

Design of Balanced Scorecard as a School's Performance Measurement

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ABSTRACT

For schools as educational institutions, it is essential to identify their conditions and determine the right strategy for their sustainability. The research aimed to design the Balanced Scorecard (BSC) as a performance measurement tool at Sekolah XYZ. The research applied a qualitative method with Simple Research Design (SRD) as an analytical model. For data analysis, the research applied the stages of preparation in BSC. The primary data collection method was conducted through interviews with five key informants. The measurement indicators consisted of five indicators from a financial perspective (weight: 25%), three indicators from a customer perspective (weight: 25%), nine indicators from an internal business process perspective (weight: 30%), and five measurement indicators from the learning and growth perspective (weight: 20%). In addition, the BSC design was equipped with a validation system and an evaluation system to support the BSC implementation at Sekolah XYZ. The results show that based on the vision and mission of the organization, there are 12 objective strategies to be achieved, with 22 measurement indicators that are appropriately implemented at Sekolah XYZs. The BSC at Sekolah XYZ is necessary to be designed so its management can easily trace and find the causes of the school's success or failure. The results of the BSC design at Sekolah XYZ can be used as recommendations for other schools that want to implement BSC, with adjustments according to the conditions of each school.

Keywords: Balanced Scorecard (BSC), school performance, financial perspective, customer perspective, internal business process perspective, learning and growth perspective

INTRODUCTION

Development in the field of education is the key to improving the quality of human resources. Referring to Law No. 20 of 2003 on the National Education System, the definition of education is a conscious and planned effort to create a learning atmosphere and process to enable students to develop their potential actively. So, they can have religious, spiritual strength, self-control, personality, intelligence, good character, and essential skills for themselves, society, nation, and state (Indonesia, 2003). Through education, it is expected to create competent human resources, have expertise in their fields, and ultimately bring a better future for Indonesia.

One of the assessment references used to overview the worldwide education systems is the Program for International Student Assessment

(PISA) initiated by the Organization for Economic Cooperation and Development (OECD). PISA is an international study conducted every three years by testing the abilities and knowledge of 15-year-old students through diagnostic tests in three literacy areas: language literacy (reading), mathematical literacy, and scientific literacy. In addition, PISA assesses students' innovation skills as a manifestation of global competence.

Based on the results of the last round of PISA 2018 released by the OECD in 2019, the ability of Indonesian students at the global level in the three literacy levels is below the average (OECD, 2019). Then, PISA results are used by the government as a reference in setting policies to improve the quality of education in Indonesia. However, improving the quality of education is not only a government task. Schools as educational institutions also need to be committed to

this effort, including raising awareness of continuous quality improvement efforts in the internal scope of the school (continual improvement). According to Butler et al. (2018), continuous improvement is considered a systematic procedure for identifying and implementing new and improved working methods. To be precise, continuous improvement in the education system is the key to ensuring the continued relevance of the implemented system.

Sekolah XYZ, a school founded in 2003, has committed to continuous improvement. The school is established to educate and prosper the nation, especially through entrepreneurship education. The vision of Sekolah XYZ is nurturing entrepreneurial spirit within holistic education. It means Sekolah XYZ wants to foster the spirit of entrepreneurship through holistic education, where all students have intellectual, emotional, physical, social, aesthetic potential, and spiritual development harmoniously. Meanwhile, the mission of Sekolah XYZ is to educate and nurture the children to have godly character and academic excellence, equipping them to be entrepreneurs to transform the nation. It means Sekolah XYZ educates and fosters students with good character, equipping them to be entrepreneurs who can transform the nation.

Sekolah XYZ has a total of nine schools spread across Indonesia, with more than 6.000 students. Year by year, there is an increase in the total number of students, showing that School XYZ is a growing organization. To be sustainable and achieve the vision and mission set, Sekolah XYZ needs a tool to measure organizational performance to identify conditions and determine the right strategy for organizational sustainability.

The Balanced Scorecard (BSC) is a strategic tool that can be used to measure organizational performance (Yaakub & Mohamed, 2019). The BSC was initially created in the early 1990s by Robert S. Kaplan and David P. Norton in the United States. According to Kaplan (2001), BSC is a measurement system that provides a framework for viewing value creation strategies from four different perspectives, namely: (1) financial perspective - how it satisfies shareholders; (2) customer perspective - how it satisfies customers; (3) internal business process perspective - what processes should be a priority to achieve organizational success; (4) learning and growth perspective - how it maintains the continuity of the organizational ability to change and improve. The organization's existence depends on financial and non-financial measures, and BSC combines both measures in a balanced way (Reda, 2017).

According to Niven (2014), BSC is an integrated system for describing and translating strategy through the use of strategic objectives, measures, targets, and initiatives in four balanced perspectives. The balances in the scorecard represent (1) the balance between financial and non-financial goals and measures; (2) the balance between external stakeholders (shareholders, customers, and others) and internal stakeholders (employees and others). Therefore, in the

implementation of BSC, it is necessary to balance the needs of all stakeholders.

Moreover, according to Istiarsono (2022), BSC helps organizations to deal with two fundamental problems, particularly measuring the performance of the organization effectively and implementing strategies successfully. The BSC helps institutions to have a better understanding of the requirements needed to create a competitive advantage. Furthermore, it will formulate and revise the institution's competitive strategy (Yaakub & Mohamed, 2019).

