CUSTOMER RELATIONSHIP MANAGEMENT SCORECARD (CRM SCORECARD) MODEL TO SUPPORT PERFORMANCE IN HIGHER EDUCATION

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Through the approach of CRM (Customer Relationship Management), the world of education can know deeper about how far the use of CRM by using information technology in relation to the provision of optimal services to customers has been. CRM can describe various relationships that exist in organizations working on the world of education, such as the relationship with customers, i.e., that with students, parents, teachers, board of trustees, prospective university students, or alumni. Another possible relationship is the relationship with other organizations that are also their customers, i.e., that with high schools, other universities, accreditation bodies, industries, or government.

Keywords: Customer Relationship Scorecard (CRM Scorecard), performance assessment.

INTRODUCTION

Indonesia is a developing country in Asia. Developing countries need some aspects to be able to grow. Some of the factors needed to develop into a developed country are natural and human resources. However, natural resources will not be useful without being supported by the quality of the human resources, in relation to it as a developing country. The State of Indonesia should improve the quality of human resources of Indonesia. One way to improve Indonesian human resources is by improving the quality of Indonesian education.

Education in Indonesia means all educational activities held in Indonesia, either structured or unstructured. Among the educational institutions are universities. Here are the data about the quantity of universities in Indonesia.

Based on the data, the group having the most higher-educational institutions is Coordinator of Private Higher Education (Kopertis) of Region IV, consisting of 475 institutions. The second rank is occupied by Kopertis of Region IX, consisting 363 institutions. The third rank is occupied by Kopertis of Region IX, consisting of 333 institutions. The one with the fewest institutions is Kopertis of Region XIII, consisting of 61 institutions.

In Kopertis of Region IV, the number of private higher-educational institutions in the college service market is continually increasing. In the last few periods, the number of private universities was growing from 380 private universities in 2014 to 475 private universities in 2015 (*http://www.kopertis4.or.id*). In Kopertis of Region IV in 2014 with the 64,744 private university students, the field of

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TABLE 1: HIGHER EDUCATION IN INDONESIA

No.	Institutions	Quantity
1	PTN	122
2	KOPERTIS OF REGION I	266
3	KOPERTIS OF REGION II	215
4	KOPERTIS OF REGION III	333
5	KOPERTIS OF REGION IV	475
6	KOPERTIS OF REGION V	106
7	KOPERTIS OF REGION VI	248
8	KOPERTIS OF REGION VII	327
9	KOPERTIS OF REGION VIII	165
10	KOPERTIS OF REGION IX	363
11	KOPERTIS OF REGION X	247
12	KOPERTIS OF REGION XI	165
13	KOPERTIS OF REGION XII	44
14	KOPERTIS OF REGION XIII	61

Source: http://forlap.dikti.go.id
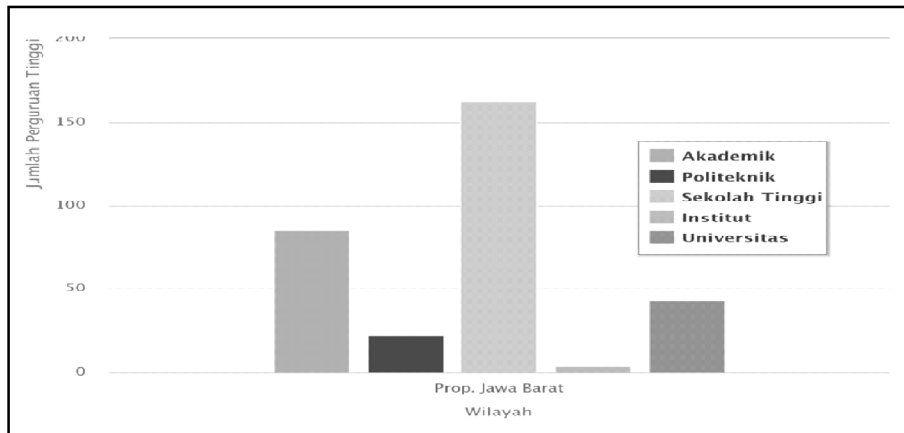
Figure 1: Statistic Chart of Total Private Higher-Educational Institutions in Kopertis of Region IV, West Java

Source: http://forlap.dikti.go.id

economics, which had previously occupied the first position as the most desirable field of science, fell into the second place after educational science field. The number of students of economics in the year 2014 was 13,328 students (20.6%), while for the field of education there were 19,603 students (30.3%).

