability performance of the firm.

Ho₁₄: Educational attainment does not moderate the effect of values that promote self-transcendence on the sustainability performance of the firm.

Ha₁₄: Educational attainment can either amplify or diminish the effect of values that promote self-transcendence on the sustainability performance of the firm.

Ho₁₅: Educational attainment does not moderate the effect of values that promote self-enhancement on the sustainability performance of the firm.

Ha₁₅: Educational attainment can either amplify or diminish the effect of values that promote self-enhancement on the sustainability performance of the firm.

Ho₁₆: Educational attainment does not moderate the effect of values that promote conservation on the sustainability performance of the firm.

Ha₁₆: Educational attainment can either amplify or diminish the effect of values that promote conservation on the sustainability performance of the firm.

Ho₁₇: Civil Status does not moderate the effect of values that promote openness to change on the sustainability performance of the firm.

Ha₁₇: Civil Status can either amplify or diminish the effect of values that promote openness to change on the sustainability performance of the firm.

Ho₁₈: Civil Status does not moderate the effect of values that promote self-transcendence on the sustainability performance of the firm.

Ha₁₈: Civil Status can either amplify or diminish the effect of values that promote self-transcendence on the sustainability performance of the firm.

Ho₁₉: Civil Status does not moderate the effect of values that promote self-enhancement on the sustainability performance of the firm.

Ha₁₉: Civil Status can either amplify or diminish the effect of values that promote self-enhancement on the sustainability performance of the firm.

Ho₂₀: Civil Status does not moderate the effect of values that promote conservation on the sustainability performance of the firm.

Ha₂₀: Civil Status can either amplify or diminish the effect of values that promote conservation on the sustainability performance of the firm.

5. METHODOLOGY

5.1 Research Design

This study followed a descriptive-causal, mixed methods research design. A descriptive-causal research was conducted in order to illustrate and determine patterns or characteristics of variables in particular instances or events, as well as to ascertain the occurrence of, or change, in individual values leading to changes in sustainability performance. A mixed-method research was also conducted and the protocol for this design required the collection, analysis, and integration of both quantitative and qualitative data.

5.2 Research locale and profile of respondents

A medium-sized, Filipino-owned company headquartered in the municipality of San Ildefonso, Bulacan Province, Philippines was used for this study. The company is a rapidly expanding enterprise engaged in the production of agrifeeds for standard livestock. The firm currently employs a staff of 154 whose jobs are clerical, administrative, operational, sales, and logistical in nature.

5.3 Sampling design

Since the company only has 154 employees, the researchers conducted a census instead of computing for a sample size. This was expected to enhance data accuracy since all elements of the population were included in the study.

5.4 Methods of data collection

The researchers chose the survey method as its primary means of obtaining quantitative data. The survey was distributed by the researchers themselves during the

prescribed period of data collection from late December 2018 to mid-January 2019. Section 1 of the primary research instrument is an adaptation of the one developed by Schwartz (2012) while Section 2 was adapted from the sustainability model designed by Marquez (2012). But in addition to obtaining data from a survey, the company owner and 3 sustainability experts were also interviewed so that a better appreciation of the values-sustainability nexus can be gained.

Respondents were initially asked to provide the following demographic information about themselves before proceeding to the subsequent sections: gender, age, educational attainment, and civil status. Possible answers were given as ordered categories for the convenience of the survey participants.

Section 1 of the adapted instrument measures the extent at which specific individual values are demonstrated and it was originally developed for use by Schwartz (2012) in his extensive studies on human values. This section contains 30 items clustered around the 4 dimensions of openness to change, self-transcendence, self-enhancement, and conservation. A 5-point Likert scale was provided so that survey participants can express their level of agreement or disagreement to all of the items listed in this section. An improvised scoring index was subsequently used to interpret the extent to which the values are demonstrated by the respondents.

Section 2 of the adapted instrument is an assessment of Pro-Pork Feeds' sustainability performance seen from the prism of an indigenized model for measuring organizational sustainability developed by Marquez (2012). The construct is multi-dimensional and the 33 items are clustered around the 2 main dimensions describing external and internal success factors each with its own unique set of specific measures. Similar to the previous section, survey participants were given a 5-point Likert-type response scale which gauges one's level of agreement or disagreement to the items listed. Similar to Section 1 of the adapted instrument, an improvised scoring index was also used to interpret the quality of the firm's sustainability performance.

Finally, the adapted instrument was pre-tested for reliability using 30 employees who were similar in profile to the actual respondents. After the pilot test results were encoded, data was subjected to the Cronbach's alpha calculator developed by Dr. Del Siegle from the University of Connecticut. It was subsequently revealed that the reliability coefficients of the variables individual values and sustainability performance are 0.80 and 0.91 respectively. Additionally, the overall reliability coefficient of the entire research instrument using Cronbach's alpha is 0.92. As for the instrument that was used by the survey respondents, the researchers translated it to the vernacular *Filipino* in order for the employees to have a better understanding of each item in the questionnaire.

In order for the team to gain a deeper understanding of the variables being investigated, the company owner and 3 other expert respondents were interviewed so that the survey results can be reflected upon and validated. The first interviewee was the agrifeeds company owner. He is a veterinarian by profession and he has shown remarkable interest in transforming his rapidly-expanding agripreneurial venture into one of the first truly sustainable companies in Central Luzon Island, Philippines. To achieve this medium-term goal, the owner is keenly interested to know the proportion of

employees whom he can count upon to assist in energizing the company's march towards sustainable farm operations.

A senior business systems analyst and sustainability expert based in the United Kingdom was the second expert respondent invited by the team. She developed the model for measuring the sustainability performance of Philippine SMEs which the team adapted for this study. She designed the model in partial fulfillment of the requirements needed to obtain her Master's Degree in Business at the Macquarie University in Australia. She pursued (and later obtained) her graduate degree under the auspices of the Australian government as a recipient of the prestigious Australia Awards Scholarship grant. While she graciously accepted the team's invitation to be an expert respondent, she prefers to send written narratives in lieu of being interviewed since she is now based in the United Kingdom.

Two other sustainability experts were enjoined to comment on the survey results so that they can be cross-validated. One is a university lecturer and a seasoned sustainability practitioner who was formerly employed as a sustainability officer in a global firm. He is now connected with a consulting firm which advances sustainable practices globally. Additionally, a known environmentalist who is also the Executive Director of the Philippine Center for Environmental Protection and Sustainable Development, Inc. (PCEPSDI), was also invited as an expert respondent so that he can share his wisdom on the sustainability construct.