BSC as a strategic management system has been used in many contexts, by profit organizations and non-profit organizations, especially in education (Kaplan, 2001). Based on Rollins in Alani et al. (2018), BCS is a tool that can help educational organizations to become more efficient and accountable. Meanwhile, according to Yusof (2020), BSC in education enables institutions to streamline their management process and focus the entire institution on implementing long-term strategies. Moreover, BSC can be a strategy to help educational institutions to clarify their vision and mission and translate their vision into real strategies (Kaplan, 2001). The use of BSC is mostly limited to higher education institutions rather than schools. However, when developed properly, BSC can be applied in a school environment where complexity is not as high as in higher education. Management can easily track and find the cause of a school's success or failure. The BSC can help school management by modifying it according to the organization's needs (Rompho, 2020).

Considering that the school is a non-profit organization, the BSC framework tends to place the vision and mission as the top perspective on the strategic map. In non-profit organizations, the vision and mission are the main drivers of strategy, not the financial perspective (Kaplan, 2001). However, this version of the BSC is flexible and can be modified according to the organization's needs.

According to Rompho (2020), the BSC is arguably a complex management concept for schools. Therefore, to implement it successfully, a generic model needs to be created as a starting point and can be further adapted to the organization. The previous research proposes BSC for Thai public schools by positioning the financial perspective as the foundation to drive success in organizational learning and growth, leading to better internal processes. In turn, it can meet customer expectations. Furthermore, the relationship between the perspectives in the BSC has been empirically tested.

According to Amboro (2016), the BSC can be integrated with all stages of strategic management in education, namely vision, mission, strategy map, weights, strategic goals, Key Performance Indicators (KPIs), strategic initiatives, targets, realizations, scores and policies, and organizational recommendations. The previous research has been equipped with examples to illustrate the framework of how to implement the balanced scorecard as a strategic management

system in educational institutions, especially private schools in Indonesia, by using all stages of strategic management.

However, both previous studies have not detailed each stage of BSC. Therefore, the research aims to design a suitable BSC for the performance measurement in Sekolah XYZ, with a detailed and systematic approach, by following the BSC design stages. The research is expected to be part of an initiative to help schools, especially Sekolah XYZ, to manage their organization better so that it can be sustainable and achieve its vision and mission. Generally, it can be used as a guide in establishing a BSC implementation system in schools.

METHODS

The research applies a qualitative approach with limited scope, but the depth or quality of the data is not limited (Bungin, 2020). The research uses a Simple Research Design (SRD) analysis model. The SRD in the postpositivism paradigm owns five main steps in research, as seen in Figure 1 (Bungin, 2021).

In stage 1 (social context and research question), the research explores the research problem through interviews and documentary methods. Based on the exploration results, there is a need to design BSC as a performance measurement system in Sekolah XYZ. Next, in stage 2 (literature review), the research finds previous research from books, theses, national journals, and international journals. The research also includes the theoretical basis obtained from various sources. Research questions related to social context are answered based on the literature explored.

In stage 3 (research methods and data collection), the research uses a postpositivism philosophy with SRD. Meanwhile, for data collection in the field, the research applies an in-depth interview method by referring to a list of interview questions as a guide. It is carried out freely but not apart from the main issues to be asked of the informants. The “key person” approach is used in determining the person who is considered a “key”, knowing a particular problem or topic that is relevant to the research (Bungin, 2020). Several key qualifications are required to ensure the reliability and validity of informants. It consists of (1) School leaders with a minimum of five years of working experience in schools, who understand the culture of the AAA Group; (2) School leaders who understand the vision, mission, and strategic objectives to be achieved by Sekolah XYZ; (3) School leaders who are responsible for operating and developing Sekolah XYZ; (4) School leaders with basic knowledge of the BSC; (5) School leaders with experience in implementing the BSC. Based on the qualifications, five key informants in Sekolah XYZ have been selected. Those consist of two Heads of School, two School General Managers, and one Executive Board Secretary (representative of the foundation). The data collection has been carried out to explore the strategic objectives to be achieved and to explore the measurement indicators following the vision, mission, and strategic objectives of Sekolah XYZ.

In stage 4 (data analysis), the research uses the BSC method, which refers to Kaplan in Vincent (2011). Google Spreadsheet is used by the Head of School from nine schools as a tool in formulating an initial strategy that will be used to achieve the performance

