Beyond AACSB: Anticipating Best Practices for Students' Engagement in the College of Business and Economics in Alqassim University

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Abstract

College of Business and Economics (CBE) in Alqassim University (QU) has been internationally accredited on November 19, 2015 by Association to Advance Collegiate Schools of Business (AACSB). Beyond international accreditation (IA), CBE is required to maintain its performance and uphold IA through sustainable engagement (SE) as an important indicator of achieving its mission and adopting AACSB standards. This research, thus, aims at scouting viewpoints of teaching committee in CBE about best practices expected to continue academic and professional engagement and to retain IA. To achieve research objectives, 121 copies of the questionnaire allocated by e-mail to all members of teaching staff at CBE of which 56% responded and returned 68 e-copies of the questionnaire. Results show priorities of listed engagement activities.

Key Terms: Ecological Systems, AACSB Standards, and Universities Engagement.

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Introduction

This research traced SE briefly to its earlier grand premises "ecological systems" and its later version "ecosystems". Recently, AACSB assessed business schools through its missions and participation in developing its communities. AACSB (2013) standards for IA are stemmed from ecosystems theories and tolerated within three broad and related preambles: Ecosystems impact. engagement, innovation, and multidimensional and multi-disciplinary area of studies. A researcher should choose a well specified topic of ecosystems in order to reach sound and beneficial conclusions. This research represents a case study concerned with CBE's engagement activities internally and externally.

AACSB is keen for all of accredited members to prepare their students for meaningful lives through creating suitable balances between academic and professional engagement within the context of school's mission. Recently, CBE succeeded to achieve its mission through effective engagement in adopting and implementing AACSB standards and awarded its IA.

CBE recognizes that IA is the first step in its engagement procession and is eager to maintain it. This research is expected to help CBE to continue improving, innovating, and prioritizing engagement practices that have positive impact on community development. Teaching staff of CBE as experienced party in

learning practices and market requirements are surveyed to express approval and merit levels for checklist of engagement activities.

CBE problem doesn't lie in achieving IA of AACSB, but in advancing learning and professional engagement activities in order to cope with accreditation standards and demonstrate effective and quality alignment with CBE mission. IA is renewed every five years during which CBE should submit annual progress report and pass five-years strategic review. Accordingly, research problem can be expressed in the following question: "how can CBE improve students' engagement and keep progressive track to retain its IA"?

This main question could be answered through achieving the

This main question could be answered through achieving the following objectives:

- 1) To anticipate the best practices for students' engagement.
- 2) To prioritize these activities starting with the most important activity.
- 3) To enlarge and enrich the activities already engaged in.

Recent study has special importance for CBE because it represents the first study post CBE accreditation. It is also expected to help CBE to maintain and renew its IA; enrich and enlarge engagement activities already adopted; and encourage future studies targeting additional engagement activities.

Literature Review

Ecological Systems

The term ecology was initiated in 1866 by Earnst Haeckel, a famous German biologist who derived it from the Greek words (Oikos logos) which means the science of comprehensive study of organisms in their natural home (McIntosh, 1985). Cambridge Dictionary admits Haeckel's initiation where "eco" prefix means "environment" and "logy" suffix means "studying". Oxford Advanced Learner's Dictionary* defines environment as "The surroundings or conditions in which a person, animal, or plant lives or operates"*. Tansley who was an English botanist and a pioneer in the science of ecology termed physical surroundings as "abiotic" and organisms as "biotic" (Cooper, 1957). The above definition of ecology got common agreed upon among ecologists (Lincoln, Boxshall, and Clark, 1982); Hale and Margham, 1991).

Human interaction with abiotic and other biotic environmental components brings out so many fields of study such as "dietary ecology" (Torres et al. (2015). Tansley, (1920), (1923), and (1935) pointed to human positive effect on environment such as providing fresh habitats, plant communities, and opportunities for further studies; while he considered human negative effect as a probable "punctuation". Post-world war II, Charles Elton and

^{*} Available at: http://www.oxforddictionaries.com

Tansley cooperated in formulating "Britain's nature conservation and research plans" (Chew, 2014).