The large number of higher education institutions need to be supported by the good quality of each of the institutions. Educational institutions is similar with a company; an educational institution that fails to satisfy its customers will face problems both from the employers of the graduates as well as by the graduates

themselves, which are more complex due to the impact of bad word of mouth from stakeholders. One of the excellences of the service improvement is the concept of Customer Relationship Management (CRM).

With the increasingly tight competition among educational institutions, resulting in the necessity that every educational institution must be able to manage the institution in a professional manner. Each university undertakes various efforts aimed at winning the competition, in order to gain recognition of the quality from the community as well as the government, both at the national and international levels. Adequate and up-to-date infrastructure facilities do not necessarily attract as many students as possible to enter a higher education institution, but the most important element is the high quality service.

High quality service means being able to provide harmony to the needs of students essentially, either regular, intensive, or employee class students; all require good service and quality, only the levels are different. If carefully observed, the core of today's competition is more about how educational institutions are well aware of who their target markets are, how high the quality of their products or services given, and, equally important, how much value they can give students and how to treat students from day to day.

Through the CRM (Customer Relationship Management) approach, the world of education can know deeper how far the use of CRM by using information technology in relation to the provision of optimal service to customers. CRM can describe various relationships that exist in organizations working on the world of education, such as relationship with customers, i.e., that with students, parents, teachers, board of trustees, prospective university students, or alumni. Another possible relationship is the relationship with other organizations that are also their customers, i.e., that with high schools, other universities, accreditation bodies, industries, or government.

LITERATURE REVIEW

1. Customer Relationship Management (CRM)

Customer Relationship Management (CRM) is a well-accepted approach and is widely capable of creating and strengthening customer relationships. CRM is a series of processes of integration and analysis to create marketing effectiveness in an effort to provide professional and personal services to customers.

Kincaid (2008: 2) defined:

> "CRM is a comprehensive approach to creating, maintaining, and strengthening relationships with consumers. CRM integrates, analyzes, and disseminates information about customers, sales, and sales effectiveness to provide more professional and personalized service to customers."

Kotler and Keller (2009: 189) gave their opinions on CRM as follows, "Customer Relationship Management as a process of managing detailed information on

individual customer touch points to maximize customer loyalty." Based on this definition, it can be concluded that CRM is a process that aims to create relationships with customers and to maximize customer loyalty, because customers are a valuable asset for a company, and can be a company advantage in the face of competition.

2. Balanced Scorecard

Knowledge about the benefits of Balanced Scorecard will open opportunities for companies to utilize the management tools optimally in multiplying the ability of the organization in producing financial performance. The concept of balanced scorecard according to Kaplan Norton is as follows:

> "(1) scorecard and (2) balanced (balanced). The scorecard is the card used to record the performance score of a person. The scorecard can also be used to plan the scores that the future person will embody. Through the scorecard, the score to be realized by personnel in the future is compared with the actual performance result. The result of this comparison is used to evaluate the performance of the personnel concerned. The word "balanced" is intended to show that the performance of the personnel is measured on a balanced basis from two aspects: financial and non-financial, short-term and long-term, internal and external."