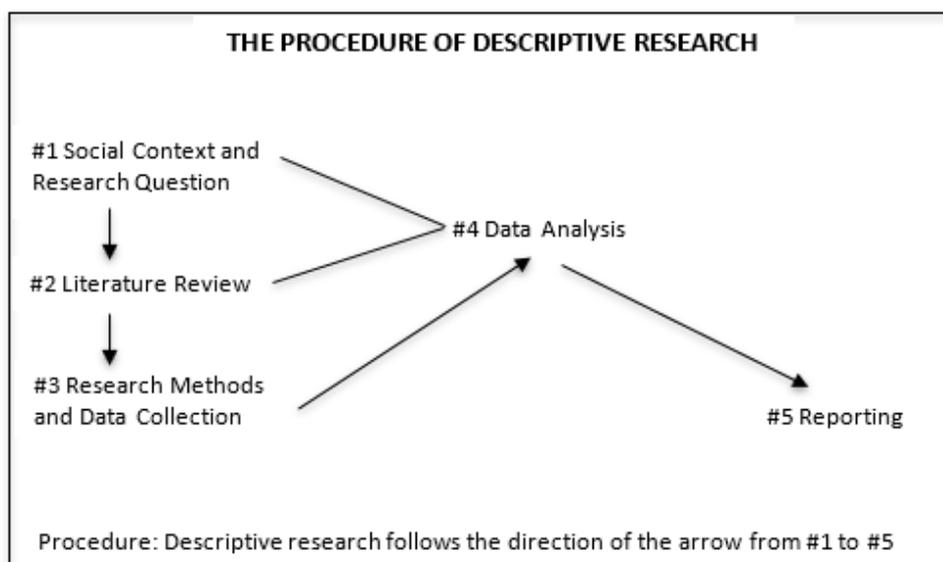


Figure 1 The Conceptual Research Framework
(Source: Metiri in Bungin, 2021)

indicators that have been set. As the school leaders, the Heads of the School are appointed to design the initiative strategy because they are considered to have the best understanding of each school's condition.

According to Bungin (2021), the triangulation method is carried out to ensure the research has been executed following the procedures. Furthermore, triangulation is an external validation method to confirm and improve research findings. Specifically, it entails data obtained from informants being cross-checked with other informants with positions, knowledge, competencies, and experiences that are balanced with previous informants. In addition, expert triangulation methods are carried out to obtain input related to the research process. Expert triangulation has been conducted with experts in compiling and implementing the BSC at Universitas AAA.

Stage 5 (reporting) is the final stage, where the research records the findings into a written report that includes a complete discussion and overall conclusions to answer the formulation of the problem from the research. The result can be used to design the appropriate BSC implemented in Sekolah XYZ. The research specifically designs a BSC for Sekolah XYZ, which is a private school with four levels of education (kindergarten, elementary, junior high, and senior high school). It has several learning focuses, including entrepreneurship and positive education.

RESULTS AND DISCUSSIONS

According to Kaplan in Vincent (2011), the stages of designing BSC as a performance measurement tool at Sekolah XYZ are as follows. Stage 1 clarifies and translates the vision and strategy into the organization's strategic objectives. From

the results of interviews conducted with five key informants, the strategic objectives to be achieved by Sekolah XYZ are based on the vision and mission of the organization. Moreover, there are 12 strategic objectives to be achieved by Sekolah XYZ. The details are stated in Figure 2.

The strategic objectives shown in Figure 2 are grouped into four perspectives BSC. First, from a financial perspective, Sekolah XYZ wants to achieve financial sustainability where all schools can independently finance their operations and carry out school development. To be precise, two supporting strategic objectives are revenue enhancement and cost efficiency. An increase in school revenue will directly affect the receipt of funds that are used to finance school operations. Meanwhile, efficiency measures need to be taken to control the operational costs expended by the school to be in line with the predetermined budget.

Second, from the customer perspective, Sekolah XYZ wants its customers to be satisfied and proud of being a part of the school community. Sekolah XYZ is concerned with customer satisfaction (students and parents) because if the customer is satisfied with the school's services, it will undoubtedly have an impact on customer loyalty toward the school. Then, if the customer is loyal, it will affect the number/percentage of student rollovers (the number of students who continue to the next level) and the total number of students.

Third, from the internal business process perspective, Sekolah XYZ wants to create graduates with achievements in both academic and non-academic fields, including entrepreneurship. Sekolah XYZ wants its students to grow up with good character and spirituality (well-being education), reflected in their daily attitude at school. In addition, it is concerned

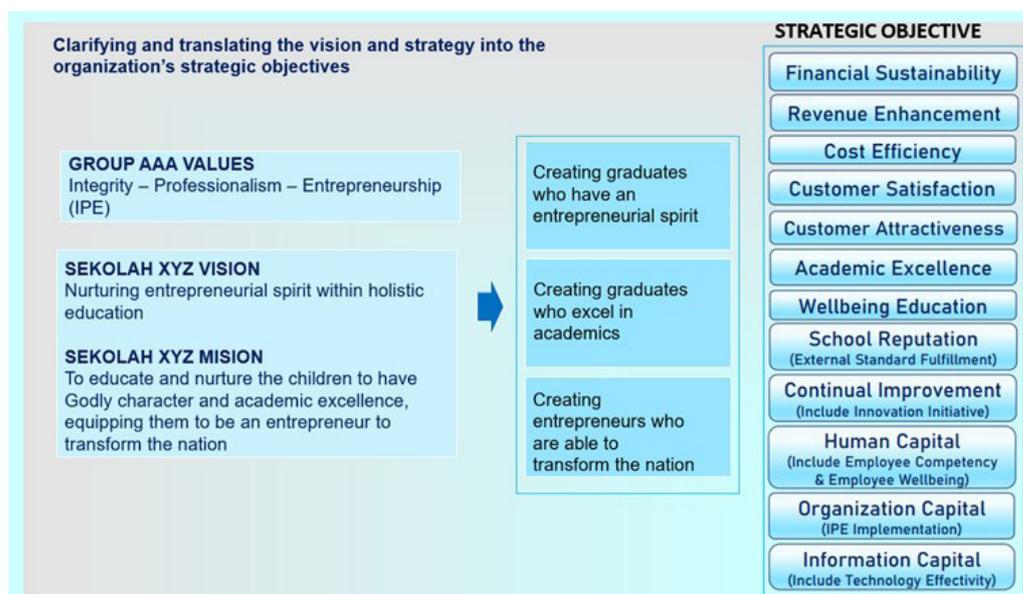


Figure 2 Strategic Objective in School XYZ
(Source: Sekolah XYZ's Internal Data)

about the school's reputation, which is reflected in its accreditation predicate. It is determined based on the school's accreditation score, with the provisions in the accreditation assessment system. Continuous improvement is also required with the intention that Sekolah XYZ is not left behind and always keeps up to date with the current times through innovations.