Barker and Wright (1949) classified the domain of ecological studies into four areas: physiological ecology which refers to species responses to environmental conditions; population ecology which studies species amount and distribution in relation to environmental factors; community ecology which studies overall interactions found between a number of species live in a specific habitat; and ecosystems ecology which concerns with biotic communities interaction with one another and with their abiotic environment (Tansley, 1935; Alimov, 2003; Rieppel, 2011; Kowarik and Pys'ek, 2012; Bocking, 2013; and Lande, 2014). Sarkar (2005) added to the previous four categories another two, namely: "evolutionary" which concerns with organisms adaptation efforts to geographical and temporal environmental variation (Lande, 2014; Námeth, Bonier, and MacDougall-Shackleton, 2013); and "behavioral" which relates to variation of individuals' behavior across contexts (Wilson et al., 2014); Námeth et al. (2013). Nyhan, Ferrando, and Clare (2001/2002) reported that "population ecology theory" explains organizational survival in light of meeting or exceeding community expectations.

Ecosystems

Ecosystems, in general, have been engrained and grown up heavily in ecology science (Andrew, Wulder, and Nelson, 2014). Efforts of Sir Arthur George Tansley, a famous British botanist and ecologist, in 1920, 1923 and 1935 laid conceptual construction of ecosystems and urged biologists for more studies to improve and develop environment-population relationship (Godwin, 1977; Cameron, 1999; Dag, 2007; and Kænig, 2012).

Ecosystems based-management (EBM) is emerged initially to conduct the organisms-nature mutual effects (Yáñez-Arancibia, Day, and Reyes, 2013; Harfoot et al., 2014). Delfin (2012) implied that the relationship between an environmental factors and organisms' activities are necessarily classified ecosystems types. Ecosystems hazards, as an example, refer to natural disasters such as floods, droughts, wildfires and storm-waves which may destroy plants land- cover (Nel et al., 2014).

often, point to human-environment Ecosystems, more points studying ecology to whereas interrelationship. environmental interrelationship with plants and animals (Reiter et al., 2013; Malanson, 2014). Song, Dannenberg, and Hwang (2013) attributed "terrestrial ecosystem productivity" to "ecosystem functions" including carbon storage, provision of food and fiber, and sustaining biodiversity.

Ecosystems services, as an example, refer to benefits that nature or government provides to humans who are seeking to manage ecosystems well (Vella et al., 2014). Voelker (2012) alluded that ecosystems could be developed and diverged from prior point as well as from each other through entrepreneurial activities, nations' culture, and life outcomes. According to Giebels & de Jonge (2014), ecosystem-based management denotes the process of decision making based on complex societal systems and knowledge. Kelble et al. (2013) developed a multi-sector model for ecosystems which combines conceptual frame of six elements (Driver, Pressure, State, Impact, and Response) with management system in order to achieve societal goals, values, desires, and benefits.

Recently, organizational leadership employed EBM to coordinate integrate, and compete its activities with the other ecosystem firms and invest in new technology to reduce cost and gain mutual benefits (Kapoor & Lee, 2013).

Business Ecosystems

Business ecosystems theory is the modern sophisticated version of systems theory. Systems theory emerged as a biological branch to express equilibrium and integrated mechanisms between internal sub-systems within individual organism and external supra systems (Bertalanffy, 1951; Boulding, 1956). Later on, business academics and practitioners applied system theory to business environment where an organization is

required to adapt its internal sub-systems (resources and processes) to fit external requirements and conditions. Ecosystem theory, then, helps organizations to achieve their missions and develop their communities in continuous premises. Xiaoren, Ling, and Xiangdong (2014) inserted environmental flexibility in which business ecosystems (network of enterprises) exchange beneficial resources and information. According to them, "open innovation" refer to "continuous improvements" which are employed by those enterprises to integrate design and development processes to reduce costs and improve products' quality.

