

# Joint Method Balanced Scorecard - Blue Ocean Strategy for Performance Evaluation Of Higher Education Institution In Indonesia Case Study Unpacti

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**Abstract**—Information Systems Strategic Planning is now one of some keys in achieving college's goals, the information system should be in line with the business strategy. Model of information system strategy that will be discussed in this review is the use of business strategy Balanced Scorecard (BSC) which is integrated with the Blue Ocean Strategy (BOS). With the properties of both BSC and BOS, this model answers the needs of Information Systems Strategic Planning which relevant to college's characteristic. Those characteristics are dynamic, innovative, and high-level competition with the achievement of measurable results and comprehensive. This model is implemented on the Makassar Pancasakti University. This study shows that college components are mapped into BSC four perspectives, the customer perspective, financial perspective, internal business processes perspective, learning and growth perspective, and canvas strategy as well as the 4 step framework on the BOS. The result of this study is a web-based application program, which is part of the college management information systems. This system provides information to all college members about the college performance quality for a better quality.

**Keywords:** Balanced Scorecard (BSC), Blue Ocean Strategy (BOS), performance quality, Higher Education.

## 1. INTRODUCTION

Strategies developed in total quality management for education is an educational institution which positions itself as a service institution, the institution to provide services in accordance with what is desired or expected by the customer (Tampubolon, 2001)<sup>[4]</sup>.

The analysis used in this study is Balanced Scorecard analysis or BSC, a corporate performance assessment method with four perspectives: customer perspective, financial perspective, internal process perspective and learning and growth perspectives. From the fourth perspective, it can be seen that in quality performance measurement, Universitas Pancasakti Makassar does not only emphasize on the financial perspective but also on the non-financial perspective.

The blue ocean strategy method or BOS is a part of business strategy process. The term is defined as a business strategy that employs uncontested market space to make competition irrelevant, where an organization play alone with no competitors. Apart from the previously mentioned methods, creating a web-based application program will be carried out in this thesis.

Because of educational problems, especially problems in college level, the information system using balanced

scorecard and blue ocean strategy has a very strategic role. The strategic role is measuring and analyzing performance quality assessment. The system can also point out the weaknesses and turn those weak sides into the strong sides. Not to mention, it gives a new innovation and lead Makassar Pancasakti University to achieve its target.

The objective of this study is to measure the quality of college performance (Makassar Pancasakti University) using the Balanced Scorecard approach and Blue Ocean Strategy.

## 2. BASIC THEORY

### 2.1 Balanced Scorecard

Balanced Scorecard can be implemented on public organization, any organization which focuses on public services rather than earning profit. Public organizations may include government organizations and other nonprofit organizations (Imelda, 2004).

The strategy is then adopted into four perspectives, namely the customer and stakeholder perspective, the financial perspective, internal business process perspective, and the employees and organization capacity perspective. Customer and stakeholder perspective describe the quality service to the community. Financial perspective identifies the efficient service delivery. Internal business process perspective describes the processes which are important for organizations to improve the quality of life. Employees and organization capacity perspective describes the competency and the ability of all organization members.

Before implementing balanced scorecard, an organization must first prepare BSC 5 stages, namely, building a business strategy, making organizational goals, creating a strategy map for the organization business strategy, assessing performance and developing initiatives (Rohm, 2004).

Calculating the weight and score of balanced scorecard can be done without giving weight to each indicator (Rangkuti, 2011). The process is counting the number of indicators and calculating the weight of indicators as shown in equation (2.1). Next, calculate the maximum Weighted Score, where the maximum Indicator Score = 4, as shown in equation (2.2).

$$\text{Weightindicator} = \frac{\text{weight}}{\text{number of indicator}} \quad (2.1)$$

**maximum indicator score**  
 = number of indicator × maximum indicator score  
 × indicator weight (2.2)

Class Interval calculations to determine the distribution of classes in the target class is shown in equation (2.3).

$$\text{Class interval} = \frac{\text{target value} - \text{minimum value}}{\text{maximum indicator score}} \quad (2.3)$$

Class interval value to determine the value and score of each KPI indicators. The number of class value is 4, the class A to D and the level scores from level 4 to 1, so the score for A = 4, B = 3, C = 2 and D = 1. Weighted score calculation is shown in equation (2.4).

$$\text{Weighted score} = \text{total score Indicator} \times \text{weight Indicator} \quad (2.4)$$

Components Final Value calculation, the calculation of the performance of each perspective is shown in equation (2.5).

