Exposing Academic Excellence and Satisfaction Related to Persistence Perceived by ODL Graduates

Maximus Gorky Sembiring[1]

[1]Regional Office for Overseas Students
Universitas Terbuka
gorky@ut.ac.id

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Abstract

Academic excellence within an open distance learning (ODL) framework projected to persistence, loyalty and future career of graduates were explored in this study. It was aimed at assessing academic excellence as the origin of satisfaction influences and how, in what behaviors those associated factors were interrelated. They were investigated utilizing exploratory-design. It was qualitatively recognized first that satisfaction in academic excellence perpectives included orientation, counseling, learning material, tutorial, evaluation, feedback and referral mechanisms. These seven foremost factors had straight effects on persistence, loyalty and future career. Quantitatively, academic excellence, seven factors and the latter were intervening, independent and dependent variables respectively. Respondents were randomly selected to accrue data through survey by distributing 550 questionnaires to Universitas Terbuka graduates of Bogor Regional Office; 211 were finally completed. Importance-performance analysis (IPA) and customer-satisfaction index (CSI) were concomitantly utilized to measure satisfaction level and its importance degree. Ten hypotheses were assessed and structural-equation model (SEM) was used to capture the degree and interrelation power among factors engaged; with reference to qualitative upshots obtained earlier. Finally, six hypotheses were statistically validated by the analysis. It was also inferred that acedemic excellence excluded counseling, learning material, feedback and referral schemes from the seven foremost factors.

Keywords: academic excellence, persistence, exploratory-design, IPA-CSI, SEM

INTRODUCTION

Issues relatable to students persistence and attrition had been identified and explored by Tinto (1982, 1993 & 1997) and Bean (1983 & 1985) in a wide-ranging of scope. Persistence or retention, including student loyalty (Ostergaard & Kristensen, 2005), cannot be seperated from satisfaction outlooks (Brown, 2016). Satisfaction was frequently associated with service quality issues (Parasuraman, Zeithaml & Barry, 1988; Arokiasmy & Abdullah, 2012). These notions, including in educational sectors, had also been widely adopted (Tan & Kek, 2004; Petruzzellis, D'Ugento & Romanazzi, 2006; Rojaz-Mendez, Vazquez-Paraga, Kara & Cerda-Urrutia, 2009). These efforts were imperative for many students endeavored to earn degree failed to persist (Roberts & Styron, 2009). It was so since service delivered was below the standard and expectation. These comprehensions were conceivably relevant within ODL environment (Sembiring, 2014).

Those elaborated credentials were applicable to Universitas Terbuka (Indonesia Open University) context (Sembiring, 2015). The University is currently insistent in process of conserving the size and growth of student body cogitating gradual decrease of student numbers in the last five years (2011-2015: 446,326; 415,030; 353,193; 333,501; and 309,508 successively). If no remarkable and quantifiable leap forward are anticipated and implemented, it was predicted student body for the coming five years (2016-2020) would be

297,372; 277,814; 251,095; 220,743; and 193,099 (Universitas Terbuka, 2016). These figures were disharmony with the strategic plan (Universitas Terbuka, 2014). Student body in 2020/2021 was targeted to 250 thousands to sustain the existence.

Predictably, it indicates gap concerning initial objective and the accomplishment. This drives to explore further queries: is it due to many students graduated, less new student registered or the vast majority of students did not re-register in a consecutive semester? If the latter is the case, that is a question of student persistence associated with satisfaction outlook; it is here allied with academic excellence.