Kaplan and Norton admitted that the Balanced Scorecards for public sector organizations do not necessarily reflect private company people. Governments and non-profit organizations will rarely place a financial perspective at the top of the hierarchy. This framework is shown in the following figure:
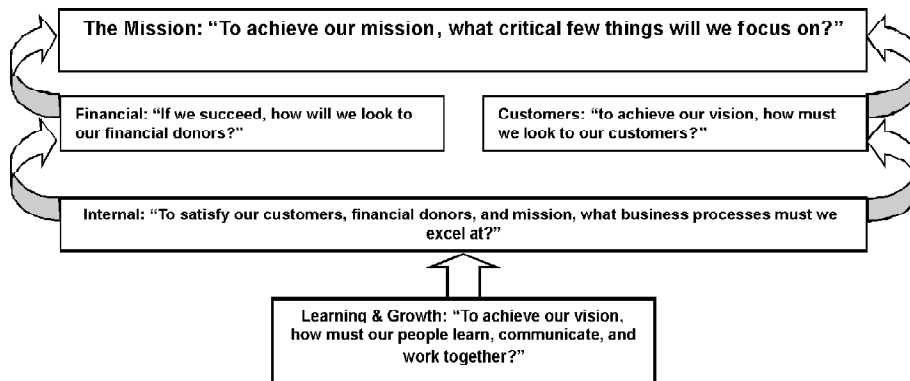

Figure 2: Nonprofit/Public Sector Scorecard

Source: (Kaplan dan Norton, 2001)

Kaplan and Norton defined the mission as "concise, internally-focused statement of the reason for the organization's existence, the basic purpose toward which its activities are directed, and the values that guide employees' activities".

3. Importance - Performance Matrix

Importance-Performance Matrix is widely used to find out service attributes that still need to be improved by measuring customer expectation and company's performance level (perceived performance). The level of customer expectation is measured in relation to what an organization should be working on to produce a high quality product or service. Respondents are asked to assess the importance of various relevant attributes and the level of company's performance on each of these attributes. Then, the value of the importance of attributes and company's performance will be plotted on the importance-performance matrix with the x axis is the performance and the y-axis is the expectation.
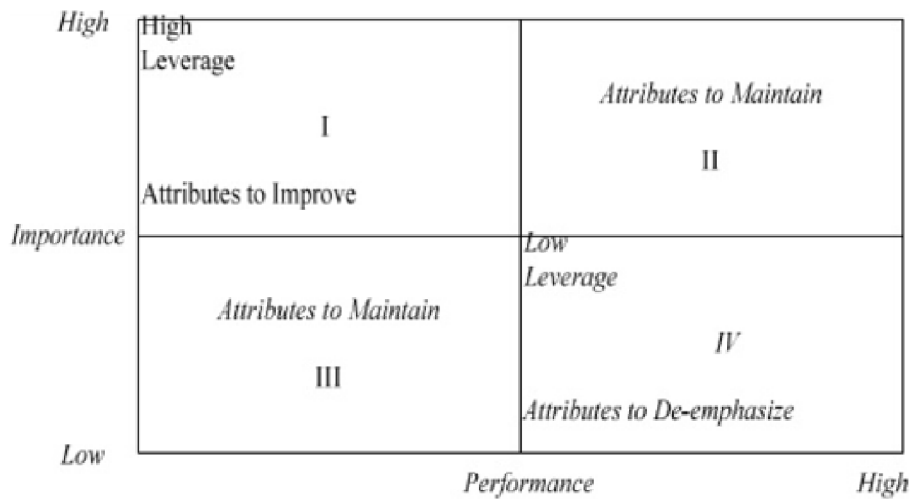
Figure 3: Importance and Performance Diagram

Source: Freddy Rangkuti, 2006

Quadrant I: This area contains the factors that are considered important (above average) by customers, but in fact these factors are not as expected (the level of satisfaction is still below average). Attributes in this quadrant are the factors the satisfaction of which must be increased.

Quadrant II: This area contains the factors that are considered important by customers, and the factors considered by customers in accordance with the perceived, so that the level of satisfaction is relatively high from the average.