6. KEY FINDINGS

6.1 Results of Descriptive Statistics

It became apparent that most employees who participated in the survey are *single*, around *21-28 years of age*, *male*, and either a *high-school graduate* or *undergraduate*. The most notable statistic reveals that an overwhelming number of those who were polled are males. While this initially surprised the team, they later discovered that this appears to be the norm in the Philippines since approximately 75% or more of employed individuals in the agricultural sector are male according to the latest Agribusiness Industry Career Guide (2012) published by the Bureau of Local Employment - Department of Labor and Employment. On the other hand, the high number of young employees in the 21-28 and 29-36 age brackets may bring some hope to the country's agribusiness sector since it has largely been characterized by agricultural experts as "aging" and "unglamorous" for Filipino millennials (Olchondra, 2015). For the company owner, these statistics reflect the hiring practices of the company ever since it started. Young & single males tend to be more agile and focused according to the owner. Furthermore, since the company also relies on a simple referral system in recruiting applicants, hired employees often refer their peers who are naturally in the same age bracket. And since much of the firm's core operations require physical labor, it also makes perfect sense for the owner to predominantly hire young males.

The concomitant ease at which the respondents were able to relate their own values with those listed in the questionnaire meant that the value dimensions proposed by Schwartz (2012) were demonstrated either by a large or substantial extent as shown in

Table 2. This outcome appears to be consistent with Magno (2010) as he cited Schwartz and Bardi (2001) as well as Kim, Atkinson, and Yan (1999) in postulating that self-transcendence, conservation, and self-enhancement appear to be most important for Asians in general and Filipinos in particular.

Table 2: Summary of area means and interpretation of results for items on human values

Factor (Value dimension)	Area Mean	Verbal Interpretation
Openness to Change	4.24	Values motivated by openness to change are demonstrated to a large extent .
Self-transcendence	4.32	Values motivated by self-transcendence, are demonstrated to a large extent .
Self-enhancement	2.19	Values motivated by, self-enhancement are demonstrated to a substantial extent
Conservation	1.79	Values motivated by conservation are demonstrated to a large extent

It may seem odd initially that the respondents demonstrate values motivated by openness to change and conservation to a large extent when the 2 dimensions are known to be diametrically opposite (Schwartz, 2012). However, Roccas, Sagiv, and Navon (2017) argues that it is possible for people to give equal importance to both values especially when “people’s internal representations of these values might not include any fine distinctions” (p. 21).

Meanwhile, an indisputable level of agreement to all items measuring the sustainability performance of the company was reported by those who were polled. The positive perception of respondents regarding the sustainability performance manifested by the firm is perhaps a validation of the gains which the owner has made over the years. Small business owners typically lament about the high administrative and financial costs of building a sustainable enterprise (Thompson, 2014) but trailblazing firms like the one used for this study are determined to show that sustainability goals can be attained given the right set of tools. When employees’ perceptions regarding the firm’s sustainability performance is aggregated, its propensity to grow while striving to do good within the community where it operates is revealed. Table 3 shows that the firm’s sustainability performance across all nine (9) dimensions was perceived as either very good or excellent. These buoyant results augur well for the Philippines’ agribusiness sector since it has been identified as one of three sectors where prospects for achieving sustainability are promising (Manongdo, 2017). On a larger scale, the United Nations Development Programme in the Philippines is pleased to note that an increasing number of businesses in the country are aligning their core business processes and activities with the sustainable development goals of the U.N. (UNDP, 2017) While sustainability may still be a developing advocacy for most Filipino entrepreneurs, it appears that pioneering firms like

Pro-Pork Feeds are joining other purpose-driven businesses in pushing their sustainable business ethos as the new way forward.

Table 3: Summary of area means, grand mean, and interpretation of results for items on sustainability performance

Factor (Sustainability performance dimension)	Area Mean	Verbal Interpretation
Stakeholder engagement	4.14	Quality of sustainability performance in the area of stakeholder engagement is very good
Innovation	4.16	Quality of sustainability performance in the area of innovation is very good
Long-term focus	4.29	Quality of sustainability performance in the area of long-term focus is excellent
Flexibility to change	4.16	Quality of sustainability performance in the area of flexibility to change is very good
Organized systems	4.09	Quality of sustainability performance in the area of organized systems is very good
Management support	4.07	Quality of sustainability performance in the area of management support is very good
Organizational wellness	4.20	Quality of sustainability performance in the area of organizational wellness is very good
Workforce wellness	4.00	Quality of sustainability performance in the area of workforce wellness is very good
Social wellness	4.09	Quality of sustainability performance in the area of social wellness is very good
Grand mean	4.13	Overall quality of sustainability performance across the 9 dimensions is very good

6.2 Results of Inferential Statistics

After performing a *simple linear regression analysis* using each of the four value dimensions proposed by Schwartz (2012) as individual predictors of sustainability performance, it was revealed that all significantly predicted the outcome variable. These results seem to corroborate the contention of several researchers and authors whose seminal works contained a list of specific values related to sustainable development in

general and business sustainability in particular (See for instance Frederick, 1995, 1999, 2006; Elkington, 1999, 2001; Leiserowitz, Kates, and Parris, 2006; Shepherd, Kuskova, and Patzelt, 2009; and Stead and Stead, 1992, 1996, 2009). In each of their published works, values motivated by openness to change and self-transcendence are necessary for one to make sustainability-focused decisions while values which are motivated by self-enhancement and conservation appears to be incompatible with sustainability. Table 4 seen below summarizes the results of the predictive analysis conducted by the team:

Table 4: Summary of simple linear regression results

Independent variable	<i>b</i>	<i>p</i>	MultR	AdjR ²	Equation*
Openness to change (<i>x</i> ₁)	0.620	< 0.001	0.511	0.256	$y = 1.491 + 0.620(x_1)$
Self-transcendence (<i>x</i> ₂)	0.584	< 0.001	0.592	0.346	$y = 1.598 + 0.584(x_2)$
Self-enhancement (<i>x</i> ₃)	-0.339	< 0.001	0.411	0.163	$y = 4.866 - 0.339(x_3)$
Conservation (<i>x</i> ₄)	-0.694	< 0.001	0.660	0.432	$y = 5.366 - 0.694(x_4)$

*based on $y = a + bx_n$ where *y*=predicted quality of sustainability performance, *a*=constant, *b*=beta coefficient of the independent variable, and *x_n*=values motivated by openness to change, self-transcendence, self-enhancement, and conservation

Of the four value dimensions proposed by Schwartz (2012), it appears that values motivated by conservation has the most profound effect to the quality of sustainability performance demonstrated by the firm (*b* = -0.694). It also has the highest explanatory power (*AdjR*² = 0.432) towards sustainability if compared with the other four value predictors but it does so with a caveat: an emphasis on conservation values can potentially reduce sustainability performance quality. It is therefore interesting for the team to note that values motivated by conservation and self-enhancement both have an inverse relationship with sustainability performance, suggesting that employees who emphasize these values more than the others can potentially reduce the firm's sustainability performance quality. Specifically, employees whose values primarily drive them to pursue their own self-interest and to dominate others (self-enhancement) tend to slow down efforts by the firm to achieve sustainability goals. Similarly, employees whose personal values emphasize rigidity, self-restriction, and a marked resistance to change (conservation) can also weaken the quality of the firm's sustainability performance. Parallel results were generated by Kaldschmidt (2011) when she studied the contribution made by selected corporate leaders' values on the sustainability strategies of companies they manage. In her study, Dr. Kaldschmidt concluded that subjects whose values were motivated by self-transcendence and openness to change were more likely to promote "transformative, innovative, and credible corporate sustainability strategy" (p.187) than those whose values emphasized self-enhancement and conservation.