**total score component**  

$$= \frac{\text{Weighted Score}}{\text{maximum weighted score}} \times 100\% \quad (2.5)$$

Calculation of Total Final Score (NA) which is the determination of the final performance value is shown in equation (2.6).

$$\text{Total score(TS)} = \frac{\text{Number of weighted scores}}{\text{maximumNumber of weighted scores}} \times 100\% \quad (2.6)$$

Total Score (TS) describes the criteria for the performance assessment condition using Freddy Ranguti's standard criteria, as shown in Table 2.1.

Table 2.1 The Comparison of TA on Higher Education Assessment Unpacti Makassar.

CONDITION	FINAL SCORE
EXCELLENT	NA ≥ 80
GOOD	60 ≤ NA < 80
MODERATE	40 ≤ NA < 60
UGLY	20 ≤ NA < 40
BAD	NA < 20

(Source:Chiew&Salim, 2003)

2.2 Blue Ocean Strategy

The definition of blue ocean strategy (Blue Ocean Strategy) according to W. Chan Kim and Renee Mauborgne (2005) is "How to make unexplored market space, creating demand and giving profitable growth opportunities. The point is how to compete strongly, how

to cleverly read the competition, create a systematic framework to create blue oceans".

The previously mentioned definition explains that blue ocean strategy is not a strategy to win the competition but a strategy to get out of the competition by creating a new market space, and then create competitors and at last make competition irrelevant. In short, according to my understanding, the Blue Ocean strategy is a tactic that focuses on: the creation of new markets (which is not even considered by competitors), the creation of new value to the product, and the most important is to make competition irrelevant.

2.2.1 Tools and Frameworks

At the time of formulating and running BOS, frameworks and tools are employed. Several tools and frameworks are:

Four-step framework is a tool to obtain big value with lower cost and to construct customer elements in creating a new value curve. In creating innovation, value is the efficiency of production costs but produce more value for the consumer.

To help understanding the important things of the factors that determine the industry, there are four key questions to challenge the logic of the strategy and the business model of an industry in the 4 step framework (Four Action Framework) as described in Figure 2.2 below:

- (1) *Reduce*: What factors should be from the factors that have been taken for granted by the stakeholders or industry?
- (2) *Eliminate*: What factors should be eliminated so it will be below stakeholder or industry standards?
- (3) *Raise*: What factors should be raised so it will be above the industry standard?
- (4) *Create*: What are the factors that the industry has never offered so that it should be created?

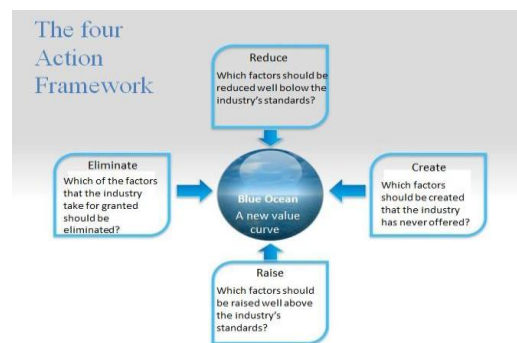


Figure 2.2 Four Action Framework (Kim and Mauborgne, 2005)

3. METHODOLOGY

The methodology of this study refers to the Balanced Scorecard (BSC) and the Blue Ocean Strategy (BOS). The

steps that must be carried out within the framework of the study can be seen in Figure 3.1:

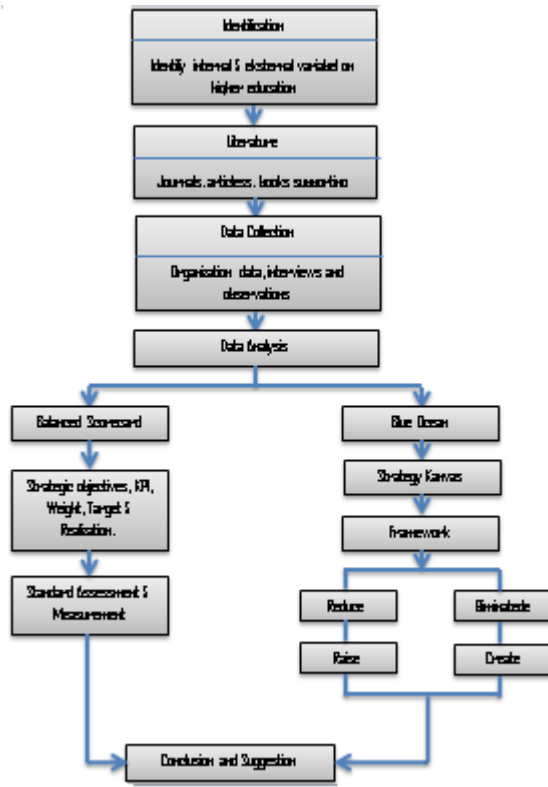


Figure 3.1 Stages of Research

This stage includes the identification of the problem, literature review, data collection, data identifying using the internal and external data of organization, observation and interviews with Unpacti management about the vision, mission, goals and college performance assessment conducted so far, and planning the college performance assessment using the balanced scorecard method and the blue ocean strategy.