The aim is therefore to assess academic excellece through related dimensions as they were expected and experienced by gradutes. It is also significant to reveal crossing details between satisfaction along with persistence, loyalty and future career in ODL perspectives. The answer to these questions is related to an effort of maintaining the size and growth of student body such that services provided converged to as many students' expectation as possible. Thus, the University will be able to envisage associated efforts with respect to assuring better and faster services perceived from student outlook. The conceptual framework is illustrated in Figure 1.
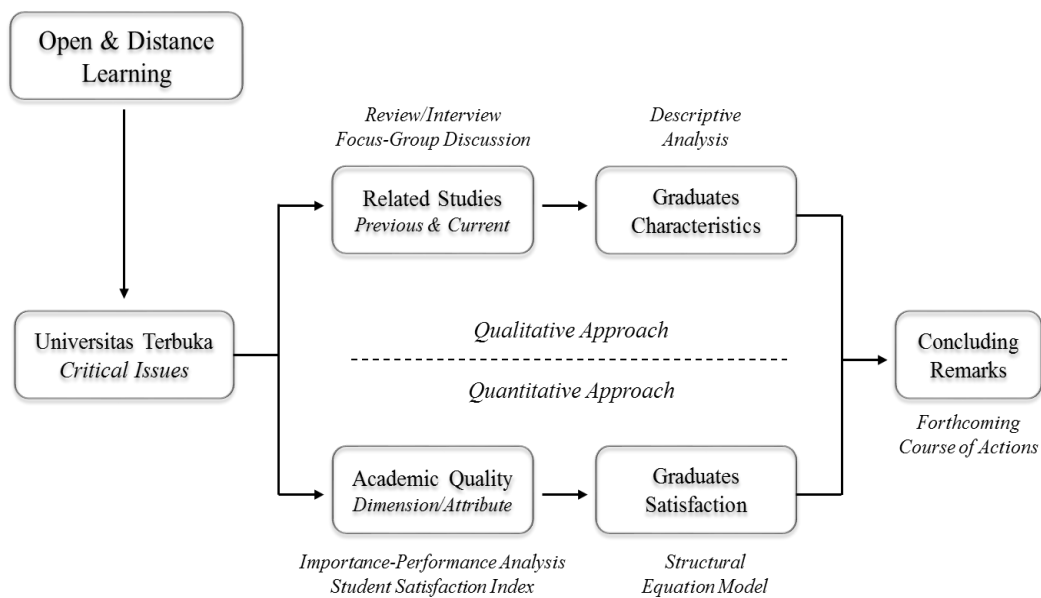

Figure 1: Conceptual Framework

Operational Framework

The conceptual framework would be a tool for appraising satisfaction and its inference noticed from inclusive academic excellence. This would let universities to modify important aspects of operations to accommodate student need and expectation. It might focus on institutional directions to fulfil student need so universities can maintain and make progress on the size and growth of student body as projected.

Before instituting an operational framework, it is worth perceiving that academic excellence was determined by academic quality. In Universitas Terbuka, for this study, academic excellence was determined through seven dimensions, namely student orientation, academic counseling, learning material, tutorial support, evaluation system, feedback mechanism and referral service. Each dimension is further elaborated into attributes. Besides, academic excellence is a pointer to persistence, loyalty and future career. To ease the naming, all variables engaged associated with correlated dimensions are prearranged in Table 1.

Table 1: Variables and Dimensions

No	Variables	Dimensions	Notes for the Questions
1	Student Orientation/X_1	X_{11} Time/Schedule X_{12} Delivery mode	Each independent variable (**X**) has two dimensions and questions should be answered by respondents Each question within **X** is answered two times simultaneously. The first is to measure satisfaction and the second is to measure its importance degree Academic Excellence (**Y₁**) is dependent variable upon **X** (X_{1-7}). While others [$Y_{(2-4)}$] are determined by academic excellence Total questions: 49
2	Academic Counseling/X_2	X_{21} Accessibility X_{22} Value	
3	Learning Material/X_3	X_{31} Written X_{32} Digital	
4	Tutorial Support/X_4	X_{41} Face to face X_{42} Media	
5	Evaluation System/X_5	X_{51} Classroom X_{52} Online	
6	Feedback Mechanism/X_6	X_{61} Standard X_{62} Conclusive	
7	Referral Scheme/X_7	X_{71} Availability X_{72} Flexibility	
8	Academic Excellence (Satisfaction)/Y_1	Y_{11} GPA Y_{12} Length of study Y_{13} Relevance Y_{14} Accreditation Y_{15} Civil effect	
9	Persistence/Y_2	Y_{21} Reregister regularly Y_{22} Study up to finish	
10	Loyalty/Y_3	Y_{31} Further study Y_{32} Endorse to others	
11	Future Career/Y_4	Y_{41} Progression Y_{42} Contribution	