Practical Implications: Current literature indicates that an individual's core values are important drivers of organizational sustainability (Kaldschmidt, 2011; Salim, 2016; Mayo, 2016). For a firm that is gradually transitioning to sustainability like Pro-Pork Feeds, alignment of values between organizational members and sustainability are crucial

in harmonizing activities, streamlining communication, and minimizing ambiguity as their actions are coordinated towards the attainment of sustainability goals. In this regard, the firm owner needs to be mindful of achieving value congruence (Edwards & Cable, 2009; Posner, 2010) between those espoused by his employees and those which are known to drive sustainability as they move towards a more pro-social, pro-environment, and innovative future for the company. This attempt to align values usually begins at recruitment when applicants who emphasize values motivated by openness to change and self-transcendence may be considered for employment over those who do not. Meanwhile, previously-hired employees who emphasize values motivated by openness to change and self-transcendence (and conversely, those who de-emphasize self-enhancement and conservation values) may be asked to contribute towards the planning for, and even in the monitoring of sustainability-focused programs. It is insufficient for the owner to impose a sustainability strategy which appears right for the firm but obtained no strategic consensus (Floyd & Wooldridge, 1992b) from internal stakeholders. Sustainability cannot be achieved in the short term so the owner has to ensure that the authentic values of stakeholders, particularly employees, need to be reflected in how the company strategizes to move forward so that their unwavering support can be guaranteed over the long-haul.

Since most employees who were polled emphasized values that drive sustainability, it can be inferred that the implementation of the firm's sustainability strategies can be facilitated with relative ease since those who are expected to champion them have the wherewithal to do so. The company owner will perhaps find many willing partners and even volunteers among his employees who can help bring the company closer to realizing its sustainability goals.

When all the four value dimensions are used as predictors of sustainability performance quality in a *multiple linear regression analysis*, a significant regression equation was obtained ($p < 0.001$). Nearly half of changes ($AdjR_2 = 0.475$) in the sustainability performance quality can be attributed to the extent at which the four values are manifested by the employees. The final regression equation to predict the quality of the company's sustainability performance based on the combined effect of the four value dimensions is:

$$y = 3.243 + 0.224(x_1) + 0.178(x_2) - 0.030(x_3) - 0.433(x_4),$$

where y is the predicted quality of sustainability performance, 3.243 is the constant, and +0.224, +0.178, -0.030, and -0.433 are the beta coefficients of values motivated by openness to change (x_1), self-transcendence (x_2), self-enhancement (x_3), and conservation (x_4) respectively. It should be noted that all four explanatory variables used emerged as significant predictors of sustainability performance: openness to change ($p < 0.05$), self-transcendence ($p < 0.05$), self-enhancement ($p < 0.05$) and conservation ($p < 0.001$).

These outcomes are not without precedent; earlier works by Munda (1997) and Hemingway (2005) dovetail more recent findings by Shafer, Fukukawa, and Lee (2007), Baumgartner (2009), Tuziak (2010), and Cirnu and Kuralt (2013) all of whom suggested that an individual's values influence their organizational behavior towards sustainability.

This hardly surprised the team since much of how we think and act in specific situations are driven by those values which we hold dearly in life. Moreover, values typically contextualize an individual's perspectives on identity - for instance, which projects to support, which advocacies to champion, and which stakeholders to adopt as beneficiaries of one's noble actions. So if employees' behaviors at work are motivated by those values which we now know as sustainability drivers, they can thus be relied upon to contribute significantly towards the attainment of sustainability-focused goals.

Practical Implications: Taking cue from the values generated by the multiple linear regression model, the owner can exploit them in order to boost his company's sustainability performance. One value to exploit is self-enhancement. The owner can offer incentives that will encourage employees to suggest ways of reducing utilities consumption or raw materials wastage. Teams can even be created and a competition between them can be held so that the group who can design as well as successfully pilot test a sustainability-focused program will win the competition.

A summary of the moderated regression analysis performed can be seen in Table 5. The team used known demographic variables such as age, gender, educational attainment, and civil status as moderators to the postulated association between the different value dimensions and sustainability performance. The theoretical basis for using demographic variables as moderators is well-embedded in studies completed by Li, Liu, and Wan (2008), Busse, Sun, and Zhu (2015), González-Rodríguez, Díaz-Fernández, and Simonetti Biagio (2014), Bardi & Goodwin (2011), Schwartz (2005), as well as by Gouveia, Vione, Milfont, & Fischer (2015).

Table 5: Summary of moderated regression results

Moderator	Values moderated	<i>b</i>	<i>p</i>	AdjR ²
Age (<i>m</i> ₁)	Openness to change (<i>x</i> ₁)	0.023	> 0.05	0.246
	Self-transcendence (<i>x</i> ₂)	0.133	< 0.05*	0.359
	Self-enhancement (<i>x</i> ₃)	0.024	> 0.05	0.159
	Conservation (<i>x</i> ₄)	-0.026	< 0.05*	0.448
Gender (<i>m</i> ₂)	Openness to change (<i>x</i> ₁)	0.087	> 0.05	0.246
	Self-transcendence (<i>x</i> ₂)	0.209	> 0.05	0.344
	Self-enhancement (<i>x</i> ₃)	0.084	> 0.05	0.153
	Conservation (<i>x</i> ₄)	0.086	> 0.05	0.429
Educational attainment (<i>m</i> ₃)	Openness to change (<i>x</i> ₁)	0.279	< 0.01**	0.293
	Self-transcendence (<i>x</i> ₂)	0.155	< 0.05*	0.361
	Self-enhancement (<i>x</i> ₃)	0.124	> 0.05	0.205
	Conservation (<i>x</i> ₄)	0.117	> 0.05	0.437
Civil status (<i>m</i> ₄)	Openness to change (<i>x</i> ₁)	-0.192	> 0.05	0.260
	Self-transcendence (<i>x</i> ₂)	-0.022	> 0.05	0.352
	Self-enhancement (<i>x</i> ₃)	0.153	> 0.05	0.161
	Conservation (<i>x</i> ₄)	-0.040	> 0.05	0.428

* Statistically significant at the 0.05 level

** Statistically significant at the 0.01 level

As can be gleaned from the preceding summary, moderation was only supported when (a) age was used to amplify or diminish the influence of values motivated by self-transcendence ($p < 0.05$) and conservation ($p < 0.05$) on sustainability performance, and when (b) educational attainment was used to moderate the effect of values motivated by openness to change ($p < 0.01$) and self-transcendence ($p < 0.05$) on sustainability performance. Moderation in all remaining instances when age, gender, educational attainment, and civil status were used did not generate statistically significant results either at the 0.01 or 0.05 levels.