Nambisan and Baron (2013) pointed out to innovation ecosystems in organizations as cooperative interdependencies established between group of firms (entrepreneurs) to provide customers with added value and effectively achieve their goals and objectives. Robertson (2014) considered managers mind as internal organizational ecosystems which may contribute to organizational success or failure. Robbins (1990) reported that internal ecosystems (efficient size, suitable technologies, and efficient control systems) are necessary for organizational survival. Drucker (1998) assured the role of innovation and entrepreneurship for social potential in addition rather to enterprises' size and age.

Bess & Dee (2008) assured that universities can innovate and exceed public expectations when they possess suitable resources that encourage them to take risk. Akaka, Vargo, & Lusch (2013) emphasized the complexity of international "environment" and "eco-subsystems" including "international marketing", goods' movement across borders, international consumer preferences across cultures, international exchange of intangible resources, divergence of international communications and logistics networks, and emergence and growth of regional and global markets. According to Nyhan, Ferrando, and Clare (2001/2002); organizations strive to ensure enough environmental support from: suppliers, customers, employees, etc. Cinner and David (2011) urged enterprises to understand environmental elements such as social, economical and cultural factors; cooperate with each other; and conserve resources effectively and efficiently. According to (Priem, Butler, and Li, 2013), "effective resources conservation" includes strategic anticipation of consumers and their latent needs.

Universities' Engagement

Engagement of universities -as service firms- represents a modern vision of ecosystems seeking transfer learning process in higher education from traditional practices to interactive process between universities and communities. According to Franz (2014), education engagement began in 1914 with Smith-Lever Act to improve people access to education where they live. Franz urged for faculty- community partnership to develop

engagement practices and suitable measurement tool to assess its outcomes.

Crookes, Else, and Smith (2015) relied on the engagement definition by "Carnegie Foundation for the Advancement of Teaching, 2015" which states that engagement represents a collaboration between institutions of higher education and their larger communities for mutual benefits. This definition is common among researchers and scholars (Fairclough, 2003; Chism, 2007). Sustainable is a business term first applied to workplace by Japanese (kaizen) to denote organizational behavioral pattern committed to continuous improvement in products quality, tasks, and processes (Karkoszka and Honorowicz, 2009.

According to Dostilio (2014), engagement provides institutions of higher education and their communities with effective tool for knowledge generation and problem solving in democratic ways. Web, Wong, and Hubball (2103) appreciated those initiate and support students learning practices in campus and field. Leisey, Holton, & Davey (2012) reported the pleasance of respondents of communities' partners with engagement in universities' learning activities. They also insisted community-university partners to incorporate suitable evaluative process to assess and understand mutual outcomes. Harris III, and Pickron-Davis

^{*} Available at: http://nerche.org/index

(2013) used the term "anchor-based engagement" to assured that the community development is strongly established when the universities play the leadership role in collaborative teaching process. Helyer & Lee (2012) mentioned some forms of business engagement including: workplace mentoring, research consultancy and contract, innovation support, participation in business forums, working with professional bodies, guest lectures, and facilitating employer input.

AACSB Standards

Mission of CBE in QU stipulates that "CBE contributes to the society and the business community by developing graduates with current business knowledge and skills through relevant curricula, and encouraging the faculty to make continuous contribution to the knowledge base by engaging in business research". CBE had been accredited by AACSB on Safar 2, 1437 H. corresponding to Nov. 19, 2015 on the bases of "AACSB modified standards, 2015" after nearly 3.5 years of its accreditation journey. In fact, the accreditation journey of CBE just begins because it is required to engage in continuous improvements internally and externally to sustain its mission in continuous bases.

AACSB standards (2015) for business schools accreditation fall in 4 main categories:

First) Strategic management and innovation with three standards: mission, impact, innovation; intellectual

- contributions, impact, and alignment with mission; and financial strategies and allocation of resources.
- Second) Participants students, faculty, and professional staff with four standards: student admissions, progression, and career development; faculty sufficiency and deployment; faculty management and support; and professional staff sufficiency and deployment.
- Third) Learning and teaching with five standards: curricula management and assurance of learning; curriculum content; student-faculty interactions; degree program educational level, structure, and equivalence; and teaching effectiveness.
- Fourth) Academic and professional engagement with three standards: student academic and professional engagement; executive education; and faculty qualifications and engagement.