Colleges are classified as non-profit organizations, so the composition of the balanced scorecard is different from profit organization. The differences can be seen in the position exchange between financial perspective and customer perspective as shown in Figure 3.2.

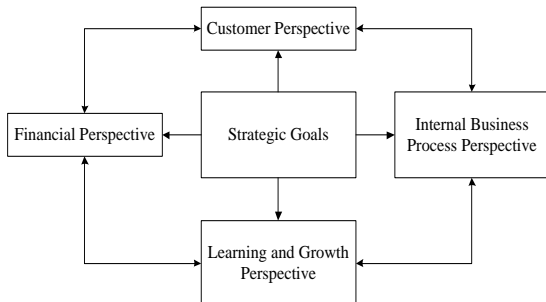


Figure 3.2 Structure of the Balanced Scorecard college

At college, customer perspective is emphasized; a customer here refers to a student, so some benchmarks are really needed, such as: student satisfaction on Unpacti

services, student loyalty, and the increase number of new students each year.

Financial perspective, there are several financial resources owned by Unpacti, namely: Unpacti foundations, which are consistent and committed in giving monthly operational funds, additional investment, marketing funds, tuition fees paid by students, donations and grants.

Results of the internal process perspective, there is a causal relationship from the perspective of the learning and growth perspective. There is an enhancement of learning and growth perspective. Enhancement of learning and growth perspective will also automatically affect the improvement of the internal process perspective results.

Learning and growth perspective for incentive purposes, this perspective focuses on human capabilities. Unpacti Management is responsible for developing faculty and administration capabilities. The benchmark is the productivity of faculty lecturers and faculty administration.

The following stages are the application of the balanced scorecard in higher education:

- 1) Formulate the vision and mission of the college.
- 2) Make higher education goals.
- 3) Create a strategy map for college business strategy.
- 4) Assess the performance.
- 5) Develop initiatives

Higher Education Strategy Map:

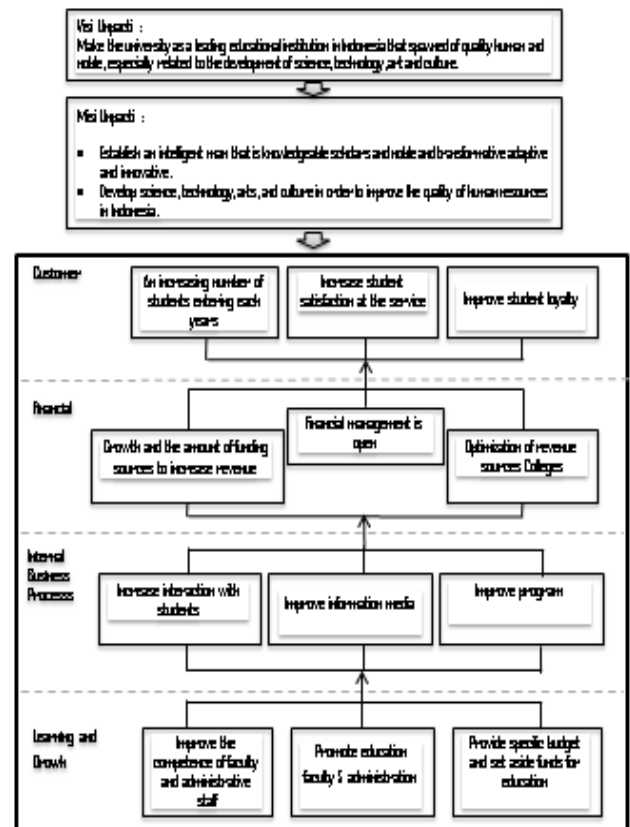


Figure 3.3 Unpacti Strategy Map

The web users are admin and college administrators. Both of them have their own authority. Admin has the

authority to fill KPI data, data variables, data members, data menu, data news, and see the performance report results. College administrators have the authority to look at the performance report results and the recap of suggestions.

4. RESULTS AND DISCUSSION

4.1 Results

Application systems are built using the Apache web server, PHP scripting language and MySQL database server, while the users use a web browser Mozilla. The research is the case studies in Higher education, Unpacti Makassar.

Users can access the system by first logging in by entering their username and password. Admin fills the targets on each perspective and fills the variable value that has been achieved by Unpacti.