The significant interaction effect between age and values motivated by self-transcendence suggests that as concern and welfare for others intensify with age, so does the sustainability performance of the company. Additionally, as older employees become more self-restricted, rigid, and resistant to change (conservation), sustainability performance of the company consequently diminishes. Such shift in priorities was reflected in the study conducted by Borg, Hertel, and Hermann (2017) when they discovered that older individuals tend to move closer to conservation and self-transcendence than their younger counterparts. Their older subjects imbibed values motivated by conservation later in life since it gave them a sense of security and peace of mind that were deemed more important than the excitement and variety they prioritized earlier in life through their values motivated by openness to change. Similar results were also obtained by Milfont, Milojevic, and Sibley (2016) when their longitudinal study revealed that older individuals gave increased emphasis on values relating to the welfare of others (self-transcendence) and preservation of traditional practices as well as stability (conservation). The regression equation to predict the quality of the company's sustainability performance based on the interaction effect between values motivated by self-transcendence and age is:

$$y = -0.175 + 0.972(x_2) + 0.614(m_1) + 0.133(x_2m_1)$$

where y is the predicted quality of sustainability performance, -0.175 is the constant, and 0.972 , 0.641 , and 0.133 are the beta coefficients of values motivated by self-transcendence (x_2), the moderator age (m_1), and the interaction effect between values motivated by self-transcendence and age (x_2m_1). Meanwhile, the regression equation to predict the quality of the firm's sustainability performance quality based on the interaction effect between values motivated by conservation and age is:

$$y = 4.345 - 0.144(x_4) + 0.386(m_1) - 0.206(x_4m_1)$$

where y is the predicted quality of sustainability performance, 4.345 is the constant, and -0.144 , 0.386 , and -0.206 are the beta coefficients of values motivated by conservation (x_4), the moderator age (m_1), and the interaction effect between values motivated by conservation and age (x_4m_1).

Moderation was also supported when variances in the firm's sustainability performance quality were significantly explained by the interaction effect between educational attainment and the value dimensions of openness to change ($p < 0.01$) and self-transcendence ($p < 0.05$). This outcome suggests that as higher levels of education amplify an employee's openness to change and propensity to think as well as act

independently, so does the sustainability performance of the firm. Moreover, as increased education motivate employees to think of others before themselves (self-transcendence), sustainability performance of the company also improves. Educational attainment, meanwhile, did not emerge as a significant moderator to the associations between values motivated by conservation and sustainability as well as between self-enhancing values and sustainability. This outcome corroborates evidence revealed by Schwartz (2005) as well as by Gonzalez-Rodriguez, Diaz-Fernandez, & Biagio (2014) when their studies showed that higher levels of education allows one to become more receptive to change and innovation (openness to change) while questioning norms and tradition (conservation). More years of formal schooling also increases one's networks and thus opens one's awareness of others, both of which are hallmarks of self-transcendent values particularly benevolence and universalism. The regression equation to predict the firm's sustainability performance quality based on the interaction effect between educational attainment and values motivated by openness to change is expressed as:

$$y = -0.329 + 1.03(x_1) + 1.241(m_3) + 0.279(x_1m_3)$$

where y is the predicted quality of sustainability performance, -0.329 is the constant, and 1.03, 1.241, and 0.279 are the beta coefficients of values motivated by openness to change (x_1), the moderator educational attainment (m_3), and the interaction effect between values motivated by openness to change and educational attainment (x_1m_3). Additionally, the regression equation to predict the firm's sustainability performance quality based on the interaction effect between educational attainment and values motivated by self-transcendence is expressed as:

$$y = 0.490 + 0.824(x_2) + 0.717(m_3) + 0.155(x_2m_3)$$

where y is the predicted quality of sustainability performance, 0.490 is the constant, and 0.824, 0.717, and 0.155 are the beta coefficients of values motivated by self-transcendence (x_2), the moderator educational attainment (m_3), and the interaction effect between values motivated by self-transcendence and educational attainment (x_2m_3).

Practical implications: For the company owner, the moderation analysis generated results which may have stark implications for its human resource management practices. Results suggesting that more years of schooling can heighten one's emphasis on values motivated by self-transcendence and openness to change no longer surprised the team since this was both embedded in literature and also consistent with conventional wisdom. The outcome for age as a moderator was, however, more interesting for the researchers. It was revealed that both younger and older employees had the tendency to emphasize values which could enhance or erode sustainability performance so it now appears unclear which type of employee is best to recruit and maintain. While sustainability performance quality could be undermined by younger employees' observed partiality towards self-enhancing values like status and power (Milfont, Milojev, and Sibley, 2016), they could also prop company efforts to become more sustainable through their values motivated by openness to change (Borg, Hertel, and Hermann, 2017). Additionally, the expected emphasis placed by older employees on conservation values like stability and conformity (Gouveia, Vione, Milfont, and Fischer, 2015) might

diminish the quality of the firm's sustainability performance. However, their known selflessness and established preference for self-transcendent values like universalism and benevolence are also known drivers of business sustainability (Kaldschmidt, 2011). Given the data collected and analyzed from this study, it appears that the business owner needs to reflect on the following: (a) choose to recruit and maintain either younger or older workers since both groups appear to embrace values which could foster or deter efforts to attain sustainability, and (b) recruit applicants who have attained higher levels of education since they are now known to emphasize those values which drive sustainability.

6.3 Hypothesis Testing

As a result of the statistical analysis conducted by the team, hypothesis statements were tested and the final results are shown in Table 6 below.

Table 6: Summary of hypothesis testing and decisions reached

Hypothesis	<i>p</i>	Decision
<i>H₀₁</i> : Individual values that promote <i>openness to change</i> do not significantly influence the <i>sustainability performance</i> of Pro-Pork Feeds.	< 0.001	Reject <i>H₀₁</i>
<i>H₀₂</i> : Individual values that promote <i>self-transcendence</i> do not significantly influence the <i>sustainability performance</i> of Pro-Pork Feeds.	< 0.001	Reject <i>H₀₂</i>
<i>H₀₃</i> : Individual values that promote <i>self-enhancement</i> do not significantly influence the <i>sustainability performance</i> of Pro-Pork Feeds.	< 0.001	Reject <i>H₀₃</i>
<i>H₀₄</i> : Individual values that promote <i>conservation</i> do not significantly influence the <i>sustainability performance</i> of Pro-Pork Feeds.	< 0.001	Reject <i>H₀₄</i>
<i>H₀₅</i> : Age does not moderate the effect of values that promote <i>openness to change</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>H₀₅</i> cannot be rejected
<i>H₀₆</i> : Age does not moderate the effect of values that promote <i>self-transcendence</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	< 0.05	Reject <i>H₀₆</i>
<i>H₀₇</i> : Age does not moderate the effect of values that promote <i>self-enhancement</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>H₀₇</i> cannot be rejected