Quadrant III: This area contains the factors that are considered less important by customer and in fact, the performance is not too special. Improvement of the attributes included in this quadrant can be reconsidered because the effect on the perceived benefits by customers is very low.

Quadrant IV: This area contains the factors that are considered less important and excessive by customers. The attributes included in this quadrant can be reduced in order for the company to save costs.

RESEARCH METHOD

This research method was descriptive analytical, a research intending to give description about a certain occurrence or problem, where there is already information about the symptom. However, information about these symptoms is not adequate, so to be able to explain in more detail and provide solutions to the problems, this study would provide some study in accordance with the theoretical support related to the problem.

According Sugiyono (2009: 14), the definition of descriptive-analytical method is, "A statistics used to analyze data by describing the data that has been collected as is". The method of analysis used in this study used qualitative analysis approach.

Source and Data Determination Method

The population in this study was all higher education institutes in Bandung Raya. Based on the Private Higher Education Directory Kopertis of Region IV more clearly can be seen in the following table:

TABLE 2: BANDUNG RAYA HIGHER EDUCATION

Higher education institutions		Quantity	Structural	Total
State-Owned	University	3	30	90
	Institute	2	25	50
	College	4	15	60
	Polytechnics	4	13	52
Private-Owned	University	21	30	630
	Institute	3	25	75
	College	52	15	780
	Academies	27	14	378
	Polytechnics	10	13	130
Total		126	180	2245

Source : http://direktori.kopertis4.or.id/~idik/dirpts/pt

This research was conducted at high education institutions in Bandung Raya with a total of 126 institutions. There were 5 (five) categories, i.e., 24 universities, 5 institute, 56 colleges, 27 academies, and 14 polytechnics. Primary data source were divided by type of data obtained. Primary data sources were obtained from informants and respondents. Informants (in qualitative research) and respondents (in quantitative research) used in this study are all leaders (structural officials) in each university in Bandung Raya. The secondary data sources were obtained from the organization profile documents, financial reports, and non-financial reports from each of the higher education institutions observed.

RESULTS AND DISCUSSION

The first step of CRM Scorecard was determining the vision, mission, and purpose. The second step was to develop a CRM Scorecard strategy. The purpose of this step is to find some of the most appropriate strategic factors. The third step was to find the relationship between CRM Scorecard activities with the business objective (business objective is to increase profits). By analyzing the relationship, it can be analyzed on what to do to get better results and to know what perspectives are important to achieve the expected results. The results of the analysis were evaluated to determine the effectiveness of the CRM Scorecard. This measurement provided further insight into the CRM Scorecard strategy and helped decision makers in setting the CRM Scorecard strategy. This iterative process was continuing until the current CRM activity becomes more effective.
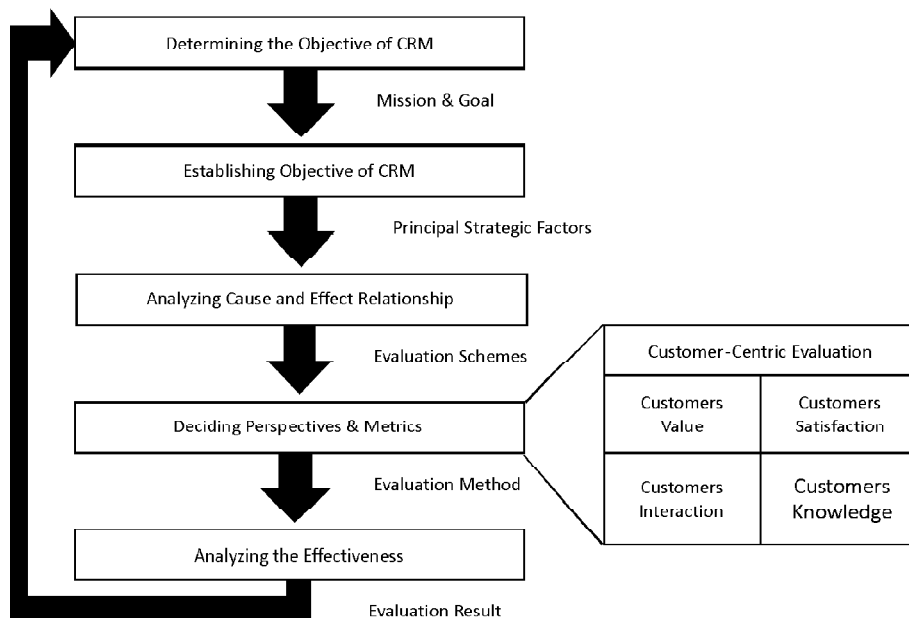
Figure 4:   CRM Scorecard Evaluation Model
Source: Jonghyeok Kim, Euiho Suh. & Hyunseok Hwang. 2003