According to the typology of Fleischman, Raciti & Lawley (2014), CBE's curricular could be classified as highly structured (deliberate and controlled activities) when yields high community collaboration and high university facilitation. Recent researches concentrate on the fourth category standards especially academic and professional engagement. CBE teaching staff is familiar with AACSB accreditation standards and qualified to suggest supporting engagement activities.

Field Study

This case study had been conducted at CBE of QU in Kingdom of Saudi Arabia (KSA). Each member of CBE teaching staff (121 members) received e-mailed copy of the questionnaire, of which 68 members responded at a 56% percentage of total community. Normal distribution of the data is tested via Colmogorov –simernove measure. Validity and reliability of the questionnaire are tested and data analyzed using point of serial analysis and central tendency measures to determine engagement priorities.

Sample Characteristics

Table (1) below exhibits sample characteristics:

Table 1: Sample Characteristics

| Charac Specialization | teristics Edu | ıcation | Sub Numbers | Average Experience (Ys) | Total Num. | |
|---|------------------|--------------------------|----------------|-------------------------------|--|--|
| _ | Master | | 3 | 4.3 | _] | |
| | | Assistant | 8 | 6.4 | | |
| Accounting | PhD. | Associate | 2 | 18 | _ | |
| | | Prof | | | 13 | |
| | Master | | 7 | 8 | | |
| | | Assistant | 12 | 10.4 | | |
| Management | PhD. | Associate | 2 | 15 | | |
| | | Prof | 1 | 22 | 22 | |
| 11-11-11-11-11-11-11-11-11-11-11-11-11- | Master | 511 II II II II II II II | 6 | 8 | (IE) ME (IES) ME (IES) LES (IES | |
| Economic & | | Assistant | 10 | 16.6 |] | |
| Finance | PhD. | Associate | 2 | 22 | | |
| | | Prof | 1 | 22 | 19 | |
| Other | Master | | 5 | 5.6 | | |
| [MIS | & | Assistant | 7 | 13.7 | | |
| Production | PhD. | Associate | 2 | 15 | | |
| Management] | | Prof | | | 14 | |
| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | 7 | | ion (Sample Size) | 68 | |

Questionnaire & Coding:

Questionnaire sources are in English language, and respondents' mother tongue is Arabic, so English version translated into Arabic language and verified by 3 academic specialists, and then judged by other 3 academic researchers and modified accordingly.

Questionnaire is designed to gather data about suggested initiatives concerning students' engagement that are expected by teaching staff to serve CBE mission and sustain AACSB accreditation in a continuous basis. Table (2) exhibits 3 subcategories or factors of students' engagement: activities (F1 & F2) and external activities (F3). Each activity (statement/ variable/ item) received two responses. The first response represents approval degree measured at 5 categories Likert Scale, while the second response represents importance 10 categories Likert's like degree measured at Accordingly, F1 includes 10 in- class activities [odd variables V1-V19], while their importance degrees appear in even variables [V2- V20]. F2 includes 7 activities take place outside classroom but within CBE milieu [odd variables V21-V33], while their importance degree appear in [even variables V22-V34]. Finally, F3 includes 15 activities [odd variables V35-V63] take place with partnership of community's individuals or groups, while their importance degree appears in [even variables V36- V64]. Table (2) exhibits questionnaire items, their sources, and responses coding:

Table 2: Questionnaire Coding

| Statement 1st 2 nd | | | | | | |
|-------------------------------|---------|--|------------|----------|--|--|
| S. | | Statement | _ | _ | Source | |
| No. | Factors | (Variables) | | Response | Source | |
| | | In-class engager | | 1 1/2 | T | |
| 1 | | Students take notes during lecture | V1 | V2 | | |
| 2 | | Students are assigned written activities during lecture | V3 | V4 | Lane and | |
| 3 | | Students are assigned computer-based activities | V5 | V6 | Harris, 2015 | |
| 4 | | Students participate individually in class discussion | V7 | V8 | | |
| 5 | | Students formulate research or task groups during lecture or lab. | V9 | V10 | Di Battista, Pivetti, & Berti (2014) | |
| 6 | F1 | Students participate in group-based class discussion | V11 | V12 | Csajko and Lindaman (2011) | |
| 7 | | Students participate individually and collectively in literature review | V13 | V14 | Di Battista, Pivetti, & Berti (2014) | |
| 8 | | Students conducts class discussions and lecturer brought to be a coach | V15 | V16 | Olwell and Stevens (2015) | |
| 9 | | Using take home exams | V17 | V18 | Johnson et al. (2015) | |
| 10 | | Students put extra efforts to the lecture beyond what is required | V19 | V20 | Di Battista, Pivetti, & Berti (2014) | |
| | | In-CBE Engage | ement (F2) | | | |
| 11 | | Students participate in internal CBE workshops and/or seminars | V21 | V22 | McKinnis et al. (2014) | |
| 12 | | Students to suggest some changes to improve learning process | V23 | V242 | Di Battista, Pivetti, & Berti (2014) | |
| 13 | F2 | Students suggest curriculum improvements | V25 | V26 | | |
| 14 | | Encouraging students to suggest improvements for CBE enrollment procedures | V27 | V28 | | |

| 15 | | Students communicate | V29 | V30 | |
|-----|----|--|--------------|----------|-----------------|
| i l | | effectively with students' | | | |
| | | affairs department | | | |
| 16 | | Students take effective role | V31 | V32 |] |
| | | in CBE free cultural events | | | |
| 17 | | Establishing internal | V33 | V34 | Burma, 2014 |
| | | virtual organization to | | | |
| | | enable students to practice | | | |
| | | what is impossible in | | | |
| | | community establishments. | | | |
| | | Engagement with commu | nity establi | shments | |
| | | | | | 341 (2012) |
| 18 | | engaging in public- service | V35 | V36 | Mlyn (2013) |
| | | tasks as a graduation | | | |
| | | requirement | | | |
| 19 | | Establishing CBE alumni | V37 | V38 | Hart & |
| | | club | | | Northmore |
| L | | | | | (2011) |
| 20 | | Establishing students' team | V39 | V40 | McNall et all. |
| | ŀ | to identify collaborative | | | (2015) |
| | | areas with community | | | |
| | | establishments. | | | |
| 21 | 1 | Establishing students' team | V41 | V42 | |
| | | to identify research areas | | | |
| | | needed by the local | | | |
| | | community. | | | |
| 22 | F3 | Establishing students- | V43 | V44 | 7 |
| | | community team/s to | | | ĺ |
| | | conduct identified | | | |
| | | researches. | | | |
| 23 | 1 | Establishing students- | V45 | V46 | 7 |
| | | community team/s to tackle | | | |
| | | uncertainty problems. | | | |
| 24 | 1 | Establishing students- | V47 | V48 | |
| 24 | | community team/s to | '7' | 170 | |
| | | identify and update job | | | |
| | | vacancies. | 1 | | Matthews et al. |
| 25 | 1 | Formulating students- | V49 | V50 | (2015) |
| 45 | 1 | | ¥ 47 | V 30 | |
| | | community team/s to Document CBE-community | | | |
| | | | | | |
| 77 | - | Partnership Activities | V51 | V52 | McKinnis et al. |
| 13 | 1 | Formulating students- | 421 | V 34 | (2014) |
| | | community team/s to | | | (2014) |
| | | consolidate "green" | | | |
| | - | business practices | 1/22 | V54 | Tower & |
| 27 | | Transfer field training | V53 | V 34 | I |
| 1 | 1 | course from the optional | i | | Broadbent |
| 1 | | requirements to mandatory | | | |
| - | 4 | requirements | | 1700 | |
| 28 | | Establishing students' team | V55 | V56 | |
| L | | to follow up community's | <u></u> | <u> </u> | |