<i>H₀₈</i> : Age does not moderate the effect of values that promote <i>conservation</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	< 0.05	Reject <i>H₀₈</i>
<i>H₀₉</i> : Gender does not moderate the effect of values that promote <i>openness to change</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>H₀₉</i> cannot be rejected
<i>H₁₀</i> : Gender does not moderate the effect of values that promote <i>self-transcendence</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>H₁₀</i> cannot be rejected
<i>H₁₁</i> : Gender does not moderate the effect of values that promote <i>self-enhancement</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>H₁₁</i> cannot be rejected
<i>H₁₂</i> : Gender does not moderate the effect of values that promote <i>conservation</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>H₁₂</i> cannot be rejected
<i>H₁₃</i> : Educational attainment does not moderate the effect of values that promote <i>openness to change</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	< 0.01	Reject <i>H₁₃</i>
<i>H₁₄</i> : Educational attainment does not moderate the effect of values that promote <i>self-transcendence</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	< 0.05	Reject <i>H₁₄</i>
<i>H₁₅</i> : Educational attainment does not moderate the effect of values that promote <i>self-enhancement</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>H₁₅</i> cannot be rejected
<i>H₁₆</i> : Educational attainment does not moderate the effect of values that promote <i>conservation</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>H₁₆</i> cannot be rejected
<i>H₁₇</i> : Civil Status does not moderate the effect of values that promote <i>openness to change</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>H₁₇</i> cannot be rejected
<i>H₁₈</i> : Civil Status does not moderate the effect of values that promote <i>self-transcendence</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>H₁₈</i> cannot be rejected

<i>Ho₁₉</i> : <i>Civil Status</i> does not moderate the effect of values that promote <i>self-enhancement</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>Ho₁₉</i> cannot be rejected
<i>Ho₂₀</i> : <i>Civil Status</i> does not moderate the effect of values that promote <i>conservation</i> on the <i>sustainability performance</i> of Pro-Pork Feeds.	> 0.05	<i>Ho₂₀</i> cannot be rejected

Results of the hypothesis testing conducted appear to confirm extant literature in several fronts. The rejection of Ho1 to Ho4 corroborate the findings published by Fischer et al. (2012), Cheung, Herndon, & Florea (2012), Akhtar, Bin Arshad, Mahmood, & Ahmed (2015), as well as Nováček (2013) since they all provided evidence that certain values can affect the sustainability performance of an organization. More specifically, the decision to reject the first four null hypotheses statements of this study are consistent with the findings of Kaldschmidt (2011) since her study concluded that subjects whose values were motivated by self-transcendence and openness to change were more likely to promote “transformative, innovative, and credible corporate sustainability strategy” than those whose values emphasized self-enhancement and conservation. Additionally, support for the first 4 alternative hypothesis statements of this study are reinforced by findings revealed by Frederick (1995, 1999, 2006), Elkington (1999, 2001), Leiserowitz, Kates, & Parris (2006), Shepherd, Kuskova, & Patzelt (2009), as well as Stead and Stead (1992, 1996, 2009) since they all argued that values motivated by openness to change and self-transcendence are necessary for one to make sustainability-focused decisions while values which are motivated by self-enhancement and conservation appears to be incompatible with sustainability.

Testing for hypotheses statements on moderation produced mixed results, however. By positing that age moderates the association between certain values and sustainability, studies conducted by Milfont, Milojev, & Sibley (2016), Borg, Hertel, & Herman (2017), and Schwartz (2007) were corroborated by evidence collected from Pro-Pork Feeds. Similarly, findings disclosed by Schwartz (2005) as well as by Gonzalez-Rodriguez, Diaz-Fernandez, and Biagio (2014) support the decision made by the team to reject Ho13 and Ho14 since it became apparent that higher levels of schooling can alter the emphasis one places on values promoting openness to change and self-transcendence. For all other findings generated by this study, the moderating effect of demographic variables such as gender and civil status which is embedded in extant literature remains *unsupported*.

7. CONCLUSIONS

The study concludes by addressing each of the research questions posed earlier in the investigation.

Using the Schwartz Theory of Basic Values, what is the contribution of values motivated by openness to change, self-transcendence, self-enhancement, and conservation to the sustainability performance of the company?

In a simple regression analysis, approximately 25.6%, 34.6%, 16.3%, and 43.2% of variances in the sustainability performance of the company is explained by values motivated by openness to change, self-transcendence, self-enhancement, and conservation respectively. The most profound effect on sustainability performance came from employees whose values are motivated by conservation ($b = -0.694$), followed by openness to change ($b = 0.620$), self-enhancement ($b = 0.584$), and lastly by self-enhancing values ($b = -0.339$). It should be noted, however, that values motivated by conservation and self-enhancement can potentially have a negative contribution to sustainability since results indicate that employees who are driven by rigidity, self-restriction, and resistance to change are more likely to impede efforts in achieving sustainability. Similarly, employees whose preponderant values drive them to dominate others and pursue only their own interests are likewise predicted to hamper company efforts in attaining sustainability.

Synthesized literature culled from the published works of Kaldschmidt (2011), Frederick (1995, 1999, 2006), Elkington (1999, 2001), Leiserowitz, Kates, & Parris (2006), Shepherd, Kuskova, and Patzelt (2009), as well as by Stead & Stead (1992, 1996, 2009) were parallel to the views expressed by all interviewees. This convergence indicate that values motivated by openness to change and self-transcendence are necessary for one to make sustainability-focused decisions while values which are motivated by self-enhancement and conservation appear to be largely incompatible with sustainability.

Can employee demographics such as gender, age, educational attainment, and civil status change the dynamic between individual values and sustainability performance?

After testing for moderation, it was revealed that only age and educational attainment had the propensity to alter the dynamic between individual values and sustainability. Specifically, moderation was supported when (a) age was used to amplify or diminish the influence of values motivated by self-transcendence ($p < 0.05$) and conservation ($p < 0.05$) on sustainability performance, and when (b) educational attainment was used to moderate the effect of values motivated by openness to change ($p < 0.01$) and self-transcendence ($p < 0.05$) on sustainability performance. Moderation in all remaining instances when age, gender, educational attainment, and civil status were used did not generate statistically significant results either at the 0.01 or 0.05 levels.

The experts invited to comment on the survey results were generally in agreement with the results except for gender in which views expressed were mixed. The U.K.-based expert was unsurprised with the survey results since her industry experience indicates that there is no significant difference in the way males and females manifest their values towards sustainability. The business owner as well as the 2 sustainability practitioners meanwhile believe that gender differences are also manifested in the way individual values affect workplace disposition by employees of both genders and this can ultimately alter their propensity to either promote or impede sustainability efforts. In particular, the experts respondents believed that females tend to demonstrate those values which can foster sustainability.