Fourth, from the learning and growth perspective, Sekolah XYZ wants to achieve three things: human capital, organization capital, and information capital. For human capital, Sekolah XYZ wants the existing human resources, both educators and education staff, to excel professionally to support the learning process in schools. In addition, Sekolah XYZ is concerned about employees' well-being so that they can work sufficiently. The indicators are reflected in the employee satisfaction index. In information capital, Sekolah XYZ wants to maximize the use of information technology to support the learning process in schools. The relationships between objectives eventually lead to effective control (Armstrong, 2019).

Stage 2 communicates and links strategic objectives with performance measures (KPIs). Determining performance measures (KPIs) to achieve strategic objectives is necessary. According to Sun and Ge (2021), KPIs are defined as a set of measures focusing on main critical activities as the core point to provide actionable consolidated information. KPI measures evaluate performance to achieve organizational goals. Specifically, KPI is strictly correlated to goals that must be achieved, and once each organization has identified its goals, the KPI system must be defined. Accordingly, the selection of KPIs should be (1) correlated to the organization's strategic objectives; (2) significant and effective to

represent and explain the value creation process; and (3) reliable, comprehensive, consistent, and comparable (Hristov & Chirico, 2019).

Meanwhile, indicators provide an overview of the system (Nurcahyo et al., 2018). The indicators function as tools not only for external monitoring but also for internal monitoring of the overall institutional objectives. Indicators are widely used as statistical and analytical tools. Each of these indicators cannot be used alone in making decisions. Linking these indicators in a comprehensive model with input and output data can take advantage of each indicator, giving each indicator its appropriate weight (Hatahet et al., 2021). In setting measurement indicators, it is essential to focus on a few key steps, as too many measures can obscure strategy/objectives. The used measure can be controlled so the organization can control what actions to support achievement.

The results of interviews with school leaders determine 22 measurement indicators that are used as a measure to assess performance at Sekolah XYZ. These indicators are interconnected with the strategic objectives to be achieved by the organization. Aligning the performances within a framework makes strategy become everyone's daily job. Therefore, everyone can contribute to achieving the goals (Kiriri, 2018). The relationship between strategic objectives and measurement indicators is described in Figure 3.

A strategic map describes how an organization creates value by linking strategic objectives explicitly in a cause-and-effect relationship grouped under the four perspectives of the BSC. According to Niven in Nurcahyo et al. (2018), it defines what an organization must do in every perspective to achieve successful strategy implementation. Then, according to Zahoor

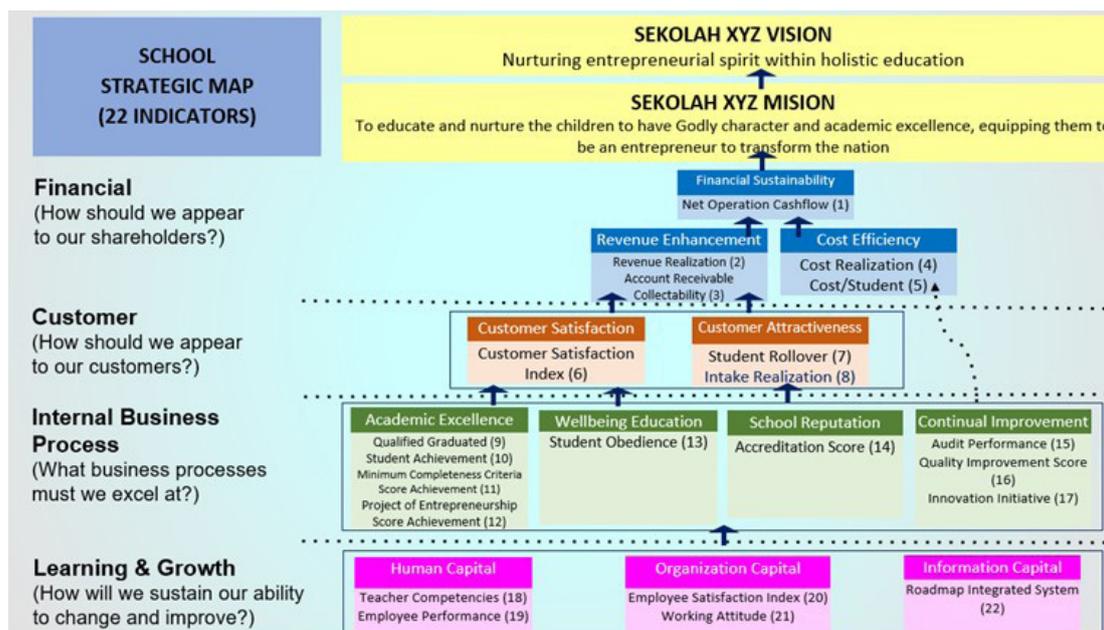


Figure 3 BSC for the School with 22 Measurement Indicators
(Source: Sekolah XYZ's Internal Data)

and Sahaf (2018), employee learning and growth have a positive influence on internal business processes. In turn, it affects the customer's perspective. Furthermore, the customer perspective leads to a positive influence on financial performance. Aside from that, it is also revealed that internal business processes mediate the relationship between employee learning and growth and customer perspectives. The relationship between internal business processes and financial performance is significantly mediated by the customer perspective.