| | activity and determine what and how to participate in. | | | |
|----|---|-----|-----|--|
| 29 | Establishing mutual- consultation team to solve businesses' problems | V57 | V58 | McKinnis et al. (2014) |
| 30 | Conducting mutual workshops where keynote speaker one of the local community symbols. | V59 | V60 | Brown- Luthango, 2013 |
| 31 | Establishing social work center to outreach citizens and improve the lives for those of low income | V61 | V62 | Harris III, and Pickron-Davis (2013) |
| 32 | Establishing mutual teaching center with directorate of education to improve secondary schools relevant curriculums | V63 | V64 | |

Analysis and Results

The first stage analysis employed "Shapiro-Wilk test" because sample size < 2000 units. Table (3) below exhibits test results:

Table 3: Tests of Normality

| | Kolm | ogorov-Smi | rnov ^a | Shapiro-Wilk | | |
|------|-----------|------------|-------------------|--------------|----|------|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Data | .202 | 68 | .097 | .553 | 68 | .201 |

a. Lilliefors Significance Correction

Test's null hypothesis states: "data is normally distributed", and is accepted because sig value (= 0.201) > 0.05.

Second stage analysis employed "point by serial analysis" to refine odd items V1 through V63 (listed in column headed "1st response" in table 2). Correlations between each dimension of (F1, F2, and F3) and between its variables are examined. Onley variables with correlation exceeds 0.3 are retained. Table (4)

below exhibits the retained variables (items) and related Cronbach's alpha:

Table (4): Cronbach's Alpha and Correlation Coefficients after 1st

| stage reinferit | | | | | | | | | |
|-----------------|--|--|-----------------|--|--|----------------|--|--|--|
| | F1 | | | F2 | | F3 | | | |
| ltem s | Corrected Item-Total Correlation | Cronbac h's Alpha if item deleted | Items | Corrected Item-Total Correlation | Cronbac h's Alpha if item deleted | Items | Corrected Item-Total Correlation | Cronbach' s Alpha if item deleted | |
| V1 | .792 | .736 | V23 | .401 | .768 | V35 | .541 | .938 | |
| V3 | .791 | .712 | V25 | .633 | .711 | V37 | .801 | .924 | |
| V5 | .705 | .752 | V27 | .710 | .701 | V39 | .816 | .924 | |
| V7 | .539 | .797 | V29 | .699 | .702 | V41 | .755 | .925 | |
| V19 | .306 | .856 | V31 | .362 | .795 | V43 | .793 | .924 | |
| | | | V33 | .394 | 769 | V45 | .759 | .925 | |
| | | | | | | V47 | .768 | .925 | |
| | | | | | | V49 | .821 | .923 | |
| | | | | | | V51 | .847 | .923 | |
| | | | | | | V55 | .592 | .930 | |
| | | | | | | V57 | .768 | .927 | |
| | | | | | | V59 | .534 | .932 | |
| | | | | | | V61 | .327 | .936 | |
| | | | | | | V63 | .649 | .928 | |
| gananana F | 11 Reliab | ility | F2 Reliability | | | F3 Reliability | | | |
| | Statistic | cs | Statistics | | | Statistics | | | |
| 2 | nbach's | N of | Cronbach's N of | | 2 | bach's | Nof | | |
| 2 | Alpha | Items | Alpha Items | | | * | lpha | Items | |
| <u></u> | .814 | 6 | .775 6 | | | 932 | 14 | | |

Correlation coefficients are ranging from 0.306 for V19 to 0.847 for V51. Similarly, Cronbach's alpha is ranging from 0.701 for V27 to 0.938 for V35. It is obvious also that deletion of any item from table 4 will not affect Cronbach's alpha more than 0.01.