Based on the results of variable value, the fourth balanced scorecard perspectives performance assessment reports can be seen in figure 4.1.

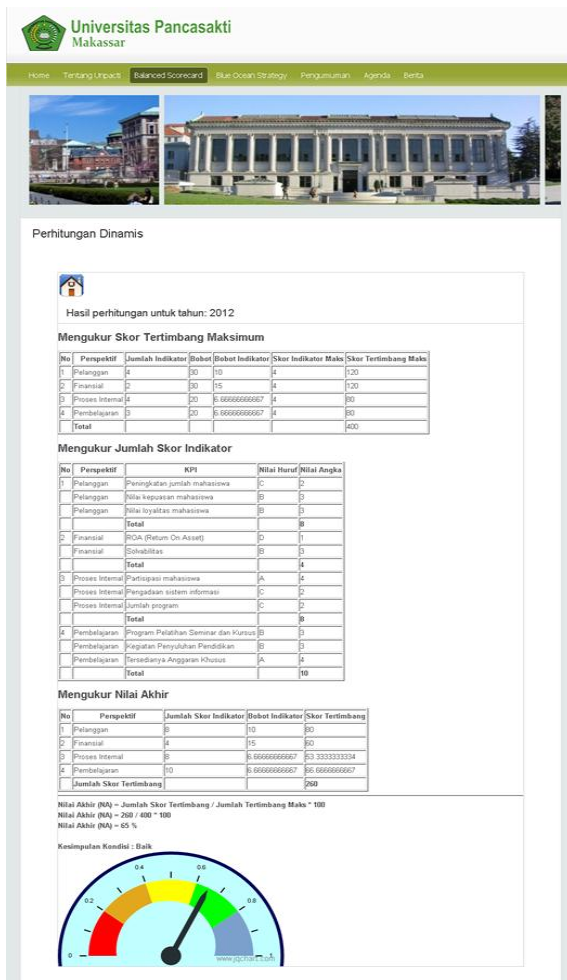


Figure 4.1 Report Quality assessment

No	Perspektif	Bobot	Skor Tertimbang Maks	Skor Tertimbang					Nilai Akhir Komponen (%)				
				2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
(1)	(2)	(5)	(6)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1	Pelanggan	30%	120	70,00	100,00	100,00	100,00	80,00	58,33	83,33	83,33	83,33	66,67
2	Finansial	30%	120	75,00	60,00	90,00	105,00	60,00	62,50	50,00	75,00	87,50	50,00
3	Proses Internal	20%	80	60,00	60,00	53,33	53,33	53,33	75,00	75,00	66,66	66,66	66,66
4	Pembelajaran	20%	80	66,67	66,67	66,67	66,67	66,67	83,34	83,34	83,34	83,34	83,34
			100	400	271,67	286,67	310	325	260				

Table 4.1 Assessment of Performance

Performance Assessment of each perspective from Table 4.1, then calculating the total score (TS), with equation (2.6), so we get:

YEARS	FINAL SCORE (FC)	LEVEL
2012	65 %	Good
2011	81,25 %	Excellent
2010	77,50 %	Good
2009	71,67 %	Good
2008	67,92 %	Good

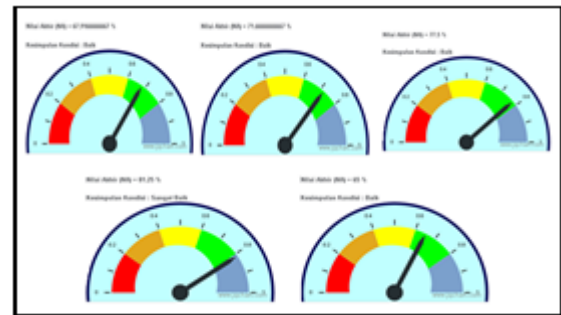


Figure 4.2 Dashboard Quality Measurement Result in Years 2008-2012

Conclusions From table 4.2 and Figure 4.2 can be concluded that the performance quality of Pharmacy Department, Science Faculty of Makassar Pancasakti University in the year 2008, 2009 & 2010 with final value of 67.91%, 71.6% and 77.5% at the level of "good". The year 2011 has increased by 81.25% final value is at the level of "Excellent", but in 2012 declined by 65% so the final value back to the level of "good".

In order to create a blue ocean, Unpacti university should change "from focusing on competing head to head with a competitor, towards the possible alternatives, and from customers (students) to the existing non-customers (Alumni)".

It makes the strategy canvas done with 4 steps framework toward the blue ocean strategy, namely:

1. **Reduce** :What factors should be reduced from the Unpactistandard?
  - a. The tight learning process.
  - b. Facilities and infrastructure are mostly managed by the foundation.