The obtained cause-effect relationship can provide clues to what perspectives are important for achieving business objective, by changing the four perspectives of Balanced Scorecard into customer value, customer satisfaction, customer interaction, and customer knowledge. We got a model that reflects customer-centric philosophy of evaluating CRM Scorecards. This is reflected in the explanation of the table below.

TABLE 3: COMPANY-CENTRIC BSC VERSUS CUSTOMER-CENTRIC BSC

Company- Centric BSC	Focus	Customer-Centric CRM	Focus
Financial Perspective	Giving value to shareholders	Customer Value	Increasing customer loyalty and profitability
Customer Perspective	Providing value to the customer	Customer Satisfaction	Achieving business value
Internal Business Perspective	Efficiency of promotion and effectiveness in business processes	Customer Interaction	Promotion with an effective operational and channel approach
Learning and Growth Perspective	Maintaining innovation and change capability through continuous improvement	Customer Knowledge	Understanding and analyzing information about customers

(*Source:* Kim, *et al,* 2003)

TABLE 4: WEIGHTED OBJECTIVE STRATEGY AND KEY PERFORMANCE INDICATOR

	Objective Strategy	Key Performance Indicator	Eigen Value
P1	The increase of satisfaction on the lecture system	Increased satisfaction on the lecture system	0.0328
P2	The increase of satisfaction on lecturing methods	Increased satisfaction on the lecture methods.	0.0340
P3	The increase of the use of latest reference books	Increased use of latest reference books	0.0316
P4	The increase in benefits of the lecture	Increased lecture benefits	0.0322
P5	The suitability of the college schedule	On-time lecture	0.0304
P6	The suitability of lectures with syllabi	Suitable materials lectured with the syllabi	0.0291
P7	The increase of student's motivation to learn	Increased learning motivation in students	0.0334
P8	Training students to do self-study	Students becoming more independent in learning	0.0316
P9	Training students to think systematically, scientifically, and rationally	Students becoming trained to think systematically, scientifically, and rationally	0.0322
P10	Training students to express opinions	Becoming more skilled to express opinions	0.0328
P11	Student satisfaction on the academic administration service system	Increased satisfaction on the academic administration service system	0.0316
P12	Student satisfaction on general administration & finance service system	Increased satisfaction on general administration service system	0.0316
P13	Student satisfaction on the library service system	Increased satisfaction of the library services system	0.0291
P14	Student satisfaction on laboratory service system	Increased satisfaction on the laboratory service	0.0291
P15	Student satisfaction on the guidance and counseling	Increased satisfaction on guidance & counseling services	0.0316
P16	The increase of frequency of seminars, stadium general and symposium,	Increased frequency of seminar, stadium general & symposium	0.0304
P17	The increase of frequency of courses and skills training	Increased frequency of courses and trainings	0.0285
P18	Training of organizational, socialization and leadership	More skilled in organization, socialization, and leadership	0.0316
P19	The increase of ability of graduates to adapt in the work environment	Increased adaptability of graduates in the workplaces	0.0322
P20	The increase of ability of graduates to work in team work	Increased ability of working in team work	0.0322