METHODOLOGY AND DESIGN

This study utilized mixed-methods; exploratory-design (Creswell & Clark, 2011). Technically, the research was conducted under qualitative approach first and then followed by quantitative sequence. Two distinct instruments are developed; list of questions for interviews/focus-group discussions (qualitative) and questionnaires (quantitative). Table 1 was utilized as a basis to develop instruments. All questions, incorporated in X_{11}–X_{72}, were simultaneously answered two times. The first and second answers measured satisfaction (excellence) and the importance degree respectively. The rests (Y_{11}–Y_{42}) were answered to view the impact of academic excellence related to persistence, loyalty and future career.

Variables engrossed are explored through questionnaire (Bird, 2009; Tjiptono & Chandra, 2011). Survey is implemented to accumulate data from respondents (Fowler, 2014). Purposive (qualitative) and simple random (quantitative) sampling techniques are chosen to select eligible respondents (Cochran, 1977). IPA-CSI are utilized to measure academic satisfaction along with the importance degree (Kitcharoen, 2004; Silva & Fernandez, 2010). SEM is used to detect plausible relations among variables involved (Wijayanto, 2008; Hair, Black, Babin & Anderson, 2009). The operational framework is illustrated in Figure 2.

Figure 2 describes features affecting academic excellence/Y_1 leading to persistence/Y_2, loyalty/Y_3 and future career/Y_4. Academic excellence included GPA/Y_{11}, length of study/Y_{12}, relevance/Y_{13}, accreditation/Y_{14} and civil effect/Y_{15}. Academic excellence/Y_1 was assessed by perceiving the attributes of students orientation/X_1, academic counseling/X_2, learning materials/X_3, tutorial supports/X_4, evaluation systems/X_5, feedback mechanisms/X_6 and referral schmes/X_7. The instrument consisted of 2x19 questions related to academic excellence and level of its importance; plus seven additional questions to validate persistence, loyalty and future career whether they were affected by and relatable to academic excellence. Serially, these will be unified with earlier qualitative results.

This approach examines ten hypotheses, H (Figure 2). They are: academic excellence is directly influenced by students orientation/H_1, academic counseling/H_2, learning materials/H_3, tutorial supports/H_4, evaluation systems/H_5, feedback mechanisms/H_6 and referral schemes/H_7. Moreover, persistence/H_8, loyalty/H_9 and future career/H_{10} are influenced by academic excellence.
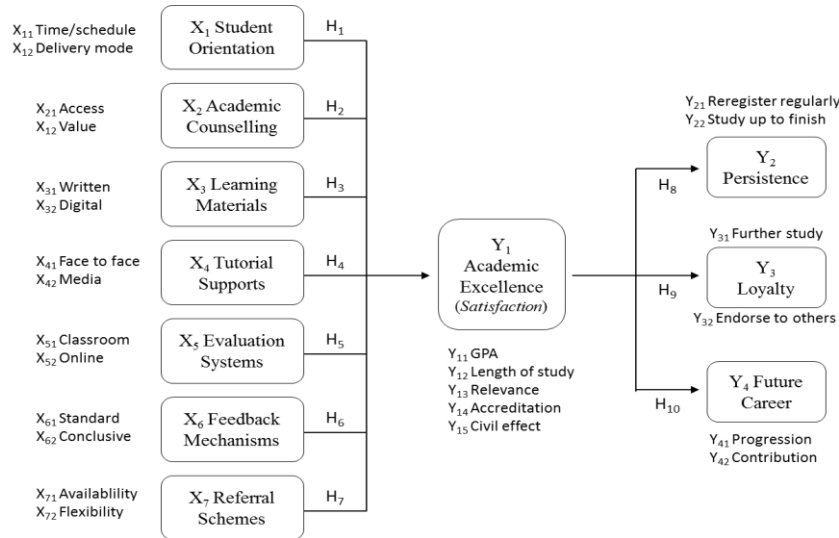