What is the profile of employees at Pro-Pork Feeds in terms of their gender, age, educational attainment, and civil status?

Slightly more than half (51%) of employees who participated in the survey were in the 21-28 year old age bracket and single (59%). Furthermore, an overwhelming 93% of them were males whose highest educational attainment was evenly split between high-school undergraduates (40%) and high-school graduates (40%).

To what extent are the values motivated by openness to change, self-transcendence, self-enhancement, and conservation demonstrated by employees polled for this study?

Using an improvised scoring index, (a) values motivated by openness to change are demonstrated to a large extent ($\bar{x} = 4.24$), (b) self-transcendent values are demonstrated to a large extent ($\bar{x} = 4.32$), (c) self-enhancing values are demonstrated to a substantial extent ($\bar{x} = 2.19$), and (d) values which emphasize conservation are demonstrated to a large extent ($\bar{x} = 1.79$).

Survey results and views expressed by all expert respondents appear to confirm *a priori* knowledge on the different value dimensions. Magno (2010) cites Schwartz & Bardi (2001) as well as Kim, Atkinson, & Yan (1999) in postulating that self-transcendence, conservation, and self-enhancement appear to be most important for Asians in general and quite possibly even Filipinos in particular.

What is the prevailing quality of sustainability performance manifested by the firm?

By using an improvised scoring index, the company's quality of sustainable performance is perceived as very good. This signifies that the company has a high propensity to continuously innovate while demonstrating corporate flexibility in the face of surmounting economic, environmental and social challenges (Marquez, 2012). The firm is able to achieve this by continuously engaging with all its stakeholders in its pursuit of excellence (*stakeholder engagement*), by welcoming new and better ways of accomplishing work-related tasks (*innovation*), by guiding their actions today with their aspirations for tomorrow (*long-term focus*), by sharpening the firm's adaptive capacity towards new market forces, uncertainty, and change (*flexibility to change*), by designing a workable system that effectively evaluates the quality of employees in particular and the firm in general (*organized systems*), by encouraging employees to speak-up and implementing those suggestions which can work (*management support*), by building an organizational structure that assigns the right people in place and one which has a built-in succession mechanism (*organizational wellness*), by ensuring that employees feel welcomed and appreciated (*workforce wellness*), and by building relationships with external organizations with whom the firm may collaborate with in the future (*social wellness*).

SMEs in the Philippines are acknowledged to be slowly transitioning to sustainability and this was apparent in both *a priori* and *a posteriori* knowledge obtained from the study. Views shared by 2 of the expert respondents lent further credence to recent reports that agribusiness in the Philippines has been identified as one of three sectors where prospects for achieving sustainability are promising (Manongdo, 2017). On

a larger scale, the United Nations Development Programme in the Philippines is also pleased to note that an increasing number of businesses in the country are aligning their core business processes and activities with the sustainable development goals of the U.N. (UNDP, 2017)

Is the sustainability performance of the company significantly influenced by values motivated by openness to change, self-transcendence, self-enhancement, and conservation?

After performing a simple linear regression analysis using each of the four value dimensions proposed by Schwartz (2012) as individual predictors of sustainability performance, it was revealed that all significantly predicted the outcome variable. But of the four value dimensions used in this study, it appears that values motivated by conservation contribute the most to the quality of sustainability performance demonstrated by Pro-Pork Feeds ($b = -0.694$). It also has the highest explanatory power if compared to the other four value predictors ($AdjR^2 = 0.432$). It should also be noted that values motivated by conservation and self-enhancement both have an inverse relationship with sustainability performance (See Table 4). This outcome suggests that employees whose values primarily drive them to pursue their own self-interest and to dominate others (self-enhancement) tend to slow down efforts by the firm to achieve sustainability goals. Similarly, employees whose personal values emphasize rigidity, self-restriction, and a marked resistance to change (conservation) can also weaken the quality of the firm's sustainability performance.

Using all four value dimensions as simultaneous predictors of sustainability performance in a multiple regression analysis, a significant regression equation was obtained ($p < 0.001$). All of the four explanatory variables used significantly predicted the outcome variable, corroborating the results of related studies completed in the past (Munda, 1997; Hemingway, 2005; Shafer, Fukukawa, and Lee (2007); Baumgartner, 2009; Tuziak, 2010; Cirnu and Kuralt, 2013).

As was previously cited, these results confirm not only extant literature proving the values-sustainability nexus (Kaldschmidt, 2011; Frederick, 1995, 1999, 2006; Elkington, 1999, 2001; Leiserowitz, Kates, & Parris, 2006; Shepherd, Kuskova, and Patzelt, 2009; Stead and Stead, 1992, 1996, 2009) but they are also by and large consistent with the views shared by the expert respondents who were invited to reflect on the quantitative data obtained. In unison, all 4 experts believe that values emphasized by the employees can serve as effect drivers of sustainability since such values will determine how their individual contributions to the transition will evolve.

Is the hypothesized values-sustainability performance nexus moderated by the employee's gender?

In this instance, survey data revealed that gender neither amplified nor diminished the association between values and sustainability performance quality ($p > 0.05$). Only the U.K.-based expert supported this outcome since her experiences in designing the sustainability model used for this study did not show any stark differences in the way men and women view sustainability. All other experts believe that females are more than

likely to emphasize those values that are essential for attaining sustainability. Extant literature was only partially confirmed, therefore, since *a priori* knowledge indicated that males tend to give more importance to self-enhancing values like power and stimulation (Schwartz and Rubel, 2005) as well as independent thought and behavior (Milfont, Milojevic, & Sibley, 2016) while females gravitate more towards self-transcendent values like benevolence and universalism (Gouveia, Vione, Milfont, & Fischer, 2015).

Is the hypothesized values-sustainability performance nexus moderated by the employee's age?

Yes, because significant interaction was observed between age and values motivated by self-transcendence ($p < 0.05$, $b = 0.133$) as well as values motivated by conservation ($p < 0.05$, $b = -0.206$). There were noticeable similarities between outcomes generated from all data points regarding the role played by age in shaping one's values towards sustainability. Moreover, views expressed by the respondents confirmed empirically-grounded claims in current literature that individuals who belong to different age groups and generations may give varying degrees of importance to each value dimension (Milfont, Milojevic, and Sibley, 2016; Borg, Hertel, and Herman, 2017). In addition, Schwartz (2007) said that life stages which is seen as a cohort of age may cause differences in values as a person matures. The demands, changes, and sets of challenges that occur in different stages of one's life may thus influence the value priorities.

Is the hypothesized values-sustainability performance nexus moderated by the employee's educational attainment?

Yes, because significant interaction was likewise observed between educational attainment and values motivated by openness to change ($p < 0.01$, $b = 0.279$) and self-transcendence ($p < 0.05$, $b = 0.155$). Views expressed by all experts confirm the role played by higher educational attainment in enhancing those values which lead to sustainability. *A priori* knowledge culled from Schwartz (2005), as well as from Gonzalez-Rodriguez, Diaz-Fernandez, and Biagio (2014) is thus fully asserted in this instance.