From the strategic map shown in Figure 3, the learning and growth perspective consists of three strategic objectives: human capital, organization capital, and information capital. It is the basis for achieving the strategic objectives of the internal business process perspective. Sekolah XYZ has advantages in academic excellence, well-being education, and school reputation. These advantages support the school in providing the best education services to satisfy customers and make customers (students and parents) interested in continuing to study at Sekolah XYZ. Satisfied students and parents will recommend the school to attract a broader scope of people so that students from outside increase the number of students. Meanwhile, the strategic objective of continual improvement, particularly through the innovation initiative indicators, affects increasing cost efficiency in Sekolah XYZ. With a good customer satisfaction index and attractiveness, it is expected to increase revenue enhancement in Sekolah XYZ. Increasing revenue and increasing cost efficiency will ultimately have a good impact on the net operating cash flow of Sekolah XYZ so that financial sustainability can be achieved. According to Yuwono in Mubarak et al. (2021), all schools' financial and non-financial performance measures must be communicated to everyone at all levels of school management.

Stage 3 is planning, setting targets, aligning, and integrating strategic initiatives (programs) for performance improvement. According to Duc Huu et al. (2022), management factors affect the use of the BSC. Leaders need to believe in the value and necessity of performance management and evaluation to use the BSC successfully. The scorecard is not a momentary state but a process that evolves and improves (Rompho, 2020). Planning, setting targets, and weighting indicators are carried out in coordination with school leaders, specifically the representatives of the foundation (Executive Board Secretary) and the School General Manager. Furthermore, input/feedback from the leaders of each school is also considered in planning and setting targets (aligned with Sekolah XYZ's conditions). At this point, it shows that the BSC is implemented in a participatory manner, and targets are set cooperatively and not forced (Řehoř et al., 2014). In addition, setting targets is determined using SMART principles, namely Specific, Measurable, Achievable, Realistic, and Timely (Keser Ozmantar & Gedikoglu, 2016). The target value on the indicator is set according to the school's goal. If needed, it can be adjusted according to school conditions by referring to

the previous evaluation process.

Next, in determining the weight of each indicator, it is adjusted to the level of importance of each perspective and the level of importance of each strategic objective. The weight of each perspective is set as follows. Financial, customer, internal business process, and learning and growth perspectives represent 25%, 25%, 30%, and 20%, respectively. Determining the weights between these perspectives does not differ significantly from one another because each perspective has an almost equal level of importance. Everything is interrelated in a causal relationship, with the ultimate goal of achieving the organization's vision, mission, and strategic objectives.

The next stage is the preparation of initiative programs that are integrated with strategic objectives. Three criteria must be met by management if it wants to integrate organizational strategy with program initiatives. The system must explicitly link operational targets with strategic objectives, integrate financial and non-financial performance information, and focus business activities on meeting customer needs (Lynch & Cross in Řehoř et al., 2014). Extending the purpose of BSC, it serves not only as a performance evaluation tool but also as strategic performance management that brings changes to the schools. Therefore, both the development and implementation of the BSC require a high level of managerial support (Keser Ozmantar & Gedikoglu, 2016).

Preparation of strategic initiatives (programs) for organizational level BSC in Sekolah XYZ is carried out with Heads of School as leaders in a responsible position for the school's sustainability through discussions and filling out Google spreadsheets. It is a form of communication with the responsible Person in Charge (PIC) for achieving the organization's BSC. According to Akbarian and Najafi (2019), strategy is the greatest resource for the long-term improvement of the organization. Briefly, if its deployment is unsuccessful, the process itself is judged to be ineffective (even if the right strategy has been released).

Based on Gomes and Romão (2017), one of the important things in the implementation of the BSC is communication. Management must communicate strategy to employees and how they expect employees' performance to achieve company goals. In addition, the leaders must communicate with their team, ensuring that the team has taken the necessary actions to implement the BSC (Keser Ozmantar & Gedikoglu, 2016). According to Alexander et al. in Řehoř et al. (2014), the importance of having good "two-way" communication in organizations is seen as the basis for effective strategy implementation. The results of the school's BSC design, starting from determining the indicators, how to measure the indicators, weight, target of each indicator, and initiative programs prepared to achieve the targets of the indicators, are summarized in Table 1 (see Appendices).

After carrying out the BSC design process at Sekolah XYZ, it is necessary to ratify the new format.

It becomes a significant step since the number of personnel involved in the implementation is increasing. The agreement needs to be done as a form of approval or commitment between the decision/policy maker and the people carrying it out. Essentially, the targets and indicators are first communicated, agreed upon, ratified, and implemented. In addition, validation needs to be done as a force to keep the information provided valid. An authorization matrix for BSC validation ought to be established to avoid the agreed BSC being easily changed without prior evaluation. The matrix for authorization of BSC at Sekolah XYZ appears in Appendix 3.