Figure 2: Operational Framework

RESULTS AND ARGUMENTS

Before conversing end results, it is valuable to represent respondent characteristics (Table 2). This will enrich perspectives on the outcomes. Other elaborative analyses are detailed in the following clarification, including Table 3, Figure 3 and 4.

Table 2: Respondents Characteristics

Population	1,100		Respondents Selected Respondents	227 (20.64%) 9	
Faculty/%	Education	92.07	Social Sciences	3.96	Economics	3.96
	Graduate Program	0.00	Mathematics & Natural Sciences		0.00
Experience (Year/%)	0-5=13.66	6-10=49.78	11-15=24.67	16-20=7.05	$\geq$ 21=4.85
Age (Year/%)	$\leq$ 25=10.57	26-30=32.16	31-35=28.63	36-40=14.54	$\geq$ 41=14.10
Length of Study (Year/%)	$\leq$ 4=49.78	5=37.00	6=8.37	7=3.96	$\geq$ 8=0.88
GPA/%	2.00-2.49= 9.69	2.50-2.99= 25.99	3.00-3.49= 40.09	3.50-3.99= 23.79	4.00=0.44
Profession/%	Educator= 91.63	Government= 4.85	Private Sector = 0.44	Business= 3.08	Others=0.00
Marrital Status/%	Married= 81.50	Unmarried= 18.50	Gender	Female= 74.89	Male=25.11

Figure 3 shows four out of ten hypotheses examined were *not* validated by the analysis; H_2=0.48 (counseling-satisfaction), H_3=1.59 (materials-satisfaction), H_6=1.14 (feedback-satisfaction) and H_4=1.55 (referral-satisfaction); as the $t_{-value} \leq 1.96$ (α=0.05). Conversely, the rests were validated; H_1=2.05 (orientation-satisfaction), H_4=2.78 (tutorial-satisfaction),

$H_5=2.17$ (evaluation-satisfaction), $H_8=7.05$ (satisfaction-persistence), $H_9=10.27$ (satisfaction-loyalty) and $H_{10}=3.84$ (satisfaction-career); as the t$_{-values} \geq 1.96$ ($\alpha=0.05$).
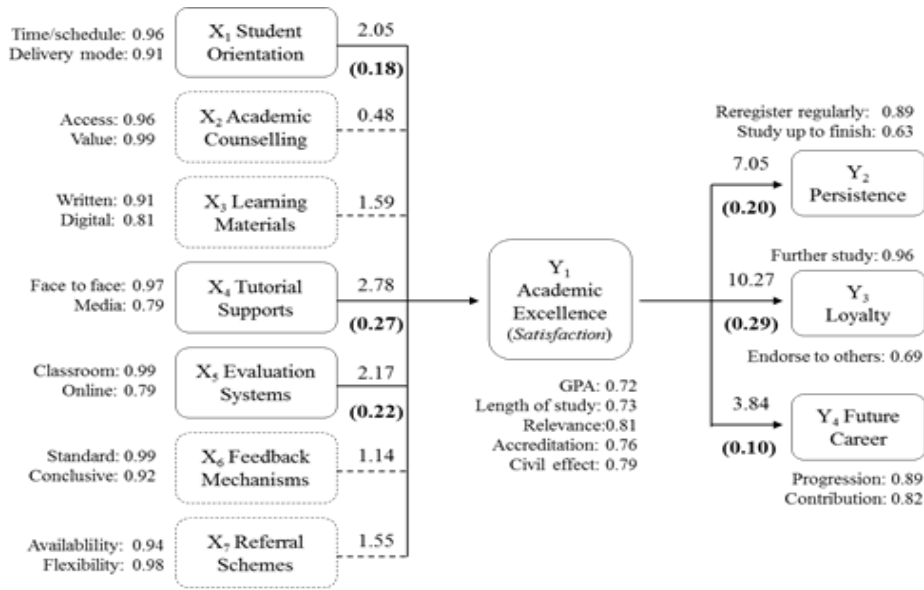