Is the hypothesized values-sustainability performance nexus moderated by the employee's civil status?

This appears to be unconfirmed since there is a stark divide between observed data obtained from this study and those culled from current literature. Survey data revealed no significant interaction between civil status and any of the 4 value dimensions ($p > .05$). While literature argues that changes in values can occur in response to changing roles, distinct developmental priorities, and environmental requirements associated with life stages, such as marriage, widowhood, and child rearing (Bardi & Goodwin, 2011; Schwartz, 2005; Gouveia, Vione, Milfont, & Fischer, 2015), survey respondents and most experts whose opinions were obtained declared otherwise. Only 1 sustainability practitioner believes that life circumstances and stages like marriage typically alters one's value orientation.

8. KEY RECOMMENDATIONS

After thoroughly reflecting on both quantitative and qualitative data collected, the authors would like to offer the following specific recommendations

Recruit and hire more women both for production and supervisorial/managerial positions. Although gender was not found to be a significant moderator in this study, the group suspects that this may have happened primarily because females were grossly underrepresented among the respondents. Both embedded theory (Gouveia, Vione, Milfont, and Fischer, 2015) and experts invited to comment on the study's results closely align the values of openness to change and self-transcendence to women. These value dimensions have been identified in literature and thereafter confirmed by this study as significant predictors of sustainability performance. The firm's owner is thus recommended to heed the call of scholars and experts who believe that women appear to emphasize those value dimensions which are not only drivers of sustainability but are also complementary to their male colleagues whose values are likewise driven by their openness to change (Schwartz, 2015). In the near future when females are proportionately represented in the firm's workforce, another values assessment could be done so that the propensity of women's values to strengthen sustainability gains can either be confirmed or disputed.

Appoint current employees who are within the 30-40 age to spearhead or supervise sustainability programs. Studies completed by Borg, Hertel, and Hermann (2017), Gouveia, Vione, Milfont, and Fischer (2015), as well as by Milfont, Milojev, and Sibley (2016) hints that the self-transcendent values of individuals within this age bracket are evident while their conservation values are not yet pronounced. These findings were validated in the study when age was seen as a significant moderator to the self-transcendent values-sustainability performance nexus. Since the moderated regression analysis revealed that age amplified the effect of self-transcendent values on sustainability while simultaneously weakening sustainability through an increase in conservation values, it makes sense to consider the 30-40 year old age bracket as an ideal period where the combination of values appear to be optimal.

Implement other popular frameworks which measure multiple bottom lines as metrics for assessing Pro-Pork Feeds' sustainability gains. The sustainability model used in the study leaned towards the economic and social aspect of sustainability. Therefore, the team proposes that an enhanced framework that includes environment as a factor in determining the firm's sustainability be used in the future so that a more holistic assessment is done in light of the firm's projected business expansion in Central Luzon.

Create more supervisory and managerial positions. As the company expands and requires more supervisory personnel, the team recommends that the owner can recruit more applicants with higher educational attainment primarily for higher positions. Perhaps, it is advisable to recruit prospective applicants with higher educational attainment (i.e. at least college undergraduate level) for managerial positions. In addition, with the expert respondents saying that having more years of schooling or a higher educational attainment can push for a more sustainable mindset and broadens one's horizon and perspectives in life, these future managers and supervisors will be able to impart knowledge and practices regarding sustainability to their colleagues.

Use the Portrait Values Questionnaire (PVQ) developed by Schwartz, Melech, Lehman, Burgess, and Harris (2001) as an assessment tool both for prospective applicants and current employees. This instrument is still acknowledged today as the definitive tool for identifying value priorities of individuals and it appears in countless empirical studies conducted across various disciplines around the world (Simon, Perez-Testor, Alomar, Danioni, Iriarte, Cormenzana, Martinez, 2017). This popular instrument can be used by the company owner to identify those employees whose values are skewed more towards self-transcendence and openness to change since both have been identified in this study as predictors of sustainability performance quality. By being closely aligned with these values, applicants may be given closer consideration for employment in addition of course to being screened based on other criteria established by the firm. For current employees whose values are identified by the instrument as aligned with self-transcendence and openness to change, they may be asked to participate, lead, or even develop programs that can catalyze the firm's transition to sustainability.

Continuously monitor business practices and measure their contribution to the attainment of sustainability-oriented goals. The firm owner was elated upon seeing the survey results particularly on the reported very good quality of the company's sustainability performance. It appears that the small business sustainability metrics developed by Marquez (2012) indicates that the firm's innovative and reimagined ways of operating have magnified efforts in creating value for all its stakeholders. But true sustainability can only be achieved if sustainable business practices are robust, far-sighted, and flexible enough to achieve desired results in a dynamic environment (Upton, 2014). It is thus imperative for the owner to (a) continuously monitor business practices in order to know if they are still on-track to achieve sustainability goals, (b) take corrective action whenever current practices deviate from plans designed to achieve sustainability goals (c) ensure that all stakeholders are willing partners in championing the firm's sustainability advocacies and are prepared to calibrate their actions in support of the cause.

Develop a fair system of incentivizing employees who can propose ways of further enhancing company sustainability. For employees who are partial to values motivated by self-enhancement, a monetary incentive can perhaps be given in exchange for their practical suggestions on how to improve operations directly under their jurisdiction. For instance, workers who can recommend ways of reducing waste and utilities consumption, reusing salvageable supplies in order to minimize waste, and recycling materials into objects of value can be incentivized.

Indigenize future studies related to this topic by developing a framework for Filipino values and afterwards, test its efficacy as predictors of sustainability or of other cohort variables. It would be interesting to further extend the usefulness of this study for Filipinos by using local values such as *utang na loob* (debt of gratitude), *hiya* (shame), *pakikisama* (camaraderie), *amor propio* (self-esteem), and others as building blocks of a larger model which can thereafter be tested for its potency to affect intended business outcomes. But apart from seminal studies that show preliminary frameworks on Filipino values (Hennig, 1983; Hunt, 1963; Bulatao, 1964; Lynch, 1973; Hollnsteiner, 1973), no recent attempt has been done to build a comprehensive model that captures the unique set of values held closely by Filipinos. A typology of Filipino values developed

today by other researchers can dovetail other similar studies conducted elsewhere around the world.

Test an expanded model containing other variables which can mediate and/or moderate the association between values and sustainability. The team behind this study was able to test the model developed by Marquez (2012) with considerable accuracy and precision. Furthermore, this study also validated the association between values and sustainability as well as the moderating influence of some demographic variables on the postulated values-sustainability nexus. Future researchers are enjoined by the team to extend this investigation by adding other moderators such as those related to income, religion, employment, and even socio-economic status (Simon, et. al., 2017). Also, mediating variables such as human resource management practices (Florea, Yu, and Herndon, 2013), sustainability beliefs and perceptions (Tata and Prasad, 2015), as well as individual behaviors (Pappas and Pappas, 2015) can be tested for their potential to explain the association between values and sustainability in a mediation model.