Once approved, it is necessary to internalize the BSC to achieve what is set by the organization. As the first step of internalization, creating awareness is conducted by introducing and familiarizing it to all responsible PICs for achieving targets so that the BSC is understood properly. Initial socialization is carried out before BSC is implemented, which can be done during a gathering event at the beginning of the school year. Furthermore, the daily familiarization is acted out by the leaders in their respective work units periodically. So, the BSC will not only be a measuring tool but will turn out to be a “friend” at work later.

Stage 4 is developing feedback and strategic learning for continuous improvement in the future. An initial step in this stage is creating a BSC report template. According to Keser Ozmantar and Gedikoglu (2016), the reporting format should be standardized and communicated from the beginning to prevent BSC reports from being understood differently. In addition, a good database system supports data entry in the BSC reporting format at Sekolah XYZ.

The BSC reporting system is carried out periodically every three months, namely during the annual, midyear, and quarterly meetings, to have more intense monitoring. At quarterly meetings, not all indicator achievement reports are submitted. There are only reports for certain indicators that require regular updates. A review system is established periodically to give an idea of what indicators have reached the target and need to be improved and what indicators have not reached the target so that improvements are compulsory. Overall, it all aims to determine the appropriate strategy to be implemented in the future by Sekolah XYZ. The evaluation is carried out in a top-down approach by the leader, referring to the evaluation results that will be derived into a policy for the lower-level (tiered) BSC. Meanwhile, the PIC concerned evaluates by analyzing the achievement of the BSC indicator showing less than 80%. So, it needs to make an action plan to achieve the target. BSC evaluation can also be done directly during the annual and midyear meetings. If the target is achieved, it can be maintained or improved, or the focus can be shifted to another achievement target.

The stages of BSC design in the research differ slightly from those conducted by Mubarok et al. (2021). The difference is in the methods used in identifying school conditions and formulating

strategies. In previous research by Mubarok et al. (2021), the SWOT method is used to analyze the internal and external environment to determine the school's strengths, weaknesses, opportunities, and threats and formulate school strategies to achieve the vision and mission set. The research identifies school conditions from interviews with qualified informants. The strategy formulation process is based on the insights of the Heads of Schools who best understand the school's conditions.

From the description of the BSC design process at Sekolah XYZ, it is found that the research is in line with research conducted by Amboro (2016) that the BSC can be integrated with all phases of strategic management in education, namely vision, mission, strategy map, weights, strategic goals, KPIs, strategic initiatives, targets, realization, values and policies, and recommendations for the organization. The research is also in line with Rompho (2020). A generic model needs to be created as a starting point for BSC to be implemented successfully in schools. The results of the BSC design at Sekolah XYZ can be used as recommendations for other schools that want to implement BSC, with adjustments according to the conditions of each school.

CONCLUSIONS

The BSC at Sekolah XYZ is necessary to be designed so that the management can easily trace and find the causes of the school's success or failure. The BSC method helps school management by modifying it according to the organization's needs. The BSC framework, a strategy-based management system, can help the organization to clarify its vision and mission and translate the vision and mission into strategies. These strategies can become the basis for developing operational objectives or actions with measurable indicators to evaluate performance improvement and achieve the set targets.

The managerial implications of the BSC design as a performance measurement tool at Sekolah XYZ are described as follows. Stage 1 clarifies and translates the vision and strategy into the organization's strategic objectives. Previously, the BSC design does not involve this stage, so it does not accommodate all the indicators that support the achievement of the organization's vision and mission and strategic objectives. Currently, the design of the BSC starts from this stage to obtain 12 strategic objectives to be achieved, which align with the organization's vision and mission. It consists of financial sustainability, revenue enhancement, cost efficiency, customer satisfaction index, customer attractiveness, academic excellence, well-being education, school reputation, continuous improvement, human capital, organization capital, and information capital.

Stage 2 includes communicating and linking strategic objectives with performance measures (KPIs). Previously, KPIs have not been linked to the organization's strategic goals and have not been

equipped with measurement methods for each indicator. Currently, there are 22 school indicators that the determination is related to the organization's strategic objectives. In addition, each measurement indicator has been equipped with a measurement method as a reference in calculating the BSC achievement.

Stage 3 plans, sets targets, and aligns and integrates strategic initiatives (programs) for performance improvement. Previously, BSC weights and targets are set without involving the responsible PICs for target achievement. Socialization is also lacking, so PICs do not properly understand BSC. In particular, a validation system does not exist, and initiative programs to achieve targets have not been established. Currently, the determination of targets, weights, and program initiatives involves the leaders and PICs who are responsible for achieving the targets. It shows the leaders' commitment and the PICs' involvement in the process of designing the BSC. The existence of a validation system for the BSC has been approved as a form of agreement and commitment between the leaders and the PICs who are responsible for the achievement of the BSC. This authentication system refers to the BSC authorization matrix (see Appendix 3). There is socialization at the beginning before the BSC is implemented so that all parties can understand the BSC, especially the responsible PIC, for achieving the BSC. At each stage of the development process, employee opinions must be gathered to gain employee engagement along the process. Therefore, in every stage, from start to finish, there must be an open communication system among employees.