Figure 3: Results of Hypothesis and Loading Factors

Before describing the end results, it is good revealing satisfaction (excellence) and importance degree obtained from IPA-CSI chart. The analysis generates spots of excellence components related to quadrants (Q) to comprehend degree of their importance (Figure 4). Figure 4 has four quadrants: Q_1 (Concentrate Here), Q_2 (Maintain Performance), Q_3 (Low Priority) and Q_4 (Possible Overkill); following Wong, Hideki and George (2011).
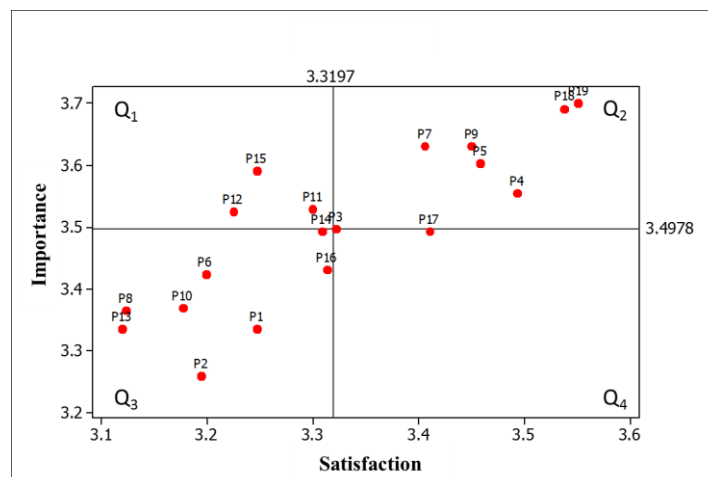

Figure 4: IPA-CSI Chart

Q_1 has three attributes should be noted: P12/conclusive feedback, P11/standardized feedback and P15/GPA. Q_1 indicates satisfaction is at a low level whereas degree of its importance is high. The University must pay attention to these evidences and put them into top priority so student expectations might be fulfilled and they are more likely to complete study. **Q_2** includes seven points should be recognized: P3/counseling access, P4/counseling value, P5/written materials, P9/classroom evaluation, P7/face to face tutorial, P18/accreditation and P19/civil effect after graduted. Q_2 is a symptom of satisfaction and

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importance degree being placed at a high level. The University must take care of these points so that more students get advantages and will pursue their study with intent. Atributes fall into this quadrant are the strength and pillar of academic excellence; the University pride.

Q_3 has eight points should be remarked: P2/orientation delivery, P1/orientation schedule, P13/referral availability, P8/tutorial through media, P10/online exams, P6/digital materials, P16/length of study, and P14/referral flexibility. Q_3 is an indication of both satisfaction and degree of its importance are in low category. The University should classify them as the next focus after concentrating on critical points found in Q_1 and Q_2. Any attribute falls into this quadrant is not too important and poses no threat. Finally, **Q_4** has one point: P17/relevance of program. Q_4 indicates service provided is considered much less important but respondents considered them as high in satisfaction. Here, attention to attribute included can be less focused; the University can save costs by redirecting them to take up crucial point in Q_1 and maintain fundamentals in Q_2.

Having positioned factors in appropriate quadrants, we are relating loading factors. This is to observe the power of relations each variable involved under SEM to work out the end results. Figure 3 reveals five concluding effects.