9. APPENDICES

Appendix A: *Descriptive statistics of responses to items measuring human values*

PART 1: Human Values	MEAN	VERBAL INTERPRETATION	SD
1. Having a good time is important to me (OC)	4.22	Strongly agree	0.74
2. I take advantage of every opportunity to have fun. (OC)	4.05	Agree	0.87
3. Enjoying life's pleasures is important to me. (OC)	4.22	Strongly agree	0.75
4. I am always looking for different kinds of things to do. (OC)	4.15	Agree	0.76
5. Excitement in life is important to me. (OC)	4.15	Agree	0.78
6. I think that it is important to have all sorts of new experiences. (OC)	4.32	Strongly agree	0.61
7. Being creative is important to me. (OC)	4.36	Strongly agree	0.74
8. It is important for me to make my own decisions about my life. (OC)	4.37	Strongly agree	0.67
9. Learning things for myself and improving my abilities are important. (OC)	4.35	Strongly agree	0.80

10. I think that every person in the world should be treated justly and must have equal opportunities in life. (ST)	4.28	Strongly agree	0.81
11. Protecting nature from destruction and pollution is important to me. (ST)	4.40	Strongly agree	0.72
12. Even when I disagree with others, it is important that I understand them. (ST)	4.20	Strongly agree	0.74
13. I go out of my way to be a trustworthy and dependable friend. (ST)	4.30	Strongly agree	0.74
14. I try to be always responsive to the needs of my family and those who are close to me. (ST)	4.35	Strongly agree	0.76
15. Loyalty to those who are dear to me is important. (ST)	4.38	Strongly agree	0.80
16. It is important to be ambitious in life. (SE)	1.58	Strongly agree	0.74
17. Being successful is important to me. (SE)	1.67	Strongly agree	0.76
18. I want people to admire my achievements. (SE)	2.16	Agree	1.00
19. Having the feeling of power that money can bring is important to me. (SE)	2.74	Neither agree nor disagree	1.30
20. I want people to do what I say. (SE)	2.48	Agree	1.21
21. It is important for me to be the most influential person in any group. (SE)	2.49	Agree	1.19
22. I avoid anything that might endanger the safety of myself and my loved ones. (CON)	1.80	Agree	1.01
23. Having order and stability in society is important to me. (CON)	1.71	Strongly agree	0.78
24. I want the government to be strong so it can defend its citizens. (CON)	1.82	Agree	1.04
25. I should always do what people in authority say. (CON)	1.82	Agree	0.89

26. It is important for me to follow rules and laws even when no one is watching. (CON)	1.76	Strongly agree	0.82
27. I always try to be tactful and to avoid irritating people. (CON)	1.74	Strongly agree	0.80
28. It is important for me to maintain traditional values or beliefs. (CON)	1.91	Agree	0.81
29. Following my family's customs or the customs of my religion is important to me. (CON)	1.70	Strongly agree	0.68
30. I value the traditional practices of my country. (CON)	1.85	Agree	0.80

OC: openness to change; ST: self-transcendence; SE: self-enhancement; CON: conservation

Appendix B: *Descriptive statistics of responses to items measuring sustainability performance*

PART 2: Sustainability Performance	MEAN	VERBAL INTERPRETATION	SD
1. I feel involved in planning the company's mission and vision. (SE)	4.14	Agree	0.78
2. I am given opportunity to voice my inputs on major company decisions that affect me. (SE)	3.86	Agree	0.99
3. My company welcomes suggestions and appreciates ideas from all employees. (SE)	4.20	Strongly agree	0.71
4. My company gives us sufficient information on the direction and status of the business every year. (SE)	4.16	Agree	0.85
5. Our suppliers and business partners advocate the same values and practices that we do. (SE)	4.17	Agree	0.74
6. I feel that my work makes a difference in my company. (SE)	4.30	Strongly agree	0.65
7. My company welcomes new ideas and ways of doing existing processes. (IN)	4.11	Agree	0.80
8. My company invests in system and process updates. (IN)	4.27	Strongly agree	0.77

9. The owner encourages me to think out of the box. (IN)	4.16	Agree	0.86
10. When an idea I came up with is tested successfully, I am given enough support to implement this. (IN)	4.11	Agree	0.79
11. I understand how our team objectives support our company's mission and vision. (LF)	4.24	Strongly agree	0.80
12. I feel sufficient time is spent planning the yearly objectives that can help us meet our company's mission and vision. (LF)	4.34	Strongly agree	0.69
13. My company gives me opportunities to learn new skills from other work divisions. (FC)	4.11	Agree	0.85
14. I feel well equipped with the tools and systems necessary for me to meet my work's current challenges. (FC)	4.21	Strongly agree	0.70
15. I am encouraged to learn other relevant skills above the skills necessary for my current role. (FC)	4.15	Agree	0.84
16. My company has a channel for communicating important messages throughout the whole organization. (OS)	4.16	Agree	0.87
17. Management gives regular feedback on our performance. (OS)	4.00	Agree	0.88
18. I regularly give feedback to my peers and manager about my concerns in the company. (OS)	3.87	Agree	1.00
19. My company has a good system for delegating work within each team. (OS)	4.20	Strongly agree	0.79
20. I am familiar with my job description and what my responsibilities are in my role. (OS)	4.32	Strongly agree	0.73
21. My manager reviews my career development plan with me. (OS)	4.00	Agree	0.89

22. I can easily access data or information necessary for me to succeed in my role. (OS)	4.11	Agree	0.84
23. I am comfortable sharing my concerns and views with the owner. (MS)	4.01	Agree	0.93
24. There is someone in the company who I can go to for advice and who I look up to as my mentor. (MS)	4.14	Agree	0.90
25. I feel safe and comfortable in my physical environment. (OW)	4.18	Agree	0.86
26. I am doing the work that was communicated to me when I was hired. (OW)	4.30	Strongly agree	0.76
27. I feel comfortable with the values, beliefs, and behaviors of everyone who works for this company. (OW)	4.13	Agree	0.85
28. My company has regular health programs being offered to employees. (WW)	3.96	Agree	0.93
29. My company invests in training and development programs that help me. (WW)	3.97	Agree	0.88
30. My manager supports me when I want to attend training. (WW)	3.85	Agree	0.90
31. I feel motivated to come to work every day. (WW)	4.22	Strongly agree	0.79
32. My company provides network opportunities to build relationships with external organizations. (SW)	4.03	Agree	0.87
33. My company engages in projects that help develop the external communities outside of our organization. (SW)	4.14	Agree	0.96

SE: stakeholder engagement; IN: innovation; LF: long-term focus; FC: flexibility to change; OS: organized systems; MS: management support; OW: organizational wellness; WW: workforce wellness; SW: social wellness

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