	Objective Strategy	Key Performance Indicator	Eigen Value
P21	The increase of ability of graduates to communicate orally and in written form	Increased communication skill	0.0328
P22	Improvement of adaptability with the development of IT	Increased adaptability with the development of IT	0.0328
P23	The increase of ability of graduates to apply their knowledge	Increased ability in applying the knowledge	0.0316
P24	The increase of graduates' ability in encouraging company growth	Increased contribution of the graduates in their workplaces	0.0310
P25	The increase of graduates' ability to solve business problems	Increased problem-solving ability	0.0291
P26	The increase of employment opportunities at the graduation	Increased job opportunities available before graduation	0.0316
P27	The pace of graduates to work	Being already working for < 1 year	0.0316
P28	Suitability of graduate work with the majors taken	Increased job suitability with majors	0.0316
P29	Compatibility benefits science with graduates' work	Increased suitability of the benefits of science in employment	0.0304
P30	The increase of salary conformity with the graduates' demand	Increased bargaining power of graduates in salary	0.0291
P31	Graduates competitiveness	Graduates' salary > that of other higher education institutions' graduates	0.0279
P32	The increase of graduates' ability in career optimally	Developed careers of the graduates optimally	0.0328

(*Source:* Processed Data)

Weighing the Objective Strategy

The weighting of the objective strategy was done by forming an interest comparison matrix about the 32 indicators that are conducted in 5 (five) categories, i.e., 24 universities, 5 institute, 56 colleges, 27 academies, and 14 polytechnics. The comparable importance was based on the average value of interest among indicators. The result of weighting analysis based on eigenvector calculation result can be seen in the following table.

The result of weighted analysis through the above eigenvector shows that the weight of interest between the objective strategy and the KPI ranges from 0.0279 up to 0.0340. The objective strategy with the highest importance weight is the objective strategy of "increasing satisfaction on lecture method" with KPI "satisfaction of increasing lecture method" (P2). This objective strategy has the greatest eigenvalue compared to other objective strategy, which is 0.0340 or 3.40%.

Inter-Perspectives Weighing

The inter-perspective weighing of Balanced Scorecard was done by forming a matrix of interest comparison among the perspectives. The value of comparable importance is based on the mean value of interests among the innovation and learning perspective indicators, internal processes, customers, and finances. The result of weighing analysis based on eigenvector calculation result can be seen in following table.

TABLE 4: WEIGHT INTERDEPENDENT

	Perspective	Eigen Value
IP	Innovation and Learning	0.2505
P	Customers	0.2548
PI	Internal Process	0.2578
F	Financial	0.2370

(*Source:* Processed Data)

The result of weighting analysis between the perspectives through the eigenvector above shows that the interest weight of the internal process perspective (0.2578) and customer perspective (0.2548) is greater than the perspective of innovation and learning (0.2505) and financial perspective (0.2370). These results indicate that the internal process perspective is the most important in-between target, and customer perspective is the culmination of the Strategy Map Balanced Scorecard at the higher education institutions in Bandung Raya.

CONCLUSION

The objective supporting strategies involved in customers' perspective in relation to the inter-perspective core strategy were the increased satisfaction on the lecture

system (P1) and the pace of graduates to work (P27). Meanwhile, the objective supporting strategies involved in the financial perspective were improved efficiency and effectiveness of investment funds (F4), creation of other sources of income outside tuition fees and subsidies (F5), increasing the contribution of other sources of income for operations (F6), increasing the contribution of new students' funds for the operation and investment (F8), increased number of new applicants (F12), and net income increase (F15).

The result of weighting analysis between perspectives through eigenvector indicated that internal process perspective is the most important target and customer perspective is culmination of Strategy Map Balanced Scorecard at higher education institutions in Bandung Raya.

Acknowledgements

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