Stage 4 develops feedback and strategic learning for continuous improvement in the future. Previously, there is no BSC template. The reporting system is carried out during annual meetings and midyear meetings. Moreover, there is no evaluation system for BSC achievements. Currently, there is a BSC template equipped with an initiative strategy to plan what the PIC will do to achieve the set targets. The BSC reporting system is carried out periodically every three months, namely during the annual, midyear, and quarterly meetings. It is done so that the monitoring process can be more intensive, especially for specific progressive indicators. The evaluation is carried out in addition to following up on indicators whose achievements are less than 80% with an action plan. It is also carried out by reviewing existing indicators, whether they need revision of targets, indicator items, and others, by adapting to the school's conditions.

Due to time constraints, the BSC design is limited to the organizational level, so it is recommended to conduct research related to BSC design at the school unit and department levels. Finally, the design of the BSC can be used as an internal guide and recommendation for establishing a balanced scorecard implementation system in schools. With the adjustments, the design is not limited to Sekolah XYZ but to other schools that want to establish a BSC system. For future research, it is recommended

to use the SWOT analysis method in complementing Sekolah XYZ's initiative program, not only the Head of School's insight. It is also recommended to analyze the effectiveness of BSC implementation at Sekolah XYZ.

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APPENDICES

Appendix 1. Interview Questions

No.	Question	Informants
1.	Based on the vision and mission of Sekolah XYZ, what are the strategic objectives that Sekolah XYZ wants to achieve? <ul style="list-style-type: none"> • From financial perspective • From the customer's perspective • From an internal business process perspective • From a learning and growth perspective 	DB BT FS AR ES
2.	From the indicators that have been designed, are they following the vision, mission, and strategic objectives of Sekolah XYZ?	
3.	What is the most effective BSC socialization to be implemented in Sekolah XYZ?	
4.	Is validation required for the BSC that has been created to be implemented in Sekolah XYZ?	
5.	What is the appropriate BSC reporting format to be implemented in Sekolah XYZ?	
6.	What is the appropriate reporting system and evaluation process to be implemented at Sekolah XYZ?	

Appendix 2. Figure of Informants

No.	Activity	Informants (Initial Name)	Position
1.	Interview 5 key informants to clarify and translate the vision and strategy into the organization's strategic objectives.	DB	Executive Board Secretary (Representative of the Foundation)
		BT	School General Manager of West Area
		FS	School General Manager of East Area
		AR	Head of School - Sekolah XYZ in Surabaya
		ES	Head of School - Sekolah XYZ in Pandaan
2.	Discussions and filling out Google spreadsheets to formulate an initial strategy that will be used to achieve the performance indicators that have been set.	MJW	Head of School - Sekolah XYZ in Jakarta Barat
		N	Head of School - Sekolah XYZ in Tangerang
		ES	Head of School - Sekolah XYZ in Surabaya
		DN	Head of School - Sekolah XYZ in Bogor
		MS	Head of School - Sekolah XYZ in Manado
		YRW	Head of School - Sekolah XYZ in Ambon
		YH	Head of School - Sekolah XYZ in Samarinda
		AR	Head of School - Sekolah XYZ in Pandaan
UDP	Head of School - Sekolah XYZ in Jakarta Selatan		

Appendix 3. BSC Authorization Matrix

No.	BSC Level	Prepare By	Checked By	Acknowledged by	Approved By
1	Organization	School General Manager	-	Head of Department Quality Assurance	Executive Board Secretary
2	Sekolah XYZ	Head of School	School General Manager	Head of Department Quality Assurance	Executive Board Secretary
3	The school (Academic)	Principal	Head of School	Head of Department Quality Assurance	School General Manager
4	The school (Non-Academic)	Head of Business	Head of School	Head of Department Quality Assurance	School General Manager
5	Department	Head of Department	School General Manager	Head of Department Quality Assurance	Executive Board Secretary

Table 1 Results of BSC Design for the School

Perspective	No.	Measurement Indicators	Measurement method	Weight	Target	Initiative Program
Financial (25%)	1.	Net operating cash flow	Realization of net cash flow from operational	2,5%	Rp xxx*	<ul style="list-style-type: none"> • Exploring other sources of income. • Using the budget efficiently based on needs priority. • Conducting cash flow evaluations periodically.
	2.	Revenue realization	Actual revenue/ target revenue	7,5%	Rp xxx*	<ul style="list-style-type: none"> • Providing discounts for students who pay tuition fees for a year. • Proposing to use of digital payments for tuition fees. • Conducting revenue evaluations periodically.
	3.	Accounts Receivable (AR) collectability	1-(AR aging/ total AR)	2,5%	95%	<ul style="list-style-type: none"> • Mapping the internal students who have problems with aging and follow-up based on guidelines. • Providing an economic scholarship program.
	4.	Cost realization	(Budgeted-actual cost)/ budgeted *100%. <ul style="list-style-type: none"> • Score 1: < 25% or over budget > 25% • Score 2: 25%– < 60% or over budget 25% • Score 3: 60%– 80% or over budget 10% • Score 4: > 80%–90% or over budget 5% • Score 5: > 90%–100% 	7,5%	4	<ul style="list-style-type: none"> • Preparing a budget based on the realization of expenditures in the previous year. • Carrying out financing realization following the approved program and timeline. • Conducting cost evaluations periodically.
	5.	Cost efficiency	Saving cost from running program/total budget from a running program	5%	100%	<ul style="list-style-type: none"> • Performing operational cost efficiency and using a budget based on a priority scale. • Increasing the number of students.
Customers (25%)	6.	Customer satisfaction index	Satisfied respondent (respondent who gives a score minimum of four from five)/number of respondents	7,5%	80%	<ul style="list-style-type: none"> • Holding a customer satisfaction survey regularly and following up on the result. • Increasing response rate by reminding students and parents to fill out the survey in the survey period.
	7.	Student rollover	Existing students (number of students who continue to apply to a higher level)/ graduate number	10%	75%	<ul style="list-style-type: none"> • Creating an internal promotion program to the previous level through bridging classes, class collaboration, and others. • Creating programs to build trust and good communication by involving students and parents.
	8.	Intake realization	Actual intake/targeted intake	7,5%	100%	<ul style="list-style-type: none"> • Creating promotional programs • Collaborating with feeder schools. • Inviting another school to hold an event, such as sports, music, and literacy competitions.