The third stage analysis also employed "point by serial analysis" to refine all retained variables in table (4) as a holistic scale using the same rule of excluding any variable with correlation coefficient less than 0.3. Table (5) below exhibits final list of retained variables and relevant Cronbach's:

Table (5): Cronbach's Alpha and Correlation Coefficients for Overall Scale

| Dimensi on | Item s | Corrected Item-Total Correlation | Cronbach's Alpha if item deleted | Dimensi on | Item s | Corrected Item-Total Correlation | Cronbach's Alpha if item deleted |
|------------------------------|-----------|--|--|---------------|-----------|--|--|
| | V1 | .525 | .899 | | V39 | .892 | .890 |
| F1 | V3 | .583 | .897 | | V41 | .673 | .894 |
| | V5 | .470 | .899 | | V43 | .766 | .892 |
| | V7 | .421 | .901 | | V45 | .810 | .889 |
| | | | | | V47 | .650 | .894 |
| | V23 | .424 | .901 | F3 | V49 | .653 | .894 |
| F2 F3 | V25 | .305 | .910 | | V51 | .642 | .896 |
| | V29 | .309 | .904 | | V57 | .693 | .896 |
| F3 | V35 | .326 | .907 | | V59 | .499 | .899 |
| | V37 | .772 | .893 | | V63 | .701 | .894 |
| Total Reliability Statistics | | | | | | | |
| Cronbach's Alpha | | | | 0.902 | | | |
| N | lumb | er of Ite | ms | | | 19 | |

Variables in table 4 are cohesive as dimensions and as a total scale. Again, the impact of deleting any single variable on Cronbach's alpha will not exceed \pm 0.01.

Agreement levels of respondents on these 19 retained variables are checked through descriptive statistical analysis according to the following decision rule concerning means:

[4.2 < extremely agree \leq 5]; [3.4 < agree \leq 4.2]; [2.6 < don't know \leq 3.4]; [1.8 < don't agree \leq 2.6]; and [1 \leq extremely don't agree \leq 1.6].

According to this decision rule, only items with mean \geq 3.4 are agreed upon and subjected to next step of priority analysis.

Table (6) exhibits means and standard deviation for the variables listed in table 4:

Table (6) Descriptive Statistics

| Variables | Mean | Std. Deviation |
|-----------|--------|----------------|
| V1 | 4.0000 | 1.03664 |
| V3 | 3.9412 | 1.06340 |
| V5 | 3.8235 | .79064 |
| V7 | 4.2941 | .75427 |
| V23 | 4.5882 | .77720 |
| V25 | 3.7647 | .94817 |
| V29 | 4.1176 | .83808 |
| V35 | 4.1765 | 1.10550 |
| V37 | 4.5294 | .61013 |
| V39 | 4.5294 | .61013 |
| V41 | 4.3529 | .76811 |
| V43 | 4.5294 | .70118 |
| V45 | 4.3529 | .84226 |
| V47 | 4.4118 | .85055 |
| V49 | 4.2941 | .89874 |
| V51 | 4.5294 | .61013 |
| V57 | 4.5294 | .50285 |
| V59 | 4.6471 | .48144 |
| V63 | 4.5294 | .61013 |

Variables 3, 5, 25 subjected to one sample t-test to assure that their means fall within agreed up categories or nt. The result is displayed in table (7) below

Table (7): One-Sample Test

| | | | <u>`</u> | | | |
|-----|-------|----|---------------------|--------------------|------------------------------|----------|
| | | | Test | : Value = 3.4 | | |
| | | | | | 95% Cor Interva Differ | I of the |
| | t | df | Sig. (2- tailed) | Mean Difference | Lower | Upper |
| V3 | 4.197 | 67 | .000 | .54118 | .2838 | .7986 |
| V5 | 4.417 | 67 | .000 | .42353 | .2322 | .6149 |
| V25 | 3.172 | 67 | .002 | .36471 | .1352 | .5942 |

Test's null hypothesis states: "Means of tested variables = 3.4". Since **sig** levels < 0.05, it concludes that the means don't equal test value of 3.4, but exceed it and fall within approved categories.