1. The first is related to the three variables directly influencing academic excellence. They are orderly rank as: tutorial (0.27), evaluation (0.22) and orientation (0.18).
2. The second is relatable to the rank of dimension in tutorial: face to face (X_{41}=0.97) and tutorial through media (X_{42}=0.79). The order in evaluation: classsroom exam (X_{51}=0.99) and online exam (X_{52}=0.79). The position in orientation: time/schedule (X_{11}=0.96) and delivery mode (X_{12}=0.91).
3. The third is concerning the order of academic excellence provision viewed from academic service outlooks: relevance (Y_{13}=0.81), civil effect (Y_{15}=0.79), accreditation (Y_{14}=0.76), length of study (Y_{12}=0.73) and GPA (Y_{11}=0.70).
4. The fourth is on the relation powers of academic excellence towards dependent variables. Figure 3 confirmed academic excellence has significant effects on: loyalty (0.29), persistence (0.20) and future career (0.10).
5. The fifth is on the rank of loyalty: further study (0.96) and endorse to others (0.69). Retention: re-reregister regularly (0.89) and study up to finish (0.63). Future career: progression (0.89) and contribution (0.82).

Before integrating qualitative-quantitative results, it is worth considering analysis on the framework goodness of fit. The analysis showed they are *not* all in good fit category (Table 3); two of them are in marginal categories. However, they are still valuable utilized as reference point to draw inferential closing.

Table 3: Goodness of Fit Analysis

Goodness of Fit	Cut-off Value	Results	Notes
RMR (Root-Mean Square Residual)	< 0.05 or < 0.1	0.10	Good Fit
RMSEA (Root-Mean Square Error of Approx)	≤ 0.08	0.11	Marginal Fit
AGFI (Adjusted-Goodness of Fit Index)	≥ 0.90	0.93	Good Fit
NFI (Normed-Fit Index)	≥ 0.95	0.94	Marginal Fit
CFI (Comparative-Fit Index)	≥ 0.90	0.95	Good Fit

Having collected and aggregated outcomes accomplished by quantitative-qualitative inquiries, three major validities need to be noticed attentively. The first is on the conceptual and operational framework (Figure 1 and 3; Table 1). The second is on IPA-CSI chart (Figure 4). The third is on the chosen methodology property.

It was quantitatively understood that loyalty was confirmed as the primary aspect and then followed by persistence and future career. This result is in agreement with qualitative

inquiry. These factors are also found from literatures and interview/focus-group discussion. In terms of its order, however, selected experts preferred to express academic excellence leads to persistence, loyalty and future career. In attributes level, however, the ranks are in harmony. It appears there is a slight discrepancy between quantitative-qualitative outcomes in the order of variables. The gap is lightly exist but it does not create vivid contradictory. It rather gives wider perspective to be kept on mind for reflection if comparable research will be organized afterwards.

Quantitative outcomes partially excluded counseling, learning materials, feedback and referral from qualitative factors obtained earlier; supplementary explanation is needed. From Table 2, it was detected the vast majority respondents were from Faculty of Education. Their main professions were teachers and more than 86% had working experience six years or more. Most of them finished their study on time with GPA 3.00^{++} (64%); they can also be categorized as adult learners. Gazing at these facts, it might indicate they are more concerned on tutorial, evaluation and orientation as they were mature/independent enough to search for counseling, learning materials, feedback and referral services on their own way/time instead of following a rigid schedule. They are not contradicted in essential intensity. This even explicate broader perspectives that there were various details should be taken care of to fulfil mixture of students' need and expectation. The rests of quantitative outcomes are relatively consistent with the qualitative marks.

Refer to Figure 4, qualitative inquiry is almost equivalent with the quantitative. It is misfortune, however, GPA included in Q_1; there was still problem in acquiring good grade. The University should notice this critical aspect as respondents considered this attribute is vital but they felt it unsatisfied. Besides, conclusive and standardized feedback were fell in this quadrant. Despite academic excellence was not influenced by feedback, it is still relevant to put this in top priority since students study at a distance. Feedback mechanisms can be less complicated given they were good. This entails the University should put these attributes as a top priority to be cautiously tackled to suit needs in ODL setting.