Table 1 Results of BSC Design for the School
(Continued)

Perspective	No.	Measurement Indicators	Measurement method	Weight	Target	Initiative Program
Internal business process (30%)	9.	Qualified graduate	Number of qualified graduates (high school students who are accepted in the top 100 Indonesian universities and also foreign universities)/ graduate number	5%	30%	<ul style="list-style-type: none"> Cooperating with reputable universities. Organizing a campus expo. Establishing cooperation between Sekolah XYZs. Preparing students to enter university through bridging classes.
	10.	Student achievements	Number of student's achievements/ total student	7%	3%	<ul style="list-style-type: none"> Conducting student development programs through interest groups, gifted classes, and others. Giving information and recommendation for competitions, according to the potential student.
	11.	Minimum completeness criteria score achievement	Number of students who achieve minimum completeness criteria score/ total student	3%	80%	<ul style="list-style-type: none"> Mapping students' material understanding through daily reviews/questions from the teacher. Following up the mapping results with peer tutoring/enrichment/remedial programs, etc. Assisting students who do not achieve minimum completeness criteria scores.
	12.	Project of Entrepreneurship (PoE) score achievement	Number of students who achieved PoE score (minimum B)/total students	2.5%	80%	<ul style="list-style-type: none"> Creating a mentoring guide for PoE mentors. Coordinating and sharing experience and knowledge among PoE mentors regularly.
	13.	Student obedience	Number of student offenses/ total student	2,5%	100%	<ul style="list-style-type: none"> Providing character and spiritual education in school. Creating awareness about school rules and regulations for students, including the rewards and punishments.
	14.	Accreditation score	$(4 \times NA + 3 \times NB + 2 \times NC + 1 \times NK) / (NA + NB + NC + NK)$ Notes: N= Number of school levels NA= Number of school levels accredited A NB= Number of school levels accredited B NC= Number of school levels accredited C NK= Number of school levels that are not accredited/unqualified	2,5%	4	<ul style="list-style-type: none"> Forming accreditation teams and preparing them based on school accreditation guidance. Conducting accreditation simulation internally. Evaluating and following up on the results of accreditation.

Table 1 Results of BSC Design for the School
(Continued)

Perspective	No.	Measurement Indicators	Measurement method	Weight	Target	Initiative Program
Internal business process (30%) Learning and growth (20%)	15.	Performance audit	Converted using AAA group's formula (70% to 120% range)	2,5%	100%	<ul style="list-style-type: none"> Evaluating and following up on the results of previous audits. Working together with all departments to support and assign a responsible PIC for the audit process according to their job desc.
	16.	Quality improvement score	Average of total valid DMS, DMS socialization, and MoM completion rate	2,5%	75%	<ul style="list-style-type: none"> Completing the Document Management System (DMS) based on business process mapping. Following up on action items in Minutes of Meeting (MoM).
	17.	Innovation initiatives	Number of innovation proposals	2,5%	Minimum 1 innovation proposal/ dept	<ul style="list-style-type: none"> Developing innovation criteria referring to the innovation award assessment matrix of the AAA group. Creating awareness about innovation criteria and providing proposal templates to all departments
	18.	Teacher competencies	Number of competencies teacher (passed the diagnostic test with a score minimum of 60)/number of teachers	5%	75%	<ul style="list-style-type: none"> Encouraging teachers to take part in training programs Facilitating teachers to implement the results of the training. Creating a group between teachers to share knowledge.
	19.	Employee performance	Average performance appraisal	7%	80%	<ul style="list-style-type: none"> Mapping employees based on their competencies. Conducting periodic observations on employee performance and providing feedback for improvement. Giving appreciation to outstanding employees.
	20.	Employee satisfaction index	Satisfied response (respondent who gives score minimum 4 of 5)/number of responses	2,5%	80%	<ul style="list-style-type: none"> Periodically conducting employee satisfaction surveys and following up on the result. Organizing programs to build employees' cohesiveness.
	21.	Working attitude	Average of the teamwork survey result	2,5%	80%	<ul style="list-style-type: none"> Conducting socialization and implementing Integrity-Professionalism-Entrepreneurship (IPE) as a work culture in Sekolah XYZ. Conducting teamwork surveys to find out the implementation of IPE daily and follow up on the result.
	22.	Roadmap integrated system	Number of integrated modules (functionally used)/ total modules planned in the roadmap	3%	25%	<ul style="list-style-type: none"> Mapping application needs and coordinating with ICT in realizing the required applications. Monitoring the completion of application requests and implementing them.

Note *Rp xxx: The nominal cannot be stated as it is confidential.

(Source: Sekolah XYZ's Internal Data)