- c. Funding sources are still entirely from students.
2. **Eliminate** :What factors should be eliminated from the Unpactistandard?
    - a. College has not become a major career yet (a stopover or a jumping stone).
  3. **Raise**:What factors should be increased from the Unpactistandard?
    - a. The student active role both in academic and non-academic, especially outside of the classroom is quite high.It is in line with the ability to access information technology independently.
    - b. Learning process, presenting the material which providesreal cases or trials, so that students will be engaged in discussions or practice enthusiastically.
    - c. The low number of successful research products which are marketed constitutionally.
    - d. Proceeds or funding by joining research development that enables lecturer to conduct research and technical services to the community.
    - e. The lack ofknowledge transfer frompractitioners do not prepare the students with practical business world threats.
  4. **Create** :What factors should be created from Unpacti standard?
    - a. The number of graduates who ideally perceive education to support further careeropportunities.
    - b. Enhancing cooperation with practitioners is a golden opportunity in improving the curriculum quality. Cooperation can be established both with business institutions and government institutions.
    - c. Build cooperation and commitment of the lecturers.
    - d. The continuous infrastructure developmentprograms.
    - e. Collaboration with other institutions including foreign institutions in research and development may be applied.
    - f. Prospective students choose to join Unpacti do not only because of the good curriculum, but also the good facilities owned by university and the good campus atmosphere to support the adequate learning process.
    - g. Engagingthe alumni in fundraising non routine physical development.
    - h. Cooperation with students in terms of promoting campus.

#### 4.2 DISCUSSION

This study implemented the balanced scorecard method for college performance assessment, performanceassessed by this methodare four perspectives, namely the customer perspective, financial perspective, internal business process perspective and learning-growth perspective. The efficacy of performance assessment depends on the determination of performance indicators (Key Performance Indicators - KPIs), and the weight and targetof each perspective is adapted in accordance with the purpose, vision and mission of the college.

The number of key performance indicator (KPI) in this study was 11 indicators. Customer perspective with 3 performance indicators is the increased number of students each year, the value of customer satisfaction (from the poll) and the value of customer loyalty (from the poll). Financial perspective with 2 performance indicators, namely return on assets (ROA), and solvability. Internal business process perspective with three performance indicators, enhancing student participation, Procurement Information System for students and the number of applicationprograms owned by university, and increasing the number of running programs. Learning and growth perspective with 3 performanceindicators, seminar and training programs for lecturers and administrative staff, the quality educational outreach activities for lecturers and administrative staff provided by college special budget.

The blue ocean strategy is a strategy that should bedone continuously when a company wishes to win the tough business competition. This strategy allows the company to continuously create innovative products that will be popular among customers.

Every educational organization is possible to adopt the idea by implementing many innovations in the structured blue ocean with uncommon way of thinking. To achieve the successful adoption of the blue ocean strategy, there should bea good communicationamong all members of the college, lecturer, staff, supporting staff, and students. They should understand the importance of a new strategy for the advancement of higher education and of course their own progress. Universities should strive to make the strategy as each member needs, not as a heavy duty that must be carried.

So the results of Unpacti performanceassessmentare disseminated on the web in the form of Information Systems.

#### 5. CONCLUSION

A very high competition in education world requires a special strategy of how MakassarPancasakti university remain healthy and able to survive. Modeling of information systems strategy with the Balanced Scorecard approach - Blue Ocean Strategy (BOS-BSC) is an answer to the need of strategy on education.

Based on the performance measurementresults using BSC concept, it can be concluded that Unpacti has a very healthy performance in 2008 to 2012. There are 4 perspectivesand 11 key performance indicators (KPI). Each KPI target and variable can be changed as needed.

The application of blue ocean strategy can be done for college level. The key to success is the way of looking at customers (students) and the formation of broader activities that provide utility to potential customers (students). In the application of blue ocean strategy, it should be considered the differences and similarities between college characteristics and companycharacteristics, especially the definition of profits for college. The idea of this study is an example of the author's innovation in implementing Blue Ocean Strategy in college. In order to implement a total blue ocean strategy, all stages should be thoroughly done. Also, it is

important to keep in mind that not everyone can be accepted as a college student. However, with the increasing number of applicants (potential customers who are interested) the possibility of obtaining qualified candidate will be greater, and do not give any qualified prospective students to other universities.

Prospective students will be more easily educated and they will be qualified graduates who will satisfy the consumer in broader sense, stakeholders. Stakeholder satisfaction is the ultimate goal of a successful higher education and will raise the college name.

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