Looking up the third effect, it appears mixed-method used is nearly suitable despite the slight and minor difference on the end results. Difference in terms of end results take place in the level of ranks, not in the conceptual outlooks within dependent variables. Despite the difference, it does not indicate they are in high contradictory intensity. It can then be inferred that the difference took place are basically to amplify our perspectives on the context.

From methodological direction, IPA-CSI approach was able to distinctively display what are things should be placed within the top priority to be controlled prudently (Q_1). The approach is proficient enough to classify what are things should be persistently maintained (Q_2); what are things classified as the next priority (Q_3) and considered less important so there is no need to be rush (Q_4).

IPA-CSI chart effects are reinforced quantitatively by SEM results. By combining these upshots, it will objectively direct the University to formulate alternative course of actions for future needs anticipating student expectations accordingly. It is fortunate that qualitative inquiry to certain extent was inline with the qualitative. It has been phenomenon most universities are limited by tangible resources, 5-M (man, money, material, machine and method). By considering this constraint, it is just right to formulate "new" ideas on how to effectively re-direct resources such that sufficient efforts and supports are available to dealing with aspects in Q_1 and maintaning aspects in Q_2 (Tileng, Wiranto & Latuperissa, 2013).

This result will be incredibly useful to re-formulate on things that should be put as top priority to fulfil students' expectations in conjunction with satisfying the needs for those are still studying. Three attributes dropped into Q_1 should be brilliantly controlled. Additionally, seven aspects dropped into Q_2 should also be repeatedly preserved as they are the pillar and pride of the University in assuring academic excellence; by all means, aspects from Q_1 can be

moved onto Q_2. It will improve number of students getting satisfied. The more students satisfied, the more likely they stayed; as persistence here is defined as students do their registration regularly each semester. This implies the University will be able to maintain the size and growth of student body as it was initially aimed.

To end up, respondents were asked a closing question: what is your attitude on GPA and length of study from academic outlooks? Remarkably, the aswers gave strong credence that in the future the University will be able to accomplish initial planned. These are answers to the last question. Completely Unsatisfied: 1.32%, Unsatisfied: 13.22%, Satisfied: 59.91%, Very Satisfied: 18.06 and Extremely Satisfied: 7.49%. At least 85% respondents were satisfied with their GPA and length of study.

CONCLUDING REMARKS

The research has created qualitative-quantitative frameworks of academic excellence and its dimensions in Universitas Terbuka milieu with respect to their links extended from a comprehensive analysis of educational perspective and student behavior. The framework was validated using SEM assessing empirical data through survey of 227 graduates. The study ascertains academic excellence leads to loyalty, persistence and future career. Besides, academic excellence is affected by tutorial, exam and orientation. Under IPA-CSI procedure, three aspects should be cautiously noticed, standardized and conclusive feedback; and GPA. Despite the difference exists, it only slightly differs in the ranks of the dependent variables; here, qualitative approach is yet perfectly approved by quantitative.

Further research is crucial and it should explore excellence level beyond attributes included in the dimensions assessed. The scope should also be broadened beyond graduates of Bogor Regional Office. It would put forward more comprehensive perspectives especially on persistence, loyalty and future career with reference to academic axcellence to meeting students needs as ODL learners; this will improve persistence rates (Sampson, 2003).

It is hope that this will provide opportunity for the University to be more contributive in helping Indonesia government to eradicate restraints to gain higher education access. If this understanding is emblematic worldwide, management and academic would be well-guided to reflect on academic excellence percieved from users outlook to prolonged accomplishment and continued existence of their institution. For Universitas Terbuka, student persistence and loyalty can be attained through the provision of great academic excellence (Athiyaman, 1997). This means that the University is on the right path to encourage its righteous calling of making higher education open to all with respect to protecting the nation through flexible quality education. The University will be well-balanced to achieve the vision of becoming world quality institution and preparing world quality graduates (Universitas Terbuka, 2014; Sembiring, 2015).

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