Next and last step of statistical analysis aims at calculating priority value which equals to (approval level or value of odd variables) X (importance level or value of even variables). The multiplication allows flexibility in comparing and ordering priorities. The results are displayed in descending order in table (8) below:

| | | Table (8) | | | Descriptive Statistics |
|------|-------|-----------|-------------|---------|---|
| | | | Priorit | Std. | |
| | Varia | Dimensi | у | Deviati | Statements |
| ty | ble | on | Mean | on | |
| 1 | V43 | F3 | 43.41 | 9.5389 | Establishing students-community team/s |
| | | | 18 | 8 | to conduct identified researches |
| 2 | V59 | | 43.35 | | Conducting mutual workshops where |
| | | | 29 | 2 | |
| | 1 100 | | 40.00 | 0 5000 | community symbols. |
| 3 | V23 | F2 | 43.00 | _ | Students to suggest some changes to |
| | | | 00 | 2 | improve learning process Formulating students-community team/s |
| 4 | V51 | | 42.64 | | |
| | | | 71 | 5 | |
| 5 | V37 | | 41.76 | | Establishing CBE alumni club |
| | 1.72 | F3 | 47 | 81 | D. 11:1: |
| 6 | V39 | F3 | 41.76 | 11.907 | |
| | | Ì | 47 | 75 | |
| | 1.457 | ł | 10.50 | 40.000 | establishments. Establishing mutual- consultation team |
| 7 | V57 | 1 | 40.52 | 10.628 | to solve businesses' problems |
| | 1117 | - | 94 | | Establishing students-community team/s |
| 8 | V47 | | 40.11 | 12.951 | to identify and update job vacancies. |
| | 1/00 | - | 76 40.05 | 12 906 | Establishing mutual teaching center with |
| 9 | V63 | | 40.05 | 12.000 | directorate of education to improve |
| | | | 00 | '' | secondary schools relevant curriculums |
| 10 | V41 | - | 39.35 | 14 200 | Establishing students' team to identify |
| 10 | V4 I | | 29 | 14.200 | |
| | | | 29 | 07 | community |
| 11 | V45 | 1 | 39.35 | 13 756 | Establishing students-community team/s |
| 1 11 | V45 | | 29 | | to tackle uncertainty problems |
| 12 | V49 | 1 | 38.29 | 14.052 | Formulating students-community team/s |
| 12 | V-13 | | 41 | 20 | to Document CBE-community |
| | | | " | | Partnership Activities |
| 13 | V35 | 1 | 37.11 | 14.785 | Engaging in public- service tasks as a |
| ' | | | 76 | 56 | graduation requirement |
| 14 | V29 | F2 | 35.94 | 10.709 | Students communicate effectively with |
| '' | | | 12 | 02 | students' affairs department |
| 15 | V7 | | 35.47 | | |
| ' | ' | | 06 | | discussion |
| 16 | V1 | F1 | 33.11 | | |
| | | | 76 | 60 | |
| 17 | V3 | 1 | 32.88 | | Students are assigned written activities |
| | | | 24 | 61 | during lecture |
| 18 | V5 | 1 | 31.17 | 11.916 | Students are assigned computer-based |
| 1 | | | 65 | | activities |
| 19 | V25 | F2 | 30.88 | 15.503 | Students suggest curriculum |
| | | | 24 | 04 | improvements |

Recommendations

The above items listed in table 7 represents agreed upon and important engagement activities. Statements are ordered from most prior to least prior, where CBE can hold more than one activity simultaneously. Some of these activities are practiced by CBE so that priority means more enlargement and enrichment e.g.: activities 2, 3, 5, 14, 16, and 17.

Some activities with less priority represent prerequisite for greater priority e.g.: activity 10 before activity 1.

Activities which are not established take urgent priority for establishment e.g.: activities 4, 6, 11, and 13. Finally, when these 19 activities are stablished so that priorities for such activities belong to enrichment and enlargement these activity, and CBE may establish new engagement activities.

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